



# Port Owen Marina Authority (NPC)

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## Weekly dredge monitoring report

Dredge area 3B: Eastern Entrance was dredged between 6 and 10 June 2024 (hereafter referred to as “Week 1”). 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, 3 dredge sessions could occur for Week 1 of June 2024. Dredging to the river occurred 3 times, no dredging to and no discharge from the settling dam occurred (Table 1). For Week 1 of June 2024 a volume of  $498.6 \text{ m}^3$  was dredged from area 3B and blockages of the suction head occurred once due to seaweed (Table 1).

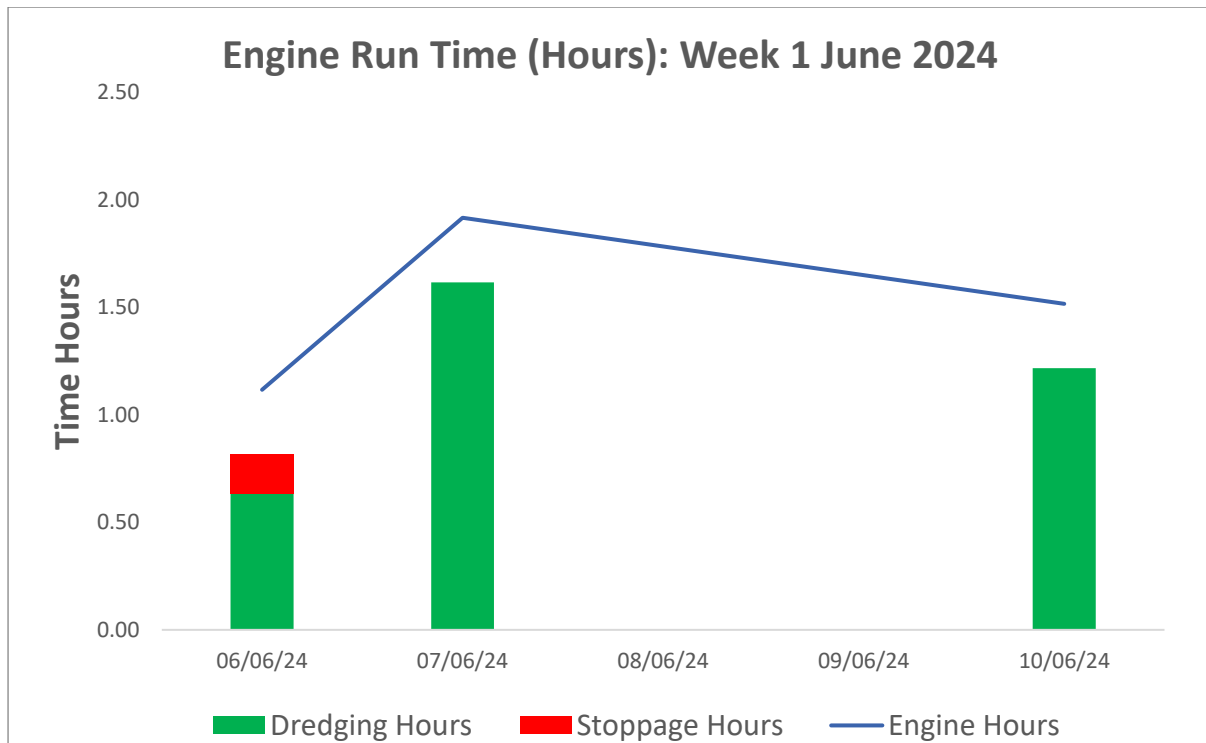
Table 1. Operational dredging variables.

| Dredging of Dredge area 3B       | Total |
|----------------------------------|-------|
| Allowable dredge sessions        | 3     |
| Dredge sessions to river         | 3     |
| Dredge sessions to settling dam  | 0     |
| Release from settling dam        | 0     |
| Dredge volume ( $\text{m}^3$ )   | 498.6 |
| Stop incidents (due to blockage) | 1     |

A total engine run time of 4 hours and 33 minutes was achieved for Week 1 of June 2024 with a mean run time of 1 hour and 31 minutes per dredge session (Table 2). The mean dredge time achieved per session was 1 hour and 9 minutes, indicating 3 minutes of stoppage time due to blockages of the suction head (Table 2). The mean volume of dredge material discharged to the river was  $166.2 \text{ m}^3$  per session (Table 2).

Table 2. Operational variables and means per dredge session.

| Operational variables                     | Total | Mean (per session) |
|---|-------|--------------------|
| Engine time (h:min)                       | 4:33  | 1:31               |
| Dredge time (h:min)                       | 3:28  | 1:09               |
| Stoppage time (h:min)                     | 0:11  | 0:03               |
| Volume direct to river ( $\text{m}^3$ )   | 498.6 | 166.2              |
| Volume to dam ( $\text{m}^3$ )            | 0     | 0                  |
| Volume from dam to river ( $\text{m}^3$ ) | 0     | 0                  |



### Daily discharge from the settling dam

Dam not functional due to being full of settled sediment.

### 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                         |