# Dunloe Sand Quarry

2025 Annual Review

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## Site Details

| | |
|---|---|
| **Name of operation** | Dunloe Sand Quarry |
| **Name of operator** | Holcim (Australia) Pty Ltd |
| **Project Approval** | Project Approval 06 - 0030 |
| **Document version** | A |
| **Name of holder of Project Approval** | Holcim (Australia) Pty Ltd |
| **Annual review start date** | January 1, 2025 |
| **Annual review end date** | December 31, 2025 |

I, **Matt Kelly**, certify that this audit report is a true and accurate record of the compliance status of the **DUNLOE SAND QUARRY** for the period of **1 JANUARY 2025 - 31 DECEMBER 2025** and that I am authorised to make this statement on behalf of **HOLCIM (AUSTRALIA) PTY LTD**.

Note.

a) *The Annual Review is an 'environmental audit' for the purposes of section 9.42 of the Environmental Planning and Assessment Act 1979 (NSW). Section 9.42(1) provides that a person must not include false or misleading information in, or provide information for inclusion in, an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. A contravention of this provision constitutes a Tier 3 offence under the Act (a maximum penalty: in the case of a corporation is $1 million; and for an individual is $250,000).*

b) *The Crimes Act 1900 (NSW) contains other offences relating to false and misleading information: Section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); and Sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or 200 penalty units, or both).*

| | |
|---|---|
| **Name of authorised reporting officer** | Matt Kelly |
| **Title of authorised reporting officer** | Quarry Manager |
| **Signature of authorised reporting officer** |  |
| **Date** | 30 March 2026 |

# 1 Statement of Compliance

The statement of commitments for the 2025 Annual Review, herein referred to as the reporting period, for the Dunloe Sand Quarry is provided in **Table 1**. **Table 3** details the non-compliances of Project Approval (PA) 06_0030 identified within the reporting period, with the compliance status key provided in **Table 2**.

**Table 1: Statement of Compliance**

| Were all conditions of the relevant approval(s) complied with? | |
|---|---|
| PA 06_0030 | No |
| EPL 13077 | Yes |

**Table 2: Compliance Status Key**

| Risk level | Colour code | Description |
|---|---|---|
| High | Non-compliant | Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence |
| Medium | Non-compliant | Non-compliance with:<br>• Potential for serious environmental consequences, but is unlikely to occur; or<br>• Potential for moderate environmental consequences, but is likely to occur |
| Low | Non-compliant | Non-compliance with:<br>• Potential for moderate environmental consequences, but is unlikely to occur; or<br>• Potential for low environmental consequences, but is likely to occur |
| Administrative Non-compliance | Non-compliant | Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions) |

**Table 3: Non-Compliances for this Reporting Period**

<table>
<tr><th>Approval</th><th>Condition</th><th>Description of Non-Compliance</th><th>Compliance Status</th><th>Section Addressed in Annual Review</th></tr>
<tr>
<td>PA 06_0030</td>
<td>
Schedule 3, Condition 6 – Impact Assessment Criteria<br><br>
The Proponent must ensure that particulate matter emissions generated by the project do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.<br><br>
Table 3: Air quality criteria
<table>
<tr><th>Pollutant</th><th>Averaging Period</th><th colspan="2">Criterion</th></tr>
<tr><td></td><td></td><td colspan="2"></td></tr>
<tr><td rowspan="2">Particulate matter < 10 µm ($PM_{10}$)</td><td>Annual</td><td colspan="2">[a,c] 30 µg/m³</td></tr>
<tr><td>24 hour</td><td colspan="2">[b] 50 µg/m³</td></tr>
<tr><td>Total suspended particulates (TSP)</td><td>Annual</td><td colspan="2">[a,c] 90 µg/m³</td></tr>
<tr><td>[d] Deposited dust</td><td>Annual</td><td>[b] 2 g/m²/month</td><td>[a] 4 g/m²/month</td></tr>
</table>
Notes:<br>
[a] Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).<br>
[b] Incremental impact (i.e. incremental increase in concentrations due to the project on its own).<br>
[c] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.<br>
[d] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
</td>
<td>
There were three invalid depositional dust monitoring samples during the reporting period. These include:<br><br>
• Two invalid samples at DDG4 in March and July 2025 due to sample getting damaged during collection, and<br>
• One lost sample at DDG1 in September 2025 due being lost in transit by the laboratory courier.<br><br>
Therefore, there are no valid results for depositional dust for those periods at those locations. Dunloe Sand Quarry did not receive any dust or air quality complaints in 2025 or record any exceedances of the criteria, as such this has been considered a low non-compliance.
</td>
<td>Low Non-Compliance</td>
<td>Section 6.3.3</td>
</tr>
</table>

# 2 Introduction

Holcim Australia (Holcim) own and operate the Dunloe Sand Quarry (Dunloe Sands, the site) which was granted PA 06_0030 on 24 November 2008, with subsequent modifications to this approval granted on 28 August 2009 (Mod 1) and 6 November 2018 (Mod 2).

Dunloe Sands is located at Pottsville, within the Tweed Shire, NSW (refer to **Figure 1** and **Figure 2**). The site is located adjacent to Mooball Creek and is approximately 4 km upstream of the creek mouth. Surrounding land use is agriculture, primarily sugar cane farming and grazing. The site produces a very high quality, fine concrete sand as well as a variety of other sand products including plasterer sand, bunker sand, and fill sand.


**Figure 1: Aerial view of the Dunloe Sand Quarry located at Dunloe Park, Pottsville (Source: Near maps, December 2022).**


**Figure 2: Site Location and Layout (Source EMS GHD: 2019)**

Holcim commenced operations on the site on 1 August 2016 with all previous responsibilities falling under the management of Ramtech Pty Ltd (Ramtech). Ramtech were responsible for the commencement and operation of the site since Project Approval was granted in 2007.

In accordance with Schedule 5, Condition 5 of the modified PA 06_0030 the site is required to undertake an Annual Review of the site in accordance with the conditions provided in **Table 4**.

**Table 4: Annual Review Requirements**

| Condition | Section Addressed in Annual Review |
|---|---|
| 5. ANNUAL REVIEW<br>Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an Annual Review to the Secretary and relevant agencies. This report must: | |
| a) identify the standards and performance measures that apply to the project; | **Sections 6** |
| b) describe the works carried out in the last 12 months; | **Sections 4 and 6** |
| c) describe the works that will be carried out in the next 12 months; | **Section 13** |
| d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; | **Section 10.3** |
| e) include a summary of the monitoring results for the project during the past year; | **Sections 6 and 7** |
| f) include an analysis of these monitoring results against the relevant:<br>impact assessment criteria/limits;<br>monitoring results from previous years; and<br>predictions in the documents listed in condition 2 of Schedule 2. | **Sections 6 and 7** |
| g) identify any trends in the monitoring results over the life of the project; | **Sections 6 and 7** |
| h) identify any non-compliance during the previous year; and | **Sections 6, 7 and 12** |
| i) describe what actions were, or are being, taken to ensure compliance. | **Sections 6, 7 and 12** |

This Annual Review has been prepared in accordance with the *Annual Review Guideline: Post-Approval Requirements for State Significance Mining Developments (October 2015).*

This report documents the environmental performance of the site from 1 January to 31 December 2025.

## 2.1 KEY CONTACT DETAILS

The key contact details for the site are outlined below in **Table 5**.

**Table 5: Key Contact Details**

| Staff Member and Position | Contact Details |
|---|---|
| **Quarry Manager**<br>Matt Kelly | Mob: +61 429 790 895<br>Email: matt.kelly@holcim.com |
| **Site Supervisor**<br>Jade O'Brien | Mob: 0484 063 221<br>Email: jade.obrien@holcim.com |
| **Area Manager Aggregates NSW North**<br>Chris Hamilton | Work: +61 2 6656 8620<br>Mob: +61 429 790 213<br>Email: chris.s.hamilton@holcim.com |
| **Environment Manager – NSW & ACT**<br>Dozie Egeonu | Mob: +61 429 557 493<br>Email: dozie.egeonu@holcim.com |

# 3 Approvals

The site operates under the approvals listed in **Table 6**.

**Table 6: Approvals for the Dunloe Sand Quarry Operations**

| Approval | Regulatory Authority |
|---|---|
| PA 06_0030 | NSW Department of Planning, Housing, and Infrastructure (DPHI – the Department) |
| EPL No. 13077 | NSW Environment Protection Authority (EPA) |
| Bore Licence 30BL183076, 30BL183077, 30BL183078, 30BL183079, 30BL183080, 30BL183081, 30BL183082, 30BL183084 and 30BL183086 | NSW Department of Industry - Water |

Holcim holds Environment Protection Licence (EPL) 13077 which covers its activities at the Dunloe Sand Quarry. **Table 7** outlines the licensing limits contained in EPL 13077.

**Table 7: EPL Fee-Based Activity at the Dunloe Sand Quarry**

| Scheduled Activity | Fee Based Activity | Scale |
|---|---|---|
| Extractive Activities | Extractive activity | >100,000 – 500,000 T annually extracted or processed |

# 4 Operations Summary

## 4.1 EXPLORATION

There was no exploration undertaken at the Dunloe Sand Quarry during the reporting period.

## 4.2 LAND PREPARATION

There was no land clearing or stripping during the reporting period.

## 4.3 CONSTRUCTION ACTIVITIES

Construction of the replacement wash plant was completed during the reporting period.

## 4.4 QUARRY OPERATIONS

Activities undertaken in 2025 included:

- Stripping of topsoil and overburden within the existing extraction limit boundary;
- Load and haul activities;
- Washing, screening, and stockpiling of product;
- Overburden removal and stockpiling;
- Maintenance of rehabilitation in the north and eastern areas of the site; and
- Load out and sales of topsoil, brickies loam and concrete sands to the local market.

All activities during the reporting period took place within the approved operating hours of:

- 7am to 5pm, Monday to Friday; and
- 7am to 12pm on Saturdays.

**Table 8** includes a summary of the operations undertaken during the reporting period against the Project Approval conditions regarding product transported from Dunloe Sand's.

**Table 8: Total Product Distributed (Tonnes)**

| Material | Approval Limit (Tonnes/Annum) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Proposed 2026 |
|---|---|---|---|---|---|---|---|---|
| Product Distributed Total | 300,000 | 156,918 | 127,515 | 175,010 | 153,044 | 137,445 | 157,740 | 173,120 |

The total production volume in 2025 was within the approved limits.

Schedule 3, Condition 45 states the proponent must report annual productions to the DPHI using the standard form and include a copy of this in the Annual Review. Note that the annual return that Holcim submit are financial (July-June), therefore total products will not align completely. **Table 9** details the annual productions.

**Table 9: Extractive production data – Dunloe Sand Quarry**

| Material | Mining Type | Production[1] (tonnes) |
|---|---|---|
| Construction Sand (Filling/Packing Sand) | Construction sand | 181,769 |
| Fill & Crusher Fines (under 5mm) | Construction sand | 0 |
| Natural Sand | Construction sand | 0 |
| | Total | 181,769 |

*Note: [1]Production total has been rounded.*

## 4.5 NEXT REPORTING PERIOD

Activities proposed at the Dunloe Sand Quarry in 2026, include:

- Stripping of topsoil and overburden within the existing extraction limit boundary;
- Load and haul activities;
- Washing, screening, and stockpiling of product;
- Overburden removal and stockpiling;
- Maintenance of rehabilitation within the north-eastern area; and
- Load out and sales of topsoil, brickies loam and concrete sands to the local market.

# 5 Actions Required from Previous Annual Review

## 5.1 ACTIONS FROM 2024 ANNUAL REVIEW – DPE ACTIONS

Holcim submitted the 2024 Annual Review by 31 March 2025. On 14 April 2025, DPHI responded:

*NSW Planning has reviewed the Report and considers it to generally satisfy the reporting requirements of the Approval and the NSW Planning Annual Review Guideline (October 2015).*

## 5.2 ACTIONS FROM 2024 ANNUAL REVIEW – HOLCIM PROPOSED ACTIONS

**Table 10** outlines the proposed actions for 2025 from the 2024 Annual Review and the works undertaken.

**Table 10: Holcim Actions Proposed from Previous Annual Review**

| Action from Previous Annual Review | Works Undertaken | Section of this Annual Review |
|---|---|---|
| Ensure dust monitoring is completed in accordance with the EMS. Holcim will liaise with the monitoring contractor to improve monitoring system. | The full dust monitoring program was completed in 2025.<br>PM10 monitoring not undertaken as Quarry productions were below 200,00 tonnes per annum. | **Section 6.3** |
| Rehabilitation monitoring continues as per the Rehabilitation and Revegetation Management Plan. | Rehabilitation monitoring was undertaken during the 2025 reporting period. | **Section 6.5**<br>**Section 8.2** |

# 6 Environmental Performance

## 6.1 METEOROLOGICAL MONITORING

This report uses 2025 rainfall data collected from the onsite Meteorological Station. These meteorological results are presented in **Table 11**.

**Table 11: Meteorological Monitoring Results**

| Month | Total Rainfall (mm) | Minimum Temperature (°C) | Maximum Temperature (°C) |
|---|---|---|---|
| January | 178.44 | 16.1 | 29.1 |
| February | 5.07 | 18.2 | 28.5 |
| March | 666.51 | 18 | 31.6 |
| April | 251.02 | 14.7 | 29.5 |
| May | 343.68 | 10.6 | 28.3 |
| June | 150.73 | 3.9 | 25.6 |
| July | 106.84 | 4.1 | 24.9 |
| August | 269.85 | 5.2 | 26.9 |
| September | 21.54 | 7.4 | 28.3 |
| October | 190.71 | 9.4 | 39.7 |
| November | 82.77 | 12.8 | 34.8 |
| December | 4.75 | 14.5 | 29.9 |
| **Annual TOTAL** | **2271.91** | **3.9 (June)** | **39.7 (January)** |

Dunloe Sand's recorded a total of 2272 mm rainfall in 2025. This is higher than the 2024 period, where the site recorded 2131 mm. Bureau of Meteorological Station 058198 at the Ballina Airport details the annual average since 1992 as 1782 mm.

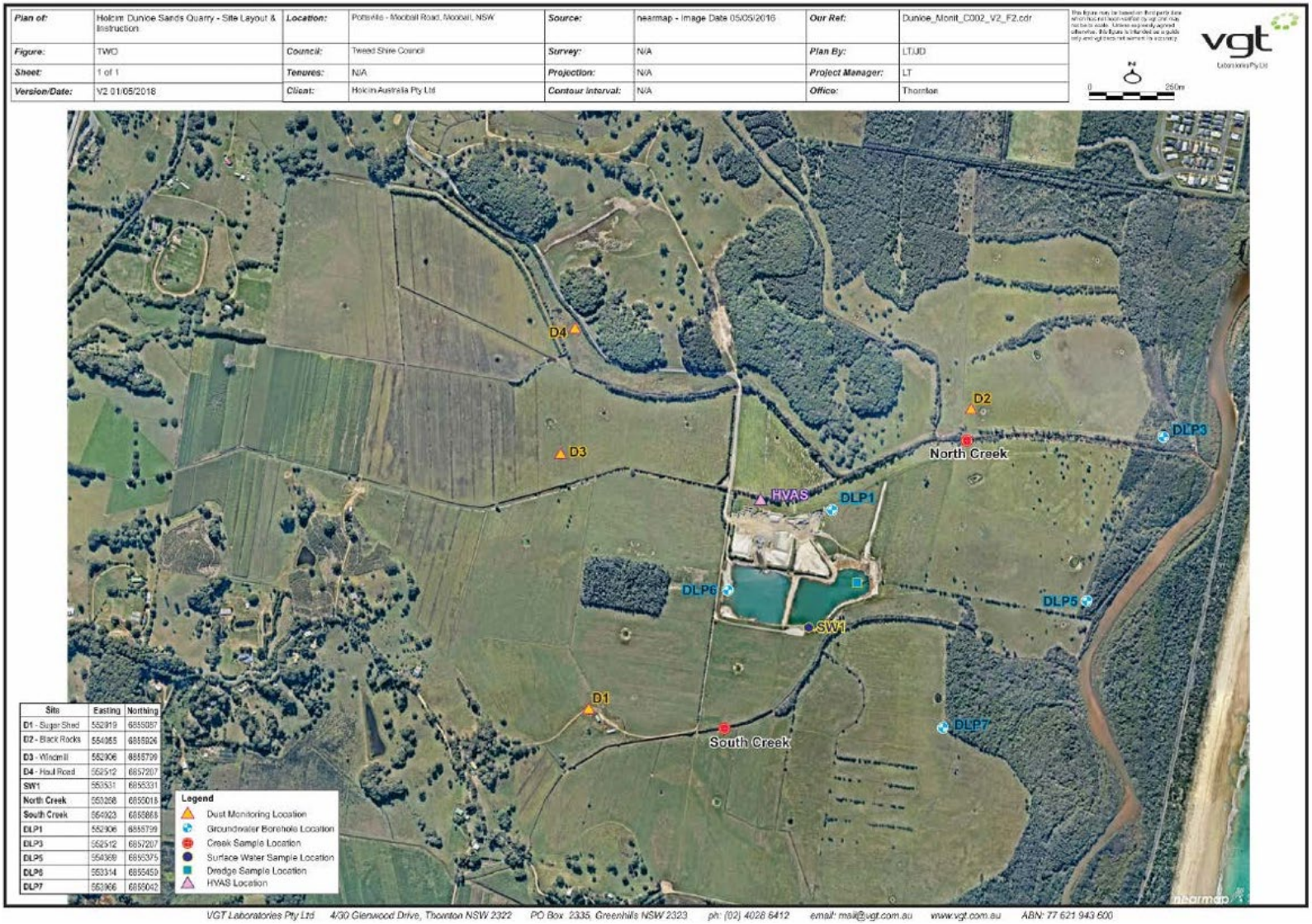


**Figure 3: Environmental Monitoring Locations (source: VGT)**

## 6.2 NOISE

### 6.2.1 EIS Predictions

The site Environmental Impact Statement (EIS) (2007) states that based on noise modelling the operations within the southwest corner of the southern extraction pond (stage 2) may generate levels which exceed the relevant noise impact requirements.

The EIS (2007) stated that to mitigate this minor impact, the dredge is to have acoustical treatment when operating within the southern extraction pond.

### 6.2.2 Approved Criteria

In accordance with Schedule 3 Condition 2 of PA 06_0030, the approved noise criteria for the Dunloe Sand Quarry are outlined below.

Schedule 3 Condition 2 states:

*"The Proponent must ensure that the noise generated by the project does not exceed the criteria in Table 1 at any residence on privately-owned land.*

*Table 1: Noise Impact Assessment Criteria*

| *Receiver Location* | *Day LAeq (15 min) dB(A)* |
|---|---|
| *R6 and R7* | *42* |
| *R8* | *48* |
| *All other residences* | *41* |

*Noise generated by the project must be monitored and measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Noise Policy for Industry (EPA, 2017).*

*The noise criteria in Table 1 do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement."*

### 6.2.3 Key Environmental Performance

Attended noise monitoring was undertaken quarterly at the Dunloe Sand Quarry in 2025 (reports provided in **Appendix A**) by Ramboll Australia Pty Ltd (Ramboll) on the following dates:

- 11 February 2025.
- 16 April 2025,
- 15 July 2025, and
- 11 November 2025.

The compliance assessments for each receiver (R6, R7, and R8) are presented in **Table 12**. Quarry noise was inaudible during all monitoring periods, with ambient environmental noise primarily influenced by wind, trees, passing cars, and birds. The assessments identified that noise emissions generated by the Dunloe Sand Quarry were compliant with relevant statutory noise criteria specified in the Project Approval on all occasions at all assessed residential receivers.

**Table 12: Noise Monitoring Assessment for the Dunloe Sand Quarry**

| Assessment Period | Receiver No. | Quarrying Noise Criteria LAeq (15min) | Q1 | | Q2 | | Q3 | | Q4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Quarry Noise Contribution LAeq (15min) | Compliance Status | Quarry Noise Contribution LAeq (15min) | Compliance Status | Quarry Noise Contribution LAeq (15min) | Compliance Status | Quarry Noise Contribution LAeq (15min) | Compliance Status |
| Day | R6 | 42 | <31 | Compliant | <30 | Compliant | <28 | Compliant | <31 | Compliant |
| | R7 | 42 | <31 | Compliant | <28 | Compliant | <30 | Compliant | <32 | Compliant |
| | R8 | 48 | <31 | Compliant | <38 | Compliant | <30 | Compliant | <32 | Compliant |

### 6.2.4 Management Measures

Management measures relating to noise are outlined within the Dunloe Sand Environmental Management Strategy (2021) and the Noise Management Plan (2020). These include:

- Restriction of operation hours of the Dunloe Sand Quarry to Monday to Friday 7.00 am to 5.00 pm and Saturday 7.00 am to 12.00 pm;
- No work on Sundays or Public Holidays;
- All trucks to be well maintained and fitted with residential mufflers;
- Acoustic testing at commencement of quarry operations to ensure compliance with noise limit criteria;
- Dredge to be fitted with suitable mufflers if noise limit criteria is exceeded;
- Trucks to be limited to a speed of 25 kilometre per hour (km/h) on internal roads;
- Prescribed buffer zones around the extraction ponds to be planted and maintained;
- Cessation of excessively noisy activities during unfavourable meteorological conditions (refer to EPA's 2017 *NSW Noise Policy for Industry*); and
- Signage at the entrance of the site detailing a phone number and permanent site contact to ensure noise complaints are received and addressed in a timely manner.

Additionally, Holcim considered the installation of a noise enclosure for a dredger as a potential additional noise reduction measure in 2024. However, as no noise complaints were received during 2024 or in the current reporting period (2025), Holcim continues to evaluate the feasibility and need for this measure.

### 6.2.5 Proposed Improvements

There are no further improvements proposed for noise management at the site. Dunloe Sand Quarry is committed to continuing to identify areas of improvement within noise management procedures.

## 6.3 AIR QUALITY

### 6.3.1 EIS Predictions

The EIS (2017) Executive Summary states the following:

*"Airborne particulate matter concentrations and dust deposition from the proposed development were predicted to exceed the relevant requirements prescribed by the Office of Environment and Heritage (OEH) at three of the eight monitoring locations.*

*Exceedances are expected as a result of dust generated from the use of unsealed access roads by haul vehicles. To meet prescribed requirements, proposed dust controls include sealing of the entire internal roadway length, planting of a vegetated buffer along the southern boundary adjoining Warwick Park Road and the proposed outbound internal road."*

### 6.3.2 Approved Criteria

Air quality monitoring conducted at Dunloe Sand Quarry is compared to the monitoring criteria stipulated in PA 06_0030 and listed in **Table 13**, **Table 14**, and **Table 15**.

**Table 13: Long Term Impact Assessment Criteria for Deposited Dust**

| Pollutant | Averaging Period | Maximum increase in deposited dust level | Maximum total deposited dust level |
|---|---|---|---|
| Deposited Dust | Annual | 2 $g/m^2$/month | 4 $g/m^2$/month |

**Table 14: Short Term Impact Assessment Criteria for Particulate Matter**

| Pollutant | Averaging Period | Criterion |
|---|---|---|
| Particulate Matter < 10 µm ($PM_{10}$) | 24 Hour | 50 $µg/m^3$ |

**Table 15: Long Term Impact Assessment Criteria for Particulate Matter**

| Pollutant | Averaging Period | Criterion |
|---|---|---|
| Total suspended particulate (TSP) matter | Annual | 90 $µg/m^3$ |
| Particulate Matter < 10 µm ($PM_{10}$) | Annual | 30 $µg/m^3$ |

### 6.3.3 Key Environmental Performance

**Depositional Dust**

Dust deposition monitoring was undertaken at four locations during the 2025 reporting period (see **Table 16**).

**Table 16: Dust Monitoring (Depositional Dust) at Dunloe Sand Quarry**

| Date | Insoluble Solids (g/m$^2$/month) | | | |
|---|---|---|---|---|
| | Haul Road DDG1 | Windmill DDG2 | Sugar Shed DDG3 | Black Rock DDG4 |
| January | 0.7 | 0.2 | 0.3 | 0.5 |
| February | 14 | 12 | -[3] | 0.7 |
| March | -[1] | 2.1[2] | 0.1[4] | 0.5[5] |
| April | 1.1 | 12 | 1 | 0.2 |
| May | 0.1 | 0.1 | 0.1 | 2.8 |
| June | 0.1 | 0.1 | 0.1 | 0.5 |
| July | 0.1 | 2.8 | 0.1 | 4.8 |
| August | 0.5 | 0.8 | 0.4 | 0.7 |
| September | 1.2 | 1.2 | 1.2 | 4.1 |
| October | 0.2 | 0.2 | 0.2 | 0.9 |
| November | 1.3 | 1.8 | 1.2 | 4.5 |
| December | 1.6 | 1.6 | 0.5 | 3.4 |
| Minimum | 0.1 | 0.1 | 0.1 | 0.2 |
| Maximum | 14 | 12 | 1.2 | 4.5 |
| Average | 1.9 | 2.9 | 0.5 | 2.0 |

*Notes:*

*[1] March results for Haul Road DDG – sample invalidated due to Cyclone Alfred preventing collection and invalidated sample due to overflow of sampling bottle.*

*[2] March results for Windmill DDG were exposed for 35 days due to access issues from Cyclone Alfred. Result has been averaged by the sampling period, in days, in accordance with AS3580.10.1.6.*

*[3] February results for Sugar Shed DDG – sample invalidated as bottle was on ground upon collection due to damaged stand.*

*[4] Sample exposed for 7 days due to damaged stand needing replacing and Cyclone Alfred causing site closure. Result has been averaged by the sampling period, in days, in accordance with AS3580.10.1.6*

*[5] Sample exposed for 35 days as Cyclone Alfred prevented collection and replacement of bottle due to site closure and safety concerns. Result has been averaged by the sampling period, in days, in accordance with AS3580.10.1.6.*

The depositional dust monitoring results at all locations were well below the annual average criteria (4g/m2/month) and compliant with project approval.

There were two invalid samples and three averaged samples during the reporting period. These include:

- March sample at DDG1 and February sample at DDG3 were invalidated due to impacts from Cyclone Alfred.
- Three samples were averaged by the sampling period, in days, in accordance with AS3580.10.1.6 due to impacts from Cyclone Alfred.

This has been included as a non-compliance with Schedule 3, Condition 6 (Air Quality Impact Assessment Criteria), as presented in **Table 3**, because a valid result for depositional dust could not be collected for these months.

A comparison of results from 2017 to 2025 has been undertaken in **Table 17**.

**Table 17: Depositional Dust Monitoring Summary (2017-2025)**

| Depositional Dust Gauge | Monitoring Summary for Annual Review Period | Monitoring Period | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| | | ($g/m^2$/month) | | | | | | | | |
| DDG1 Haul Road | Min. Insoluble Solids | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 |
| | Max. Insoluble Solids | 0.8 | 2.7 | 1.8 | 2.3 | 1.1 | 0.7 | 1.1 | 0.8 | 14 |
| | Insoluble Solids Annual Average | 0.4 | 0.6 | 0.7 | 0.89 | 0.4 | 0.3 | 0.33 | 0.42 | 1.9 |
| DDG2 Windmill | Min. Insoluble Solids | <0.1 | 0.1 | 0.2 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| | Max. Insoluble Solids | 0.9 | 0.7 | 1.8 | 3.6 | 0.9 | 3.7 | 3.5 | 16 | 12 |
| | Insoluble Solids Annual Average | 0.32 | 0.31 | 0.6 | 1.44 | 0.5 | 0.7 | 1.46 | 2.50 | 2.9 |
| DDG3 Sugar Shed | Min. Insoluble Solids | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| | Max. Insoluble Solids | 2.4 | 1.6 | 1.6 | 1.3 | 2.5 | 2.2 | 4.3 | 0.8 | 1.2 |
| | Insoluble Solids Annual Average | 0.8 | 0.8 | 0.6 | 0.53 | 1.0 | 0.6 | 0.78 | 0.43 | 0.5 |
| DDG4 Black Rock | Min. Insoluble Solids | <0.1 | 0.1 | 0.2 | 0.6 | 0.5 | 0.1 | 0.1 | 0.1 | 0.2 |
| | Max. Insoluble Solids | 0.9 | 0.7 | 1.8 | 7.7 | 18.0 | 3.6 | 1.1 | 3.9 | 4.5 |
| | Insoluble Solids Annual Average | 0.4 | 0.4 | 0.9 | 2.94 | 6.6 | 1.3 | 0.36 | 0.70 | 2.0 |

**Long-term Trends**

The annual averages at all locations were generally consistent with the 2024 annual averages, as shown in **Table 17**. At DDG 1, the annual average increased from 0.42 g/m²/month in 2024 to 1.9 g/m²/month in 2025, primarily due to a single high reading of 14 g/m²/month in February 2025. All locations are within criteria, and consistent with EIS predictions and trends.

**Comparison to EIS Predictions**

All results for depositional dust were below the predicted limits of the EIS predictions (see **Section 6.3.1**).

### $PM_{10}$ Monitoring

With the approval of the Dust Monitoring Program by the DPHI on 27 July 2018, Holcim is no longer required to monitor for $PM_{10}$ unless the annual production rates increase to 200,000 tonnes or above.

Annual production was 173,549 tonnes in 2025, therefore no $PM_{10}$ monitoring was undertaken. Regardless of production volumes, the site has maintained dust suppression measures throughout the reporting period in accordance with the requirements of the EMS. Since 2019, Holcim has not exceeded 200,000 tonnes per annum, and $PM_{10}$ monitoring has not been carried out

Long-term Trends relating to $PM_{10}$ monitoring are outlined in **Table 18**.

**Table 18: $PM_{10}$ Monitoring Trends**

| Monitoring Summary | Monitoring Period | | |
|---|---|---|---|
| | 2017 | 2018 | 2019 – 2025 |
| $PM_{10}$ Reporting Period Average | 10.97 | 24.9 | NS |
| Max. $PM_{10}$ | 35.9 | 125 | NS |
| Min. $PM_{10}$ | 1.2 | 2 | NS |

*NS – Not Sampled*

## 6.3.4 Management Measures

Management measures relating to air quality are outlined within the *Dunloe Sand Quarry Environmental Management Strategy* and *Air Quality Management Plan.* These measures include:

- Sealing access and egress road from the Quarry to Pottsville Road;
- The wheel shaker screen is to be utilised by all traffic leaving the quarry;
- The route for trucks within the quarry will be wet down daily by a water sprinkler/spray system;
- Additional vegetation rehabilitation areas throughout the site contributing as a buffer to Mooball Creek and surrounding areas;
- Loaded trucks will be covered before exiting the site;
- Dust that is transported onto the access road immediately outside the active quarry area will be removed from the road at least once per month using a local street sweeper;
- Visual daily inspections of all stockpiles will be undertaken to ensure that dust emissions are mitigated where possible.
- Visual review of exposed areas, and whether these areas are generating dust, should be undertaken daily;

- Dust generation is generally limited to freshly disturbed areas and stockpiles. A portable hose or water spray/sprinkler system has been installed to dampen the surface and supress dust. The system installed is capable of servicing the entire site;
- Topsoil will not be stripped during windy weather conditions; and
- Six monthly audits of dust levels are to be undertaken by management.

### 6.3.5 Proposed Improvements

No proposed improvements for 2025. Dunloe Sand Quarry continues to complete management measures and monitoring in accordance with the Air Quality Management Plan, Environmental Management Strategy, and Project Approval requirements.

## 6.4 TRAFFIC MANAGEMENT

### 6.4.1 EIS Predictions

The proposed operational times outlined within the EIS are shown in **Table 19** below.

**Table 19: Estimated Operational Times, Periods and Truck Movements (EIS 2007)**

| Yearly Operation | Days Per Week | Hours per Week | Daily Times Operating | Truck Movements per Hour |
|---|---|---|---|---|
| 50 weeks/year | 5.5 | 46 | Mon-Fri: 7:30am - 5:00pm<br>Sat: 7:30am - 12:30pm | 4 |

### 6.4.2 Approved Criteria

As per the Project Approval (Schedule 3, Condition 3), operations will be conducted Monday to Saturday (see **Table 20** below). No operations are to be undertaken on Sunday or public holidays.

**Table 20: Operational Times, Periods and Truck Movements**

| Yearly Operation | Days Per Week | Hours per Week | Daily Times Operating | Truck Movements per Hour |
|---|---|---|---|---|
| 52 weeks/year | 5.5 | 55 | Mon-Fri: 7:00am – 5:00pm<br>Sat: 7:00am – 12:00pm | 24* |

** Not to exceed more than 24 heavy vehicle movements (in and out) per hour*

The *Traffic Management Plan* (2019) states that truck speeds are limited to a maximum of 40km/hr within the site, however, internal roads are signposted to a 25-30 km/h speed limit.

### 6.4.3 Key Environmental Performance

Schedule 2 Condition 8 of the Project Approval allows for 24 truck movements per hour (12 trucks per hour).

Daily records of truck movements are recorded by Holcim. During the reporting period, Holcim recorded a daily average of 20 trucks. This is within the criteria. See **Appendix B** for the full log of truck movements.

### 6.4.4 Management Measures

Management measures relating to transport are outlined within the Dunloe Sand Quarry Environmental Management Strategy (2020) and the Traffic Management Plan (2019), including:

- Construction of a dedicated haulage road (sealed) to provide vehicular access between the sand extraction area and Pottsville-Mooball Road;
- Average truck movements limited to 24 movements per hour
- All vehicles to observe speed limits for public roads;
- No trucks are to leave the site via Warwick Park Road;
- Appropriate advisory signage placed on public roads to notify of trucks entering Pottsville – Mooball Road;
- Appropriate relevant advisory signage placed along the haulage road (especially approaches to the intersections with Kelleher's Road and Pottsville – Mooball Road);
- Truck speed on the internal roads is to be limited to a maximum of 40km/h;
- All loaded vehicles entering or leaving the site are to have their loads covered; and
- Holcim shall ensure that all loaded vehicles leaving the site are cleaned of materials that may fall on the road before they leave the site.

### 6.4.5 Proposed Improvements

There are no proposed changes to transport management. Truck movements will continue to be monitored and recorded in the oncoming reporting period to ensure that they remain within the approved criteria.

## 6.5 BIODIVERSITY

### 6.5.1 EIS Predictions

As part of the EIS (2007), a number of threatened species were identified within the surrounding vegetated areas of the site with none being found or expected to occur within the previously disturbed areas of the site (including proposed extraction areas).

Rehabilitation and revegetation measures proposed will provide improved flora and fauna links, additional food resources for identified threatened species, improved opportunities for breeding through the installation of breeding boxes and other benefits associated with visual screening and the like.

No clearing of vegetation is required in respect of the project, inclusive of haulage routes and operational areas.

### 6.5.2 Approved Criteria

There are no specific criteria associated with biodiversity management for the site. Activities need to be completed in accordance with the EIS.

Biodiversity management measures are undertaken in accordance with the *Landscape Management Plan*.

### 6.5.3 Key Environmental Performance

There were no biodiversity issues identified during this reporting period.

Weed control continued in 2025 and will continue to occur in 2026 to control weed growth in established rehabilitation.

Biodiversity and rehabilitation monitoring was undertaken throughout 2025 as per the approved *Landscape Management Plan* and Project Approval. Routine rehabilitation monitoring occurred at each rehabilitation zone and investigated site conditions, forest structure, floristic composition, and fauna nest boxes. Site weeds, fire management, biodiversity, and general management were also assessed. Vegetation performance was reported as satisfactory.

Routine monitoring took place in April, July, September, and December 2025. Common weeds which have been established within the rehabilitation zones include:

- Senna (*Senna septemtrionalis*);
- Camphor Laurel (*Cinnamomum camphora*);
- Slash Pine (*Pinus elliottii*);
- Lantana (*Lantana* camara); and
- Ground Asparagus (*Asparagus aethiopicus)*

Weed control was undertaken in each rehabilitation zone by qualified and experienced bush regenerators to manage and eradicate weeds using industry best practice methods until December 2024. In 2025, observations indicated that rehabilitation areas were showing a strong resilience to weed infestations. However, it was recommended that periodic weed maintenance remains necessary to ensure that the relevant performance criteria is achieved.

From 2020 it was found that the use of nest boxes by fauna was limited. During 2025 there were no signs of native fauna using the boxes. It was noted that nest boxes had been impacted by Cyclone Alfred in the February-March period and had generally failed completely or had significantly deteriorated. It was recommended that new nest boxes targeting specific fauna groups are installed.

See **Appendix C** for the full 2025 Rehabilitation and Revegetation Monitoring Report.

### 6.5.4 Management Measures

Management measures relating to biodiversity are outlined in the Landscape Management Plan and the Environmental Management Strategy. These include:

- Detailed clearing protocol;
- Weed management;
- Maintenance of nest boxes; and
- Rehabilitation/Ecological monitoring program.

### 6.5.5 Proposed Improvements

The implementation of commitments within the Dunloe Sand Quarry Rehabilitation and Revegetation Management Plan, the Dunloe Sand Landscape Management Plan, and Environmental Management

Strategy will continue to occur in the 2026 reporting period. Biodiversity management measures will continue in 2026 and focus on the maintenance of native vegetation species.

## 6.6 HERITAGE

### 6.6.1 EIS Predictions

A heritage assessment focusing on both Aboriginal and non-Aboriginal heritage was completed for the EIS (2007). An area of potential Aboriginal heritage significance was cordoned off.

### 6.6.2 Approved Criteria

There are no specific criteria associated with heritage relating to the project.

### 6.6.3 Key Environmental Performance

There were no issues relating to Aboriginal and historic heritage during the reporting period. An area of potential Aboriginal heritage significance was reviewed in 2018 with the assistance of Aboriginal Groups. It was not found to be an area of heritage significance.

The Dunloe Sand Quarry Aboriginal Cultural Heritage Management Plan (ACHMP) manages Aboriginal heritage. The site continued to act in accordance with the ACHMP in this reporting period.

### 6.6.4 Management Measures

Management measures relating to heritage are outlined within the ACHMP. These include:

- Training of all staff and contractors through the induction process;
- Detailed excavation strategy and control of any finds; and
- Procedure for impacts of unexpected finds.

### 6.6.5 Proposed Improvements

There are no proposed improvements to heritage management in 2026.

## 6.7 ACID SULPHATE SOILS MANAGEMENT AND MANAGEMENT OF FINES

Holcim undertakes fines management in accordance with Schedule 3 of Conditions 10 and 11 of the Project Approval in the following manner:

Condition 10
*"The Proponent shall ensure that all excavated potential acid sulphate soil fines material is returned back to below the water table as soon as possible to prevent oxidation. No potential acid sulphate soil shall be removed from the site, unless adequately neutralised in accordance with methods approved under the Soil and Water Management Plan."*

Condition 11
*"The Proponent shall ensure that all potential acid sulphate soil fines material is discharged into the pond at a depth of no less than 3 metres from the water surface, and that all fines are deposited to a final depth of at least 8 metres from the water surface, unless an alternative method(s) is approved by OOW and the Director-General."*

Under the operation of Holcim, the site has undertaken a number of improvement works to ensure the effective management of Acid Sulphate Soils (ASS) and Potential Acid Sulphate Soils (PASS) during extraction, processing, and sales operations. Details of specific management measures are outlined below.

### 6.7.1 Acid Sulphate Soils Sampling

Holcim undertakes acid sulphate soils sampling prior to extraction of materials. The drilling program was developed and undertaken in line with the following activities:

- A minimum of 2 sand cores are drilled per hectare;
- All samples are sent to a NATA Accredited lab for immediate testing in accordance with the ASSMAC Guidelines;
- A NATA Accredited lab provides a volume per $m^2$ for lime to be seeded across each hectare before stripping takes place;
- Stockpiled topsoil is tested by a NATA accredited laboratory to confirm there is no presence of PASS.

The ongoing management of acid sulphate soils during extraction in the sampled area is undertaken in accordance with the site's EMS and Acid Sulphate Soil Management Plan (2020).

In accordance with Schedule 3 Condition 10, where lime dosing is required based on chromium suite testing results, the material is treated according to required buffering concentrations and retested prior to sales (or alternatively reused within confines of Dunloe Park).

Where topsoil results showed high ASS concentration, the material was instead stockpiled within the confines of Dunloe Park and not sold.

For concrete sand, the material was buffered and stockpiled as a white sand and given sufficient time to oxidise, after which it was buffered and retested for ASS/PASS prior to sale.

Where Fill sand was found to have high ASS/PASS it was either reused within confines of Dunloe Park for haul road maintenance or safety bunding or buffered and retested before sales.

Monitoring and management of ASS and PASS will continue into 2026.

### 6.7.2 Extraction

Excavation of loam, dredging and washing activities is undertaken in accordance with the EMS and has been developed in line with the following activities:

1. Excavated loam is stockpiled and tested by NATA accredited laboratory to confirm there is no presence of PASS;
2. In the event that PASS is present in loam stockpiles a NATA accredited laboratory will provide a detailed report with liming rates for lime to be added by Holcim staff to screened loam to ensure no presence of PASS;
3. All dredged material is sent through the plant with fines re-interned below the 3 metre water mark at a depth of 8 metres in the returns pond; and
4. Testing of stockpiles to ensure that no PASS are present in concrete sands.

### 6.7.3 Stockpiling & Sales

Holcim have developed and implemented a testing regime using a NATA accredited laboratory to ensure compliance with PASS requirements for all sales of sand materials. This process includes:

1. Routine sampling of sales material stockpiles at designated locations; and
2. Implementation of a series of sales and production stockpiles to ensure any materials that have not been tested are isolated until tests confirm no presence of PASS thereafter sales loading occurs.

# 7 Water Management

## 7.1 EIS PREDICTIONS

The site is located within the Mooball Creek catchment and Sheens Creek sub-catchment areas. Detailed flood modelling confirms that the proposal will have no significant impact upon existing drainage regimes within the catchment.

Extraction operations have been designed in conformity with best practice environmental management procedures, including the use of appropriate sediment and water quality devices and the retention of ground cover in areas outside of the extraction ponds.

No negative impacts to water are predicted with controls in place.

## 7.2 CRITERIA

The site has the requirement to monitor discharges from the two Licenced Discharge Points (LDP) per the criteria listed in EPL 13077 (reproduced in **Table 21** and **Table 22**). LDP001 refers to Silt Pond discharge and monitoring point (Point 1) and LDP002 refers to Dredge Pond discharge and monitoring point (Point 2).

**Table 21: Discharge Criteria – LDP001 and LDP002**

POINT 1

| Pollutant | Units of Measure | 50 Percentile concentration limit | 90 Percentile concentration limit | 3DGM concentration limit | 100 percentile concentration limit |
|---|---|---|---|---|---|
| Oil and Grease | Visible | | | | nil |
| pH | pH | | | | 6.5 - 8.5 |
| TSS | milligrams per litre | | | | 50 |

POINT 2

| Pollutant | Units of Measure | 50 Percentile concentration limit | 90 Percentile concentration limit | 3DGM concentration limit | 100 percentile concentration limit |
|---|---|---|---|---|---|
| Oil and Grease | Visible | | | | nil |
| pH | pH | | | | 6.5 - 8.5 |
| TSS | milligrams per litre | | | | 50 |

Exceedance of quality limits specified in EPL 13077 is permitted if the discharge from LDP001 or LDP002 occurs solely as the result of rainfall on site exceeding a total of 82.5 mm over any consecutive five-day period. Holcim undertakes all practical measures to avoid or minimise TSS, pH and Oil and Grease exceedances in wet weather discharges.

**Table 22: LDP001 and LDP002 monitoring requirements from EPL 13077**

POINT 1,2

| Pollutant | Units of measure | Frequency | Sampling Method |
|---|---|---|---|
| Oil and Grease | Visible | Special Frequency 1 | Visual Inspection |
| pH | pH | Special Frequency 1 | Probe |
| TSS | milligrams per litre | Special Frequency 1 | Grab sample |

Condition M2.3 of the EPL details that Special Frequency 1:

"*sampling once <24 hours prior to; and sampling the discharge daily during each discharge event arising from rainfall of less than 82.5 mm falling in total over a period of up to five days duration.*"

The site also has criteria outlined within the Soil and Water Management Plan. This includes commitments to undertaking monthly and quarterly monitoring at the Dredge Pond (Dam 1) and Silt Pond (Dam 2) (see **Table 23**, **Table 24**, and **Table 25**).

**Table 23: Monthly Surface Water Quality Criteria – Dam 1 and Dam 2**

| Parameter | Interim Target Criteria | Baseline Data |
|---|---|---|
| pH | 5.0 – 8.5 | 3.55-8.44 (6.49) |
| Electrical conductivity | <5.50 mS/cm | 0.286-45 (11.930mS/cm) |
| Dissolved oxygen | >4.00 mg/L | 0.81-7.49 (4.34) mg/L |
| Turbidity | <20 NTU | 3-67 (14.4) NTU |
| Oil and grease | <10 mg/L | NA |

**Table 24: Quarterly Surface Water Quality Criteria – Dam 1 and Dam 2**

| Parameter | Interim Target Criteria | Baseline Data |
|---|---|---|
| Manganese | 0.15 mg/L | 0.01-0.56 mg/L |
| Magnesium | 40 mg/L | 0.8-173.0 (20) mg/L |
| Sodium | 280 mg/L | 7-1770 (213) mg/L |
| Potassium | 17.5 mg/L | 0-71(12) mg/L |
| Bicarbonate | 400 mg/CaCO3 | NA |
| Chloride | 285 mg/L | 15-3500 (356) mg/L |
| Sulfate | 175 mg/L | 9-753 (100) mg/L |
| Aluminium | 0.75 mg/L | <0.01-4.96 (0.50) mg/L |
| Arsenic | <0.005 mg/L | <0.005-0.027 (0.01) mg/L |
| Iron | <7.5 µg/L | 0.03-43 (6.12) µg/L |
| Chlorophyll a | 2-10 µg/L | 2-10 µg/L |

**Table 25: Quarterly Vertical Profile Water Quality Criteria – Dam 1 and Dam 2**

| *Pollutant* | *Unit of Measure* | *Water Quality Objectives* |
|---|---|---|
| Turbidity | NTU | 5 – 20 NTU |
| pH | pH | 6.5 – 8.5 |
| Oil and Grease | mg/L | 10 mg/L |
| Salinity | µS/cm | <3,000 µS/cm |
| Dissolved oxygen | mg/L | >6 mg/L |
| Chorophyll-a | µg/L | 2-10 µg/L |
| Faecal coliforms | Median No./100mL | <1000 cfu/100mL |
| Enterococci | Median No./100mL | <230 cfu/100mL |
| Algae and blue-green algae | No.cells/mL (M.aeruginosa) | <50,000 cells/mL |
| | $mm^3$/L (total biovolume) | <4 $mm^3$/L |
| Sodium | mg/L | 500mg/L |
| Potassium ion | mg/L | 40mg/L |
| Magnesium ion | mg/L | 100mg/L |
| Chloride ion | mg/L | 1000mg/L |
| Sulphate ion | mg/L | 800mg/L |
| Bicarbonate ion | mg/L | 400mg/L |
| Soluble iron | mg/L | 20mg/L |
| Soluble aluminium ion | mg/L | 0.5mg/L |
| Ammonium ion | mg/L | 20mg/L |

1) *The Department acknowledges that short term exceedances of these objectives may occur during natural events such as flooding.*

2) *The Department acknowledges that pre-existing water quality may not meet the objectives for some analytes, including salinity. The proponent shall strive to meet the water quality objectives through implementation of the Soil and Water Management Plan (see condition 18 below), as far as is reasonable and feasible and within the Proponent's control, to the satisfaction of the Secretary.*

The site has a commitment to Blue Green Algae monitoring within the extraction ponds in accordance with the criteria listed in **Table 26**.

**Table 26: Monthly Monitoring Criteria – Blue Green Algae**

| | | |
|---|---|---|
| Algae and Blue-green algae | No.cells/mL (M.aeruginosa) | <50,000 |
| | $mm^3$/L (total biovolume) | <4 |

The site has a commitment to complete quarterly creek water monitoring within the surrounding environment in accordance with the criteria listed in **Table 27**.

**Table 27: Quarterly Surface Water Quality Criteria – Surrounding Environment**

| *Pollutant* | *Unit of Measure* | *Interim Target Criteria* | *Baseline Monitoring 9/06-8/07* |
|---|---|---|---|
| pH | pH | 5.5 – 7.5 | 3.55-8.44 (6.49) |
| Electrical Conductivity | uS/cm | 1800-24000 | 286-45000 (11930) |
| Dissolved Oxygen | mg/L | >6 | 0.81-7.49 (4.34) |
| Turbidity | NTU | <20 | 3-67 (14.4) |
| Suspended Solids | mg/L | <25 | 1.5-48 (19) |

### Groundwater

The site has an annual requirement to monitor water quality from the five on site groundwater bores per the criteria listed in EPL 13077 and reproduced in **Table 28**.

**Table 28: Groundwater monitoring requirements (DLP3-DLP7) from EPL 13077**

**POINT 3,4,5,6,7**

| Pollutant | Units of measure | Frequency | Sampling Method |
|---|---|---|---|
| Ammonia | milligrams per litre | Yearly | Grab sample |
| Chloride | milligrams per litre | Yearly | Grab sample |
| Electrical conductivity | microsiemens per centimetre | Yearly | Grab sample |
| Oil and Grease | milligrams per litre | Yearly | Grab sample |
| pH | pH | Yearly | Grab sample |
| Standing Water Level | metres (Australian Height Datum) | Yearly | No method specified |
| Sulfate | milligrams per litre | Yearly | Grab sample |

The site has a commitment to complete monthly groundwater monitoring within the surrounding environment in accordance with the criteria listed in **Table 29**.

**Table 29: Monthly Groundwater Quality Criteria – Surrounding Environment**

| Parameter | Interim Target Criteria | Baseline Data |
|---|---|---|
| pH | 4.2-7.0 | 3.58-7.54 (5.43) |
| Electrical conductivity | <2.0 mS/cm | 0.07-6.47 (1.24) mS/cm) |
| Dissolved oxygen | <1.50 mg/L | 0.16-4.83 (0.84) mg/L |
| REDOX Potential | <20 NTU | 3-67 (14.4) NTU |
| Groundwater level | M (AHD) | 0.25-1.52 (0.68) |

The site has a commitment to complete quarterly groundwater monitoring within the surrounding environment in accordance with the criteria listed in **Table 30**.

**Table 30: Quarterly Groundwater Quality Criteria – Surrounding Environment**

| Parameter | Interim Target Criteria | Baseline Data |
|---|---|---|
| Calcium | 55 mg/L | 0.7-144 (26) |
| Manganese | 0.15 mg/L | 0.01-0.56 mg/L |
| Magnesium | 40 mg/L | 0.8-173.0 (20) mg/L |
| Sodium | 280 mg/L | 7-1770 (213) mg/L |
| Potassium | 17.5 mg/L | 0-71(12) mg/L |
| Bicarbonate | 400 mg/CaCO3 | NA |
| Chloride | 285 mg/L | 15-3500 (356) mg/L |
| Alkalinity | 185 mg/L | 0-534 (109) mg/L |
| Sulfate | 175 mg/L | 9-753 (100) mg/L |
| Dissolved Aluminium | 0.75 mg/L | <0.01-4.96 (0.50) mg/L |
| Dissolved Arsenic | <0.005 mg/L | <0.005-0.027 (0.01) mg/L |
| Dissolved Iron | 7.5 mg/L | 0.03-43 (6.12) mg/L |

## 7.3 SURFACE WATER RESULTS

There were no surface water discharges in 2025. Therefore, criteria related to **Table 23** have not been triggered.

A summary of results obtained from monthly sampling in the ponds is provided in **Table 31**.

**Table 31: Monthly Dredge Pond and Silt Pond Monitoring 2025 Results**

| Parameter | Interim Target Criteria | Dredge Pond (Dam 2) | | | Silt Pond (Dam 1) | | |
|---|---|---|---|---|---|---|---|
| | | Min | Max | Average | Min | Max | Average |
| pH | 5.0-8.5 | 6.8 | **9.4** | 7.8 | 6.4 | **10.1** | 7.7 |
| EC (uS/cm) | <2000 | 221 | 925 | 352 | 225 | 836 | 400 |
| DO (mg/L) | >4 | **0** | 12 | 7.3 | **0** | 11.4 | 6.1 |
| Turbidity (NTU) | <20 | 0 | **1000** | **166** | **90.4** | **1000** | **326** |
| Oil and Grease (mg/L) | 10 | 5 | **11** | 6.3 | 5 | **11** | 9.1 |

Note: Values in **bold** do not satisfy the interim target criteria.

When comparing monthly surface water quality results to criteria (**Table 23** and **Table 24**), the 2025 monitoring found the following:

- **pH:** The Dredge Pond and the Silt Pond reported pH within the interim target criteria, with an annual average of pH 7.8, and pH 7.7, respectively.
- **Electrical Conductivity (EC):** The Dredge Pond and Silt Pond did not have any EC exceedances during the 2025 reporting period.
- **Turbidity:** There were multiple (11) exceedances for Turbidity at the Silt Pond location with the maximum exceedances of 1000 NTU in October and December. As a result, the annual average exceeded the criteria for turbidity with an average of 326 NTU. The Dredge Pond location recorded eight exceedances with the maximum turbidity of 1000 NTU, and an annual average of 166 NTU.
- **Oil and Grease:** Oil and grease levels at both the Dredge Pond and Silt Pond saw maximum exceedances of 11 mg/L and 50 mg/L, respectively. The annual average at the Dredge Pond and Silt Pond were within the criteria at 6.3 mg/L and 9.1 mg/L respectively.
- **Dissolved Oxygen (DO):** Both the Silt Pond and Dredge Pond had a single exceedance in April with a DO result of 0 mg/L. The annual average was compliant with the target criteria with 6.1 mg/L for the Silt Pond and 7.3 mg/L for the Dredge Pond.

While exceedances in criteria were recorded during the reporting period, there was no discharge from site and no non-compliances. See **Appendix D** for complete monitoring data.

Long-term monitoring results for the Dredge Pond and Silt Pond from the 2021 reporting periods onwards are presented in **Table 32**.

**Table 32: Long-term Average Results for Dredge Pond (Dam 1) and Silt Pond (Dam 2)**

| Parameter | Interim Target Criteria | Baseline (2006/2007) | Dredge Pond (Dam 1) | | | | | Silt Pond (Dam 2) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2021 | 2022 | 2023 | 2024 | 2025 |
| pH | 5.0-8.5 | 3.55-8.44 | 5.7 | 5.8 | 5.8 | 6.9 | 7.7 | 6.3 | 7.1 | **6.3** | 6.5 | 7.8 |
| EC (uS/cm) | <2000 | 286-450 | 604.8 | 145 | 207.3 | 248.6 | 400 | 834.1 | 178 | 272.7 | 279.1 | 352 |
| DO (mg/L) | >4 | 0.81-7.49 | 7.2 | 6.3 | 7.4 | 9.8 | 6.1 | 6.5 | 6.3 | 6.7 | 6.1 | 7.3 |
| Turbidity (NTU) | <20 | 3.0-67.0 | 12.0 | 91 | 9.2 | **96.2** | **326** | 17.9 | 95 | 233.4 | **288.3** | **166** |
| Oil and Grease (mg/L) | 10 | - | 11.2 | 6.8 | 10.2 | **11.9** | 9.1 | 12.2 | 11.6 | 11.5 | 8.6 | 6.3 |

*Note: exceedances are in highlighted in **BOLD**.*

**Long-term Trends**

- **pH:** As shown in **Table 32** the comparison of results from 2021 to 2025 indicates that the Dredge Pond and Silt Pond had slightly lower pH levels. However, pH levels were within the interim target criteria. In 2025, the average pH in both the Dredge Pond and the Silt Pond was within the interim target criteria.
- **EC:** Average values of EC in both the Dredge Pond and the Silt Pond are similar in comparison to previous years. The 2025 averages were within baseline criteria.
- **Dissolved oxygen (DO):** DO levels at the Silt Pond and Dredge Pond are similar to previous years and compliant with the target criteria.
- **Turbidity:** The 2025 average turbidity at the Dredge Pond increased significantly compared to the 2024 annual average, reaching its highest level since 2019. Turbidity at the Silt Pond was lower than the 2024, recording and NTU of 166 compared to 288 in 2024. NTU values exceeded the interim target criteria (<20 NTU) and fell outside the baseline criteria.
- **Oil and Grease:** Oil and grease levels at the Dredge Pond and Silt Pond have decreased compared to the 2024 annual average. Both sites were compliant with the target criteria.

A summary of the long-term chemical analysis results from the years 2021 to 2025 is provided in **Table 33.**

**Table 33: Long-term Analyte Monitoring Results**

| Parameter (mg/L) | Interim Target Criteria | Baseline Target (2006/07) | Dredge Pond (Dam 1) | | | | | Silt Pond (Dam 2) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Manganese | 0.15 mg/L | 0.01-0.56 mg/ | 0.2 | 0.2 | 0.3 | 0.1 | 0.01 | 0.2 | 0.1 | 0.1 | 0.1 | 0.02 |
| Magnesium | 40 mg/L | 0.8-173.0 mg/ | 20.0 | 3.7 | 2.7 | 4.0 | 4.2 | 11.3 | 4.0 | 3.2 | 4.3 | 5.1 |
| Sodium | 280 mg/L | 7-1,770 mg/ | 50.8 | 16.1 | 8.9 | 13 | 14.3 | 50.8 | 18.2 | 9.7 | 13 | 19 |
| Potassium | 17.5 mg/L | 0-71 mg/ | 4.5 | 2.3 | 1.9 | 2.4 | 2.2 | 4.0 | 2.4 | 2.1 | 2.4 | 2.6 |
| Bicarbonate | 400 mg/CaCO3 | - | 20.0 | 98.8 | 20.0 | 30 | 30.5 | 20.0 | 110 | 22.8 | 36 | 34.5 |
| Chloride | 285 mg/L | 15-3,500 mg/ | 92.3 | 29.7 | 13.0 | 16 | 19.3 | 93.8 | 31.7 | 16.0 | 16 | 27 |
| Sulphate | 175 mg/L | 9-753 mg/ | 210.0 | 79.3 | 62.0 | 91 | 79.3 | 212.5 | 85.7 | 75.5 | 91 | 102.5 |
| Aluminium (soluble) | 0.75 mg/L | <0.01-4.96 mg/ | 0.1 | 0.26 | 0.3 | 0.1 | 0.1 | 0.3 | 0.3 | 0.8 | 0.3 | 0.07 |
| Arsenic | <0.005 mg/L | <0.005-0.027 mg/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Iron (Soluble) | 7.5 µg/L | 0.03-43 µg/L | 0.1 | 0.1 | 0.4 | 0.2 | 0.61 | 0.2 | 0.1 | 0.7 | 0.3 | 0.07 |
| Chlorophyll a | 2-10 µg/L | 2 – 10 µg/L | 6.0 | 5.0 | 7.8 | 5.2 | 5 | 5.8 | 5.0 | 8.3 | **11** | **10.4** |
| Faecal Coliforms Median No./1000mL | NA | <1000 CFU/100mL | 252.5 | 42.5 | 50 | **1212.5** | 42 | 32.5 | 52.5 | 662.5 | 481 | 50 |
| Enterococci Median No./1000mL | NA | <230 CFU/100mL | 62.5 | 52.5 | 125 | **895** | 52.5 | 180 | 17.5 | 530 | 215.5 | 64 |
| Ammonium | NA | 20 | 0.02 | | 0.02 | 0.0 | 0.03 | 0.02 | 0.07 | 0.05 | 0.0 | 0.01 |

*Note: exceedances are in highlighted in **BOLD**.*

The results from the quarterly chemical analysis indicate the results are generally below both the baseline and interim target criteria. In 2025, the average levels faecal coliforms and enterococci in the Dredge Pond showed a decrease compared to 2024, remaining below the target criteria and consistent with historical results.

The Silt Pond was generally consistent in the average levels of most parameters as previous years. All remained within the baseline target, except for Chlorophyll a, which had an average of 10.5, slightly exceeding the baseline target range of 2-10. Arsenic levels were consistent with previous years and remained below the target criteria.

Annual averages for the Quarterly Vertical Profile for Pond 2, are shown below in **Table 34**. See **Appendix D** for complete monitoring data. Results from the vertical profile monitoring show that parameters within this water body generally did not exceed the objective values.

**Table 34: Quarterly Vertical Profile Results for 2025**

| Parameter | Unit of Measure | Interim Trigger Values | Pond 2 Dredge Pond |
|---|---|---|---|
| | | | Annual Average |
| pH | pH units | 6.5-8.5 | 7.8 |
| Electrical conductivity | µS/cm | <5.50 mS/cm | 446.8 µS/cm |
| Dissolved Oxygen | mg/L | >4.00 mg/L | 7.9 mg/L |
| Turbidity | NTU | <20 NTU | 10 NTU |
| Oil and grease | mg/L | <10 mg/L | 6.2 mg/L |

*Note: exceedances are in highlighted in **BOLD**.*

The site has committed to completing quarterly creek monitoring within the surrounding environment in accordance with the EMS. A summary of results obtained from quarterly water quality monitoring is provided in **Table 35** to **Table 37**.

Results obtained from quarterly water quality monitoring show the results are generally reported within the baseline criteria and below the interim target criteria of the EMS.

**Table 35: Quarterly Northern Creek Water Quality Monitoring for 2025 and Previous Years**

| Parameter (mg/L) | Interim Target Criteria | Baseline (2006/07) | SW3 | | | | | | | SW4 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2025 Min | 2025 Max | 2025 Average | 2024 Average | 2023 Average | 2022 Average | 2021 Average | 2025 Min | 2025 Max | 2025 Average | 2024 Average | 2023 Average | 2022 Average | 2021 Average |
| pH | 5.5-7.5 | 3.55-8.44 | 5.9 | 6.5 | 6.1 | 6.1 | 7.0 | 5.65 | 6.3 | 5.8 | 7.4 | 6.8 | 6.9 | 6.9 | 6 | 7.10 |
| EC | 1800-24000 | 286-45000 | 857 | 7670 | 2758 | **1663.5** | 10702.5 | 3583 | 11701 | 961 | 4580 | 2441 | 6721.5 | 6432.5 | 5339 | 22 |
| DO | >6 | 0.81-7.49 | 0.7 | 6.1 | **3.9** | **3.2** | 4.4 | 3.4 | 5.3 | 0.4 | 7.9 | 4.2 | 4.8 | 4.7 | 4.2 | 6.1 |
| Turbidity | <20 | 3-67 | 15.3 | **83.6** | **40.8** | **-** | **254.7** | 12 | 14 | 2.7 | **1010** | **278.7** | **-** | **262.2** | 15 | 87 |
| Suspended Solids | <25 | 1.5-48 | 13 | 30 | 21 | 21.5 | **30.8** | 17 | 35 | 5 | **760** | **198** | 21.0 | **44.8** | 13 | 27 |

*Note Monitoring of turbidity was discontinued in 2024 as it is not required by the Soil and Water Management Plan*

**Table 36: Quarterly Southern Creek Water Quality Monitoring 2025 and Previous Years**

| Parameter (mg/L) | Interim Target Criteria | Baseline (2006/07) | SW9 | | | | | | | SW10 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2025 Min | 2025 Max | 2025 Average | 2024 Average | 2023 Average | 2022 Average | 2021 Average | 2025 Min | 2025 Max | 2025 Average | 2024 Average | 2023 Average | 2022 Average | 2021 Average |
| pH | 5.5-7.5 | 3.55-8.44 | 6.6 | 7 | 6.8 | 6.5 | 7.1 | 6.4 | 7.1 | 5.9 | 6.6 | 6.3 | 5.9 | 7.1 | 5.6 | 6.725 |
| EC | 1800-24000 | 286-45000 | 1320 | 7400 | 3554.5 | 4467.5 | 14277.5 | 4522.5 | 22872.5 | 1195 | 4780 | 2904.5 | 3458.0 | 11615.5 | 2335 | 12957.5 |
| DO | >6 | 0.81-7.49 | 3.8 | 7 | **5.3** | **4.4** | 4.8 | 4 | 5.16 | 1.2 | 6.7 | **4.6** | **2.9** | 4.9 | 4.2 | 4.23 |
| Turbidity | <20 | 03-67 | 12.5 | **90.1** | 36.6 | **-** | 7.9 | 47 | 18.53 | 22.6 | **221** | **73** | **-** | **70.65** | 43 | 27.43 |
| Suspended Solids | <25 | 1.5-48 | 7.5 | **41** | 19.63 | 11.9 | 48.0 | 11.7 | 13.6 | 12 | 100 | **41.3** | **44.3** | 38.0 | 36 | 14.85 |

*Note: Monitoring of turbidity was discontinued in 2024 as it is not required by the Soil and Water Management Plan*

**Table 37: Quarterly Total Nitrogen and Total Phosphorus Monitoring for 2025**

| Criteria | | | | SW3 | | | SW4 | | | SW9 | | | SW10 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Description** | **Lower Criteria** | **Upper criteria** | **Unit** | **Minimum** | **Maximum** | **Average** | **Minimum** | **Maximum** | **Average** | **Minimum** | **Maximum** | **Average** | **Minimum** | **Maximum** | **Average** |
| Total Nitrogen | 0 | 1 | mg/L | 0.8 | **1.3** | **1.1** | 0.5 | 7.0 | **2.3** | 0.8 | **2.2** | **1.3** | 0.4 | **2.7** | **1.1** |
| Total Phosphorus | 0 | 0.08 | mg/L | 0.03 | **0.1** | 0.05 | 0.01 | **0.77** | 0.21 | 0.01 | **0.15** | 0.05 | 0.01 | 0.21 | 0.07 |

*Note: Exceedances of the relevant criteria are in **bold** text.*

The results of the monthly algae monitoring for the 2025 reporting period are displayed within **Table 38**.

**Table 38: Surface Water Quality Monitoring 2025 Results – Blue Green Algae**

| Date | Dredge Pond | | Silt Pond | |
|---|---|---|---|---|
| | M. aeruginosa (cells/mL) | Total Biovolume ($mm^3/L$) | M. aeruginosa (cells/mL) | Total Biovolume ($mm^3/L$) |
| | Criteria: <50,000 | Criteria: <4 | Criteria: <50,000 | Criteria: <4 |
| 16/01/2025 | 1 | 0.01 | 150 | 0.01 |
| 21/01/2025 | 1 | 0.01 | 420 | 0.01 |
| 11/02/2025 | 0 | 0.01 | 0 | 0.01 |
| 17/02/2025 | 0 | 0.01 | 0 | 0.01 |
| 12/03/2025 | 0 | 0.01 | 0 | 0.01 |
| 18/03/2025 | 0 | 0.01 | 0 | 0.01 |
| 16/04/2025 | 0 | 0.01 | 0 | 0.01 |
| 28/04/2025 | 0 | 0.01 | 0 | 0.01 |
| 21/05/2025 | 0 | 0.01 | 0 | 0.01 |
| 12/06/2025 | 0 | 0.1 | 0 | 0.01 |
| 15/07/2025 | 0 | 0.1 | 0 | 0.01 |
| 13/08/2025 | 0 | 0.1 | 0 | 0.01 |
| 10/09/2025 | 0 | 0.1 | 0 | 0.01 |
| 9/10/2025 | 0 | 0.1 | 0 | 0.01 |
| 22/10/2025 | 15,000 | 0.29 | 0 | 0.01 |
| 11/11/2025 | 0 | 0.1 | 3,800 | 0.07 |
| 18/11/2025 | 800 | 0.2 | 0 | 0.01 |
| 11/12/2025 | 13,400 | 0.26 | 0 | 0.01 |
| 19/12/2025 | 30,000 | 0.59 | 0 | 0.01 |
| **Average** | **3116** | **0.07** | **230** | **0.01** |

Monitoring for Blue Green Algae was conducted fortnightly from October to April, and monthly from May to September (as per Section 6.2 of the EMS). Both the algal cell counts and total biovolume for the Dredge Pond and Silt Pond fell considerably below the criteria level committed to in the EMS and the Soil and Water Management Plan.

The total algae count results gathered at site across several years are variable. It is noted that variations in total algae count results are not identified as exceedances of the monitoring criteria listed in the EMS and the key to monitoring Blue Green Algae activity generally lies with total algae count readings.

**Long-term Trends:**
Key parameters continued to follow long-term trends, including:

- There was no surface water discharge in 2025;
- Generally slightly acidic pH readings;
- High variability of turbidity;
- Consistent levels of total algae within long-term trends; and
- EC was variable, but within long-term trends.

**Comparison to EIS Predictions:**
There was no evidence of any detrimental impact from the Quarry on surface water. This is consistent with the EIS predictions.

## 7.4 GROUNDWATER RESULTS

Monthly groundwater monitoring was undertaken at 5 locations (DLP 1, DLP 3, DLP 5, DLP 6 and DLP 7) during the 2025 reporting period.

DLP 7 sits immediately adjacent to the existing wetland, which act as a ‘drawer’ of permanently saline conditions in order to sustain its dominant vegetative makeup. It is therefore considered likely that some localised salinisation of surficial groundwater has occurred within the vicinity of DLP3 and DLP 7 due to tidal influences within these nearby waterways and wetlands. This trend has previously been identified in Annual Reports prepared under the previous operator and is consistent with the natural salinity levels in the local environment.

A summary of monthly groundwater results for pH and EC is provided in **Table 39**.

**Table 39: Monthly Groundwater Quality Monitoring 2025 Results Summary (pH and EC)**

| Location | Parameter | Interim Target Criteria | 2025 Minimum | 2025 Maximum | 2025 Average | 2024 Average | 2023 Average | 2022 Average | 2021 Average |
|---|---|---|---|---|---|---|---|---|---|
| DLP1 | pH | 4.2-7.0 | 6.5 | **7.4** | **7.1** | 6.4 | **7.1** | 6.8 | 5.9 |
| | EC (uS/cm) | <2000 | 169 | 5110 | **2073** | 725.0 | 1585 | 1258.3 | 346.6 |
| DLP3 | pH | 4.2-7.0 | 5.5 | 6.6 | 5.9 | 6.2 | 5.8 | 6.1 | 6.0 |
| | EC (uS/cm) | <2000 | **6542** | **8980** | **8125** | **8290.6** | **3750** | 7615 | 7997.5 |
| DLP5 | pH | 4.2-7.0 | 4.8 | 6.7 | 5.3 | 5.1 | 4.05 | 4.6 | 5.4 |
| | EC (uS/cm) | <2000 | 161 | 922 | 379 | 734.9 | **2115** | 1783.8 | 307.4 |
| DLP6 | pH | 4.2-7.0 | **3.5** | 6.2 | 5.1 | 5.7 | 5 | 5.1 | 4.5 |
| | EC (uS/cm) | <2000 | 121 | 847 | 271 | 224.9 | 210 | 130 | 260.8 |
| DLP7 | pH | 4.2-7.0 | 6.5 | **7.7** | 7.0 | 6.9 | 6.9 | 6.95 | 7.0 |
| | EC (uS/cm) | <2000 | **1760** | **8260** | **3271** | **3080.5** | **2563** | 3085 | 3551.7 |

Note: Values in **bold** do not satisfy the interim target criteria.

- **pH:** From 2017 to 2025 pH annual averages range from neutral to slightly acidic across all locations. DLP1 and DLP7 exceeded the maximum interim target criteria range, recording pH 7.4 and 7.7 respectively.
- **EC:** DLP3 and DLP7 present annual average EC above the maximum interim target criteria of 2000 µS/cm stated within the EMS, with this also being the case in previous years. EC displayed high variability across locations, from DLP6's minimum of 121 µS/cm to DLP3's maximum of 8980 µS/cm. DLP3 and DLP7 exceeded the criteria with the respective values of 8980 µS/cm and 8260 respectively.

Holcim does not view these exceedances as a non-compliance, as DPHI (then DPI&E) stated

*"DPI&E acknowledges that pre-existing water quality may not meet the objectives for some analytes, including salinity. Holcim must strive to meet the water quality objectives through implementation of the Soil and Water Management Plan, as far as is reasonable and feasible and within the Proponent's control, to the satisfaction of the Secretary."*

Holcim will continue to monitor groundwater data in the 2025 period and make observations regarding trends. A summary of quarterly monitoring for Manganese and Magnesium is outlined in **Table 40**. See **Appendix D** for complete monitoring data.

**Table 40: Quarterly Groundwater Quality Monitoring 2025 Results (Manganese and Magnesium)**

| Location | Parameter | Interim Target Criteria | Q1 | Q2 | Q3 | Q4 | 2025 Average | 2024 Average | 2023 Average | 2022 Average | 2021 Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DLP1 | Manganese (mg/L) | 0.15 | **0.39** | **0.30** | **0.49** | **0.54** | 0.43 | 0.12 | 0.19 | 0.3 | 0.13 |
| | Magnesium (mg/L) | 100 | 67 | 41 | 74 | 87 | 67.3 | 11.83 | 29.00 | 28 | 12.35 |
| DLP3 | Manganese (mg/L) | 0.15 | **0.54** | **0.65** | **0.63** | **0.61** | 0.6 | **0.66** | 0.79 | 0.65 | 0.68 |
| | Magnesium (mg/L) | 100 | **130** | **130** | **130** | **140** | **132.5** | **132.50** | 147.50 | 120 | 130.00 |
| DLP5 | Manganese (mg/L) | 0.15 | 0.02 | 0.12 | 0.02 | 0.03 | 0.05 | 0.12 | 0.16 | 0.28 | 0.01 |
| | Magnesium (mg/L) | 100 | 3.6 | 4.7 | 2.5 | 4.6 | 3.85 | 17.23 | 26.25 | 40.3 | 3.65 |
| DLP6 | Manganese (mg/L) | 0.15 | 0.15 | 0.09 | 0.08 | 0.05 | 0.09 | 0.13 | 0.13 | 0.13 | 0.12 |
| | Magnesium (mg/L) | 100 | 3.3 | 2.2 | 1.5 | 1.2 | 2.05 | 2.85 | 2.23 | 1.75 | 7.63 |
| DLP7 | Manganese (mg/L) | 0.15 | 0.06 | 0.09 | 0.07 | 0.01 | 0.06 | 0.07 | 0.06 | 0.059 | 0.07 |
| | Magnesium (mg/L) | 100 | 35 | 31 | 36 | 32 | 33.5 | 34 | 33.25 | 31.5 | 35.00 |

Annual averages for Manganese and Magnesium in the 2025 reporting period are generally consistent with 2023 results. DLP3 values for 2025 follow the long-term trend of exceeding the interim target criteria for both Manganese and Magnesium.

**Long-term Trends**

Results for Manganese and Magnesium are similar to previous years. DLP3 has consistently been reported above the interim target criteria.

**Comparison to EIS Predictions**

There was no evidence of any detrimental impact from the Quarry on groundwater. This is consistent with the EIS predictions.

## 7.5 PROPOSED WATER MANAGEMENT IMPROVEMENTS

Holcim will continue to monitor and implement all water monitoring commitments.

The *Soil and Water Management Plan* continued to be updated in line with the requested amendments in 2023, and in consultation with DPHI in 2025. Holcim has engaged specialists to assist in suitably updating the plan. It is expected the *Soil and Water Management Plan* will be finalised in 2026.

## 7.6 FLOOD STORAGE CAPACITY

In accordance with Schedule 3 Condition 17 of the Project Approval, this Annual Review reports on the flood storage capacity of the site.

The site has been constructed in accordance with the extraction plans approved by the DPHI. The entire northern extraction area has been bunded to a height of approximately 1 metre along the perimeter of disturbance.

Due to no significant changes to the infrastructure or landform of the site in 2025, there has been no changes to the flood storage capacity at the site. The flood capacity at the site would be no less than the capacity at the commencement of the project.

## 7.7 WATER TAKE

Dunloe Sand Quarry reported 116 ML of water take in the reporting period as a result of 8% moisture losses in sand sales.

# 8 Rehabilitation and Landscape Management

## 8.1 REHABILITATION PERFORMANCE

As part of the site's approved EMS, revegetation and regenerative landscaping is required. Ongoing management of the surrounding vegetation is being carried out by Ramtech Pty Ltd over the lifetime of the Dunloe Sand Quarry operations.

The regenerative works have been undertaken via a combination of assisted and natural regrowth and all areas have been fenced so as to limit the intrusion of cattle. In this regard, depending on soil types and topography, each of the areas has been very successful in establishing quality regrowth.

Rehabilitation and revegetation monitoring took place in 2025 as per Condition 28 in Schedule 3 of the Project Approval and to fulfill the requirements of the Rehabilitation and Revegetation Management Plan (RRMP). Fauna box monitoring was completed in July and December 2025.

A summary of rehabilitation at the Dunloe Sand Quarry is outlined in **Table 41**.

**Table 41: Rehabilitation Performance in Reporting Period**

| Guideline Requirement | Site Comment |
|---|---|
| Extent of the operations and rehabilitation at completion of the reporting period | There were no rehabilitation activities at site in 2025 other than monitoring. |
| Agreed post-rehabilitation land use | The proposed rehabilitation aims to return the land to an endangered ecological community (EEC) Swamp Sclerophyll plus Eucalypt Open Forest species and EEC Coastal Wetland within the localised she-oaks. |
| Key rehabilitation performance indicators | Criteria are outlined in the *Landscape Management Plan*. |
| Renovation or removal of buildings | None |
| Any other Rehabilitation taken including:<br>● Exploration activities;<br>● Infrastructure;<br>● Dams; and<br>● The installation or maintenance of fences, bunds, and any other works. | No rehabilitation of these features was completed. |
| Any rehabilitation areas which have received formal sign off from the Resources Regulator. | None. |
| Variations to activities undertaken to those proposed (including why there were variations and whether Resources Regulator was notified) | No variations to the *Rehabilitation and Revegetation Management Plan*. |
| Outcomes of trials, research projects and other initiatives | No specific trials done. |

| Guideline Requirement | Site Comment |
|---|---|
| Key issues that may affect successful rehabilitation | There are several potential issues including availability of material, seed stock, climatic events, tidal inundation, and rehabilitation methodology which are considered in the *Rehabilitation and Revegetation Management Plan*. |

## 8.2 SUMMARY OF CURRENT REHABILITATION AND PERFORMANCE

A summary of the rehabilitation and disturbance status is outlined in **Table 42**.

**Table 42: Rehabilitation and Disturbance Status**

| Quarry Area Type | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 (proposed) |
|---|---|---|---|---|---|---|---|
| | (ha) | | | | | | |
| A. Total Quarry Footprint | 32.2 | 32.2 | 32.2 | 32.2 | 32.2 | 32.2 | 32.2 |
| B. Total Active Disturbance | 18.8 | 18.8 | 18.8 | 18.8 | 18.8 | 18.8 | 18.8 |
| C. Land Being Prepared for Rehabilitation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D. Land Under Active Rehabilitation | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 |
| E. Completed Rehabilitation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

At the end of 2025 there was approximately 18.8 Ha of active disturbance and 13.4 Ha of active rehabilitation. This has remained on consistent since 2019, with operations remaining in existing footprint (see **Figure 4**).

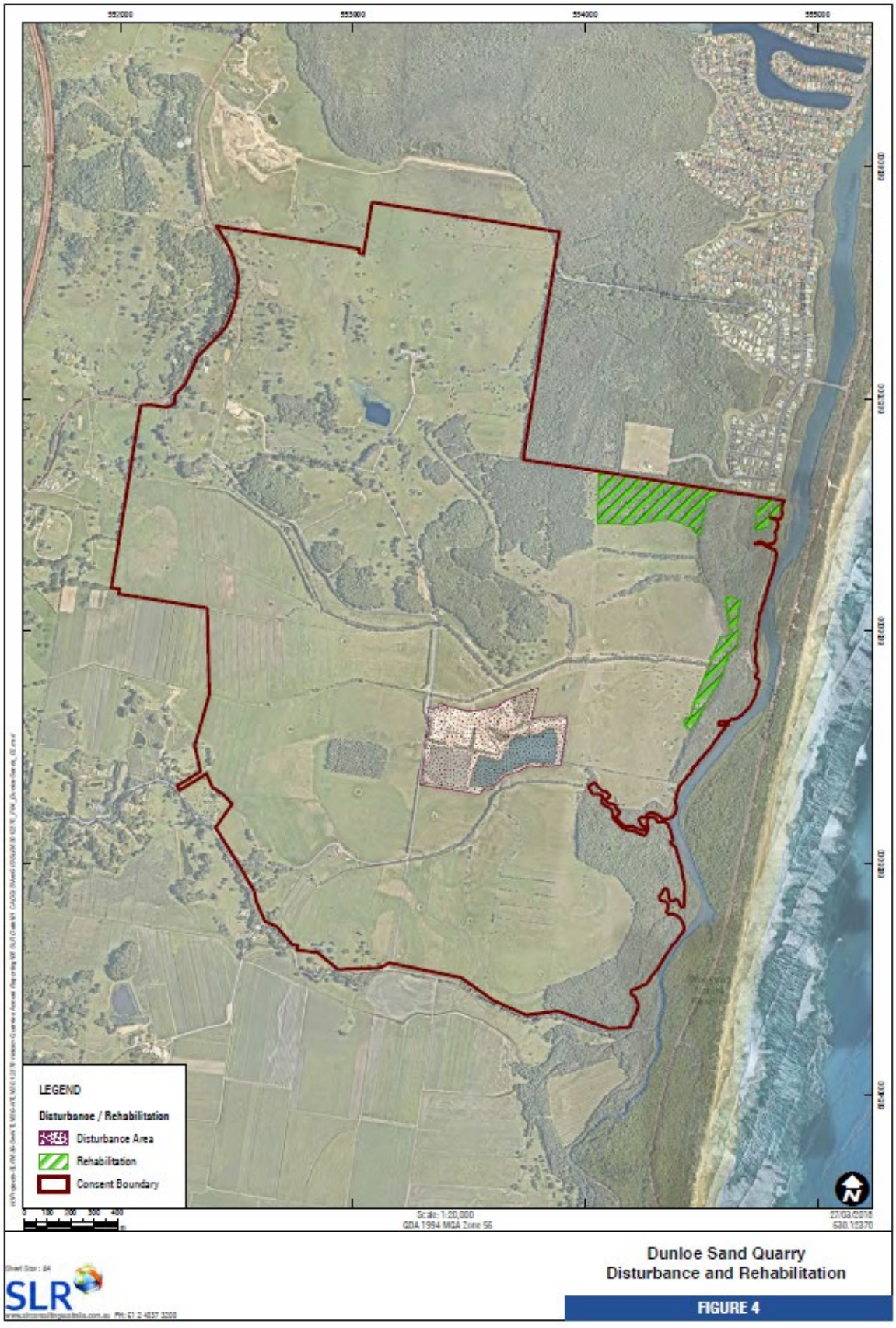


**Figure 4: Rehabilitation and Disturbance 2026**

Quarterly rehabilitation monitoring of established rehabilitation areas found:

- No evidence of fauna using the nest boxes was observed in 2025, consistent with findings from 2024.
- Almost all nest boxes (one exception) have either failed or are in advanced states of disrepair due to damage from Cyclone Alfred in February/March.
- All management zones contain healthy and resilient vegetation communities, generally in good condition. Ongoing rehabilitation efforts remain on track to meet rehabilitation targets.
- Dominant species continued to be Coast Banksia, Broad-leaved Paperbark, and Swamp Oak.
- Routine weed control continued in 2025 targeting Lantana, Senna, Umbrella Tree, Camphor Laurel, Corky Passionfruit, White Passionfruit, Five-leaved Morning Glory, Tobacco Bush, Silverleaf Desmodium, and Blue Billygoat Weed.
- Koala activity across the site remains classified as "low." Fresh, moderately fresh, and moderately old Koala scats were found beneath mature Swamp Mahogany trees in areas with previous positive records.
- There was no evidence of any threatened flora or fauna across the site.
- Native fauna observed during monitoring including the Brush Turkeys, wallabies, bandicoots, Lace Monitors and a range of bird species.

Rehabilitation areas are generally on track to achieving rehabilitation outcomes.

## 8.3 ACTIONS FOR THE NEXT REPORTING PERIOD

The *Annual Review Guidelines (DPE 2015)* require the Annual Review to outline the rehabilitation actions proposed during the next reporting period (1 January 2025 to 31 December 2025). These actions are detailed in **Table 43**.

**Table 43: Rehabilitation Actions for the Next Reporting Period**

| Rehabilitation activities category | Site Comment |
|---|---|
| Outline proposed rehabilitation trials, research projects and other initiatives to be undertaken during the next reporting period. | Rehabilitation inspections/monitoring to continue as per the Rehabilitation and Revegetation Management Plan and the Dunloe Sand Environmental Management Strategy.<br>New nest boxes are to be installed in appropriate locations. |
| Summary of rehabilitation activities proposed for next report period. | No specific rehabilitation proposed for 2025.<br>The three rehabilitation zones will continue to be managed and monitored in accordance with the approved EMS including invasive species removal and monitoring. |

# 9 Summary of Environmental Performance

A summary of the performance of environmental management measures and sampling results for 2025 are detailed in **Table 44** below.

**Table 44: Environmental Performance at the Dunloe Sand Quarry in 2025**

| Aspect | Approval Criteria / EIS Prediction | Performance during reporting period | Trend / key management implications | Implemented / proposed management actions |
|---|---|---|---|---|
| Meteorological | N/A | Meteorological data collected from the on-site meteorological station. | Full monitoring continued in 2025. | No further improvement measures. |
| Noise | EIS predictions are all below Project Approval criteria. | Quarterly monitoring has met the Project Approval Criteria. | Consistently meets criteria. | No further improvement measures. |
| Air Quality | EIS predictions are all below Project Approval criteria. | Two invalid samples and three averaged samples during the reporting period:<br>• DDG1 in March and DDG3 in February, and<br>• Three samples averaged by the sampling period in accordance with AS 3580.10.1.6.<br><br>Invalid and averaged samples were due to impacts related to Cyclone Alfred. All valid monitoring results below target criteria. | Consistent with EIS predictions and trends. | Continue to implement air quality monitoring is done in accordance with the Air Quality Management Plan. Holcim will continue to make all efforts to ensure monthly monitoring is undertaken for depositional dust. |
| Traffic Management | EIS predictions are all below Project Approval criteria. | Met operating criteria (number of trucks per day). | Continual improvement from some past years. | None Required. |
| Water Management | EIS predictions are all below Project Approval criteria. | Monitoring data meets EIS, EPL and Project Approval criteria.<br>Exceedances occurred in the surface water target levels in the Dredge Dam and Slit Pond however no discharges occurred from these during the reporting period.<br>There were no non-compliances in 2025. | Water monitoring results were generally consistent with trend data. | Continue to implement the approved Soil and Water Management Plan.<br>Holcim will identify any emerging trends in future Annual Reviews, as data capture and implementation of the Monitoring Program improves. |
| Biodiversity | No impacts to threatened species.<br>No Project Approval criteria. | Biodiversity monitoring was undertaken in 2025. | Rehabilitation and biodiversity monitoring continued from 2019 to 2025. | Biodiversity monitoring will continue in 2026. |
| Heritage | No impacts to Aboriginal Heritage.<br>No Project Approval criteria. | No impacts were recorded in 2025. | Consistently no impacts. | None required. |

# 10 Community

## 10.1 COMMUNITY ENGAGEMENT ACTIVITIES

The site implemented a Community Consultative Committee (CCC) when under the operation of Ramtech as part of the conditions of Approval.

Holcim has maintained community engagement measures, including:

- Maintenance of a website (containing publicly available documents);
- A telephone number, email, and postal address (on the website) for community complaints and feedback;
- A copy of the Complaints Register is maintained on the company website; and
- All documents and items displayed on the website are regularly updated by Holcim staff.

During the 2025 reporting period, Holcim conducted two CCC meetings. The CCC meetings were held on 20 February and 4 July 2025.

## 10.2 COMMUNITY CONTRIBUTIONS

A sand donation was made by Holcim to the Tweed River Agricultural Society to support their Rodeo Night at the Murwillumbah Show.

## 10.3 COMPLAINTS

There were no community complaints for the site during 2025. This trend has continued since 2018. Community complaints reports are published on the Holcim website quarterly.

# 11 Independent Audit

The site undertook an Independent Environmental Audit (IEA) in July 2021 in accordance with the timeframes of the Project Approval. Holcim have closed out all IEA Improvement Actions with the exception of those that relate to the *Soil and Water Management Plan* updates due to the complexity of the plan. Holcim continued to work with specialists and consult with relevant agencies to update the *Soil and Water Management Plan* in 2025, with further work planned for 2026.

The next IEA is due July 2026.

# 12 Incidents and Non-compliances

**Table 45** summarises the incidents and non-compliances at the Dunloe Sand Quarry in 2025.

**Table 45: Summary of Incidents**

| Date | Incident | Action/Comment |
|---|---|---|
| 28/04/2025 | **Schedule 3, Condition 6 Air Quality Impact Assessment Criteria**<br>Two DDG samples were missing, these include:<br>• Sugar Shed DDG on 11 February 2025 due to a failed stand, and<br>• Haul Road DDG on 18 March 2025 due to high rainfall associated with Cyclone Alfred. | Holcim will continue to monitor air quality and record invalidated or lost samples in Annual Reviews.<br>Holcim will inspect and replace DDG stands on routine intervals. |

# 13 Activities to be completed in the next reporting period

Holcim staff will undertake the following works and improvement measures and projects in 2026 to ensure that effective environmental management controls are in place and operating in accordance with the requirements of the Approval. See **Table 46** for an outline of improvement measures and associated activities for 2026.

**Table 46: Improvement Actions for 2026**

| Improvement Measure | Activities |
|---|---|
| Dust Monitoring | Ensure dust monitoring is completed in accordance with the EMS. Holcim will liaise with the monitoring contractor to improve monitoring system. |
| Biodiversity | Rehabilitation monitoring continues as per the Rehabilitation and Revegetation Management Plan. |
| Groundwater | Groundwater level and quality monitoring will be conducted as requested by the Department of Climate Change, Energy, the Environment and Water (DCCEEW); this will inform the Soil and Water Management Plan. |

# Appendix A
# 2025 Quarterly Noise Monitoring Reports

Intended for
**Holcim (Australia) Pty Ltd**

Document type
**Report**

Date
**May 2025**

# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

## Quarter 1 2025

RAMBOLL

Bright ideas.
Sustainable change.

# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

Quarter 1 2025

| | |
|---|---|
| Project name | **NSW Environmental Monitoring 2024-2025** |
| Project no. | **318001800** |
| Recipient | **Matt Kelly** |
| Document type | **Report** |
| Version | **1** |
| Date | **05/05/2025** |
| Prepared by | **Jake Bourke, Brodie Wood** |
| Checked by | **Arnold Cho** |
| Approved by | **Gavan Butterfield** |
| Description | **Data collected on 11 February 2025 for Dunloe Quarry during Quarter 1 2025 at Pottsville, NSW, as part of the routine noise monitoring program** |

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Ramboll Australia Pty Ltd.
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# Contents



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# Abbreviations and Definitions

| | Description |
|---|---|
| ΔT | Vertical Temperature Difference, i.e. the measured difference in ambient temperature between two elevations on the same tower. It is defined as the upper-level temperature measurement minus the lower-level temperature measurement. |
| ° | Degree |
| Ambient Noise | The all-encompassing noise within a given environment. It is the composite of sounds from many sources, both near and far. |
| Background noise | The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is described using the LA90 descriptor (see below). |
| C | Celcius |
| CCAM | Conformal Cubic Atmospheric Model |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| dB | Abbreviation for decibel, a measure of sound equivalent to 20 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure, and 10 times the logarithm of a given sound power to a reference power. |
| dB(A) | A measure of A-weighted sound levels. A Weighting is an adjustment made to the sound level measurement to approximate the response of the human ear. |
| EPA | Environment Protection Authority |
| EPL | Environment Protection Licence |
| Extraneous noise | Noise resulting from activities that are not typical of the area. Atypical activities may include construction, and traffic generated by holiday periods. Normal daily traffic is not extraneous noise. |
| m | Metre |
| LA1 | The noise level, measured in dB(A), which is exceeded for 1 per cent of the measurement period. |
| LA1(1min) | The noise level, measured in dB(A), which is exceeded for 1 per cent of the time over a 1-minute measurement period, i.e., is exceeded for 0.6 seconds. This measure can approximate to the maximum noise level but may be less if there is more than 1 noise event during this 0.6 second period. |
| LA10 | The noise level, measured in dB(A), which is exceeded for 10 per cent of the time. |
| LA90 | The noise level, measured in dB(A), which is exceeded for 90 per cent of the time, referred to as the background noise level. This is considered to represent the background noise (see above). |
| LAeq | The level of noise equivalent to the energy average of noise levels occurring over a defined measurement period. |
| LAeq (period) | The average equivalent noise level, measured in dB(A), during a measurement period (e.g., 15-minute, day, evening, or night). |
| LAmax | The A-weighted sound pressure level that represents the maximum noise level measured over the time that a given sound is measured. |
| NATA | National Association of Testing Authorities |
| NMA | Noise Monitoring Assessment |
| NMP | Noise Management Plan |
| NPfI | Noise Policy for Industry 2017 |

| | Description |
|---|---|
| NSW | New South Wales |
| s | Second |
| SPL | The Sound Pressure Level. Sound pressure is the fluctuation in air pressure, from the steady atmospheric pressure, created by sound. The sound pressure level is the sound pressure expressed on a decibel scale. |
| TAPM | The Air Pollution Model |

Source: Noise Guide for Local Government (NSW EPA, 2023)

# 1. Overview

## 1.1 Project Driver

Ramboll Australia Pty Ltd (Ramboll) has been commissioned by Holcim (Australia) Pty Ltd (Holcim) to complete a Noise Monitoring Assessment (NMA) for Dunloe Sands Quarry ("the quarry") at Pottsville, NSW.

This NMA was done in accordance with the following documents:

- Noise Policy for Industry (NPfI) (NSW EPA, 2017)
- Dunloe Sand Quarry Noise Management Plan (NMP) (GHD, 2020)
- Environment Protection Licence (EPL) number 13077 (NSW EPA, 2020)
- Development Consent No. 06_0030, MOD2 (NSW EPA, 2018)
- Australian Standard AS 1055:2018 Acoustics—Description and measurement of environmental noise (Standards Australia, 2018)
- Australian Standard AS/NZS IEC 61672.1:2019 Electroacoustics – Sound level meters, Part 1: Specifications (Standards Australia and Standards New Zealand, 2019)
- IEC 60942:2017 Electroacoustics - Electroacoustics – Sound calibrators (International Standard, 2017).

This NMA has been undertaken for the quarterly period January to March 2025, and forms part of the monitoring program to determine compliance with conditions of the Environmental Protection License (EPL).

## 1.2 Site Location and Sensitive Receptors

The quarry is approximately 2.5 km south of Pottsville, NSW, a town in the Northern Rivers region in Tweed Shire. Sensitive receptors surrounding the quarry are primarily rural and residential properties in coastal bushland with elevated and undulating topography.

Three monitoring locations have been selected as part of the NMA and in accordance with the EPL and are shown in **Table 1-1**.

**Table 1-1: Monitoring locations locality and sensitive receptors**

| Monitoring Locations | Locality and Sensitive Receptors |
|---|---|
| **R6** | West of the quarry situated at a rural residential property at 157 Warwick Park Road. |
| **R7** | West of the quarry situated at a rural residential property at 129 Warwick Park Road. |
| **R8** | Northwest of the quarry situated at a rural residential property at 679 Pottsville Road. |

The monitoring locations with respect to the quarry and assessed receivers are presented in the locality plan shown in **Figure 1**. It should be noted that while the NMP states monitoring locations be measured from the most affected points within surrounding residential property boundaries or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, this has not been possible for this NMA due to access restrictions. Monitoring was completed at the property boundary of each location where accessible and in each case the property dwelling was approximately 40 to 100 metres from the boundary. This would have resulted in a conservative assessment as the monitoring locations were closer to the site.

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**Figure 1: Noise monitoring locations**

# 2. Noise Criteria

**Table 2-1** summarises the applicable noise criteria outlined in the NMP for residential receivers (R6, R7 and R8) surrounding the quarry. The noise criteria apply when the site is operational within the permitted operating hours Monday to Friday 7am - 5pm, Saturday 7am - 12pm with no operations on Sunday.

Compliance with the noise criteria below would also determine compliance with the noise limits outlined in the sites EPL (EPL 13077) which requires that the quarry's noise contribution will not exceed 48 dB LAeq(15min) at any of the residential receivers.

**Table 2-1: Monitoring locations and noise criteria**

| Receiver | Monitoring Locations | Day[1] LAeq (15min) dB(A) |
|---|---|---|
| 157 Warwick Park Road | R6 | 42 |
| 129 Warwick Park Road | R7 | 42 |
| 679 Pottsville Road | R8 | 48 |
| All other residences | - | 41 |

[1] 7 am–6 pm Monday to Saturday

Note: no operations on Sundays and public holidays

# 3. Methodology

The monitoring program was developed in accordance with the procedures described in *Australian Standard AS 1055:2018* and the Approval Documents referenced in Section 1. The measurements were completed using a RION Sound Level Meter NL-52 on Wednesday 11 December 2024. The acoustic instrumentation used carried a current National Association of Testing Authorities (NATA) calibration and that complied with *AS/NZS IEC 61672-1:2019 class 1*. Calibration of all instrumentation was checked prior to and following measurements using a Pulsar Acoustic Calibrator 105 which carried a current NATA calibration and complies with *IEC 60942:2017.* Drift in calibration did not exceed ±0.3 dBA.

Each attended noise measurement was conducted for 15-minutes in duration during the day period over one day at each monitoring location. Where possible, throughout each measurement the operator(s) quantified the contribution of each significant noise source. Where the quarry was not distinctly audible during the attended monitoring, the quarry contribution was estimated to be at least 10 dBA below the ambient noise level, as determined by the LA90.

## 3.1 Meteorology

Meterology has an important influence on noise monitoring assessment. Where an onsite meterological station with data recorded at 10m height has not been available, the Holcim Teven Quarry onsite meteorological station located approximately 50km south of site has been used to adopt wind direction, wind speed and rain data to inform this assessment. Temperature data has been adopted from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Conformal Cubic Atmospheric Model (CCAM) and modelled using The Air Pollution Model (TAPM) to determine the atmospheric category as outline in **Table 3-1**.

**Table 3-1: Classification of Atmospheric Stability (NSW EPA, 2014)**

| Stability Classification | Pasquill Stability Category | Ambient temperature change with height (°C/100m) |
|---|---|---|
| Extremely unstable | A | $\Delta T \leq -1.9$ |
| Moderately unstable | B | $-1.9 < \Delta T \leq -1.7$ |
| Slightly unstable | C | $-1.7 < \Delta T \leq -1.5$ |
| Neutral | D | $-1.5 < \Delta T \leq -0.5$ |
| Slightly stable | E | $-0.5 < \Delta T \leq 1.5$ |
| Moderately stable | F | $1.5 < \Delta T \leq 4.0$ |
| Extremely stable | G | $\Delta T > 4.0$ |

The meteorological conditions recorded at the time of the noise monitoring were reviewed. The attended noise monitoring results presented in **Section 4** were not found to be influenced by the following adverse meteorological conditions:

- During periods of rain or hail
- Average wind speed at microphone height exceeding 5 m/s

The following noise enhancing meteorological conditions were encountered during the noise monitoring; however, results still met the criteria outlined in **Table 2-1**.

- Wind speeds greater than 3 m/s measured at 10 m above ground level
- Temperature inversion conditions greater than 3°C/100m.

# 4. Results and Discussion

## 4.1 Location R6

Noise monitoring at location R6 was conducted on Tuesday 11 February 2025 with results presented in **Table 4-1**. The quarry was inaudible at R6 during the monitoring period, and the ambient environment was dominated by background traffic, trees, insects, and birds. These results satisfy the noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance during the monitoring period.

**Table 4-1: Noise survey results and observations for Location R6**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 11-02-25 | 12:02pm to 12:17pm (Day) | 64.8 | 47.4 | 41.3 | WD: 60°<br>WS: 0.5 m/s<br>Rain: Nil | WD: S<br>WS: 10 m/s<br>Rain: Nil<br>Stability Category: G[2] | Background traffic/trees/insects and birds 39-58<br>Loud bird 60-64<br>Quarry inaudible | <31 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.2 Location R7

Noise monitoring at location R7 was conducted on Tuesday 11 February 2025 with results presented in **Table 4-2**. The quarry was inaudible during the monitoring period, and the ambient environment was dominated by birds, trees, cicadas and passing cars on Warwick Park Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-2: Noise survey results and observations for Location R7**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 11-02-25 | 1:52pm to 2:07pm (Day) | 71.3 | 53.1 | 41.3 | WD: n/a<br>WS: 0 m/s<br>Rain: Nil | WD: S<br>WS: 12 m/s<br>Rain: Nil<br>Stability Category: G[2] | Birds/trees/cicadas 40-57<br>Passing cars 52-71<br>Quarry inaudible | <31 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.3 Location R8

Noise monitoring at location R8 was conducted on Tuesday 11 February 2025 with results presented in **Table 4-3**. The quarry was inaudible at R8 during the monitoring period, and the ambient environment was dominated by background traffic, trees, cicadas, birds and passing cars on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-3: Noise survey results and observations for Location R8**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station[1] (10m height) | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 11-02-25 | 2:15pm to 2:30pm (Day) | 80.7 | 61.9 | 41.4 | WD: n/a<br>WS: 0 m/s<br>Rain: Nil | WD: S<br>WS: 12 m/s<br>Rain: Nil<br>Stability Category: G[2] | Background traffic/trees/cicadas/birds 38-62<br>Passing cars 64-80<br>Quarry inaudible | <31 | 48 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

# 5. Conclusion

This NMA was completed by Ramboll at the Holcim Dunloe Sands Quarry, Pottsville, NSW as a quarterly requirement of the NMP showed compliance with the relevant noise criteria. Monitoring was carried out on Tuesday 11 February 2025 at three locations selected as representative to the sensitive receptors at the surroundings to Dunloe Sands Quarry.

No audible quarry noise was recorded at any of the selected monitoring locations. It is noted that the monitoring was completed at the property boundary of each location. As each property dwelling was approximately 40 to 100 metres from the boundary, it is recommended that permission from the property owners be sought to access their property to complete future noise monitoring within 30 metres of the property dwellings.

The results presented in this NMA show compliance with the relevant noise criteria at the Holcim Dunloe Sands Quarry, Pottsville, NSW.

# 6. References

GHD (2020). Dunloe Sand Quarry Noise Management Plan.
NSW EPA (2018). Development Consent No. 06_0030, MOD2 (November 2018)

International Electrotechnical Commission *IEC 60942:2017 Electroacoustics – Sound calibrators*

NSW EPA (2020). Environment Protection Licence number 13077.

NSW EPA (2013) *Noise Guide for Local Government*. Sydney NSW: NSW Environment Protection Authority. Available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/noise/20130127nglg.pdf (Accessed: 25 October 2022).

NSW EPA (2014) Discussion Paper. Validation of Inversion Strength Estimation Method.

NSW EPA (2017) *Noise Policy for Industry (NPfI)*. Sydney NSW: NSW Environment Protection Authority. Available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/noise/17p0524-noise-policy-for-industry.pdf (Accessed: 25 October 2022).

Standards Australia (2018) *AS 1055:2018 Acoustics—Description and measurement of environmental noise*. Australian Standard. Available at: https://infostore.saiglobal.com/preview/825367946534.pdf?sku=1131503_SAIG_AS_AS_2626154 (Accessed: 19 January 2023).

Standards Australia and Standards New Zealand (2019) *AS/NZS IEC 61672.1:2019 Electroacoustics—Sound level meters, Part 1: Specifications*. Australian/New Zealand Standard. Available at: https://infostore.saiglobal.com/preview/825343328243.pdf?sku=1142059_SAIG_AS_AS_270564 4 (Accessed: 28 September 2022).

Intended for
**Holcim (Australia) Pty Ltd**

Document type
**Report**

Date
**August 2025**

# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

## Quarter 2 2025

RAMBOLL

Bright ideas.
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# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

Quarter 2 2025

| | |
|---|---|
| Project name | **NSW Environmental Monitoring 2024-2025** |
| Project no. | **318001800** |
| Recipient | **Matt Kelly** |
| Document type | **Report** |
| Version | **1** |
| Date | **12/08/2025** |
| Prepared by | **Jake Bourke, Brodie Wood** |
| Checked by | **Arnold Cho** |
| Approved by | **Gavan Butterfield** |
| Description | **Data collected on 16 April 2025 for Dunloe Quarry during Quarter 2 2025 at Pottsville, NSW, as part of the routine noise monitoring program** |

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# Abbreviations and Definitions

| | Description |
|---|---|
| ΔT | Vertical Temperature Difference, i.e. the measured difference in ambient temperature between two elevations on the same tower. It is defined as the upper-level temperature measurement minus the lower-level temperature measurement. |
| ° | Degree |
| Ambient Noise | The all-encompassing noise within a given environment. It is the composite of sounds from many sources, both near and far. |
| Background noise | The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is described using the LA90 descriptor (see below). |
| C | Celcius |
| CCAM | Conformal Cubic Atmospheric Model |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| dB | Abbreviation for decibel, a measure of sound equivalent to 20 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure, and 10 times the logarithm of a given sound power to a reference power. |
| dB(A) | A measure of A-weighted sound levels. A Weighting is an adjustment made to the sound level measurement to approximate the response of the human ear. |
| EPA | Environment Protection Authority |
| EPL | Environment Protection Licence |
| Extraneous noise | Noise resulting from activities that are not typical of the area. Atypical activities may include construction, and traffic generated by holiday periods. Normal daily traffic is not extraneous noise. |
| m | Metre |
| LA1 | The noise level, measured in dB(A), which is exceeded for 1 per cent of the measurement period. |
| LA1(1min) | The noise level, measured in dB(A), which is exceeded for 1 per cent of the time over a 1-minute measurement period, i.e., is exceeded for 0.6 seconds. This measure can approximate to the maximum noise level but may be less if there is more than 1 noise event during this 0.6 second period. |
| LA10 | The noise level, measured in dB(A), which is exceeded for 10 per cent of the time. |
| LA90 | The noise level, measured in dB(A), which is exceeded for 90 per cent of the time, referred to as the background noise level. This is considered to represent the background noise (see above). |
| LAeq | The level of noise equivalent to the energy average of noise levels occurring over a defined measurement period. |
| LAeq (period) | The average equivalent noise level, measured in dB(A), during a measurement period (e.g., 15-minute, day, evening, or night). |
| LAmax | The A-weighted sound pressure level that represents the maximum noise level measured over the time that a given sound is measured. |
| NATA | National Association of Testing Authorities |
| NMA | Noise Monitoring Assessment |
| NMP | Noise Management Plan |
| NPfI | Noise Policy for Industry 2017 |

| | Description |
|---|---|
| NSW | New South Wales |
| s | Second |
| SPL | The Sound Pressure Level. Sound pressure is the fluctuation in air pressure, from the steady atmospheric pressure, created by sound. The sound pressure level is the sound pressure expressed on a decibel scale. |
| TAPM | The Air Pollution Model |

Source: Noise Guide for Local Government (NSW EPA, 2023)

# 1. Overview

## 1.1 Project Driver

Ramboll Australia Pty Ltd (Ramboll) has been commissioned by Holcim (Australia) Pty Ltd (Holcim) to complete a Noise Monitoring Assessment (NMA) for Dunloe Sands Quarry ("the quarry") at Pottsville, NSW.

This NMA was done in accordance with the following documents:

- Noise Policy for Industry (NPfI) (NSW EPA, 2017)
- Dunloe Sand Quarry Noise Management Plan (NMP) (GHD, 2020)
- Environment Protection Licence (EPL) number 13077 (NSW EPA, 2020)
- Development Consent No. 06_0030, MOD2 (NSW EPA, 2018)
- Australian Standard AS 1055:2018 Acoustics—Description and measurement of environmental noise (Standards Australia, 2018)
- Australian Standard AS/NZS IEC 61672.1:2019 Electroacoustics – Sound level meters, Part 1: Specifications (Standards Australia and Standards New Zealand, 2019)
- IEC 60942:2017 Electroacoustics - Electroacoustics – Sound calibrators (International Standard, 2017).

This NMA has been undertaken for the quarterly period April to June 2025, and forms part of the monitoring program to determine compliance with conditions of the Environmental Protection License (EPL).

## 1.2 Site Location and Sensitive Receptors

The quarry is approximately 2.5 km south of Pottsville, NSW, a town in the Northern Rivers region in Tweed Shire. Sensitive receptors surrounding the quarry are primarily rural and residential properties in coastal bushland with elevated and undulating topography.

Three monitoring locations have been selected as part of the NMA and in accordance with the EPL and are shown in **Table 1-1**.

**Table 1-1: Monitoring locations locality and sensitive receptors**

| Monitoring Locations | Locality and Sensitive Receptors |
|---|---|
| **R6** | West of the quarry situated at a rural residential property at 157 Warwick Park Road. |
| **R7** | West of the quarry situated at a rural residential property at 129 Warwick Park Road. |
| **R8** | Northwest of the quarry situated at a rural residential property at 679 Pottsville Road. |

The monitoring locations with respect to the quarry and assessed receivers are presented in the locality plan shown in **Figure 1**. It should be noted that while the NMP states monitoring locations be measured from the most affected points within surrounding residential property boundaries or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, this has not been possible for this NMA due to access restrictions. Monitoring was completed at the property boundary of each location where accessible and in each case the property dwelling was approximately 40 to 100 metres from the boundary. This would have resulted in a conservative assessment as the monitoring locations were closer to the site.


RAMBOLL AUSTRALIA - GIS MAP file - 318000911_GIS_P006_NoiseMonitoring | F005_NoiseMonitoring_Dunloe_V03 | 29/01/2024

**Legend**

- Noise monitoring location
- Property dwelling

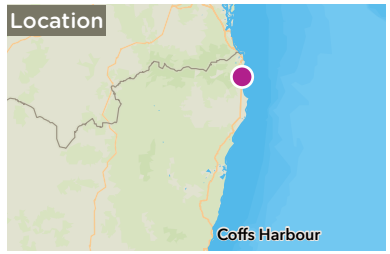


**Figure 1 : Noise monitoring locations at Dunloe Sands Quarry**

# 2. Noise Criteria

**Table 2-1** summarises the applicable noise criteria outlined in the NMP for residential receivers (R6, R7 and R8) surrounding the quarry. The noise criteria apply when the site is operational within the permitted operating hours Monday to Friday 7am - 5pm, Saturday 7am - 12pm with no operations on Sunday.

Compliance with the noise criteria below would also determine compliance with the noise limits outlined in the sites EPL (EPL 13077) which requires that the quarry's noise contribution will not exceed 48 dB LAeq(15min) at any of the residential receivers.

**Table 2-1: Monitoring locations and noise criteria**

| Receiver | Monitoring Locations | Day[1] LAeq (15min) dB(A) |
|---|---|---|
| 157 Warwick Park Road | R6 | 42 |
| 129 Warwick Park Road | R7 | 42 |
| 679 Pottsville Road | R8 | 48 |
| All other residences | - | 41 |

[1] 7 am–6 pm Monday to Saturday

Note: no operations on Sundays and public holidays

# 3. Methodology

The monitoring program was developed in accordance with the procedures described in *Australian Standard AS 1055:2018* and the Approval Documents referenced in Section 1. The measurements were completed using a RION Sound Level Meter NL-52 on Wednesday 16 April 2025. The acoustic instrumentation used carried a current National Association of Testing Authorities (NATA) calibration and that complied with *AS/NZS IEC 61672-1:2019 class 1*. Calibration of all instrumentation was checked prior to and following measurements using a Pulsar Acoustic Calibrator 105 which carried a current NATA calibration and complies with *IEC 60942:2017.* Drift in calibration did not exceed ±0.3 dBA.

Each attended noise measurement was conducted for 15-minutes in duration during the day period over one day at each monitoring location. Where possible, throughout each measurement the operator(s) quantified the contribution of each significant noise source. Where the quarry was not distinctly audible during the attended monitoring, the quarry contribution was estimated to be at least 10 dBA below the ambient noise level, as determined by the LA90.

## 3.1 Meteorology

Meterology has an important influence on noise monitoring assessment. Where an onsite meterological station with data recorded at 10m height has not been available, the Holcim Teven Quarry onsite meteorological station located approximately 50km south of site has been used to adopt wind direction, wind speed and rain data to inform this assessment. Temperature data has been adopted from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Conformal Cubic Atmospheric Model (CCAM) and modelled using The Air Pollution Model (TAPM) to determine the atmospheric category as outline in **Table 3-1**.

**Table 3-1: Classification of Atmospheric Stability (NSW EPA, 2014)**

| Stability Classification | Pasquill Stability Category | Ambient temperature change with height (°C/100m) |
|---|---|---|
| Extremely unstable | A | $\Delta T \leq -1.9$ |
| Moderately unstable | B | $-1.9 < \Delta T \leq -1.7$ |
| Slightly unstable | C | $-1.7 < \Delta T \leq -1.5$ |
| Neutral | D | $-1.5 < \Delta T \leq -0.5$ |
| Slightly stable | E | $-0.5 < \Delta T \leq 1.5$ |
| Moderately stable | F | $1.5 < \Delta T \leq 4.0$ |
| Extremely stable | G | $\Delta T > 4.0$ |

The meteorological conditions recorded at the time of the noise monitoring were reviewed. The attended noise monitoring results presented in **Section 4** were not found to be influenced by the following adverse meteorological conditions:

- During periods of rain or hail
- Average wind speed at microphone height exceeding 5 m/s.

The following noise enhancing meteorological conditions were encountered during the noise monitoring; however, results still met the criteria outlined in **Table 2-1**.

- Wind speeds greater than 3 m/s measured at 10 m above ground level
- Temperature inversion conditions greater than 3°C/100m.

# 4. Results and Discussion

## 4.1 Location R6

Noise monitoring at location R6 was conducted on Wednesday 16 April 2025 with results presented in **Table 4-1**. The quarry was inaudible at R6 during the monitoring period, and the ambient environment was dominated by Wind, trees, insects, and birds. These results satisfy the noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance during the monitoring period.

**Table 4-1: Noise survey results and observations for Location R6**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 16-04-25 | 2:35pm to 2:50pm (Day) | 67.8 | 48.7 | 40.2 | WD: 145°<br>WS: 2.8 m/s<br>Rain: Nil | WD: NW<br>WS: 4 m/s<br>Rain: Nil<br>Stability Category: F[2] | Wind/trees/birds/insects 38-45<br>Bird 58-64<br>Quarry inaudible | <30 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.2 Location R7

Noise monitoring at location R7 was conducted on Wednesday 16 April 2025 with results presented in **Table 4-2**. The quarry was inaudible during the monitoring period, and the ambient environment was dominated by background traffic, wind, trees, birds and a passing car on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-2: Noise survey results and observations for Location R7**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 16-04-25 | 2:15pm to 2:30pm (Day) | 60.8 | 41.4 | 37.7 | WD: 145°<br>WS: 2.7 m/s<br>Rain: Nil | WD: NW<br>WS: 3.5 m/s<br>Rain: Nil<br>Stability Category: F[2] | Background traffic/wind/trees/birds 38-40<br>Birds 50-55<br>Car passing 55-60<br>Quarry inaudible | <28 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.3 Location R8

Noise monitoring at location R8 was conducted on Wednesday 16 April 2025 with results presented in **Table 4-3**. The quarry was inaudible at R8 during the monitoring period, and the ambient environment was dominated by background traffic, trees, wind, birds and passing cars on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-3: Noise survey results and observations for Location R8**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station[1] (10m height) | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 16-04-25 | 1:44pm to 1:59pm (Day) | 73.3 | 54.8 | 47.9 | WD: 180°<br>WS: 3.1 m/s<br>Rain: Nil | WD: NW<br>WS: 4 m/s<br>Rain: Nil<br>Stability Category: F[2] | Background traffic/wind/trees/birds 48-52<br>Passing cars 55-60<br>Quarry inaudible | <38 | 48 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

# 5. Conclusion

This NMA was completed by Ramboll at the Holcim Dunloe Sands Quarry, Pottsville, NSW as a quarterly requirement of the NMP showed compliance with the relevant noise criteria. Monitoring was carried out on Wednesday 16 April 2025 at three locations selected as representative to the sensitive receptors at the surroundings to Dunloe Sands Quarry.

No audible quarry noise was recorded at any of the selected monitoring locations. It is noted that the monitoring was completed at the property boundary of each location. As each property dwelling was approximately 40 to 100 metres from the boundary, it is recommended that permission from the property owners be sought to access their property to complete future noise monitoring within 30 metres of the property dwellings.

The results presented in this NMA show compliance with the relevant noise criteria at the Holcim Dunloe Sands Quarry, Pottsville, NSW.

# 6. References

GHD (2020). Dunloe Sand Quarry Noise Management Plan.
NSW EPA (2018). Development Consent No. 06_0030, MOD2 (November 2018)

International Electrotechnical Commission *IEC 60942:2017 Electroacoustics – Sound calibrators*

NSW EPA (2020). Environment Protection Licence number 13077.

NSW EPA (2013) *Noise Guide for Local Government*. Sydney NSW: NSW Environment Protection Authority. Available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/noise/20130127nglg.pdf (Accessed: 25 October 2022).

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Standards Australia and Standards New Zealand (2019) *AS/NZS IEC 61672.1:2019 Electroacoustics—Sound level meters, Part 1: Specifications*. Australian/New Zealand Standard. Available at: https://infostore.saiglobal.com/preview/825343328243.pdf?sku=1142059_SAIG_AS_AS_2705644 (Accessed: 28 September 2022).

Intended for
**Holcim (Australia) Pty Ltd**

Document type
**Report**

Date
**October 2025**

# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

## Quarter 3 2025

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# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

Quarter 3 2025

| | |
|---|---|
| Project name | **NSW Environmental Monitoring 2024-2025** |
| Project no. | **318001800** |
| Recipient | **Matt Kelly** |
| Document type | **Report** |
| Version | **1** |
| Date | **24/10/2025** |
| Prepared by | **Brodie Wood** |
| Checked by | **Arnold Cho, Jake Bourke** |
| Approved by | **Gavan Butterfield** |
| Description | **Data collected on 15 July 2025 for Dunloe Quarry during Quarter 3 2025 at Pottsville, NSW, as part of the routine noise monitoring program** |

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# Contents



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# Abbreviations and Definitions

| | Description |
|---|---|
| ΔT | Vertical Temperature Difference, i.e. the measured difference in ambient temperature between two elevations on the same tower. It is defined as the upper-level temperature measurement minus the lower-level temperature measurement. |
| ° | Degree |
| Ambient Noise | The all-encompassing noise within a given environment. It is the composite of sounds from many sources, both near and far. |
| Background noise | The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is described using the LA90 descriptor (see below). |
| C | Celcius |
| CCAM | Conformal Cubic Atmospheric Model |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| dB | Abbreviation for decibel, a measure of sound equivalent to 20 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure, and 10 times the logarithm of a given sound power to a reference power. |
| dB(A) | A measure of A-weighted sound levels. A Weighting is an adjustment made to the sound level measurement to approximate the response of the human ear. |
| EPA | Environment Protection Authority |
| EPL | Environment Protection Licence |
| Extraneous noise | Noise resulting from activities that are not typical of the area. Atypical activities may include construction, and traffic generated by holiday periods. Normal daily traffic is not extraneous noise. |
| m | Metre |
| LA1 | The noise level, measured in dB(A), which is exceeded for 1 per cent of the measurement period. |
| LA1(1min) | The noise level, measured in dB(A), which is exceeded for 1 per cent of the time over a 1-minute measurement period, i.e., is exceeded for 0.6 seconds. This measure can approximate to the maximum noise level but may be less if there is more than 1 noise event during this 0.6 second period. |
| LA10 | The noise level, measured in dB(A), which is exceeded for 10 per cent of the time. |
| LA90 | The noise level, measured in dB(A), which is exceeded for 90 per cent of the time, referred to as the background noise level. This is considered to represent the background noise (see above). |
| LAeq | The level of noise equivalent to the energy average of noise levels occurring over a defined measurement period. |
| LAeq (period) | The average equivalent noise level, measured in dB(A), during a measurement period (e.g., 15-minute, day, evening, or night). |
| LAmax | The A-weighted sound pressure level that represents the maximum noise level measured over the time that a given sound is measured. |
| NATA | National Association of Testing Authorities |
| NMA | Noise Monitoring Assessment |
| NMP | Noise Management Plan |
| NPfI | Noise Policy for Industry 2017 |
| NSW | New South Wales |
| s | Second |
| SPL | The Sound Pressure Level. Sound pressure is the fluctuation in air pressure, from the steady atmospheric pressure, created by sound. The sound pressure level is the sound pressure expressed on a decibel scale. |
| TAPM | The Air Pollution Model |

Source: Noise Guide for Local Government (NSW EPA, 2023)

# 1. Overview

## 1.1 Project Driver

Ramboll Australia Pty Ltd (Ramboll) has been commissioned by Holcim (Australia) Pty Ltd (Holcim) to complete a Noise Monitoring Assessment (NMA) for Dunloe Sands Quarry ("the quarry") at Pottsville, NSW.

This NMA was done in accordance with the following documents:

- Noise Policy for Industry (NPfI) (NSW EPA, 2017)
- Dunloe Sand Quarry Noise Management Plan (NMP) (GHD, 2020)
- Environment Protection Licence (EPL) number 13077 (NSW EPA, 2020)
- Development Consent No. 06_0030, MOD2 (NSW EPA, 2018)
- Australian Standard AS 1055:2018 Acoustics—Description and measurement of environmental noise (Standards Australia, 2018)
- Australian Standard AS/NZS IEC 61672.1:2019 Electroacoustics – Sound level meters, Part 1: Specifications (Standards Australia and Standards New Zealand, 2019)
- International Electrotechnical Commission (IEC) 60942:2017 Electroacoustics - Electroacoustics – Sound calibrators (IEC, 2017).

This NMA has been undertaken for the quarterly period July to September 2025, and forms part of the monitoring program to determine compliance with conditions of the Environmental Protection License (EPL).

## 1.2 Site Location and Sensitive Receptors

The quarry is approximately 2.5 km south of Pottsville, NSW, a town in the Northern Rivers region in Tweed Shire. Sensitive receptors surrounding the quarry are primarily rural and residential properties in coastal bushland with elevated and undulating topography.

Three monitoring locations have been selected as part of the NMA and in accordance with the EPL and are shown in **Table 1-1**.

**Table 1-1: Monitoring locations locality and sensitive receptors**

| Monitoring Locations | Locality and Sensitive Receptors |
|---|---|
| **R6** | West of the quarry and situated at a rural residential property at 157 Warwick Park Road. |
| **R7** | West of the quarry and situated at a rural residential property at 129 Warwick Park Road. |
| **R8** | Northwest of the quarry and situated at a rural residential property at 679 Pottsville Road. |

The monitoring locations with respect to the quarry and assessed receivers are presented in the locality plan shown in **Figure 1**. It should be noted that while the NMP states monitoring locations be measured from the most affected points within surrounding residential property boundaries or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, this has not been possible for this NMA due to access restrictions. Monitoring was completed at the property boundary of each location where accessible and in each case the property dwelling was approximately 40 to 100 metres from the boundary. This would have resulted in a conservative assessment as the monitoring locations were closer to the site.

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**Figure 1: Noise monitoring locations**

# 2. Noise Criteria

**Table 2-1** summarises the applicable noise criteria outlined in the NMP for residential receivers (R6, R7 and R8) surrounding the quarry. The noise criteria apply when the site is operational within the permitted operating hours Monday to Friday 7am - 5pm, Saturday 7am - 12pm, with no operations on Sunday.

Compliance with the noise criteria below would also determine compliance with the noise limits outlined in the sites EPL (EPL 13077) which requires that the quarry's noise contribution will not exceed 48 dB LAeq(15min) at any of the residential receivers.

**Table 2-1: Monitoring locations and noise criteria**

| Receiver | Monitoring Locations | Day[1] LAeq (15min) dB(A) |
|---|---|---|
| 157 Warwick Park Road | R6 | 42 |
| 129 Warwick Park Road | R7 | 42 |
| 679 Pottsville Road | R8 | 48 |
| All other residences | - | 41 |

[1] 7 am–6 pm Monday to Saturday

Note: no operations on Sundays and public holidays

# 3. Methodology

The monitoring program was developed in accordance with the procedures described in AS 1055:2018 (Standards Australia, 2018) and the Approval Documents referenced in **Section 1**. The measurements were completed using a RION Sound Level Meter NL-52 on Tuesday 15 July 2025. The acoustic instrumentation used carried a current National Association of Testing Authorities (NATA) calibration and that complied with AS/NZS IEC 61672-1:2019 (Standards Australia and Standards New Zealand, 2019). Calibration of all instrumentation was checked prior to and following measurements using a Pulsar Acoustic Calibrator 105 which carried a current NATA calibration and complies with IEC 60942:2017 (IEC, 2017). Drift in calibration did not exceed ±0.3 dBA.

Each attended noise measurement was conducted for 15-minutes in duration during the day period over one day at each monitoring location. Where possible, throughout each measurement the operator(s) quantified the contribution of each significant noise source. Where the quarry was not distinctly audible during the attended monitoring, the quarry contribution was estimated to be at least 10 dBA below the ambient noise level, as determined by the LA90.

## 3.1 Meteorology

Meterology has an important influence on noise monitoring assessment. Where an onsite meterological station with data recorded at 10m height has not been available, the Holcim Teven Quarry onsite meteorological station located approximately 50km south of site has been used to adopt wind direction, wind speed and rain data to inform this assessment. Temperature data has been adopted from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Conformal Cubic Atmospheric Model (CCAM) and modelled using The Air Pollution Model (TAPM) to determine the atmospheric category as outline in **Table 3-1**.

**Table 3-1: Classification of atmospheric stability (NSW EPA, 2014)**

| Stability Classification | Pasquill Stability Category | Ambient temperature change with height (°C/100m) |
|---|---|---|
| Extremely unstable | A | $\Delta T \leq -1.9$ |
| Moderately unstable | B | $-1.9 < \Delta T \leq -1.7$ |
| Slightly unstable | C | $-1.7 < \Delta T \leq -1.5$ |
| Neutral | D | $-1.5 < \Delta T \leq -0.5$ |
| Slightly stable | E | $-0.5 < \Delta T \leq 1.5$ |
| Moderately stable | F | $1.5 < \Delta T \leq 4.0$ |
| Extremely stable | G | $\Delta T > 4.0$ |

The meteorological conditions recorded at the time of the noise monitoring were reviewed. The attended noise monitoring results presented in **Section 4** were not found to be influenced by the following adverse meteorological conditions:

- During periods of rain or hail
- Average wind speed at microphone height exceeding 5 m/s

The following noise enhancing meteorological conditions were encountered during the noise monitoring; however, results still met the criteria outlined in **Table 2-1**.

- Wind speeds greater than 3 m/s measured at 10 m above ground level
- Temperature inversion conditions greater than 3°C/100m.

# 4. Results and Discussion

## 4.1 Location R6

Noise monitoring at location R6 was conducted on Tuesday 15 July 2025 with results presented in **Table 4-1**. The quarry was inaudible at R6 during the monitoring period, and the ambient environment was dominated by fauna and background traffic. These results satisfy the noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance during the monitoring period.

**Table 4-1: Noise survey results and observations for Location R6**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 15-07-25 | 1:06pm to 1:21pm (Day) | 72.1 | 42.5 | 38.4 | WD: n/a<br>WS: 0 m/s<br>Rain: Nil | WD: ESE<br>WS: 4 m/s<br>Rain: Nil<br>Stability Category: E[2] | Birds/insects/background traffic 39-45<br>Cows 45<br>Myna bird 45-50<br>Quarry inaudible | <28 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.2 Location R7

Noise monitoring at location R7 was conducted on Tuesday 15 July 2025 with results presented in **Table 4-2**. The quarry was inaudible during the monitoring period, and the ambient environment was dominated by helicopter, birds, insects and cars passing car on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-2: Noise survey results and observations for Location R7**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 15-07-25 | 12:44pm to 12:59pm (Day) | 67.1 | 45 | 39.5 | WD: n/a<br>WS: 0 m/s<br>Rain: Nil | WD: ESE<br>WS: 3 m/s<br>Rain: Nil<br>Stability Category: E[2] | Helicopter hum/birds/insects 40-45<br>Loud banging (resident) 45-50<br>Cars passing 54-66<br>Quarry inaudible | <30 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.3 Location R8

Noise monitoring at location R8 was conducted on Tuesday 15 July 2025 with results presented in **Table 4-3**. The quarry was inaudible at R8 during the monitoring period, and the ambient environment was dominated by a helicopter hum, fauna, resident noise, background traffic and passing cars on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-3: Noise survey results and observations for Location R8**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station[1] (10m height) | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 15-07-25 | 12:19pm to 12:34pm (Day) | 69.4 | 53.8 | 39.8 | WD: n/a<br>WS: 0 m/s<br>Rain: Nil | WD: SE<br>WS: 2 m/s<br>Rain: Nil<br>Stability Category: E[2] | Birds/insects/helicopter hum/background traffic 40-47<br>Cars passing 57-69<br>Quarry inaudible | <30 | 48 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

# 5. Conclusion

This NMA was completed by Ramboll at the Holcim Dunloe Sands Quarry, Pottsville, NSW as a quarterly requirement of the NMP showed compliance with the relevant noise criteria. Monitoring was carried out on Wednesday 15 July 2025 at three locations selected as representative to the sensitive receptors at the surroundings to Dunloe Sands Quarry.

No audible quarry noise was recorded at any of the selected monitoring locations. The results presented in this NMA show compliance with the relevant noise criteria at the Holcim Dunloe Sands Quarry, Pottsville, NSW. It is noted that the monitoring was completed at the property boundary of each location. As each property dwelling was approximately 40 to 100 metres from the boundary, it remains a recommendation that permission from the property owners be sought to access their property to complete future noise monitoring within 30 metres of the property dwellings.

# 6. References

GHD. (2020). *Dunloe Sand Quarry Noise Management Plan.*

IEC. (2017). *International Electrotechnical Commission. 60942:2017 Electroacoustics - Sound calibrators.*

NSW EPA. (2014). *Discussion Paper. Validation of Inversion Strength Estimation Method.*

NSW EPA. (2017). *Noise Policy for Industry.*

NSW EPA. (2018). *Development Consent No. 06_0030, MOD2.*

Standards Australia. (2018). *AS 1055:2018 Acoustics—Description and measurement of environmental noise.*

Standards Australia and Standards New Zealand. (2019). *AS/NZS IEC 61672.1:2019 Electroacoustics – Sound level meters, Part 1: Specifications.*

Intended for
**Holcim (Australia) Pty Ltd**

Document type
**Report**

Date
**December 2025**

# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

## Quarter 4 2025

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# Dunloe Sand Quarry Quarterly Noise Monitoring Assessment

Quarter 4 2025

| | |
|---|---|
| Project name | **NSW Environmental Monitoring 2024-2025** |
| Project no. | **318001800** |
| Recipient | **Matt Kelly** |
| Document type | **Report** |
| Version | **1** |
| Date | **23/12/2025** |
| Prepared by | **Brodie Wood** |
| Checked by | **Arnold Cho, Jake Bourke** |
| Approved by | **Gavan Butterfield** |
| Description | **Data collected on 11 November 2025 for Dunloe Quarry during Quarter 4 2025 at Pottsville, NSW, as part of the routine noise monitoring program** |

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# Abbreviations and Definitions

| | Description |
|---|---|
| ΔT | Vertical Temperature Difference, i.e. the measured difference in ambient temperature between two elevations on the same tower. It is defined as the upper-level temperature measurement minus the lower-level temperature measurement. |
| ° | Degree |
| Ambient Noise | The all-encompassing noise within a given environment. It is the composite of sounds from many sources, both near and far. |
| Background noise | The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is described using the LA90 descriptor (see below). |
| C | Celcius |
| CCAM | Conformal Cubic Atmospheric Model |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| dB | Abbreviation for decibel, a measure of sound equivalent to 20 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure, and 10 times the logarithm of a given sound power to a reference power. |
| dB(A) | A measure of A-weighted sound levels. A Weighting is an adjustment made to the sound level measurement to approximate the response of the human ear. |
| EPA | Environment Protection Authority |
| EPL | Environment Protection Licence |
| Extraneous noise | Noise resulting from activities that are not typical of the area. Atypical activities may include construction, and traffic generated by holiday periods. Normal daily traffic is not extraneous noise. |
| m | Metre |
| LA1 | The noise level, measured in dB(A), which is exceeded for 1 per cent of the measurement period. |
| LA1(1min) | The noise level, measured in dB(A), which is exceeded for 1 per cent of the time over a 1-minute measurement period, i.e., is exceeded for 0.6 seconds. This measure can approximate to the maximum noise level but may be less if there is more than 1 noise event during this 0.6 second period. |
| LA10 | The noise level, measured in dB(A), which is exceeded for 10 per cent of the time. |
| LA90 | The noise level, measured in dB(A), which is exceeded for 90 per cent of the time, referred to as the background noise level. This is considered to represent the background noise (see above). |
| LAeq | The level of noise equivalent to the energy average of noise levels occurring over a defined measurement period. |
| LAeq (period) | The average equivalent noise level, measured in dB(A), during a measurement period (e.g., 15-minute, day, evening, or night). |
| LAmax | The A-weighted sound pressure level that represents the maximum noise level measured over the time that a given sound is measured. |
| NATA | National Association of Testing Authorities |
| NMA | Noise Monitoring Assessment |
| NMP | Noise Management Plan |
| NPfI | Noise Policy for Industry 2017 |
| NSW | New South Wales |
| s | Second |
| SPL | The Sound Pressure Level. Sound pressure is the fluctuation in air pressure, from the steady atmospheric pressure, created by sound. The sound pressure level is the sound pressure expressed on a decibel scale. |
| TAPM | The Air Pollution Model |

Source: Noise Guide for Local Government (NSW EPA, 2023)

# 1. Overview

## 1.1 Project Driver

Ramboll Australia Pty Ltd (Ramboll) has been commissioned by Holcim (Australia) Pty Ltd (Holcim) to complete a Noise Monitoring Assessment (NMA) for Dunloe Sands Quarry ("the quarry") at Pottsville, NSW.

This NMA was done in accordance with the following documents:

- Noise Policy for Industry (NPfI) (NSW EPA, 2017)
- Dunloe Sand Quarry Noise Management Plan (NMP) (GHD, 2020)
- Environment Protection Licence (EPL) number 13077 (NSW EPA, 2020)
- Development Consent No. 06_0030, MOD2 (Minister for Planning, 2018)
- Australian Standard AS 1055:2018 Acoustics—Description and measurement of environmental noise (Standards Australia, 2018)
- Australian Standard AS/NZS IEC 61672.1:2019 Electroacoustics – Sound level meters, Part 1: Specifications (Standards Australia and Standards New Zealand, 2019)
- International Electrotechnical Commission (IEC) 60942:2017 Electroacoustics - Electroacoustics – Sound calibrators (IEC, 2017).

This NMA has been undertaken for the quarterly period October to December 2025, and forms part of the monitoring program to determine compliance with conditions of the Environmental Protection License (EPL).

## 1.2 Site Location and Sensitive Receptors

The quarry is approximately 2.5 km south of Pottsville, NSW, a town in the Northern Rivers region in Tweed Shire. Sensitive receptors surrounding the quarry are primarily rural and residential properties in coastal bushland with elevated and undulating topography.

Three monitoring locations have been selected as part of the NMA and in accordance with the EPL and are shown in **Table 1-1**.

**Table 1-1: Monitoring locations locality and sensitive receptors**

| Monitoring Locations | Locality and Sensitive Receptors |
|---|---|
| **R6** | West of the quarry and situated at a rural residential property at 157 Warwick Park Road. |
| **R7** | West of the quarry and situated at a rural residential property at 129 Warwick Park Road. |
| **R8** | Northwest of the quarry and situated at a rural residential property at 679 Pottsville Road. |

The monitoring locations with respect to the quarry and assessed receivers are presented in the locality plan shown in **Figure 1**. It should be noted that while the NMP states monitoring locations be measured from the most affected points within surrounding residential property boundaries or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, this has not been possible for this NMA due to access restrictions. Monitoring was completed at the property boundary of each location where accessible and in each case the property dwelling was approximately 40 to 100 metres from the boundary. This would have resulted in a conservative assessment as the monitoring locations were closer to the site.


RAMBOLL AUSTRALIA - GIS MAP file - 318000911_GIS_P006_NoiseMonitoring | F005_NoiseMonitoring_Dunloe_V03 | 29/01/2024

**Legend**

- Noise monitoring location
- Property dwelling

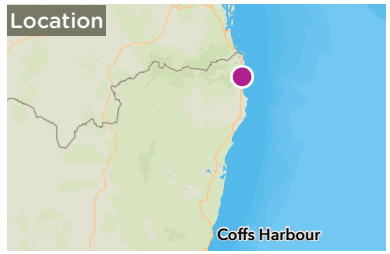


**Figure 1 : Noise monitoring locations at Dunloe Sands Quarry**

# 2. Noise Criteria

**Table 2-1** summarises the applicable noise criteria outlined in the NMP for residential receivers (R6, R7 and R8) surrounding the quarry. The noise criteria apply when the site is operational within the permitted operating hours Monday to Friday 7am - 5pm, Saturday 7am - 12pm, with no operations on Sunday.

Compliance with the noise criteria below would also determine compliance with the noise limits outlined in the sites EPL (EPL 13077) which requires that the quarry's noise contribution will not exceed 48 dB LAeq(15min) at any of the residential receivers.

**Table 2-1: Monitoring locations and noise criteria**

| Receiver | Monitoring Locations | Day[1] LAeq (15min) dB(A) |
|---|---|---|
| 157 Warwick Park Road | R6 | 42 |
| 129 Warwick Park Road | R7 | 42 |
| 679 Pottsville Road | R8 | 48 |
| All other residences | - | 41 |

[1] 7 am–6 pm Monday to Saturday

Note: no operations on Sundays and public holidays

# 3. Methodology

The monitoring program was developed in accordance with the procedures described in AS 1055:2018 (Standards Australia, 2018) and the Approval Documents referenced in **Section 1**. The measurements were completed using a RION Sound Level Meter NL-52 on Tuesday 11 November 2025. The acoustic instrumentation used carried a current National Association of Testing Authorities (NATA) calibration and that complied with AS/NZS IEC 61672-1:2019 (Standards Australia and Standards New Zealand, 2019). Calibration of all instrumentation was checked prior to and following measurements using a Pulsar Acoustic Calibrator 105 which carried a current NATA calibration and complies with IEC 60942:2017 (IEC, 2017). Drift in calibration did not exceed ±0.3 dBA.

Each attended noise measurement was conducted for 15-minutes in duration during the day period over one day at each monitoring location. Where possible, throughout each measurement the operator(s) quantified the contribution of each significant noise source. Where the quarry was not distinctly audible during the attended monitoring, the quarry contribution was estimated to be at least 10 dBA below the ambient noise level, as determined by the LA90.

## 3.1 Meteorology

Meterology has an important influence on noise monitoring assessment. Where an onsite meterological station with data recorded at 10m height has not been available, the Holcim Teven Quarry onsite meteorological station located approximately 50km south of site has been used to adopt wind direction, wind speed and rain data to inform this assessment. Temperature data has been adopted from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Conformal Cubic Atmospheric Model (CCAM) and modelled using The Air Pollution Model (TAPM) to determine the atmospheric category as outline in **Table 3-1**.

**Table 3-1: Classification of atmospheric stability (NSW EPA, 2014)**

| Stability Classification | Pasquill Stability Category | Ambient temperature change with height (°C/100m) |
|---|---|---|
| Extremely unstable | A | $\Delta T \leq -1.9$ |
| Moderately unstable | B | $-1.9 < \Delta T \leq -1.7$ |
| Slightly unstable | C | $-1.7 < \Delta T \leq -1.5$ |
| Neutral | D | $-1.5 < \Delta T \leq -0.5$ |
| Slightly stable | E | $-0.5 < \Delta T \leq 1.5$ |
| Moderately stable | F | $1.5 < \Delta T \leq 4.0$ |
| Extremely stable | G | $\Delta T > 4.0$ |

The meteorological conditions recorded at the time of the noise monitoring were reviewed. The attended noise monitoring results presented in **Section 4** were not found to be influenced by the following adverse meteorological conditions:

- During periods of rain or hail
- Average wind speed at microphone height exceeding 5 m/s
- Temperature inversion conditions greater than 3°C/100m.

The following noise enhancing meteorological conditions were encountered during the noise monitoring; however, results still met the criteria outlined in **Table 2-1**.

- Wind speeds greater than 3 m/s measured at 10 m above ground level

# 4. Results and Discussion

## 4.1 Location R6

Noise monitoring at location R6 was conducted on Tuesday 11 November 2025 with results presented in **Table 4-1**. The quarry was inaudible at R6 during the monitoring period, and the ambient environment was dominated by fauna and flora. These results satisfy the noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance during the monitoring period.

**Table 4-1: Noise survey results and observations for Location R6**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 11-11-25 | 2:22pm to 2:37pm (Day) | 60.8 | 45.6 | 40.5 | WD: 45°<br>WS: 2.9 m/s<br>Rain: Nil | WD: E<br>WS: 4 m/s<br>Rain: Nil<br>Stability Category: F[2] | Wind, trees, insects, cicadas 42-55<br>Quarry inaudible | <31 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.2 Location R7

Noise monitoring at location R7 was conducted on Tuesday 11 November 2025 with results presented in **Table 4-2**. The quarry was inaudible during the monitoring period, and the ambient environment was dominated by helicopter, trees, birds, insects and cars passing car on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-2: Noise survey results and observations for Location R7**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station (10m height)[1] | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 11-11-25 | 1:54pm to 2:09pm (Day) | 77.4 | 49.2 | 41.5 | WD: 31°<br>WS: 1.9 m/s<br>Rain: Nil | WD: E<br>WS: 5 m/s<br>Rain: Nil<br>Stability Category: F[2] | Trees, birds, insects, cicadas, helicopter hum 40-51<br>Aircraft 49-60<br>Passing cars 50-55<br>Dog barking 44-47<br>Quarry inaudible | <32 | 42 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

## 4.3 Location R8

Noise monitoring at location R8 was conducted on Tuesday 11 November 2025 with results presented in **Table 4-3**. The quarry was inaudible at R8 during the monitoring period, and the ambient environment was dominated by fauna, flora and passing cars on Pottsville Road. These results satisfy the established noise criteria and indicate that noise emissions from Dunloe Sands Quarry did not contribute to noise nuisance.

**Table 4-3: Noise survey results and observations for Location R8**

| Date | Time | Descriptor (dBA) | | | Meteorology (handheld at microphone height) | Onsite Met Station[1] (10m height) | Apparent Noise Source, Description and SPL (dBA) | Dunloe Quarry LAeq(15min) Contribution (dBA) | LAeq(15min) Criteria (dBA) |
|---|---|---|---|---|---|---|---|---|---|
| | | LAmax | LAeq | LA90 | | | | | |
| 11-11-25 | 1:30pm to 1:45pm (Day) | 74.9 | 55.5 | 41.6 | WD: 53°<br>WS: 1.9 m/s<br>Rain: Nil | WD: E<br>WS: 4 m/s<br>Rain: Nil<br>Stability Category: F[2] | Trees, wind, insects, birds 43-47<br>Cars passing 54 - 75<br>Quarry inaudible | <32 | 48 |

[1] Data obtained from Holcim Teven Quarry onsite meteorological station, located approximately 50km south of site.

[2] Temperature data sourced from CSIRO CCAM and modelled using TAPM to determine Stability Category.

# 5. Conclusion

This NMA was completed by Ramboll at the Holcim Dunloe Sands Quarry, Pottsville, NSW as a quarterly requirement of the NMP. Monitoring was carried out on Tuesday 11 November 2025 at three locations selected as representative to the sensitive receptors at the surroundings to Dunloe Sands Quarry.

No audible quarry noise was recorded at any of the selected monitoring locations. The results presented in this NMA show compliance with the relevant noise criteria at the Holcim Dunloe Sands Quarry. It is noted that the monitoring was completed at the property boundary of each location. As each property dwelling was approximately 40 to 100 metres from the boundary, it remains a recommendation that permission from the property owners be sought to access their property to complete future noise monitoring within 30 metres of the property dwellings.

# 6. References

GHD. (2020). *Dunloe Sand Quarry Noise Management Plan.*

IEC. (2017). *International Electrotechnical Commission. 60942:2017 Electroacoustics - Sound calibrators.*

Minister for Planning. (2018). *Development Consent No. 06_0030, MOD2.*

NSW EPA. (2014). *Discussion Paper. Validation of Inversion Strength Estimation Method.*

NSW EPA. (2017). *Noise Policy for Industry.*

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NSW EPA. (2023). *Noise Guide for Local Government.*

Standards Australia. (2018). *AS 1055:2018 Acoustics—Description and measurement of environmental noise.*

Standards Australia and Standards New Zealand. (2019). *AS/NZS IEC 61672.1:2019 Electroacoustics – Sound level meters, Part 1: Specifications.*

# Appendix B –
# 2025 Truck Movement Log

| JAN '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Wed | | |
| 02 Thu | | |
| 03 Fri | | |
| 04 Sat | | |
| 05 Sun | | |
| 06 Mon | | |
| 07 Tue | | |
| 08 Wed | | |
| 09 Thu | | |
| 10 Fri | | |
| 11 Sat | | |
| 12 Sun | | |
| 13 Mon | 19 | |
| 14 Tue | 9 | |
| 15 Wed | 16 | |
| 16 Thu | 19 | |
| 17 Fri | 25 | |
| 18 Sat | | |
| 19 Sun | | |
| 20 Mon | 25 | |
| 21 Tue | 26 | 1 |
| 22 Wed | 26 | |
| 23 Thu | 17 | |
| 24 Fri | 14 | |
| 25 Sat | | |
| 26 Sun | | |
| 27 Mon | | |
| 28 Tue | 14 | |
| 29 Wed | 12 | |
| 30 Thu | 17 | |
| 31 Fri | 17 | |
| | 256.00 | 1 |
| | Actual Mth average Truck movements | |
| | 18 | |

| FEB '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Sat | | |
| 02 Sun | | |
| 03 Mon | 17 | |
| 04 Tue | 10 | |
| 05 Wed | 27 | |
| 06 Thu | 17 | |
| 07 Fri | 17 | |
| 08 Sat | | |
| 09 Sun | | |
| 10 Mon | 12 | |
| 11 Tue | 15 | |
| 12 Wed | 13 | |
| 13 Thu | 10 | |
| 14 Fri | 10 | |
| 15 Sat | | |
| 16 Sun | | |
| 17 Mon | 17 | |
| 18 Tue | 23 | |
| 19 Wed | 20 | |
| 20 Thu | 15 | |
| 21 Fri | 13 | |
| 22 Sat | | |
| 23 Sun | | |
| 24 Mon | 19 | |
| 25 Tue | 26 | |
| 26 Wed | 16 | |
| 27 Thu | 22 | |
| 28 Fri | 23 | |
| | 342.00 | 0.00 |
| | Actual Mth average Truck movements | |
| | 17 | |

| MARCH '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Sat | | |
| 02 Sun | | |
| 03 Mon | 14 | |
| 04 Tue | 7 | |
| 05 Wed | 8 | |
| 06 Thu | 0 | |
| 07 Fri | 0 | |
| 08 Sat | | |
| 09 Sun | | |
| 10 Mon | 0 | |
| 11 Tue | 0 | |
| 12 Wed | 11 | |
| 13 Thu | 17 | |
| 14 Fri | 14 | |
| 15 Sat | | |
| 16 Sun | | |
| 17 Mon | 33 | |
| 18 Tue | 27 | |
| 19 Wed | 23 | |
| 20 Thu | 12 | |
| 21 Fri | 26 | |
| 22 Sat | | |
| 23 Sun | | |
| 24 Mon | 14 | |
| 25 Tue | 18 | |
| 26 Wed | 29 | |
| 27 Thu | 14 | |
| 28 Fri | 9 | |
| 29 Sat | | |
| 30 Sun | | |
| 31 Mon | 14 | |
| | 290.00 | 0.00 |
| | Actual Mth average Truck movements | |
| | 14 | |

| APRIL '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Tue | 12 | |
| 02 Wed | 13 | |
| 03 Thu | 10 | |
| 04 Fri | 16 | |
| 05 Sat | | |
| 06 Sun | | |
| 07 Mon | 24 | |
| 08 Tue | 18 | |
| 09 Wed | 19 | |
| 10 Thu | 26 | |
| 11 Fri | 18 | |
| 12 Sat | | |
| 13 Sun | | |
| 14 Mon | 16 | |
| 15 Tue | 24 | |
| 16 Wed | 31 | |
| 17 Thu | 22 | |
| 18 Fri | | |
| 19 Sat | | |
| 20 Sun | | |
| 21 Mon | | |
| 22 Tue | 21 | |
| 23 Wed | 11 | |
| 24 Thu | 15 | |
| 25 Fri | | |
| 26 Sat | | |
| 27 Sun | | |
| 28 Mon | 17 | |
| 29 Tue | 16 | |
| 30 Wed | 28 | |
| | Actual Month Average Truck Movements | |
| | **19** | |

| MAY '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Thu | 13 | |
| 02 Fri | 17 | |
| 03 Sat | | |
| 04 Sun | | |
| 05 Mon | 8 | |
| 06 Tue | 21 | |
| 07 Wed | 32 | |
| 08 Thu | 23 | |
| 09 Fri | 18 | |
| 10 Sat | | |
| 11 Sun | | |
| 12 Mon | 18 | |
| 13 Tue | 15 | |
| 14 Wed | 14 | |
| 15 Thu | 11 | |
| 16 Fri | 20 | |
| 17 Sat | | |
| 18 Sun | | |
| 19 Mon | 17 | |
| 20 Tue | 24 | |
| 21 Wed | 20 | |
| 22 Thu | 20 | 1 |
| 23 Fri | 26 | |
| 24 Sat | | |
| 25 Sun | | |
| 26 Mon | 22 | |
| 27 Tue | 27 | |
| 28 Wed | 14 | |
| 29 Thu | 12 | |
| 30 Fri | 21 | |
| 31 Sat | | |
| | Actual Month Average Truck Movements | |
| | **19** | |

| JUNE '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Sun | | |
| 02 Mon | 17 | |
| 03 Tue | 16 | |
| 04 Wed | 21 | |
| 05 Thu | 31 | |
| 06 Fri | 21 | |
| 07 Sat | 6 | |
| 08 Sun | | |
| 09 Mon | | |
| 10 Tue | 17 | |
| 11 Wed | 19 | |
| 12 Thu | 23 | |
| 13 Fri | 19 | |
| 14 Sat | | |
| 15 Sun | | |
| 16 Mon | 19 | |
| 17 Tue | 24 | |
| 18 Wed | 18 | |
| 19 Thu | 14 | |
| 20 Fri | 25 | |
| 21 Sat | | |
| 22 Sun | | |
| 23 Mon | 26 | |
| 24 Tue | 18 | |
| 25 Wed | 30 | |
| 26 Thu | 11 | |
| 27 Fri | 24 | |
| 28 Sat | | |
| 29 Sun | | |
| 30 Mon | 10 | |
| | Actual Month Average Truck Movements | |
| | **19** | |

| JUL '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Tue | 13 | |
| 02 Wed | 20 | |
| 03 Thu | 19 | |
| 04 Fri | 21 | |
| 05 Sat | | |
| 06 Sun | | |
| 07 Mon | 13 | |
| 08 Tue | 21 | |
| 09 Wed | 11 | |
| 10 Thu | 15 | |
| 11 Fri | 16 | |
| 12 Sat | | |
| 13 Sun | | |
| 14 Mon | 25 | |
| 15 Tue | 18 | |
| 16 Wed | 27 | |
| 17 Thu | 35 | |
| 18 Fri | 22 | |
| 19 Sat | | |
| 20 Sun | | |
| 21 Mon | 10 | |
| 22 Tue | 21 | |
| 23 Wed | 19 | |
| 24 Thu | 15 | |
| 25 Fri | 17 | |
| 26 Sat | | |
| 27 Sun | | |
| 28 Mon | 13 | |
| 29 Tue | 25 | |
| 30 Wed | 23 | |
| 31 Thu | 19 | |

| Actual Mth average Truck movements |
|---|
| **19** |

| AUG '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Fri | 19 | |
| 02 Sat | | |
| 03 Sun | | |
| 04 Mon | 22 | |
| 05 Tue | 18 | |
| 06 Wed | 30 | |
| 07 Thu | 25 | |
| 08 Fri | 13 | |
| 09 Sat | | |
| 10 Sun | | |
| 11 Mon | 13 | |
| 12 Tue | 13 | |
| 13 Wed | 19 | |
| 14 Thu | 23 | |
| 15 Fri | 21 | |
| 16 Sat | | |
| 17 Sun | | |
| 18 Mon | 13 | |
| 19 Tue | 22 | |
| 20 Wed | 11 | |
| 21 Thu | 5 | |
| 22 Fri | 15 | |
| 23 Sat | | |
| 24 Sun | | |
| 25 Mon | 18 | |
| 26 Tue | 21 | |
| 27 Wed | 24 | |
| 28 Thu | 22 | |
| 29 Fri | 16 | |
| 30 Sat | | |
| 31 Sun | | |

| Actual Mth average Truck movements |
|---|
| **18** |

| SEP '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Mon | 21 | |
| 02 Tue | 14 | |
| 03 Wed | 25 | |
| 04 Thu | 22 | |
| 05 Fri | 30 | |
| 06 Sat | | |
| 07 Sun | | |
| 08 Mon | 23 | |
| 09 Tue | 32 | |
| 10 Wed | 27 | |
| 11 Thu | 27 | |
| 12 Fri | 24 | |
| 13 Sat | | |
| 14 Sun | | |
| 15 Mon | 23 | |
| 16 Tue | 24 | |
| 17 Wed | 27 | |
| 18 Thu | 24 | |
| 19 Fri | 26 | |
| 20 Sat | | |
| 21 Sun | | |
| 22 Mon | 22 | |
| 23 Tue | 25 | |
| 24 Wed | 27 | |
| 25 Thu | 16 | |
| 26 Fri | 22 | |
| 27 Sat | | |
| 28 Sun | | |
| 29 Mon | 25 | |
| 30 Tue | 18 | |

| Actual Mth average Truck movements |
|---|
| **24** |

| OCTOBER '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Wed | 21 | |
| 02 Thu | 26 | |
| 03 Fri | 22 | |
| 04 Sat | 0 | |
| 05 Sun | | |
| 06 Mon | | |
| 07 Tue | 15 | |
| 08 Wed | 18 | |
| 09 Thu | 0 | |
| 10 Fri | 0 | |
| 11 Sat | 0 | |
| 12 Sun | | |
| 13 Mon | 24 | |
| 14 Tue | 26 | |
| 15 Wed | 25 | |
| 16 Thu | 28 | |
| 17 Fri | 27 | |
| 18 Sat | 0 | |
| 19 Sun | | |
| 20 Mon | 23 | |
| 21 Tue | 25 | |
| 22 Wed | 29 | |
| 23 Thu | 20 | |
| 24 Fri | 28 | |
| 25 Sat | 0 | |
| 26 Sun | | |
| 27 Mon | 23 | |
| 28 Tue | 17 | |
| 29 Wed | 9 | |
| 30 Thu | 11 | |
| 31 Fri | 21 | |
| Total | 438 | 0 |
| Ave. Trucks/Day | 20 | 0 |
| Actual month average truck movements | | |
| 20 | | |

| NOVEMBER '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Sat | 0 | |
| 02 Sun | | |
| 03 Mon | 32 | |
| 04 Tue | 23 | |
| 05 Wed | 30 | |
| 06 Thu | 29 | |
| 07 Fri | 32 | |
| 08 Sat | 0 | |
| 09 Sun | | |
| 10 Mon | 29 | |
| 11 Tue | 20 | |
| 12 Wed | 21 | |
| 13 Thu | 25 | |
| 14 Fri | 20 | |
| 15 Sat | 0 | |
| 16 Sun | | |
| 17 Mon | 27 | |
| 18 Tue | 25 | |
| 19 Wed | 18 | |
| 20 Thu | 19 | |
| 21 Fri | 35 | |
| 22 Sat | 0 | |
| 23 Sun | | |
| 24 Mon | 28 | |
| 25 Tue | 31 | |
| 26 Wed | 26 | |
| 27 Thu | 38 | |
| 28 Fri | 28 | |
| 29 Sat | 0 | |
| 30 Sun | | |
| Total | 536 | 0 |
| Ave. Trucks/Day | 27 | 0 |
| Actual month average truck movements | | |
| 27 | | |

| DECEMBER '25 | TRUCK MOVEMENTS | SPLIT LOADS |
|---|---|---|
| 01 Mon | 42 | |
| 02 Tue | 33 | |
| 03 Wed | 29 | |
| 04 Thu | 28 | |
| 05 Fri | 29 | |
| 06 Sat | 0 | |
| 07 Sun | | |
| 08 Mon | 34 | |
| 09 Tue | 30 | |
| 10 Wed | 28 | |
| 11 Thu | 32 | |
| 12 Fri | 27 | |
| 13 Sat | 0 | |
| 14 Sun | | |
| 15 Mon | 27 | |
| 16 Tue | 32 | |
| 17 Wed | 27 | |
| 18 Thu | 22 | |
| 19 Fri | 10 | |
| 20 Sat | 0 | |
| 21 Sun | | |
| 22 Mon | | |
| 23 Tue | | |
| 24 Wed | | |
| 25 Thu | | |
| 26 Fri | | |
| 27 Sat | | |
| 28 Sun | | |
| 29 Mon | | |
| 30 Tue | | |
| 31 Wed | | |
| Total | 430 | 0 |
| Ave. Trucks/Day | 29 | 0 |
| Actual month average truck movements | | |
| 29 | | |

# Appendix C –
# 2025 Rehabilitation and Revegetation Monitoring Report

# Annual Report
# 2025 Rehabilitation and Revegetation Monitoring Program,
# Dunloe Sands Quarry Pottsville NSW

## Prepared for: Holcim Australia

## Date: 04 January 2026


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# Introduction

This annual report for the Dunloe Sands Quarry 2025 Rehabilitation and Revegetation Monitoring Program aims to address all annual report requirements outlined in the approved site Rehabilitation & Revegetation Management Plan (RRMP)[1]. Schedule 5 *Environmental Management and Monitoring Conditions* of the plan notes annual report requirements as follows:

- Visual monitoring results and photographs
- Monitoring forms A, B, C and D
- Any incidents of non-compliance with performance criteria set out in the approved site Rehabilitation & Revegetation Management Plan (RRMP)
- Corrective actions implemented in response to performance criteria non-compliance and
- A work log of all monitoring, maintenance and corrective actions (where required) activities performed during the 2025 reporting period.

**Appendix 1** contains visual monitoring photo point photographs taken quarterly at established photo points as per the RRMP; forest structure monitoring (December 2025); and 2025 General flora & fauna observations and monitoring photos.

Also appended to this report are monitoring forms completed for each rehabilitation zone at intervals outlined in the RRMP as follows:

- Form A: Routine Rehabilitation Monitoring (quarterly), **Appendix 2**
- Form B: Site Condition (six-monthly), **Appendix 3**
- Form C: Forest Structure (annually), **Appendix 4**
- Form D: Floristic Composition (annually), **Appendix 4**
- Routine Fauna Nest Box Monitoring (six-monthly), **Appendix 5**

Additionally, a 2025 work log of monitoring, maintenance and corrective actions is included as **Appendix 6.**

**Figure 1** shows locations of rehabilitation zones; photo-point monitoring; threatened species; priority weed control work directions; search locations for hollow-bearing trees and signs of koala use and occupation; and three positive koala scat records indicating low koala use.

[1] Planit Consulting 2009, *Rehabilitation & Revegetation Management Plan, Dunloe Park Sand Quarry*, prepared for Ramtech Pty Ltd, unpublished and included as Appendix 1 in GHD, 2021, *Dunloe Sand Quarry Landscape Management Plan*, Holcim (Australia) Pty Ltd.

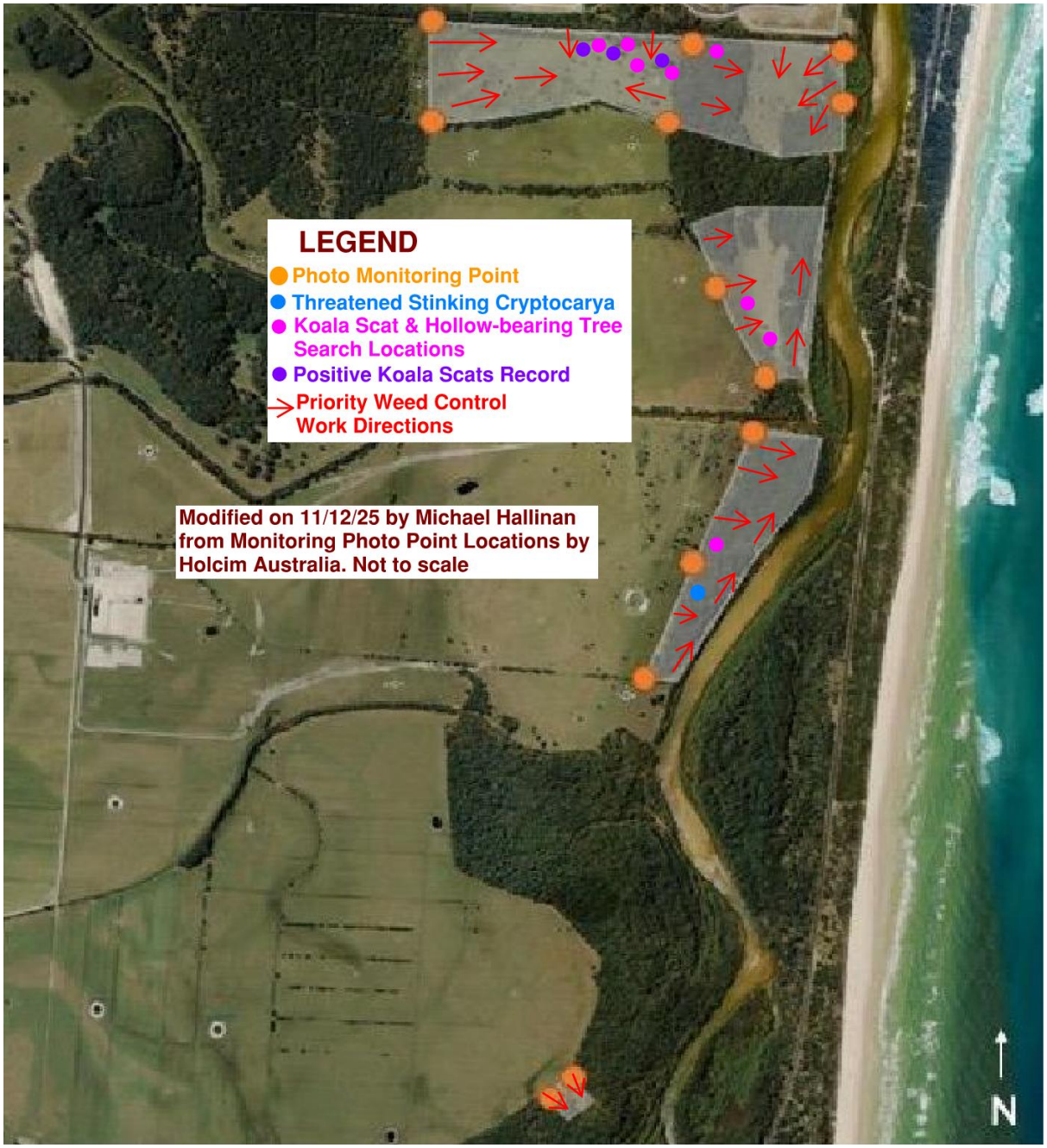


**Figure 1.** Locations of rehabilitation zones; photo-point monitoring; threatened species; priority weed control work directions; search locations for hollow-bearing trees and signs of koala use and occupation; and three positive koala scats records indicating low koala use.

Information summaries from each of the monitoring data forms is outlined as follows:

# Routine Rehabilitation Monitoring (Form A), refer to Appendix 2

## Zone 1

### General Management

No fires, rubbish dumping, plant theft, cattle grazing, stockpiling or unauthorised person or vehicle access. A record of any recorded slashing of bushfire access trails is outlined in the 2025 Work Log (**Appendix 6**).

## Fauna

A diverse range of naturally occurring, regenerating, and planted floodplain swamp sclerophyll plant communities in Zone 1 continue to support a wide range of predatory, frugivorous, honeyeater and insectivorous birdlife and other fauna.

A detailed formal koala scat search in line with Phillips and Callaghan (2011)[2] was undertaken in four locations of the main areas of remnant koala food trees and koala food tree plantings. Aged koala scats only (i.e. non-fresh) were detected beneath three mature Swamp Mahogany trees, a primary koala food tree species, in the area of previous positive records, refer to **Figure 1**. Swamp Mahogany appears to be the only species used by koala on site. Binocular scans of tree crowns found no signs of koala presence.

The level of koala activity/usage over the site remains as "low". As noted by Phillips and Callaghan (2011), where the results of a SAT site returns a low activity level, the level of use by the koala is likely to be transitory. The results indicate that a resident/sedentary population is not currently present on the site. It is considered that koalas may occasionally traverse the site as they move or disperse through the broader locality. It should be noted that the environmental rehabilitation areas represents a small proportion of vegetation on the entire property. Other locations on the property and nearby properties may have higher levels of koala activity.

No fauna were observed occupying fauna nest boxes, all but one of which have either failed completely or are in advanced states of disrepair following Cyclone Alfred. All nest boxes are recommended to be replaced, refer below to *Routine Fauna Nest Box Monitoring*.

Only small (i.e. <6cm opening size) tree hollows have been observed in the environmental rehabilitation areas. A range of birds were observed and heard calling including various predatory birds, refer to **Appendix 2**.

Observations of fauna and signs of their use and occupation is characteristic of the flora diversity which varies considerably across management zones, particularly in association with changes in elevation and saline influences with proximity to tidal watercourses in the north and east.

## Weeds

As per previous years, various weed species continue to regenerate in Zone 1 plant communities including infestations of Lantana, Camphor Laurel, Ground Asparagus, Winter Senna, Umbrella Tree, Bitou Bush, Groundsel Bush, Ochna, Slash Pine and Corky Passionfruit.

Weed infestations still occur mostly along vegetation edges and in relatively open areas in the north and central eastern portions; and are increasing in abundance in the absence of an active weed control program. Priority weed control work directions remain unchanged, as shown in **Figure 1,** and including in koala habitat areas to prevent loss of koala access to food trees by weeds such as Lantana.

Routine weed control works were undertaken up until December 2024 by qualified and experienced bush regenerators in line with maintenance requirements of the approved site Rehabilitation & Revegetation Management Plan (RRMP).

[2] Phillips S and Callaghan J, 2011, *The Spot Assessment Technique: a tool for determining localised levels of habitat use by Koalas Phascolarctos cinereus*. Australian Zoologist 35, 774-780.

Zone 1 is the largest of the three rehabilitation zones. Weed control works are recommended to resume in 2026 to reduce weed infestations and control isolated weeds that threaten to infest weed-free areas and degrade natural values.

### Modifications

No structural modifications or illegal modifications were made within Zone 1 apart from a partly constructed and apparently abandoned shelter likely made by children from the adjacent residential development to the north. All fences were noted to be in relatively good condition apart from a fence repair requirement in the far northeast of the site (Zone 1C) where there is no threat of stock access to rehabilitation areas.

### Vegetation Regeneration

Excellent natural regeneration and recruitment of native plants continues to be observed in Zone 1. Healthy growth and cover occur of primary canopy species Broad-leaved Paperbark, Coast Banksia, Swamp Oak, Swamp Mahogany; and mangrove species in Zone 1C to the east. Vegetation cover of canopy species is relatively stable at representative monitoring points under generally good growing conditions. Regular high rainfall events created generally good growing conditions throughout 2025.

A range of mostly rainforest shrub, grass and wetland species were recorded from open and closed forest environments as shown in Routine Rehabilitation Monitoring Sheets for Zone 1A, 1B and 1C.

Natural regeneration and recruitment of native species is continuing without the need for further plantings. The need for a resumed weed control program remains a priority to prevent degradation of natural values. No performance criteria were exceeded in Zone 1.

## Zone 2

### General Management

No fires, rubbish dumping, plant theft, cattle grazing, stockpiling or unauthorised person or vehicle access.

### Fauna

Diverse floodplain plant communities in Zone 2 support a range of predatory, frugivorous, honeyeater and insectivorous birdlife and other fauna.

As per Zone 1, no fauna were observed occupying fauna nest boxes, all but one of which have either failed completely or are in advanced states of disrepair following Cyclone Alfred. All nest boxes are recommended to be replaced, refer below to *Routine Fauna Nest Box Monitoring*.

Tree hollows are very rare in Zone 2 with a few very small sized hollow openings only. Animals and signs of animals continue to be observed such as bandicoots, Lace Monitors, Brush Turkeys and wallabies. Several bird species, were recorded in addition to those recorded in previous years, refer to **Appendix 2**.

A detailed formal koala scat search in line with Phillips and Callaghan 2011) undertaken of the main areas of koala food tree plantings again found no signs of koala use or occupation in Zone 2.

### Weeds

Weed pressure was observed to be low in most of the western portions of Zone 2 but increasing with no weed control works undertaken in 2025. Weed infestations of Camphor

Laurel, Ground Asparagus, Umbrella Tree, Lantana, Corky Passionfruit, Ochna, Senna and Five-leaved Morning Glory are concentrated in the eastern portions. Camphor Laurel and Ochna are particularly problematic outside and adjacent to the southeast of Zone 2. A range of weed species are problematic adjacent to the northeast of Zone 2.

Substantial uprooting of native vegetation and canopy damage in the western portion from Cyclone Alfred has created a generally more open canopy which is more susceptible to weed infestation. This is despite the generally resilient nature of the vegetation community.

Priority weed control work directions remain unchanged as shown in **Figure 1,** including in koala habitat areas to prevent loss of koala access to food trees by weeds such as Lantana. Routine weed control works were undertaken up until December 2024 by qualified and experienced bush regenerators in line with maintenance requirements of the approved site Rehabilitation & Revegetation Management Plan (RRMP).

### Modifications
No structural modifications or illegal modifications were made within Zone 2. All fences were noted to be in relatively good condition with no fencing repairs required.

### Vegetation Regeneration
Natural regeneration/ recruitment of a relatively limited range of native plants occurs in Zone 2 areas with saline influences in the north and east. In contrast, a reasonably diverse range of plant species recruit in more elevated areas to the south of Zone 2 with rainforest understory. Vegetation cover of canopy species continues to increase at representative monitoring points, particularly of primary canopy species Broad-leaved Paperbark, Coast Banksia and Swamp Oak under high rainfall and good growing conditions throughout 2025.

A relatively simple range of understory and groundcover species were recorded in brackish water influenced environments in the north dominated by dense cover of Swamp Oak, Rushes (Juncus spp.) and Common Reed.

Natural regeneration and recruitment of native species is continuing without the need for further plantings. The need for a resumed weed control program remains a priority to prevent degradation of natural values. No performance criteria were exceeded in Zone 2.

## Zone 3
### General Management
No fires, rubbish dumping, plant theft, cattle grazing, stockpiling or unauthorised person or vehicle access.

### Fauna
The diverse vegetation in the relatively small area of Zone 3 supports a range of fauna. Signs of mammals such as bandicoots, Lace Monitors and wallabies continue to be observed. A range of bird species continues to be observed in Zone 3.

As per Zones 1 and 2, no fauna were observed occupying fauna nest boxes which are in disrepair following Cyclone Alfred in February/ March. Tree hollows, other than very small hollows, are also rare as per other zones.

### Weeds
Weed species, mostly along vegetation edges, include infestations of Lantana, Camphor Laurel, Winter Senna, Umbrella Tree, Five-leaved Morning Glory, White Passionfruit,

Tobacco Bush, Blue Billygoat Weed and Corky Passionfruit. Priority weed control work directions are unchanged as shown on **Figure 1.**

As the smallest of the three rehabilitation zones, primary control of isolated weeds and weed infestations is complete. Secondary follow-up weed control continues concentrating on weeds mostly recruited from surrounding bushland that does not have an active weed control program and weeds such as Five-leaved Morning Glory and Corky Passionfruit that are difficult to eradicate.

Priority weed control work directions remain unchanged as shown in **Figure 1**. Routine weed control works were undertaken up until December 2024 by qualified and experienced bush regenerators in line with maintenance requirements of the approved site Rehabilitation & Revegetation Management Plan (RRMP).

### Modifications
No structural modifications or illegal modifications were made within Zone 3. All fences were noted to be in a reasonably good condition.

### Vegetation Regeneration
High natural regeneration and recruitment of native plants continues to be observed in Zone 3. Vegetation cover of canopy species continues to increase at representative monitoring points, particularly of primary canopy species Broad-leaved Paperbark, Coast Banksia and Swamp Oak under good growing conditions. Regular high rainfall events has created excellent growing conditions throughout 2025.

Natural regeneration and recruitment of a diverse range of mostly closed rainforest understory shrub and groundcover species native species is continuing without the need for further plantings. The need for a resumed weed control program remains a priority to prevent degradation of natural values. No performance criteria were exceeded in Zone 3.

## Site Condition (Form B), refer to Appendix 3
### Zone 1
Minor to moderate native canopy damage from Cyclone Alfred has created a somewhat more open canopy in places which is more susceptible to weed infestation. Past plantings are generally thriving under good growing conditions, and natural regeneration of native plants is continuing throughout. Vegetation cover varies with high levels of leaf litter and native grass and forb cover in parts.

Weed pressure, mostly along vegetation edges to the north, central east and southeast where weeds continue to recruit from surrounding existing vegetation. Infestations continue to be observed of Lantana, Camphor Laurel, Ground Asparagus, Winter Senna, Umbrella Tree, Bitou Bush, Ochna, Groundsel Bush, Slash Pine, and Corky Passionfruit.

All of Zone 1 continues to be rated as A, i.e. on track towards target condition but dependent on continuing weed control.

### Zone 2
Substantial uprooting of native vegetation and canopy damage in the western portion from Cyclone Alfred has created a generally more open canopy which is more susceptible to weed infestation. This is despite the generally resilient nature of the vegetation community.

Past plantings continue to grow and develop and native plant recruitment is strong in part under generally good growing conditions. Vegetation cover remains variable with high levels

of rainforest grass and forb cover in relatively elevated floodplain areas unaffected by saline/ brackish conditions.

Weed pressure is highest to the southeast, northeast and central western sectors where weed pressure is highest. Problematic weeds include Camphor Laurel, Ground Asparagus, Umbrella Tree, Lantana, Bitou Bush, Slash Pine, Ochna, Senna, Corky Passionfruit and Five-leaved Morning Glory. An isolated infestation of Giant Devil's Fig (*Solanum chrysotrichum*) was detected for the first time on the property in the central area of Zone 2. Control is recommended as soon as possible to control the infestation and prevent its spread.

All of Zone 2 continues to be rated as A, i.e. on track towards target condition but dependent on continuing weed control.

### Zone 3

Generally minor canopy damage from Cyclone Alfred with isolated tree uprooting and more open canopy in places. Past plantings are mostly thriving along with the surrounding naturally occurring existing vegetation. Vegetation cover varies with mostly high levels of leaf litter and native grass cover, particularly Ottochloa.

Weed pressure continues to be concentrated along vegetation edges with adjacent bushland. Targeted weed control includes Lantana, Camphor Laurel, Winter Senna, Five-leaved Morning Glory, White Passionfruit, Tobacco Bush, Blue Billygoat Weed and Corky Passionfruit.

All of Zone 3 continues to be rated as A, i.e. on track towards target condition but dependent on continued weed control.

## Forest Structure and Floristic Composition (Forms C & D), refer to Appendix 4

Monitoring is undertaken annually at established 50m x 20m monitoring plots in Zones 1, 2 and 3.

### Zone 1

Groundcover was assessed in 1m x 1m quadrats at 5m, 25m and 45m along the established 50m transect. Leaf litter reduced substantially averaging 23% with corresponding increases in native tree and shrub seedlings, herbs and Bracken Fern vegetation groundcover. No bare soil was recorded. Fine and coarse woody debris along the 50m transect did not vary substantially from that of the previous two years. No other substantial change was noted from transect monitoring results from previous years.

Canopy foliage cover was both visually estimated and estimated against canopy cover range photographs in 10m x 10m quadrats at 5m, 25m and 45m along the established 50m transect. Canopy cover ranged between 70% and 75%, a slight reduction to that of 2024.

Canopy height was recorded by estimating the height of the tallest tree within each 10m x 10m quadrat at 5m, 25m and 45m along the established 50m transect. No emergent trees were noted, and canopy height was visually estimated to be greater than 18m, stable and mostly unchanged from 2024 monitoring. The canopy consists entirely of endemic native vegetation.

Special life forms were recorded within each 10m x 10m quadrat at 5m, 25m and 45m along the established 50m transect. Special life form records changed from 2024 in that Lantana

is now infesting the monitoring plots. Slender vines included Twining Guinea Flower, Coastal Cynanchum and Snake Vine. Ground ferns included Bracken, Gristle Fern, Bungwall and Climbing Fishbone. Blueberry Lilly as a strap-leaved life form and Lantana plants continue to be recorded as thorny scramblers. Another non-threatened Giant Boat-lip Orchid (*Cymbidium madidum*) was recorded as an epiphyte on a paperbark.

Floristic composition assessments were made for each vegetation strata in 10m x 10m quadrats at 5m, 25m and 45m along the established 50m transect. Broad-leaved Paperbark, Swamp Oak, Coast Banksia and Swamp Mahogany were recorded as the main canopy species. A range of mostly rainforest species were recorded in the midstory and understory/ groundcover (refer to **Appendix 4**).

High native growth and regeneration was noted in all strata. Notable common species included Swamp Oak, Coast Banksia, Wattle spp., Celerywood, Corkwood, Swamp Turpentine, Macaranga, Bracken, Slender Panic Grass, Blueberry Lily, Ottochloa, Broad-leaved Ballart, Twining Guinea Flower, Guioa and Bungwall Fern in relatively low lying and open areas.

No weed control was undertaken in 2025 by Arbor Ecological of invasive weeds including Lantana, Camphor Laurel, Bitou Bush, Corky Passionfruit, Groundsel Bush, Slash Pine, Ochna, Ground Asparagus, Umbrella Tree and Senna.

### Zone 2

Groundcover was assessed in 1m x 1m quadrats at 5m, 25m and 45m along the established 50m transect. Leaf litter varied between 10% and 25%, a reduction to that of 2024, due to increased cover of native grass, herb and Bracken Fern. There was no bare soil. Fine and coarse woody debris along the 50m transect increased substantially from that of the previous two years. No other substantial change was noted from transect monitoring results from previous years.

Canopy foliage cover was both visually estimated and estimated against canopy cover range photographs in 10m x 10m quadrats at 5m, 25m and 45m along the established 50m transect. Canopy cover ranged between 45% and 55%, a substantial reduction to that of 2024.

Canopy height was recorded by estimating the height of the tallest tree within each 10m x 10m quadrat at 5m, 25m and 45m along the established 50m transect. No emergent trees were noted, and canopy height was visually estimated to be greater than 18m, as per 2024 monitoring.

Special life forms were recorded within each 10m x 10m quadrat at 5m, 25m and 45m along the established 50m transect. Slender and robust vines included Twining Guinea Flower and Silkpod. Ground ferns included Bracken and Bungwall in the western portion. Blueberry Lilly was recorded as a strap-leaved life form. Special life form records were similar to that of 2024.

Floristic composition assessments were made for each vegetation strata in 10m x 10m quadrats at 5m, 25m and 45m along the established 50m transect. Broad-leaved Paperbark, Swamp Oak and Coast Banksia were recorded as the main canopy species. A range of species were recorded in the midstory and understory/ groundcover (refer to **Appendix 4**).

High native recruitment and development was noted in all strata. Notable common species included Swamp Oak, Coast Banksia, Corkwood, Bracken, Slender Panic Grass, Blueberry Lily, Twining Guinea Flower, Bungwall Fern, Whiteroot and Indian Pennywort.

No weed control was undertaken in 2025 by Arbor Ecological of invasive weeds including Camphor Laurel, Ground Asparagus, Umbrella Tree, Lantana, Bitou Bush, Corky Passionfruit, Ochna, Senna and Five-leaved Morning Glory.

### Zone 3

Groundcover was assessed in 1m x 1m quadrats at 5m, 25m and 45m along the established 50m transect. The shade-tolerant native Slender Panic Grass continues to dominate groundcover. Leaf litter cover varied substantially between 10% and 40%. Ferns, herbs and tree and shrub seedlings made up minor components. There was no bare soil. Fine and coarse woody debris along the 50m transect increased substantially from that of the previous two years. No other substantial change was noted from transect monitoring results from previous years.

Canopy foliage cover was both visually estimated and estimated against canopy cover range photographs in 10m x 10m quadrats at 5m, 25m and 45m along the established 50m transect. Canopy cover ranged between 40% and 60%, a substantial reduction to that of 2024.

Canopy height was recorded by estimating the height of the tallest tree within each 10m x 10m quadrat at 5m, 25m and 45m along the established 50m transect. No emergent trees were noted, and canopy height was visually estimated to be greater than 18m, slightly increasing from previous years monitoring.

Special life forms were recorded within each 10m x 10m quadrat at 5m, 25m and 45m along the established 50m transect. Slender and robust vines included Silkpod, Twining Guinea Flower and Snake Vine; ground ferns included Bracken, Blueberry Lilly recorded as a strap-leaved life form and Red-fruited Saw Sedge recorded as a thorny scrambler. Special life form records were similar to that of previous years of monitoring.

Floristic composition assessments were made for each vegetation strata in 10m x 10m quadrats at 5m, 25m and 45m along the established 50m transect. Broad-leaved Paperbark, Swamp Oak and Coast Banksia were recorded as the main canopy species. A range of species were recorded in the midstory and understory/ groundcover (refer to **Appendix 4**).

High native recruitment, growth and development was noted in all strata. Notable common species included Broad-leaved Paperbark, Swamp Oak, Coast Banksia, Corkwood, Bracken, Slender Panic Grass, Blady Grass, Ottochloa, Blueberry Lily, Twining Guinea Flower, Whiteroot, Indian Pennywort, Native Peach, Cheese Tree and Breynia.

No weed control was undertaken in 2025 by Arbor Ecological of invasive weeds including Lantana, Senna, Umbrella Tree, Camphor Laurel, Corky Passionfruit, White Passionfruit, Five-leaved Morning Glory, Tobacco Bush, Silverleaf Desmodium, Silverleaf Desmodium and Blue Billygoat weed.

## Routine Fauna Nest Box Monitoring (six-monthly), refer to Appendix 5

Monitoring of fauna nest boxes was performed twice during the year using a ladder and snake-eye inspection camera. Nest boxes were heavily impacted by rainwater and wind

associated with Cyclone Alfred in February March. As a result, the nest boxes deteriorated over the course of the year and by December, only one nest box was intact and in place. The other six nestboxes had either failed completely or were in advanced states of disrepair needing replacement. It is recommended that new nest boxes be installed in appropriate locations on site. Sustainably sourced structural grade hardwood nest boxes are recommended targeting specific fauna groups.

There were no signs of fauna use or occupation of existing nest boxes. This may be indicative of the availability of hollow habitat resources for hollow-dependent fauna in mature and over-mature trees in surrounding forested areas. Searches for substantial hollows found only small size opening hollows (<6cm opening sizes), mostly in mature Swamp Mahoganies at the northern extent of the site. The dominant canopy species Broad-leaved Paperbark, Coast Banksia, and Swamp Oak are not substantially hollow in mature and over mature trees.

Predatory birds are commonly observed flying over the site and Lace Monitors have been observed on site. These prey on nesting birds, reptiles and small mammals; and are indicative of the presence of prey animals in the broader locality.

# Environmental Protection Zone Performance Criteria

Performance criteria are considered to have been achieved in relation to:

- Existing native vegetation and areas of natural regeneration to be retained.
- All rubbish/vegetation dumping, non-approved structures, etc, are removed from the EPZs. There appears to be no additional activity regarding part construction of a shelter/ cubby house abandoned in NW of Zone 1c. This was likely done by children from the adjacent residential subdivision.
- Cattle and domestic animals are excluded.
- A survival rate of the following minimum standards apply to all planted trees, shrubs and groundcovers:
    - One year following planting: 90%
    - Three years following planting: 90%
    - Five years following planting: 85%
- Planted tubestock to exhibit fair or healthy conditions and meet minimum growth rate standards set out in the RRMP.
- No substantial impacts have been detected in relation to:
    - Inappropriate public access.
    - Litter and/or rubbish dumping
    - Stock theft
    - Bicycle/pedestrian tracks/trails
    - Soil compaction
    - Fence signage vandalism/removal
    - Cattle access and associated damage (i.e. grazing, trampling etc).
- Canopy coverage, density and diversity performance requirements for trees and shrubs.
- Groundcover and natural regeneration, including bare ground cover.

Management zones contain a mosaic of variable plant communities and levels of tree cover and species mixes. High levels of native recruitment and plant development and growth was observed in all strata, and it is considered that there is no requirements for any further supplementary plantings to achieve rehabilitation objectives.

Routine weed control works by Arbor Ecological between March 2020 and December 2024. No weed control works were undertaken in rehabilitation zones in 2025. Vegetation communities show strong resilience to weed infestations. However, it is considered that

periodic maintenance weed control remains necessary to ensure performance criteria are achieved and in line with the maintenance criteria specified in s.4.4 of the approved site Rehabilitation & Revegetation Management Plan (RRMP).

The following is recommended to achieve maintenance weed control:

- No weeds listed as Prevent[3] or Eradicate[4] under the North Coast Regional Strategic Weed Management Plan 2023-2027 (North Coast Local Land Services, 2025) which identifies regional priority weeds of risk and outlines recommended responses to achieve desirable weed management outcomes in line with NSW Biosecurity Act 2015. Supporting detailed information regarding specific weeds is provided on the NSW Department of Primary Industries WeedWise website.
- In practice it is noted that the removal of all individuals of all weed species for 100% of the time is unachievable. Therefore, it is considered appropriate that six monthly maintenance works aim to achieve the following performance criteria:
    - All large weed/ornamental trees are treated
    - No weed shrubs/trees older than three months of age are present
    - Densities of such shrubs/trees is not to exceed 1 per $20m^2$
    - Scattered groundcover weed species may occur but not in any covering an area greater than $5m^2$.

A detailed formal koala scat search in line with Phillips and Callaghan (2011) was undertaken of the main areas of remnant koala food trees and koala food tree plantings. Only relatively aged (i.e. non-fresh) koala scats were detected beneath mature Swamp Mahogany trees, a primary koala food tree species, in the area of previous records near the northern extent of the site, refer to **Figure 1**. No characteristic koala pock marks were observed on smooth-barked trees. Binocular scans of tree crowns found no signs of koala presence. Weed control is recommended in koala habitat areas to prevent loss of koala access to food trees by weeds such as Lantana.

The level of koala activity/usage over the site is noticeably lower in 2025 with no fresh koala scats detected. While the level of koala activity continues to be 'Low', Phillips and Callaghan (2011) note that where the results of a SAT site returns a low activity level, the level of use by the koala is likely to be transitory. The results indicate that a resident/sedentary population is not currently present on the site. It is considered that koalas may occasionally traverse the site as they move or disperse through the broader locality. It should be noted that the subject rehabilitation zones represents a small proportion of the entire property and other locations on the property may have higher levels of koala activity.

In conclusion, all management zones consist of healthy and resilient vegetation communities in mostly good condition following past rehabilitation works. All rehabilitation zones are rated as A, i.e. on track towards target condition but dependent on continued weed control. No further revegetation planting works are considered necessary.

Rehabilitation zones remain relatively remote from the approved extraction areas and are not obviously affected by direct or indirect environmental impacts associated with extraction activities.

[3] Prevent listed weed species are not known to be present in the region. They have a high to very high weed risk (highly invasive and high threat) and have a high likelihood of arriving in the region due to potential distribution and/ or an existing high risk pathway.

[4] Eradicate listed weed species are present in the region to a limited extent only and the risk of re-invasion is either minimal or can be easily managed. They have a high to very high weed risk and high feasibility of coordinated control.

# Appendix D -
# Long Term Monitoring Results

## Long-term Algae Monitoring at Dunloe Sands Quarry

| Data located | Date | Location | Cyanophyta (Blue Green Algae) | Chlorophyta (Total Algae Count) | Diatoms (Bacillariophyta) | Dinophyta (Dinoflagellates) | Euglenophyta (Euglenoids) | M. Aeruginosa | Total Biovolume |
|---|---|---|---|---|---|---|---|---|---|
| | | | cells/mL | cells/mL | cells/mL | cells/mL | cells/mL | cells/mL | mm3/L |
| 2011/2012 AEMR | 30/11/2011 | Extraction Pond | 240 | | | | | | |
| | 22/12/2012 | Extraction Pond | 800 | | | | | | |
| | 2/02/2012 | Extraction Pond | <100 | | | | | | |
| | 20/02/2012 | Extraction Pond | 700 | | | | | | |
| | 28/02/2012 | Extraction Pond | 14375 | | | | | | |
| | 27/03/2012 | Extraction Pond | 1200 | | | | | | |
| | 30/05/2012 | Extraction Pond | <100 | | | | | | |
| | 27/06/2012 | Extraction Pond | 130 | 0.01 | | | | | |
| | 26/07/2012 | Extraction Pond | 16360 | 2520 | | | | | |
| | 27/08/2012 | Extraction Pond | 24640 | 3720 | | | | | |
| | 27/09/2012 | Extraction Pond | 68000 | 35000 | | | | | |
| | 29/10/2012 | Extraction Pond | <100 | 7900 | | | | | |
| 2012/2013 AEMR | 28/11/2012 | Extraction Pond | <100 | 80670 | | | | | |
| | 24/12/2012 | Extraction Pond | <100 | | | | | | |
| | 17/01/2013 | Extraction Pond | <100 | | | | | | |
| | 1/02/2013 | Extraction Pond | <100 | | | | | | |
| | 15/02/2013 | Extraction Pond | <100 | | | | | | |
| | 8/03/2013 | Extraction Pond | <100 | 215 | | | | | |
| | 30/05/2013 | Extraction Pond | <100 | 880 | | | | | |
| | 30/06/2013 | Extraction Pond | <100 | | | | | | |
| | 30/07/2013 | Extraction Pond | <100 | 34000 | | | | | |
| | 28/08/2013 | Extraction Pond | <100 | 205 | | | | | |
| | 30/09/2013 | Extraction Pond | <100 | | | | | | |
| | 25/10/2013 | Extraction Pond | <100 | 17430 | | | | | |
| 2013/2014 AEMR | 25/11/2013 | Extraction Pond | | | | 480 | | | |
| | 12/12/2013 | Extraction Pond | 1150 | 39500 | | | | | |
| | 19/12/2013 | Extraction Pond | | 22000 | | | | | |
| | 9/01/2014 | Extraction Pond | | 123000 | | | | | |
| | 29/01/2014 | Extraction Pond | | 34000 | | | | | |
| | 31/03/2014 | Extraction Pond | | | 295 | | | | |
| | 28/04/2014 | Extraction Pond | | 7700 | 45 | | | | |
| | 29/05/2014 | Extraction Pond | ND | 7600 | | | | | |
| | 26/06/2014 | Extraction Pond | ND | 52000 | | | | | |
| | 31/07/2014 | Extraction Pond | ND | 28000 | | | | | |
| | 28/10/2014 | Extraction Pond | ND | 168000 | | | | | |
| Appendix of 2015 AEMR | 28/11/2014 | Extraction Pond | ND | 123000 | 260 | 60 | | | |
| | 16/12/2014 | Extraction Pond | ND | 106500 | 220 | 35 | | | |
| | 22/01/2015 | Extraction Pond | ND | 37000 | | | | | |
| | 26/02/2015 | Extraction Pond | ND | | | | | | |
| | 26/03/2015 | Extraction Pond | ND | 8750 | | | | | |
| | 24/04/2015 | Extraction Pond | ND | 8000 | | | | | |
| | 29/05/2015 | Extraction Pond | ND | 76000 | 4200 | | | | |
| | 29/06/2015 | Extraction Pond | ND | 211000 | 6300 | | | | |
| | 21/10/2015 | Extraction Pond | ND | 18330 | 65 | 35 | 155 | | |
| | 26/11/2015 | Extraction Pond | ND | 4850 | | 5 | | | |
| | 11/12/2015 | Extraction Pond | ND | 11900 | 30 | 10 | | | |
| 2016 AEMR | 25/01/2016 | Extraction Pond | ND | 34000 | | | | | |
| | 8/02/2016 | Extraction Pond | ND | 0 | | | | | |
| | 24/02/2016 | Extraction Pond | ND | 3700 | | | | | |
| | 10/03/2016 | Extraction Pond | ND | 1575 | | | | | |
| | 24/03/2016 | Extraction Pond | ND | 7600 | | | | | |
| | 7/04/2016 | Extraction Pond | ND | 9700 | | | | | |
| | 29/04/2016 | Extraction Pond | ND | 11800 | | | | | |
| | 24/05/2016 | Extraction Pond | ND | 5700 | | | | | |
| | 30/06/2016 | Extraction Pond | ND | 28930 | | | | | |
| | 31/08/2016 | Extraction Pond | 840 | 61500 | | | | | |
| | 30/09/2016 | Extraction Pond | ND | 920 | | | | | |
| | 4/10/2016 | Extraction Pond | ND | 920 | | | | | |
| | 28/10/2016 | Extraction Pond | ND | 29000 | | | | | |
| | 21/12/2016 | Extraction Pond | ND | 10830 | | | | | |
| 2017 Q1 Env Monitoring report | 30/01/2017 | Extraction Pond | ND | 1480 | | | | | |
| | 27/02/2017 | Extraction Pond | ND | 640 | | | | | |
| | 22/03/2017 | Extraction Pond | ND | 175 | | | | | |
| | 19/04/2017 | Extraction Pond | ND | 600 | | | | | |
| | 17/05/2017 | Extraction Pond | ND | 2820 | | | | | |
| | 14/06/2017 | Extraction Pond | ND | 1830 | | | | | |
| | 12/07/2017 | Extraction Pond | ND | 5260 | | | | | |
| | 9/08/2017 | Extraction Pond | ND | 41500 | | | | | |
| | 6/09/2017 | Extraction Pond | ND | 99800 | | | | | |
| | 4/10/2017 | Extraction Pond | ND | 128000 | | | | | |
| | 1/11/2017 | Extraction Pond | ND | 38600 | | | | | |
| | 29/11/2017 | Extraction Pond | ND | 8150 | | | | | |
| | 28/12/2017 | Extraction Pond | ND | 1890 | | | | | |
| 2018 Env Monitoring | 24/01/2018 | Extraction Pond | <5 | 350 | | | | | |
| | 21/02/2018 | Extraction Pond | <5 | 100 | | | | | |
| | 21/03/2018 | Extraction Pond | <5 | 3,960 | | | | | |
| | 18/04/2018 | Extraction Pond | <5 | 4,580 | | | | | |
| | 16/05/2018 | Extraction Pond | <5 | 250 | | | | | |
| | 13/06/2018 | Extraction Pond | <5 | 5,820 | | | | | |
| | 11/07/2018 | Extraction Pond | <5 | 16,100 | | | | | |
| | 8/08/2018 | Extraction Pond | <5 | 13,800 | | | | | |
| | 5/09/2018 | Extraction Pond | ND | ND | | | | | |
| | 5/10/2018 | Extraction Pond | <5 | ND | | | | | |
| | 6/11/2018 | Extraction Pond | ND | ND | | | | | |
| | 7/12/2018 | Extraction Pond | ND | ND | | | | | |
| 2019 Env Monitoring | 8/03/2019 | Point 1 Silt Pond (Dam 2) | <0.001 | <5 | | | | | |
| | 4/06/2019 | Point 1 Silt Pond (Dam 2) | <0.001 | 500 | | | | | |
| | 29/08/2019 | Point 1 Silt Pond (Dam 2) | <0.001 | 525 | | | | | |
| | 22/11/2019 | Point 1 Silt Pond (Dam 2) | 2.13 | 10800 | | | | | |
| | 8/03/2019 | Point 2 Dredge Pond | <0.001 | <5 | | | | | |
| | 4/06/2019 | Point 2 Dredge Pond | <0.001 | 550 | | | | | |
| | 29/08/2019 | Point 2 Dredge Pond | 0.002 | 30900 | | | | | |
| | 22/11/2019 | Point 2 Dredge Pond | 0.002 | 900 | | | | | |
| 2020 Annual Review | 14/02/2020 | Silt Pond (Dam 2) | | | | | | 5 | 0.001 |
| | 18/03/2020 | Dredge Pond (Dam 1) | | | | | | 735 | 1.0199 |
| | 18/03/2020 | Silt Pond (Dam 2) | | | | | | 727 | 1.032 |
| | 16/04/2020 | Dredge Pond (Dam 1) | | | | | | 430 | 0.0166 |
| | 16/04/2020 | Silt Pond (Dam 2) | | | | | | 0 | 0 |
| | 14/05/2020 | Dredge Pond (Dam 1) | | | | | | 90 | 0.0043 |
| | 14/05/2020 | Silt Pond (Dam 2) | | | | | | 270 | 0.115 |
| | 11/06/2020 | Dredge Pond (Dam 1) | | | | | | 0 | 0 |
| | 11/06/2020 | Silt Pond (Dam 2) | | | | | | 0 | 0 |
| | 9/07/2020 | Dredge Pond (Dam 1) | | | | | | 0 | 0 |
| | 9/07/2020 | Silt Pond (Dam 2) | | | | | | 110 | 0.0011 |
| | 10/08/2020 | Dredge Pond (Dam 1) | | | | | | 210 | 0.0153 |
| | 10/08/2020 | Silt Pond (Dam 2) | | | | | | 170 | 0.0151 |
| | 8/09/2020 | Dredge Pond (Dam 1) | | | | | | 326 | 0.00171 |
| | 8/09/2020 | Silt Pond (Dam 2) | | | | | | 2252 | 0.0089 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 8/10/2020 | Dredge Pond (Dam 1) | | | | | | 0 | 0 |
| | 8/10/2020 | Silt Pond (Dam 2) | | | | | | 148 | 0.00186 |
| | 9/11/2020 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 9/11/2020 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 24/11/2020 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 24/11/2020 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 10/12/2020 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 10/12/2020 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 1/01/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 22/01/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 11/02/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 3/03/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 16/03/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 22/03/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 3/04/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 12/05/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 10/06/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 8/07/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 9/08/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 9/09/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 11/10/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 22/10/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 10/11/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| 2021 Annual Review | 10/12/2021 | Dredge Pond (Dam 1) | | | | | | 1 | 0.01 |
| | 1/01/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 22/01/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 11/02/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 3/03/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 16/03/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 22/03/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 3/04/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 12/05/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 10/06/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 8/07/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 9/08/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 9/09/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 11/10/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 22/10/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 10/11/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 10/12/2021 | Silt Pond (Dam 2) | | | | | | 1 | 0.01 |
| | 12/01/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 9/02/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 14/03/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 13/04/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 11/05/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 8/06/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 11/07/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 10/08/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 12/09/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 14/11/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| | 14/12/2022 | Dredge Pond (Dam 1) | | | | | | | 0.01 |
| 2022 Env Monitoring | 12/01/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 9/02/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 14/03/2022 | Silt Pond (Dam 2) | | | | | | | 0.02 |
| | 13/04/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 11/05/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 8/06/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 11/07/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 10/08/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 12/09/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 12/10/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 14/11/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 14/12/2022 | Silt Pond (Dam 2) | | | | | | | 0.01 |
| | 11/01/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 20/01/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 13/02/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 20/02/023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 15/03/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 20/03/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/04/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 19/04/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/05/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 14/06/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/07/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 8/08/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/09/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/10/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 20/10/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 13/11/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 20/11/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| 2023 Env Monitoring | 12/12/2023 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/01/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 20/01/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 13/02/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 20/02/023 | Silt Pond | | | | | | 1 | 0.01 |
| | 15/03/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 20/03/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/04/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 19/04/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/05/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 14/06/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/07/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 8/08/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/09/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/10/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 20/10/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 13/11/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 20/11/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 12/12/2023 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/01/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 15/01/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 13/02/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 19/02/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 14/03/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 25/03/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 11/04/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 29/04/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 8/05/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 12/06/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 10/07/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 13/08/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 11/09/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 10/10/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 21/10/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 12/11/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 25/11/2024 | Dredge Pond | | | | | | 1 | 0.10 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2024 Env Monitoring | 11/12/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 16/12/2024 | Dredge Pond | | | | | | 1 | 0.10 |
| | 11/01/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 15/01/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 13/02/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 19/02/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 14/03/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 25/03/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 11/04/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 29/04/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 8/05/2024 | Silt Pond | | | | | | 1 | 0.01 |
| | 12/06/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 10/07/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 13/08/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 11/09/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 10/10/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 21/10/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 12/11/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 25/11/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 11/12/2024 | Silt Pond | | | | | | 1 | 0.10 |
| | 16/12/2024 | Silt Pond | | | | | | 1 | 0.10 |
| 2025 Env Monitoring | 16/01/2025 | Dredge Pond | | | | | | 1 | 0.01 |
| | 21/01/2025 | Dredge Pond | | | | | | 1 | 0.01 |
| | 11/02/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 17/02/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 12/03/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 18/03/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 16/04/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 28/04/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 21/05/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 12/06/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 15/07/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 13/08/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 10/09/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 9/10/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 22/10/2025 | Dredge Pond | | | | | | 15000 | 0.29 |
| | 11/11/2025 | Dredge Pond | | | | | | 0 | 0.01 |
| | 18/11/2025 | Dredge Pond | | | | | | 800 | 0.02 |
| | 11/12/2025 | Dredge Pond | | | | | | 13400 | 0.26 |
| | 19/12/2025 | Dredge Pond | | | | | | 30000 | 0.59 |
| | 16/01/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 21/01/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 11/02/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 17/02/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 12/03/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 18/03/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 16/04/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 28/04/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 21/05/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 12/06/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 15/07/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 13/08/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 10/09/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 9/10/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 22/10/2025 | Silt Pond | | | | | | 3800 | 0.07 |
| | 11/11/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 18/11/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 11/12/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | 19/12/2025 | Silt Pond | | | | | | 0 | 0.01 |
| | | **Minimum** | **0.002** | **0** | **30** | **5** | **155** | **0** | **0** |
| | | **Maximum** | **68000** | **211000** | **6300** | **480** | **155** | **30000** | **1.032** |
| | | **Average** | **9174.1** | **26700.4** | **1426.9** | **104.2** | **155.0** | **410.7** | **0.0** |

| Long-term Depositional Dust Monitoring at Dunloe Sands Quarry | | | | | | |
|---|---|---|---|---|---|---|
| Data located | Date | Location | D1 | D2 | D3 | D4 |
| | | | g/m2/month | g/m2/month | g/m2/month | g/m2/month |
| Appendix of 2015 AEMR | 17/07/2015 | Dunloe Sands | 0.3 | 0.2 | 0.7 | 0.4 |
| | 19/08/2015 | Dunloe Sands | 0.3 | 0.3 | 0.2 | 0.2 |
| | 17/09/2015 | Dunloe Sands | 0.5 | 1.6 | 0.4 | 0.5 |
| | 21/10/2015 | Dunloe Sands | 0.1 | 0.6 | 0.2 | 0.1 |
| | 25/11/2015 | Dunloe Sands | 0.3 | 1.7 | 0.6 | 0.5 |
| | 16/12/2015 | Dunloe Sands | 0.7 | 0.8 | 0.4 | 0.6 |
| 2016 AEMR | Jan-16 | Dunloe Sands | 0.3 | 0.4 | 0.5 | 0.6 |
| | Feb-16 | Dunloe Sands | 0.4 | 0.6 | 0.5 | 0.5 |
| | Mar-16 | Dunloe Sands | 0.2 | 4.7 | 0.3 | 0.5 |
| | Apr-16 | Dunloe Sands | 0.2 | 1.6 | 0.2 | 0.8 |
| | May-16 | Dunloe Sands | 0.3 | 1.2 | 0.3 | 1.6 |
| | Jun-16 | Dunloe Sands | 0.3 | 1.1 | 1.6 | 0.5 |
| | Jul-16 | Dunloe Sands | 0.13 | 0.52 | 0.41 | 0.39 |
| | Aug-16 | Dunloe Sands | 0.6 | 0.5 | 0.3 | 0.4 |
| | Sep-16 | Dunloe Sands | 0.8 | 0.5 | 0.4 | 0.3 |
| | Oct-16 | Dunloe Sands | 0.8 | 0.5 | 0.4 | 0.3 |
| | Nov-16 | Dunloe Sands | 0.4 | 1.9 | 0.3 | 0.4 |
| | Dec-16 | Dunloe Sands | 0.5 | 1.7 | 0.6 | 0.5 |
| 2017 Environmental Monitoring | 30/01/2017 | Dunloe Sands | 0.3 | 0.2 | 0.5 | 0.3 |
| | 27/02/2017 | Dunloe Sands | 0.3 | 0.2 | 0.2 | 0.3 |
| | 22/03/2017 | Dunloe Sands | 0.2 | 0.1 | 2.4 | 0.3 |
| | 19/04/2017 | Dunloe Sands | 0.2 | 0.9 | 1 | 0.3 |
| | 17/05/2017 | Dunloe Sands | 0.8 | 0.8 | 1.4 | 0.7 |
| | 14/06/2017 | Dunloe Sands | 0.2 | 0.2 | 0.2 | 0.2 |
| | 12/07/2017 | Dunloe Sands | 0.3 | 0.1 | 0.2 | 0.3 |
| | 9/08/2017 | Dunloe Sands | 0.1 | 0.1 | 0.2 | 0.5 |
| | 6/09/2017 | Dunloe Sands | 0.5 | 0.2 | 0.5 | 0.5 |
| | 4/10/2017 | Dunloe Sands | 0.7 | 0.6 | 2.4 | 0.9 |
| | 1/11/2017 | Dunloe Sands | 0.5 | 0.3 | 0.8 | 0.5 |
| | 29/11/2017 | Dunloe Sands | 0.1 | 0.2 | 0.3 | 0.1 |
| | 28/12/2017 | Dunloe Sands | 0.4 | 0.3 | 0.2 | 0.2 |
| 2018 Enviro Monitoring | 24/01/2018 | Dunloe Sands | 0.1 | 0.1 | 0.1 | 0.1 |
| | 21/02/2018 | Dunloe Sands | 2.7 | 0.7 | 1.6 | 0.6 |
| | 21/03/2018 | Dunloe Sands | 0.4 | 4.9c | 11.8c | 7.1c |
| | 18/04/2018 | Dunloe Sands | 0.4 | 0.1 | 0.3 | 0.2 |
| | 16/05/2018 | Dunloe Sands | 0.2 | 0.4 | 0.6 | 0.3 |
| | 13/06/2018 | Dunloe Sands | 0.3 | 0.2 | 5.2c | 0.4 |
| | 11/07/2018 | Dunloe Sands | 0.5 | 0.4 | 0.5 | 0.2 |
| | 8/08/2018 | Dunloe Sands | 0.4 | 0.5 | 0.3 | 0.2 |
| | 5/09/2018 | Dunloe Sands | NS | NS | NS | NS |
| | 5/10/2018 | Dunloe Sands | 0.1 | 0.4 | 0.3 | 0.7 |
| | 6/11/2018 | Dunloe Sands | 0.1 | 0.1 | 1.5 | 0.7 |
| | 7/12/2018 | Dunloe Sands | 1 | 0.2 | 1.6 | 0.3 |
| 2019 Enviro Monitoring | 8/01/2019 | Dunloe Sands | 0.5 | 0.6 | 0.5 | 0.3 |
| | 5/02/2019 | Dunloe Sands | 0.2 | 0.2 | 0.2 | 0.2 |
| | 8/03/2019 | Dunloe Sands | 1.1 | 1 | 1.2 | 0.9 |
| | 5/04/2019 | Dunloe Sands | 0.5 | 0.2 | 0.2 | 0.9 |
| | 7/05/2019 | Dunloe Sands | 0.1 | 0.4 | 0.2 | 1.2 |
| | 4/06/2019 | Dunloe Sands | 0.2 | 0.4 | 0.7 | 0.2 |
| | 4/07/2019 | Dunloe Sands | 0.3 | 0.3 | 0.2 | 1.1 |
| | 29/08/2019 | Dunloe Sands | 0.5 | 0.5 | 0.4 | 1.8 |
| | 26/09/2019 | Dunloe Sands | 0.7 | 0.6 | 0.5 | 1.5 |
| | 24/10/2019 | Dunloe Sands | 1.2 | 0.7 | 0.5 | 1.4 |
| | 22/11/2019 | Dunloe Sands | 0.8 | 0.5 | 0.8 | 0.5 |
| | 20/12/2019 | Dunloe Sands | 1.8 | 1.8 | 1.6 | 1 |
| 2020 Enviro Monitoring Portal | 17/01/2020 | Dunloe Sands | 2.3 | 2.5 | 1.3 | NS |
| | 14/02/2020 | Dunloe Sands | 0.3 | NS | NS | NS |
| | 18/03/2020 | Dunloe Sands | 0.4 | 6.1* | 0.5* | 5.4* |
| | 16/04/2020 | Dunloe Sands | 1 | 0.6 | 0.5 | 0.6 |
| | 14/05/2020 | Dunloe Sands | 2 | 3.6 | 0.3 | 0.6 |
| | 11/06/2020 | Dunloe Sands | 0.1 | 0.9 | 0.3 | 2.5* |
| | 9/07/2020 | Dunloe Sands | 0.1 | 2.1 | 0.2 | 4 |
| | 10/08/2020 | Dunloe Sands | 1.4 | 0.7 | 0.2 | 3 |
| | 10/09/2020 | Dunloe Sands | 0.5 | 0.6 | 0.7 | 0.8 |
| | 8/10/2020 | Dunloe Sands | 0.5 | 0.4 | 1 | 7.7 |
| | 9/11/2020 | Dunloe Sands | 1.1 | 1.6 | 0.4 | 3 |
| | 10/12/2020 | Dunloe Sands | 1 | NS | 0.4 | 3.8 |
| | 11/01/2021 | Dunloe Sands | 0.2 | NS | 0.7 | 0.5 |
| | 11/02/2021 | Dunloe Sands | 0.5 | 0.3 | 2.5 | 1.1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2021 Enviro Monitoring Portal | 15/03/2021 | Dunloe Sands | 0.2 | 0.6 | 0.7 | 12 |
| | 13/04/2021 | Dunloe Sands | 0.4 | 0.6 | 1.3 | 1.5 |
| | 12/05/2021 | Dunloe Sands | 0.3 | 0.5 | 1.9 | 14 |
| | 10/06/2021 | Dunloe Sands | 0.2 | 0.2 | 0.2 | 7 |
| | 8/07/2021 | Dunloe Sands | 0.2 | 0.1 | 0.3 | NS |
| | 9/08/2021 | Dunloe Sands | 0.3 | 0.4 | 0.3 | 18 |
| | 9/09/2021 | Dunloe Sands | 0.8 | 0.4 | 0.5 | 8.2 |
| | 11/10/2021 | Dunloe Sands | 1.1 | 0.7 | 1.2 | 1.2 |
| | 13/12/2021 | Dunloe Sands | 0.5 | 0.9 | 1.3 | 3.7 |
| 2022 Environmental Monitoring | 12/01/2022 | Dunloe Sands | 0.4 | 3.7 | 0.9 | 3.6 |
| | 10/02/2022 | Dunloe Sands | 0.7 | 0.5 | 0.9 | 0.4 |
| | 14/03/2022 | Dunloe Sands | 0.2 | NS | 2.2 | 1.0 |
| | 13/04/2022 | Dunloe Sands | 0.4 | 0.5 | 0.3 | 0.4 |
| | 11/05/2022 | Dunloe Sands | 0.4 | 1.2 | 0.5 | 3.2 |
| | 9/06/2022 | Dunloe Sands | 0.4 | 0.4 | 0.4 | 1.8 |
| | 11/07/2022 | Dunloe Sands | 0.3 | 0.3 | 0.3 | 2.8 |
| | 11/08/2022 | Dunloe Sands | 0.2 | 0.2 | 0.3 | 1.6 |
| | 12/09/2022 | Dunloe Sands | 0.2 | 0.2 | 0.1 | 0.7 |
| | 13/10/2022 | Dunloe Sands | 0.1 | 0.1 | 0.1 | 0.1 |
| | 14/11/2022 | Dunloe Sands | 0.1 | 0.2 | 0.6 | 0.2 |
| | 14/12/2022 | Dunloe Sands | 0.1 | 0.3 | 0.1 | 0.1 |
| 2023 Environmental Monitoring | January 2023 | Dunloe Sands | 0.1 | 0.1 | 0.1 | 0.2 |
| | February 2023 | Dunloe Sands | 0.2 | 0.3 | 0.5 | 0.1 |
| | March 2023 | Dunloe Sands | 0.5 | 3.1 | 0.3 | 0.1 |
| | April 2023 | Dunloe Sands | 1.3 | 0.2 | 0.8 | 0.2 |
| | May 2023 | Dunloe Sands | 0.4 | 0.5 | 4.3 | 0.5 |
| | June 2023 | Dunloe Sands | 0.1 | 0.1 | 0.7 | 1.1 |
| | July 2023 | Dunloe Sands | 0.1 | 3.5 | 0.2 | 0.3 |
| | August 2023 | Dunloe Sands | 0.2 | 0.4 | 0.2 | 0.1 |
| | September 2023 | Dunloe Sands | 0.2 | 2.2 | 0.5 | 0.3 |
| | October 2023 | Dunloe Sands | 0.3 | 2.3 | 0.2 | 0.1 |
| | November 2023 | Dunloe Sands | 1.1 | 2.0 | 0.7 | 1.0 |
| | December 2023 | Dunloe Sands | 0.5 | 2.8 | 0.8 | 0.3 |
| 2024 Environmental Monitoring | January 2024 | Dunloe Sands | 0.5 | 0.6 | 0.8 | 0.2 |
| | February 2024 | Dunloe Sands | 0.2 | 0.8 | 0.5 | 0.4 |
| | March 2024 | Dunloe Sands | 0.2 | 1.2 | 0.3 | |
| | April 2024 | Dunloe Sands | 0.8 | 2.0 | 0.8 | 0.6 |
| | May 2024 | Dunloe Sands | 0.6 | 2.3 | 0.6 | 3.9 |
| | June 2024 | Dunloe Sands | 0.6 | 0.7 | 0.1 | 0.1 |
| | July 2024 | Dunloe Sands | 0.6 | 0.1 | 0.1 | |
| | August 2024 | Dunloe Sands | 0.3 | 0.1 | 0.1 | 0.2 |
| | September 2024 | Dunloe Sands | | 0.6 | 0.3 | 0.3 |
| | October 2024 | Dunloe Sands | 0.2 | 1.1 | 0.3 | 0.1 |
| | November 2024 | Dunloe Sands | 0.4 | 3.8 | 0.4 | 0.5 |
| | December 2024 | Dunloe Sands | 0.6 | 16.0 | 0.8 | 0.7 |
| 2025 Environmental Monitoring | January 2025 | Dunloe Sands | 0.7 | 0.2 | 0.3 | 0.5 |
| | February 2025 | Dunloe Sands | 14.0 | 12.0 | - | 0.7 |
| | March 2025 | Dunloe Sands | - | 2.1 | 0.1 | 0.5 |
| | April 2025 | Dunloe Sands | 1.1 | 12.0 | 1.0 | 0.2 |
| | May 2025 | Dunloe Sands | 0.1 | 0.1 | 2.8 | 0.1 |
| | June 2025 | Dunloe Sands | 0.1 | 0.1 | 0.1 | 0.5 |
| | July 2025 | Dunloe Sands | 0.1 | 0.1 | 0.1 | 4.8 |
| | August 2025 | Dunloe Sands | 0.5 | 0.8 | 0.4 | 0.7 |
| | September 2025 | Dunloe Sands | 1.2 | 1.2 | 1.2 | 4.1 |
| | October 2025 | Dunloe Sands | 0.2 | 0.2 | 0.2 | 0.9 |
| | November 2025 | Dunloe Sands | 1.3 | 1.8 | 1.2 | 4.5 |
| | December 2025 | Dunloe Sands | 1.6 | 1.6 | 0.5 | 3.4 |
| | | **Minimum** | **0.1** | **0.1** | **0.1** | **0.1** |
| | | **Maximum** | **14.0** | **16.0** | **4.3** | **18** |
| | | **Average** | **0.61** | **1.17** | **0.66** | **1.43** |

**Long-term Groundwater Depth Monitoring at Dunloe Sands Quarry**

| Date | DPL1 | DPL3 | DPL5 | DPL6 | DPL7 |
|---|---|---|---|---|---|
| Nov-13 | 0.61 | 0.57 | 0.67 | 0.59 | 0.61 |
| Apr-14 | 0.61 | 0.58 | 0.68 | 0.61 | 0.62 |
| Nov-14 | 1.30 | 1.90 | 1.20 | 1.40 | 1.90 |
| Dec-14 | 1.20 | 1.80 | 1.20 | 1.40 | 1.80 |
| Jan-15 | 1.10 | 1.40 | 0.90 | 1.20 | 1.40 |
| Feb-15 | 0.30 | 1.00 | 0.20 | 0.80 | 1.50 |
| Mar-15 | 0.70 | 1.00 | 0.40 | 1.00 | 1.20 |
| Apr-15 | 0.90 | 1.00 | 0.80 | 1.20 | 1.40 |
| May-15 | 1.10 | 1.70 | 0.80 | 1.40 | 1.20 |
| Jun-15 | 1.40 | 1.40 | 0.80 | 1.20 | 1.30 |
| Jul-15 | 1.00 | 1.50 | 1.10 | 1.10 | 1.00 |
| Aug-15 | 1.30 | 1.50 | 0.90 | 1.10 | 1.60 |
| Sep-15 | 1.30 | 1.80 | 1.30 | 1.20 | 1.70 |
| Oct-15 | 1.40 | 1.70 | 1.10 | 1.20 | 1.80 |
| Nov-15 | 1.20 | 1.40 | 1.20 | 1.30 | 1.70 |
| Dec-15 | 1.10 | 1.20 | 0.90 | 1.20 | 1.60 |
| 22/03/2017 | 1.58 | 1.28 | 1.38 | 1.95 | 1.20 |
| 19/04/2017 | 1.53 | 1.46 | 1.51 | 1.26 | |
| 17/05/2017 | 1.64 | 1.44 | 1.54 | 1.51 | 1.51 |
| 14/06/2017 | 0.89 | | | 1.08 | |
| 12/07/2017 | 1.69 | 1.52 | 1.60 | 1.54 | 1.47 |
| 9/08/2017 | 1.83 | 1.60 | 1.68 | 1.77 | 1.69 |
| 6/09/2017 | 1.90 | 1.61 | 1.67 | 1.85 | 1.80 |
| 4/10/2017 | 1.91 | 1.54 | 1.61 | 1.81 | 1.69 |
| 1/11/2017 | 1.92 | 1.64 | 1.72 | 1.81 | 1.72 |
| 29/11/2017 | 1.93 | 1.65 | 1.74 | 1.81 | 1.77 |
| 28/12/2017 | 1.94 | 1.66 | 1.74 | 1.97 | 1.78 |
| 24/01/2018 | 2.03 | 1.70 | 1.77 | 1.88 | 1.9 |
| 21/02/2018 | 1.94 | 1.52 | 1.62 | 1.87 | 1.89 |
| 21/03/2018 | 1.68 | 1.38 | 1.49 | 1.62 | 1.4 |
| 18/04/2018 | 1.6 | 1.33 | 1.41 | 1.52 | 1.24 |
| 16/05/2018 | 1.62 | 1.23 | 1.36 | 1.65 | 1.37 |
| 13/06/2018 | 1.74 | 1.42 | 1.56 | 1.78 | 1.55 |
| 11/07/2018 | 1.78 | 1.48 | 1.56 | 1.71 | 1.62 |
| 8/08/2018 | 1.98 | 1.72 | 1.80 | 1.78 | 1.78 |
| 5/09/2018 | | 1.36 | 1.74 | 1.6 | 1.78 |
| 5/10/2018 | 1.73 | 1.39 | 1.39 | 1.73 | 1.64 |
| 6/11/2018 | 1.74 | 1.74 | 1.54 | 1.62 | 1.52 |
| 7/12/2018 | | 1.39 | 1.46 | 1.58 | 1.34 |
| 8/01/2019 | 1.75 | 1.63 | 1.60 | 1.91 | 1.8 |
| 5/02/2019 | 1.99 | 1.64 | 1.71 | 2.1 | 1.93 |
| 8/03/2019 | 1.97 | 1.83 | 1.88 | 1.51 | 1.59 |
| 5/04/2019 | 1.58 | 1.35 | 1.39 | 1.48 | 1.56 |
| 7/05/2019 | NA | NA | NA | NA | NA |
| 4/06/2019 | 1.75 | 1.35 | 1.75 | 1.64 | 1.6 |
| 4/07/2019 | 1.68 | 1.26 | 1.42 | 1.49 | 1.31 |
| 1/08/2019 | 1.85 | 1.49 | 1.59 | 1.58 | 1.61 |
| 26/09/2019 | 2.45 | 2.74 | 2.77 | 1.64 | 2.75 |
| 24/10/2019 | NR | NR | NR | NR | NR |
| 22/11/2019 | 2.03 | 2.02 | 1.81 | 2.01 | 1.99 |
| 20/12/2019 | 2.13 | 1.79 | 1.83 | 1.68 | 2.01 |
| 17/01/2020 | 2.03 | | | | |
| 18/03/2020 | 0.7 | 1.2 | 1.25 | 1 | 1.15 |
| 16/04/2020 | 1.7 | 1.4 | 1.50 | 1.4 | 1.4 |
| 14/05/2020 | 1.9 | 1.7 | 1.8 | 1.8 | 1.7 |
| 11/06/2020 | 1.8 | 1.5 | 1.65 | 1.55 | 1.7 |
| 9/07/2020 | 2.05 | 1.7 | 1.65 | 1.65 | 1.8 |
| 10/08/2020 | 1.05 | 1.5 | | 1.6 | 1.55 |
| 10/09/2020 | | | | | |
| 24/09/2020 | 1.94 | 1.75 | 1.75 | 1.43 | 1.66 |
| 8/10/2020 | 2.07 | 1.79 | 1.7 | 1.72 | 1.82 |
| 9/11/2020 | 2.15 | 1.68 | 1.64 | 1.71 | 1.71 |
| 10/12/2020 | 2.25 | 1.87 | 1.76 | 2.3 | 1.97 |
| 11/01/2021 | 1.8 | 1.44 | 1.58 | 1.7 | 1.46 |
| 11/02/2021 | 1.75 | 1.52 | 1.53 | 1.65 | 1.61 |
| 15/03/2021 | 1.78 | 1.4 | 1.43 | 1.46 | 1.26 |
| 13/04/2021 | 1.4 | 1.25 | 1.23 | 1.03 | 1.33 |
| 11/05/2021 | 1.61 | 1.45 | 1.48 | 1.33 | 1.19 |
| 10/06/2021 | 1.91 | 1.59 | 1.77 | 1.76 | 1.69 |
| 8/07/2021 | 1.68 | 1.35 | 1.49 | 1.56 | 1.37 |
| 9/08/2021 | 1.89 | 1.49 | 1.58 | 1.73 | 1.53 |
| 9/09/2021 | 1.97 | 1.66 | 1.73 | 2.02 | 1.96 |
| 11/10/2021 | 2.08 | 1.8 | 1.83 | 2.1 | 1.86 |
| 11/11/2021 | 2.03 | 1.64 | 1.71 | 1.92 | 1.67 |
| 13/12/2021 | 1.82 | 1.34 | 1.44 | 1.62 | 1.36 |
| 12/01/2022 | 1.79 | 1.4 | 1.45 | 1.58 | 1.41 |
| 9/02/2022 | 1.58 | 1.26 | 1.34 | 1.48 | 1.29 |
| 14/03/2022 | 1.48 | 1.29 | 1.36 | 1.06 | 1.26 |
| 13/04/2022 | 1.37 | 1.28 | 1.36 | 1.09 | 1.29 |
| 11/05/2022 | 1.34 | 1.18 | 1.3 | 1.14 | 1.17 |
| 9/06/2022 | 1.46 | 1.46 | 1.52 | 1.2 | 1.32 |
| 11/07/2022 | 1.77 | 1.58 | 1.52 | 1.38 | 1.37 |
| 10/08/2022 | 1.75 | 1.67 | 1.68 | 1.49 | 1.61 |
| 13/09/2022 | 1.9 | 1.63 | 1.7 | 1.6 | 1.57 |
| 13/10/2022 | 1.71 | 1.5 | 1.57 | 1.48 | 1.47 |
| 14/11/2022 | 1.87 | 1.64 | 1.65 | 1.59 | 1.62 |
| 14/12/2022 | 1.92 | 1.61 | 1.59 | 1.54 | 1.62 |
| 11/01/2024 | 0.37 | 0.65 | 0.47 | 0.92 | 0.44 |
| 13/02/2024 | 0.39 | 0.67 | 0.45 | 0.91 | 0.42 |
| 25/03/2024 | 0.39 | 0.67 | 0.48 | 0.5 | 0.43 |
| 11/04/2024 | 0.37 | 0.90 | 0.46 | 0.5 | 0.7 |
| 8/05/2024 | 0.34 | 0.80 | 0.8 | 1.22 | 0.42 |
| 12/06/2024 | - | - | - | - | - |
| 11/07/2024 | 0.72 | 0.77 | 0.62 | 1.12 | 1.2 |
| 13/08/2024 | 0.9 | 0.90 | 0.92 | 1.12 | 1.36 |
| 11/09/2024 | 0.91 | 0.43 | 0.9 | 1.12 | 1.34 |
| 10/10/2024 | 0.81 | 0.32 | 0.92 | 1.27 | 1.38 |
| 12/11/2024 | 0.81 | 0.31 | 0.93 | 1.27 | 1.37 |
| 11/12/2024 | - | 0.86 | - | - | - |
| 14/01/2025 | 0.74 | 0.50 | 0.7 | 1.12 | 0.98 |
| 11/02/2025 | 0.67 | 0.62 | 0.49 | 0.93 | 0.83 |
| 18/03/2025 | 1.26 | 0.73 | 0.66 | 1.51 | 1.25 |
| 16/04/2025 | 1.14 | 0.85 | 0.8 | 1.47 | 1.34 |
| 14/05/2025 | 1.1 | 0.77 | 0.92 | 1.36 | 1.18 |
| 12/06/2025 | 0.86 | 0.73 | 0.65 | 1.17 | 1.01 |
| 15/07/2025 | 0.76 | 0.66 | 0.56 | 0.99 | 0.86 |
| 13/08/2025 | 0.81 | 0.52 | 0.57 | 1.12 | 1.09 |
| 10/09/2025 | 0.73 | 0.37 | 0.49 | 1.2 | 0.9 |
| 9/10/2025 | 0.54 | 0.44 | 0.38 | 0.68 | 0.62 |
| 11/11/2025 | 0.39 | 0.73 | 0.4 | 1.03 | 0.82 |
| 11/12/2025 | 0.41 | 0.93 | 0.36 | 0.97 | 0.82 |
| **Minimum** | **0.3** | **0.31** | **0.2** | **0.50** | **0.42** |
| **Maximum** | **2.45** | **2.74** | **2.77** | **2.3** | **2.75** |
| **Average** | **1.43** | **1.32** | **1.28** | **1.43** | **1.42** |

## Long-term Groundwater Quality Monitoring at Dunloe Sands Quarry

| Data located | Date | Location | pH | EC | DO (membrane electrode) | *Redox Potential | Alkalinity as CaCO3 | Bicarbonate as CaCO3 | Chloride | Total Phosphorus-P | Total-N | Ammonia | Calcium | Magnesium | Sodium | Potassium | Sulfur as Sulfate | Aluminium (Total) | Arsenic (Total) | Iron (Total) | Manganese (Total) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pH | µScm-1 | mg/L | mV | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
| 2011/2012 AEMR | Dec-11 | DPL1 | | | | | | | 13 | | | | 0.2 | 0.4 | 4 | <5 | 3.5 | | <0.005 | 1.34 | <0.01 |
| | Mar-12 | DPL1 | | | | | | | 17 | | | | 0.2 | 0.4 | 5.4 | <5 | 4.8 | | <0.005 | 1.32 | <0.01 |
| | 30/05/2012 | DPL1 | 4.2 | 98 | 3.3 | 435 | | | | | | | | | | | | | | | |
| | Jun-12 | DPL1 | 4.2 | 105 | 3.8 | 405 | <1 | <1 | 20 | | | | 0.6 | 0.6 | 11 | <5 | 5.3 | | <0.005 | 2.49 | <0.01 |
| | 26/07/2012 | DPL1 | 4.3 | 87 | 5.1 | 374 | | | | | | | | | | | | | | | |
| | 27/08/2012 | DPL1 | 4.2 | 98 | 2.1 | 365 | | | | | | | | | | | | | | | |
| | 27/09/2012 | DPL1 | 4.2 | 94 | 2.6 | 305 | <1 | <1 | 15 | | | | 0.5 | 0.3 | 8.4 | <5 | 6.7 | | <0.005 | 3.25 | <0.01 |
| | 29/10/2012 | DPL1 | 4.6 | 96 | 5.8 | 208 | | | | | | | | | | | | | | | |
| 2012/2013 AEMR | Dec-12 | DPL1 | | | | | | | 36 | | | | 1 | 0.7 | 6.3 | <5 | 4.9 | | <0.005 | 4.32 | <0.01 |
| | Mar-13 | DPL1 | | | | | | | 12 | | | | 0.2 | 0.1 | 9.2 | <5 | 7.3 | | <0.005 | 1.68 | <0.01 |
| | Jun-13 | DPL1 | | | | | | | 19 | | | | 0.1 | <0.1 | 0.1 | <5 | 5.9 | | <0.005 | 1.5 | <0.01 |
| | Sep-13 | DPL1 | | | | | | | 16 | | | | 0.4 | 0.2 | 7.5 | <5 | | | <0.005 | 5.82 | <0.01 |
| | 12/12/2013 | DPL1 | 4.8 | 86 | 3.5 | 91 | 3 | 2 | 20 | | | | 0.4 | 0.2 | 0.2 | <5 | 6.2 | | <0.005 | 3.83 | 0.02 |
| | 29/01/2014 | DPL1 | 4 | 279 | 5.7 | 264 | | | | | | | | | | | | | | | |
| | 24/02/2014 | DPL1 | 4.6 | 76 | 3.8 | 242 | | | | | | | | | | | | | | | |
| | 31/03/2014 | DPL1 | 4.9 | 72 | 6.3 | 136 | 3 | 2 | 15 | | | | 0.6 | 0.1 | 0.1 | <5 | 3.5 | | <0.005 | 2.44 | <0.01 |
| | 24/04/2014 | DPL1 | 4 | 75 | | 204 | | | | | | | | | | | | | | | |
| | 28/05/2014 | DPL1 | 4.2 | 95 | | 307 | | | | | | | | | | | | | | | |
| | 25/06/2014 | DPL1 | 4.1 | 98 | 2 | 350 | <1 | <1 | 16 | | | | 0.5 | 0.3 | 9.7 | <5 | 6.4 | | <0.005 | 0.76 | <0.01 |
| | 30/07/2014 | DPL1 | 4.1 | 112 | 3.9 | 174 | <1 | <1 | 19 | | | | 0.4 | 0.2 | 11 | <5 | 7.7 | 0.77 | <0.005 | 0.62 | <0.01 |
| | 29/08/2014 | DPL1 | 4.4 | 97 | 4.3 | 185 | NP | NP | 20 | | | | 0.2 | <0.1 | 9.6 | <5 | 4.3 | | <0.005 | 3.93 | <0.01 |
| | 29/09/2014 | DPL1 | 4 | 108 | 3.5 | 177 | | | | | | | | | | | | | | | |
| Appendix of 2015 AEMR | 28/11/2014 | DPL1 | 4.7 | 81 | 3.3 | 110 | | | | | | | | | | | | | | | |
| | 15/12/2014 | DPL1 | 4.6 | 94 | 1.5 | 160 | NP | <1 | 15 | | | | 1.6 | 0.4 | 10 | <5 | 6.1 | 0.32 | <0.005 | 2.55 | 0.02 |
| | 22/01/2015 | DPL1 | 4.8 | 80 | 3.8 | 110 | | | | | | | | | | | | | | | |
| | 25/02/2015 | DPL1 | 4.2 | 110 | 1.1 | 160 | | | | | | | | | | | | | | | |
| | 26/03/2015 | DPL1 | 4 | 109 | 4 | 245 | NP | NP | | | | | | | | | | | | | |
| | 24/04/2015 | DPL1 | 4.1 | 131 | 2.7 | 253 | | | | | | | | | | | | | | | |
| | 28/05/2015 | DPL1 | 3.8 | 164 | 2 | 256 | | | | | | | | | | | | | | | |
| | 17/09/2015 | DPL1 | 4.1 | 135 | 3.9 | 195 | NP | | 18 | | | <0.02 | 0.7 | 0.8 | 12 | <5 | 10 | 0.64 | <0.001 | 0.95 | 0.017 |
| | 21/10/2015 | DPL1 | 4.3 | 116 | 2.9 | 217 | | | | | | | | | | | | | | | |
| | 25/11/2015 | DPL1 | 4.2 | 102 | 6.1 | 170 | | | | | | | | | | | | | | | |
| | 11/12/2015 | DPL1 | 4.6 | 86 | 2.4 | 232 | 1 | 1 | 14 | | | | 0.3 | 0.2 | 11 | <5 | 10 | 0.32 | <0.001 | 3.21 | 0.009 |
| Appendix of 2016 AEMR | 25/01/2016 | DPL1 | 4.7 | 95 | 1.6 | 165 | | | | | | | | | | | | | | | |
| | 24/02/2016 | DPL1 | 4.8 | 98 | 5.7 | 138 | | | | | | | | | | | | | | | |
| | 24/03/2016 | DPL1 | 4.6 | 104 | 3.8 | 268 | 2 | 2 | 17 | | | | 0.37 | 0.23 | [illegible] | <5 | 9.403 | 0.727 | 0.001 | 4.224 | 0.007 |
| | 29/04/2016 | DPL1 | 4.3 | 96 | 6.4 | 388 | | | | | | | | | | | | | | | |
| | 24/05/2016 | DPL1 | 4.2 | 106 | 2.7 | 255 | | | | | | | | | | | | | | | |
| | 30/06/2016 | DPL1 | 4.9 | 101.1 | 3.6 | 283 | | | | | | | 3.503 | 0.353 | [illegible] | <5 | 9.636 | 0.471 | 0.001 | 2.508 | 0.14 |
| | 21/07/2016 | DPL1 | 3.9 | 142.2 | 6.8 | 384 | | | | | | | | | | | | | | | |
| | 31/08/2016 | DPL1 | 4 | 140 | 6.5 | 321 | | | | | | | | | | | | | | | |
| | 29/09/2016 | DPL1 | 3.9 | 151 | 2.5 | 366 | | | | | | | | | | | | | | | |
| | 27/10/2016 | DPL1 | 4 | 151 | 2.5 | 366 | | | | | | | | | | | | | | | |
| | 29/11/2016 | DPL1 | 4.7 | 116 | 1.9 | 108 | | | | | | | | | | | | | | | |
| | 20/12/2016 | DPL1 | 4.7 | 131 | 5.2 | 307.1 | | | | | | | | | | | | | | | |
| Q1 2017 Env monitoring report | 30/01/2017 | DPL1 | 4.2 | 121 | | | | | | | | | | | | | | | | | |
| | 27/02/2017 | DPL1 | 4.6 | 103 | | | | | | | | | | | | | | | | | |
| | 22/03/2017 | DPL1 | 4.4 | 116 | | | <5 | | 18 | 0.09 | 1.1 | 0.056 | | <0.5 | 12 | 1 | 12 | 0.48 | <0.001 | 4.8 | 0.018 |
| | 19/04/2017 | DPL1 | 4.2 | 180 | | | | | | | | | | | | | | | | | |
| | 17/05/2017 | DPL1 | 4.4 | 135 | | | | | | | | | | | | | | | | | |
| | 14/06/2017 | DPL1 | 4.3 | 197 | | | <5 | | 22 | <0.05 | 0.5 | 0.039 | | 1 | 14 | 1 | 39 | 1.6 | <0.001 | 13 | 0.039 |
| | 12/07/2017 | DPL1 | 4.1 | 137 | | | | | | | | | | | | | | | | | |
| | 9/08/2017 | DPL1 | 4.3 | 123 | | | | | | | | | | | | | | | | | |
| | 6/09/2017 | DPL1 | 4 | 124 | | | <5 | | 18 | <0.05 | 1.2 | 0.031 | | <0.5 | 11 | 1 | 10 | 0.73 | <0.001 | 3.4 | 0.017 |
| | 4/10/2017 | DPL1 | 4.3 | 123 | | | | | | | | | | | | | | | | | |
| | 1/11/2017 | DPL1 | 4.4 | 121 | | | | | | | | | | | | | | | | | |
| | 29/11/2017 | DPL1 | 4.5 | 129 | | | | | | | | | | | | | | | | | |
| | 28/12/2017 | DPL1 | 4.5 | 130 | | | <5 | | 21 | <0.05 | 0.4 | 0.071 | | 0.6 | 12 | 2.1 | 44 | 0.53 | <0.001 | 5 | 0.02 |
| 2018 Env Monitoring | 24/01/2018 | DPL1 | 4.49 | 138.4 | | | | | | | | | | | | | | | | | |
| | 21/02/2018 | DPL1 | 4.46 | 120.5 | | | | | | | | | | | | | | | | | |
| | 21/03/2018 | DPL1 | 4.35 | 159 | | | <5 | | 21 | 0.06 | 0.2 | 0.062 | | 0.8 | 13 | 1.5 | 44 | 0.76 | <0.001 | 5.5 | 0.028 |
| | 18/04/2018 | DPL1 | 4.49 | 153 | | | | | | | | | | | | | | | | | |
| | 16/05/2018 | DPL1 | 4.4 | 146.3 | | | | | | | | | | | | | | | | | |
| | 13/06/2018 | DPL1 | 4.33 | 167.1 | | | <5 | | 19 | <0.05 | 0.4 | 0.057 | | 0.7 | 14 | 1.4 | 28 | 0.76 | <0.001 | 6.2 | 0.024 |
| | 11/07/2018 | DPL1 | 4.31 | 146.3 | | | | | | | | | | | | | | | | | |
| | 8/08/2018 | DPL1 | 3.91 | 204 | | | | | | | | | | | | | | | | | |
| | 5/09/2018 | DPL1 | 4.12 | 114 | 4.52 | | <1 | | 18 | | | 0.07 | | <1 | 22 | 1 | 26 | 1.08 | <0.001 | 0.05 | 0.001 |
| | 5/10/2018 | DPL1 | 4.53 | 143 | 7 | | | | | | | | | | | | | | | | |
| | 6/11/2018 | DPL1 | 4.51 | 142 | 4.8 | | | | | | | | | | | | | | | | |
| | 7/12/2018 | DPL1 | 4.49 | 120 | 4.8 | 44.3 | <1 | | 17 | | | 0.06 | | 1 | 11 | <1 | 36 | 0.88 | 0.001 | 10.7 | 0.003 |
| 2019 Env Monitoring | 8/01/2019 | DPL1 | 4.4 | 178.36 | 3.52 | -2.5 | | | | | | | | | | | | | | | |
| | 5/02/2019 | DPL1 | 4.48 | 142.5 | 0.26 | -64.1 | | | | | | | | | | | | | | | |
| | 8/03/2019 | DPL1 | 4.12 | 224 | 0.11 | 1.6 | | <1 | | | | | 4 | 2 | 13 | 1 | 68 | 2.58 | <0.001 | 19.5 | 0.05 |
| | 5/04/2019 | DPL1 | 4.14 | 122 | 0.2 | NR | | <1 | | | | | | 1 | | | | | <0.001 | | 0.038 |
| | 7/05/2019 | DPL1 | 6.6 | 3570 | 0.3 | 0.1 | | <1 | | | | | | | | | | | <0.001 | | 0.033 |
| | 4/06/2019 | DPL1 | 4.14 | 126 | 0.5 | 31.9 | | <1 | | | | | 2 | 1 | 11 | 1 | 38 | 1.27 | <0.001 | 10.9 | 0.034 |
| | 4/07/2019 | DPL1 | 6.6 | 3570 | 0.3 | 0.1 | | | | | | | | | | | | | | | |
| | 1/08/2019 | DPL1 | 4.32 | 94 | 8.1 | 54.1 | | <1 | | | | | 2 | <1 | 10 | <1 | 20 | 1.1 | <0.001 | 8.63 | 0.033 |
| | 26/09/2019 | DPL1 | 5.01 | 38 | 9.6 | -29.4 | | <1 | | | | | | | | | | | | | 0.034 |
| | 24/10/2019 | DPL1 | 5.01 | 138 | 1.8 | <0.1 | | <1 | | | | | | | | | | | | | |
| | 22/11/2019 | DPL1 | 4.59 | 94 | 15.6 | 71.1 | | <1 | | | | | 2 | <1 | 11 | <1 | 31 | 0.98 | <0.001 | 8.34 | 0.034 |
| | 20/12/2019 | DPL1 | 4.86 | 84 | 15.5 | 110 | | | | | | | | | | | | | | | |
| 2020 Env Monitoring | 17/01/2020 | DPL1 | 4.57 | 132 | 2.5 | | | | | | | | | | | | | | | | |
| | 14/02/2020 | DPL1 | | | | | | | | | | | | | | | | | | | |
| | 18/03/2020 | DPL1 | 5.39 | 188 | 0.04 | 63 | | 19.9 | 71 | | 0.19 | 0.21 | | 3.1 | 16 | 2.5 | 38 | 0.049 | 0.025 | | 0.1 |
| | 16/04/2020 | DPL1 | 4.43 | 196 | 0.11 | 162 | | | | | | | | | | | | | | | |
| | 14/05/2020 | DPL1 | 5.77 | 198 | 0 | -13 | | | | | | | | | | | | | | | |
| | 11/06/2020 | DPL1 | 5.59 | 191 | 0.62 | 83 | | 25 | 27 | | | | 10 | 3.9 | 20 | 3 | 44 | 0.05 | 0.017 | | 0.11 |
| | 9/07/2020 | DPL1 | 5.84 | 204 | 4.7 | 187 | | | | | | | | | | | | | | | |
| | 10/08/2020 | DPL1 | 4.91 | 187 | 2.74 | 283 | | | | | | | | | | | | | | | |
| | 24/09/2020 | DPL1 | 5.3 | 190 | 0 | | | 20 | 28 | | | 0.26 | 9.5 | 5 | 16 | 5 | 42 | 0.05 | 0.005 | | |
| | 8/10/2020 | DPL1 | 5.96 | 213 | 0 | 98 | | | | | | | | | | | | | | | |
| | 9/11/2020 | DPL1 | 7.78 | 209 | 2.7 | | | 260 | 120 | | | 1.13 | 22 | 8.1 | 53 | 5 | 84 | 0.05 | 0.007 | | 0.14 |
| | 10/12/2020 | DPL1 | 6.63 | 451 | 0.09 | -14 | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2021 Env Monitoring | 11/01/2021 | DPL1 | 4.85 | 185 | 0 | 214 | | | | | | | | | | | | | | | | |
| | 11/02/2021 | DPL1 | 7.1 | 133 | 0.4 | 47 | | 20 | 16 | | | 0.06 | 9.9 | 5 | 5.2 | 5 | 48 | 0.12 | | 0.12 | 0.087 |
| | 15/03/2021 | DPL1 | 4.3 | 124 | 0.2 | 323 | | | | | | | | | | | | | | | | |
| | 13/04/2021 | DPL1 | 4.7 | 105 | 0.1 | 205 | | | | | | | | | | | | | | | | |
| | 11/05/2021 | DPL1 | 4.6 | 103 | 0 | 274 | | 20 | 10 | | | 0.07 | 6.1 | 1.8 | 4.7 | 1.3 | 27 | 0.1 | | 0.26 | 0.061 |
| | 10/06/2021 | DPL1 | 7.1 | 676 | 0 | | | | | | | | | | | | | | | | | |
| | 8/07/2021 | DPL1 | 5.1 | 95 | 0 | 228 | | | | | | | | | | | | | | | | |
| | 9/08/2021 | DPL1 | 5.5 | 124 | 0 | 203 | | 270 | 130 | | | 1.4 | 15 | 4.6 | 29 | 2.8 | 90 | 0.05 | | 0.08 | 0.079 |
| | 9/09/2021 | DPL1 | 7.2 | 709 | 0.1 | 28 | | | | | | | | | | | | | | | | |
| | 11/10/2021 | DPL1 | 7.3 | 1300 | 0.6 | -104 | | | | | | | | | | | | | | | | |
| | 11/11/2021 | DPL1 | 7.4 | 489 | | -36 | | 480 | 220 | | | 2 | 84 | 38 | 250 | 13 | 180 | 0.05 | | 4 | 0.31 |
| | 13/12/2021 | DPL1 | 5.7 | 116 | 2.3 | 183 | | | | | | | | | | | | | | | | |
| 2022 Env Monitoring | 12/01/2022 | DPL1 | 5.2 | 96 | 1.7 | 165.0 | | | | | | | | | | | | | | | | |
| | 9/02/2022 | DPL1 | 5.0 | 73 | 1.1 | 204.0 | | 78 | 44 | | | 0.04 | 11 | 5.7 | 47 | 3.4 | 39 | 0.09 | | 0.08 | 0.087 |
| | 14/03/2022 | DPL1 | 6.4 | 353 | 0.3 | 79.0 | | | | | | | | | | | | | | | | |
| | 13/04/2022 | DPL1 | 7.2 | 1590 | 0.0 | -90.0 | | | | | | | | | | | | | | | | |
| | 11/05/2022 | DPL1 | 7.5 | 1800 | 0.0 | -142.0 | | 690 | 250 | | | 3 | 81 | 39 | 280 | 14 | 190 | 0.05 | | 3.5 | 0.33 |
| | 9/06/2022 | DPL1 | 7.4 | 1830 | 0.0 | -167.0 | | | | | | | | | | | | | | | | |
| | 11/07/2022 | DPL1 | 7.8 | 1790 | 0.0 | | | | | | | | | | | | | | | | | |
| | 10/08/2022 | DPL1 | 7.4 | 1540 | 0.2 | -106.0 | | 640 | 210 | | | 2.6 | 77 | 35 | 250 | 12 | 170 | 0.05 | | 4.2 | 0.33 |
| | 13/09/2022 | DPL1 | 7.6 | 1570 | 0.1 | -146.0 | | | | | | | | | | | | | | | | |
| | 13/10/2022 | DPL1 | 7.3 | 1680 | 1.0 | -148.0 | | | | | | | | | | | | | | | | |
| | 14/11/2022 | DPL1 | 7.3 | 1620 | 0.1 | -105.0 | | 500 | 240 | | | 2 | 72 | 33 | 280 | 12 | 150 | 0.05 | | 2.5 | 0.23 |
| | 14/12/2022 | DPL1 | 7.4 | | 0.3 | | | | | | | | | | | | | | | | | |
| 2023 Env Monitoring | 12/01/2023 | DPL1 | 7.3 | 920 | 1.5 | -147.0 | | | | | | | | | | | | | | | | |
| | 13/02/2023 | DPL1 | 7.0 | 845 | 0.0 | -72.0 | | 530.0 | 240.0 | | | 2.6 | 68.0 | 36.0 | 270.0 | 13.0 | 180.0 | 0.05 | 0.001 | 0.08 | 0.18 |
| | 15/03/2023 | DPL1 | 7.1 | 158 | 0.1 | -57.0 | | | | | | | | | | | | | | | | |
| | 11/04/2023 | DPL1 | 6.4 | 1630 | 0.7 | 55.0 | | | | | | | | | | | | | | | | |
| | 11/05/2023 | DPL1 | 6.6 | 514 | 2.1 | -57.0 | | | | | | | | | | | | | | | | |
| | 14/06/2023 | DPL1 | 7.3 | 1010 | 0.6 | -147.0 | | 530.0 | 240.0 | | | 2.8 | 79.0 | 37.0 | 270.0 | 13.0 | 190.0 | 0.05 | 0.001 | 0.07 | 0.29 |
| | 11/07/2023 | DPL1 | 7.4 | 930 | 0.5 | -55.0 | | | | | | | | | | | | | | | | |
| | 8/08/2023 | DPL1 | 7.3 | 2800 | 0.0 | -134.0 | | 540.0 | 230.0 | | | 2.6 | 78.0 | 40.0 | 300.0 | 14.0 | 200.0 | 0.05 | 0.003 | 3.7 | 0.28 |
| | 11/09/2023 | DPL1 | 7.4 | 2800 | 0.0 | -56.0 | | | | | | | | | | | | | | | | |
| | 12/10/2023 | DPL1 | 7.4 | 2875 | 0.0 | -71.0 | | | | | | | | | | | | | | | | |
| | 13/11/2023 | DPL1 | 7.6 | 2956 | 0.0 | -71.0 | | | | | | | | | | | | | | | | |
| | 12/12/2023 | DPL1 | 6.2 | 311 | 3.0 | 58.0 | | 28.0 | 20.0 | | | 0.02 | 8.1 | 3.0 | 18.0 | 1.7 | 28.0 | 0.05 | 0.001 | 0.05 | 0.005 |
| 2024 Env Monitoring | 11/01/2024 | DPL1 | 7.5 | 1530 | 0.0 | -117.0 | | | | | | | | | | | | | | | | |
| | 13/02/2024 | DPL1 | 7.6 | 1930 | 1.2 | -1.0 | | 500.0 | 220.0 | | | 0.1 | 75.0 | 37.0 | 270.0 | 14.0 | 210.0 | 0.1 | 0.001 | 1.2 | 0.34 |
| | 25/03/2024 | DPL1 | 7.5 | 1675 | 0.0 | -92.0 | | | | | | | | | | | | | | | | |
| | 11/04/2024 | DPL1 | 7.5 | 1596 | 0.0 | -90.0 | | | | | | | | | | | | | | | | |
| | 8/05/2024 | DPL1 | 5.3 | 123 | 6.7 | 143.0 | | | | | | | | | | | | | | | | |
| | 12/06/2024 | DPL1 | 7.1 | 214 | 0.5 | 151.0 | | 40.0 | 23.0 | | | 0.0 | 11.0 | 3.5 | 24.0 | 2.1 | 26.0 | 0.09 | 0.001 | 0.24 | 0.012 |
| | 11/07/2024 | DPL1 | 6.1 | 147 | 4.3 | 256.0 | | | | | | | | | | | | | | | | |
| | 13/08/2024 | DPL1 | 4.5 | 159 | 0.0 | 201.0 | | | | | | | | | | | | | | | | |
| | 11/09/2024 | DPL1 | 4.7 | 167 | 0.0 | 141.0 | | 53.0 | 23 | | | 0.0 | 11.0 | 4.0 | 24.0 | 2.8 | 34.0 | 0.1 | 0.001 | 0.05 | 0.036 |
| | 10/10/2024 | DPL1 | 5.6 | 212 | 0.0 | 139.0 | | | | | | | | | | | | | | | | |
| | 12/11/2024 | DPL1 | 6.7 | 626 | 6.1 | 31.0 | | | | | | | | | | | | | | | | |
| | 11/12/2024 | DPL1 | 6.2 | 321 | 3.8 | 84.0 | | 23.0 | 11.0 | | | 0.01 | 13.0 | 2.8 | 12.0 | 3.6 | 43.0 | 0.06 | 0.001 | 0.05 | 0.076 |
| 2025 Env Monitoring | 14/01/2025 | DPL1 | 6.5 | 169 | 5.9 | 138.0 | | | | | | | | | | | | | | | | |
| | 11/02/2025 | DPL1 | 7.0 | 2660 | 0.0 | -59.0 | | | | | | | | | | | | | | | | |
| | 18/03/2025 | DPL1 | 6.9 | 2677 | 0.9 | -107.9 | | 590.0 | 240 | | | 2.4 | 130.0 | 67.0 | 340.0 | 19.0 | 460.0 | 0.1 | 0.001 | 4 | 0.39 |
| | 16/04/2025 | DPL1 | 7.2 | 2030 | 0.0 | -45.0 | | | | | | | | | | | | | | | | |
| | 14/05/2025 | DPL1 | 7.4 | 5110 | 0.0 | -61.0 | | | | | | | | | | | | | | | | |
| | 12/06/2025 | DPL1 | 6.8 | 368 | 0.6 | 143.0 | | 480.0 | 110.0 | | | 0.22 | 74.0 | 41.0 | 190.0 | 11.0 | 290.0 | 0.05 | 0.001 | 0.07 | 0.3 |
| | 15/07/2025 | DPL1 | 7.2 | 2573 | 0.5 | -78.7 | | | | | | | | | | | | | | | | |
| | 13/08/2025 | DPL1 | 7.4 | 2510 | 1.5 | -80.0 | | | | | | | | | | | | | | | | |
| | 10/09/2025 | DPL1 | 7.2 | 1940 | 1.0 | -54.0 | | 670.0 | 210 | | | 2.5 | 130.0 | 74.0 | 320.0 | 18.0 | 430.0 | 0.05 | 0.001 | 5.9 | 0.49 |
| | 9/10/2025 | DPL1 | 7.3 | 1970 | 1.1 | -62.0 | | | | | | | | | | | | | | | | |
| | 11/11/2025 | DPL1 | 7.3 | 658 | 0.4 | 109.0 | | | | | | | | | | | | | | | | |
| | 11/12/2025 | DPL1 | 7.1 | 2210 | 0.6 | -72.0 | | 710.0 | 220 | | | 3.0 | 150.0 | 87.0 | 350.0 | 18.0 | 520.0 | 0.05 | 0.002 | 7.9 | 0.54 |
| **No of Samples** | | | **135** | **146** | **120** | **112** | **4** | **24** | **45** | **2** | **7** | **28** | **41** | **45** | **52** | **29** | **49** | **35** | **14** | **42** | **36** |
| **Minimum** | | | **3.8** | **38** | **0** | **-167** | **1** | **1** | **10** | **0.06** | **0.19** | **0.000** | **0.1** | **0.1** | **0.1** | **1** | **3.5** | **0.049** | **0.001** | **0.05** | **0.001** |
| **Maximum** | | | **7.80** | **5110** | **15.6** | **435** | **3** | **690** | **250** | **0.09** | **1.2** | **3** | **84** | **40** | **300** | **14** | **210** | **2.58** | **0.025** | **19.5** | **0.33** |
| **Average** | | | **5.29** | **602.55** | **2.33** | **104.84** | **2.25** | **219.75** | **62.87** | **0.08** | **0.57** | **0.76** | **18.59** | **8.87** | **63.45** | **5.32** | **51.44** | **0.49** | **0.00** | **3.84** | **0.09** |
| 2011/2012 AEMR | Dec-11 | DPL3 | | | | | | | 2300 | | | | 72 | 119 | 842 | 72 | 136 | | <0.005 | 0.74 | 0.53 |
| | Mar-12 | DPL3 | | | | | | | 2400 | | | | 66 | 109 | 1081 | <5 | 126 | | <0.005 | 1.25 | 0.51 |
| | 30/05/2012 | DPL3 | 6.6 | 7074 | 2.3 | 317 | | | | | | | | | | | | | | | | |
| | Jun-12 | DPL3 | 6.7 | 7057 | 6.6 | 315 | 150 | 94 | 2220 | | | | 70 | 112 | 1119 | 48 | 143 | | <0.005 | 1.94 | 0.53 |
| | 26/07/2012 | DPL3 | 6.6 | 7093 | 3.6 | 284 | | | | | | | | | | | | | | | | |
| | 27/08/2012 | DPL3 | 6.7 | 7343 | 1.8 | 193 | | | | | | | | | | | | | | | | |
| | 27/09/2012 | DPL3 | 6.4 | 7130 | 2.4 | 249 | 120 | 75 | 2280 | | | | 63 | 100 | 1060 | 50 | 147 | | <0.005 | 2.11 | 0.51 |
| | 29/10/2012 | DPL3 | 6.3 | 7177 | 4.8 | 146 | | | | | | | | | | | | | | | | |
| 2012/2013 AEMR | Dec-12 | DPL3 | | | | | | | 2270 | | | | 68 | 103 | 946 | 61 | 132 | | <0.005 | 2.46 | 0.52 |
| | Mar-13 | DPL3 | | | | | | | 2280 | | | | 74 | 115 | 1296 | 48 | 149 | | <0.005 | 1.78 | 0.58 |
| | Jun-13 | DPL3 | | | | | | | 2310 | | | | 66 | 105 | 66 | 44 | 169 | | <0.005 | 1.63 | 0.52 |
| | Sep-13 | DPL3 | | | | | | | 2280 | | | | 60 | 93 | 1003 | 38 | | | <0.005 | 3.05 | 0.52 |
| 2013/2014 AEMR | 12/12/2013 | DPL3 | 6.2 | 7140 | 2.4 | 116 | 120 | 73 | 2340 | | | | 66 | 104 | 104 | 43 | 168 | | <0.005 | 3.16 | 0.57 |
| | 29/01/2014 | DPL3 | 6.3 | 6964 | 4.4 | 201 | | | | | | | | | | | | | | | | |
| | 24/02/2014 | DPL3 | 6.3 | 6677 | 3.6 | 245 | | | | | | | | | | | | | | | | |
| | 31/03/2014 | DPL3 | 6.4 | 7234 | 4.2 | 118 | 120 | 74 | 120 | | | | 63 | 109 | 109 | 43 | 175 | | <0.005 | 2.86 | 0.56 |
| | 24/04/2014 | DPL3 | 6.5 | 7448 | | 136 | | | | | | | | | | | | | | | | |
| | 28/05/2014 | DPL3 | 6.6 | 7484 | | 318 | | | | | | | | | | | | | | | | |
| | 25/06/2014 | DPL3 | 6.6 | 7370 | 5.9 | 260 | 110 | 70 | 2290 | | | | 82 | 125 | 1320 | 44 | 180 | | <0.005 | 6.47 | 0.93 |
| | 30/07/2014 | DPL3 | 6.6 | 7431 | 4.9 | 122 | 110 | 66 | 2420 | | | | 74 | 114 | 1200 | 46 | 177 | 0.03 | <0.005 | 3.97 | 0.58 |
| | 29/08/2014 | DPL3 | 6.5 | 7643 | 3.9 | 184 | 110 | 68 | 2370 | | | | 71 | 110 | 1140 | 43 | 168 | | <0.005 | 4.22 | 0.56 |
| | 29/09/2014 | DPL3 | 6.1 | 7558 | 3 | 188 | | | | | | | | | | | | | | | | |
| Appendix of 2015 AEMR | 28/11/2014 | DPL3 | 6.1 | 7491 | 4.2 | 100 | | | | | | | | | | | | | | | | |
| | 15/12/2014 | DPL3 | 6.2 | 7280 | 2.6 | 130 | 130 | 77 | 2370 | | | | 82 | 118 | 1240 | 48 | 146 | 0.04 | <0.005 | 3.53 | 0.59 |
| | 22/01/2015 | DPL3 | 6.1 | 7473 | 2.2 | 136 | | | | | | | | | | | | | | | | |
| | 25/02/2015 | DPL3 | 6.4 | 7478 | 3.2 | 150 | | | | | | | | | | | | | | | | |
| | 26/03/2015 | DPL3 | 6.1 | 7542 | 2.9 | 195 | 130 | 128 | | | | | | | | | | | | | | |
| | 24/04/2015 | DPL3 | 6.6 | 7540 | 4.8 | 246 | | | | | | | | | | | | | | | | |
| | 28/05/2015 | DPL3 | 6.5 | 7483 | 5.2 | 182 | | | | | | | | | | | | | | | | |
| | 17/09/2015 | DPL3 | 6.4 | 7422 | 3.7 | 150 | 120 | | 2380 | | | 0.04 | 68 | 102 | 1220 | 41 | 152 | 0.22 | <0.001 | 3.09 | 0.641 |
| | 21/10/2015 | DPL3 | 6.2 | 7310 | 2.4 | 157 | | | | | | | | | | | | | | | | |
| | 25/11/2015 | DPL3 | 6.2 | 7562 | 6.9 | 205 | | | | | | | | | | | | | | | | |
| | 11/12/2015 | DPL3 | 6.3 | 7321 | 2.6 | 182 | 120 | 120 | 2370 | | | | 68 | 108 | 1220 | 40 | 181 | 0.13 | 0.001 | 2.99 | 6.23 |
| | 25/01/2016 | DPL3 | 6.1 | 7395 | 2.8 | 147 | | | | | | | | | | | | | | | | |
| | 24/02/2016 | DPL3 | 6.2 | 7372 | 5.7 | 58 | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24/03/2016 | DPL3 | 6.4 | 7406 | 3.5 | 155 | 123 | 123 | 2650 | | | | 78.03 | 117.11 | 1284.98 | 44.19 | 176.114 | 0.07 | 0.001 | 2.183 | 0.625 |
| | 29/04/2016 | DPL3 | 6.4 | 7417 | 6.4 | 196 | | | | | | | | | | | | | | | |
| | 24/05/2016 | DPL3 | 6.5 | 7394 | 5.4 | 180 | | | | | | | | | | | | | | | |
| Appendix of 2016 AEMR | 30/06/2016 | DPL3 | 6.6 | 7250.2 | 6.4 | 180 | | | | | | | | | | | | | | | |
| | 21/07/2016 | DPL3 | 6.5 | 6868.2 | 6.6 | 262 | | | | | | | | | | | | | | | |
| | 31/08/2016 | DPL3 | 6.5 | 7281 | 5.8 | 170 | 121 | | 2650 | | | | 78 | 121 | 1350 | 46 | 170 | | 0.001 | 3.33 | 0.541 |
| | 29/09/2016 | DPL3 | 6.1 | 7313 | 2.5 | 221 | | | | | | | | | | | | | | | |
| | 27/10/2016 | DPL3 | 6.1 | 7313 | 399 | 1738 | | | | | | | | | | | | | | | |
| | 29/11/2016 | DPL3 | 6.1 | 7376 | 1.8 | 67 | | | | | | | | | | | | | | | |
| | 20/12/2016 | DPL3 | 6 | 7673 | 4 | 315.9 | 121 | | 2700 | | | | 75 | 114 | 1.28 | 43 | 182 | | 0.001 | 2.4 | 0.541 |
| | 30/01/2017 | DPL3 | 6.1 | 7119 | | | | | | | | | | | | | | | | | |
| | 27/02/2017 | DPL3 | 6.1 | 7013 | | | | | | | | | | | | | | | | | |
| | 22/03/2017 | DPL3 | 5.9 | 7570 | | | 130 | | 2300 | 0.1 | 4.1 | 2.9 | | 130 | 1500 | 54 | 230 | 0.04 | <0.001 | 15 | 0.67 |
| | 19/04/2017 | DPL3 | 5.9 | 7660 | | | | | | | | | | | | | | | | | |
| | 17/05/2017 | DPL3 | 5.9 | 7410 | | | | | | | | | | | | | | | | | |
| | 14/06/2017 | DPL3 | | | | | | | | | | | | | | | | | | | |
| Q1 2017 Env Monitoring report | 12/07/2017 | DPL3 | 6.2 | 7060 | | | | | | | | | | | | | | | | | |
| | 9/08/2017 | DPL3 | 6.2 | 7490 | | | | | | | | | | | | | | | | | |
| | 6/09/2017 | DPL3 | 6.1 | 7490 | | | 140 | | 2000 | <0.05 | 3 | 2 | | 120 | 1600 | 55 | 140 | 0.04 | <0.001 | 2.8 | 0.6 |
| | 4/10/2017 | DPL3 | 6 | 7530 | | | | | | | | | | | | | | | | | |
| | 1/11/2017 | DPL3 | 5.9 | 7970 | | | | | | | | | | | | | | | | | |
| | 29/11/2017 | DPL3 | 5.9 | 7680 | | | | | | | | | | | | | | | | | |
| | 28/12/2017 | DPL3 | 6 | 7570 | | | 130 | | 2400 | 0.05 | 3.8 | 2.8 | | 130 | 1700 | 53 | 190 | 0.09 | <0.001 | 13 | 0.62 |
| | 24/01/2018 | DPL3 | 5.94 | 7640 | | | | | | | | | | | | | | | | | |
| | 21/02/2018 | DPL3 | 5.94 | 7240 | | | | | | | | | | | | | | | | | |
| | 21/03/2018 | DPL3 | 5.87 | 8230 | | | 140 | | 2500 | <0.05 | 3.7 | 2.9 | | 150 | 1400 | 53 | 200 | 0.09 | <0.001 | 9.9 | 0.64 |
| | 18/04/2018 | DPL3 | 5.94 | 7580 | | | | | | | | | | | | | | | | | |
| | 16/05/2018 | DPL3 | 5.97 | 7670 | | | | | | | | | | | | | | | | | |
| 2018 Env Monitoring | 13/06/2018 | DPL3 | 6.02 | 7930 | | | 130 | | 2300 | <0.05 | 4.1 | 2.7 | | 120 | 1500 | 56 | 180 | 0.08 | <0.001 | 11 | 0.61 |
| | 11/07/2018 | DPL3 | 6.18 | 7280 | | | | | | | | | | | | | | | | | |
| | 8/08/2018 | DPL3 | 6.1 | 7880 | | | | | | | | | | | | | | | | | |
| | 5/09/2018 | DPL3 | 5.38 | 3760 | 69.8 | 211 | 134 | | 2760 | | | 2.46 | | 137 | 1380 | 49 | 191 | 0.66 | 0.002 | 24 | 0.715 |
| | 5/10/2018 | DPL3 | 5.87 | 7540 | 7.8 | | | | | | | | | | | | | | | | |
| | 6/11/2018 | DPL3 | 5.81 | 7580 | | | | | | | | | | | | | | | | | |
| | 7/12/2018 | DPL3 | 5.82 | 7520 | 3.4 | | 151 | | 2470 | | | 2.29 | | 118 | 130 | 45 | 158 | 0.32 | <0.001 | 12.9 | 0.658 |
| | 8/01/2019 | DPL3 | 5.84 | 7562.2 | 10.2 | -25.8 | | | | | | | | | | | | | | | |
| | 5/02/2019 | DPL3 | 5.76 | 8597.1 | 0.38 | -88.9 | | | | | | | | | | | | | | | |
| | 8/03/2019 | DPL3 | 3.88 | 680 | 0.27 | 39.3 | | 120 | 3500 | | | | 134 | 193 | 1720 | 56 | | 0.07 | <0.01 | 15.8 | 0.988 |
| | 5/04/2019 | DPL3 | 5.83 | 8790 | 0.3 | NR | | | | | | | | | | | | | | | |
| | 7/05/2019 | DPL3 | 4.08 | 568 | 8.5 | 278 | | | | | | | | | | | | | | | |
| 2019 Env Monitoring | 4/06/2019 | DPL3 | 5.72 | 9200 | 0.4 | 56.8 | | 133 | 2810 | | | | 92 | 142 | 1400 | 47 | | 0.18 | <0.001 | 12.2 | 0.789 |
| | 4/07/2019 | DPL3 | 4.08 | 568 | 8.5 | 278 | | | | | | | | | | | | | | | |
| | 1/08/2019 | DPL3 | 5.99 | 7560 | 7.6 | 2.9 | | 138 | 2610 | | | | 84 | 130 | 1240 | 41 | | 0.46 | <0.001 | 14 | 0.797 |
| | 26/09/2019 | DPL3 | 6.4 | 8790 | 4.3 | 106 | | | | | | | | | | | | | | | |
| | 24/10/2019 | DPL3 | 6.16 | 8580 | 16 | 48 | | | | | | | | | | | | | | | |
| | 22/11/2019 | DPL3 | 6.03 | 9480 | 19.9 | <0.1 | | 115 | 3840 | | | | 150 | 236 | 1910 | 64 | | 0.21 | <0.001 | 17.6 | 1.11 |
| | 20/12/2019 | DPL3 | 6.26 | 10400 | 40.4 | <0.1 | | | | | | | | | | | | | | | |
| | 17/01/2020 | DPL3 | 6.47 | 8880 | 6.8 | | | | | | | | | | | | | | | | |
| | 14/02/2020 | DPL3 | | | | | | | | | | | | | | | | | | | |
| | 18/03/2020 | DPL3 | 5.64 | 7660 | 0.98 | -33 | | 160 | 2800 | | | 2.2 | | 160 | 1600 | 56 | 220 | 0.08 | 0.0009 | 12 | 0.8 |
| | 16/04/2020 | DPL3 | 6.08 | 7170 | 0.89 | -38 | | | | | | | | | | | | | | | |
| | 14/05/2020 | DPL3 | 5.79 | 6800 | 0.23 | -67 | | | | | | | | | | | | | | | |
| | 11/06/2020 | DPL3 | 5.9 | 6800 | 1.02 | -62 | | 220 | 2400 | | | | 85 | 120 | 1300 | 43 | 210 | 0.09 | 0.001 | 12 | 0.68 |
| 2020 Env Monitoring | 9/07/2020 | DPL3 | 5.73 | 7590 | 1.46 | -38 | | | | | | | | | | | | | | | |
| | 10/08/2020 | DPL3 | 6.33 | 7620 | 0.97 | 13 | | | | | | | | | | | | | | | |
| | 10/09/2020 | DPL3 | 6.26 | 7550 | 1.62 | -109 | | 150 | 2300 | | | 2.2 | 79 | 120 | 1200 | 42 | 180 | 0.08 | 0.001 | 10 | |
| | 10/09/2020 | DPL3 | 6.26 | 7550 | 1.62 | | | 150 | 2300 | | | 2.2 | 79 | 120 | 1200 | 42 | 180 | 0.08 | 0.001 | 10 | |
| | 8/10/2020 | DPL3 | 7.64 | 7200 | 1.74 | -70 | | | | | | | | | | | | | | | |
| | 9/11/2020 | DPL3 | 5.97 | 7930 | 0.03 | | | 180 | 10000 | | | 2.64 | 79 | 100 | 1200 | 42 | 210 | 0.09 | 0.001 | 12 | 0.66 |
| | 10/12/2020 | DPL3 | 5.64 | 8920 | 6.09 | -130 | | | | | | | | | | | | | | | |
| | 11/01/2021 | DPL3 | 5.92 | 8110 | 1.42 | -125 | | | | | | | | | | | | | | | |
| | 11/02/2021 | DPL3 | 5.6 | 8500 | 0 | -91 | | 170 | 2500 | | | 2.9 | 93 | 130 | 1400 | 50 | 210 | 0.08 | | 12 | 0.66 |
| | 15/03/2021 | DPL3 | 7 | 7850 | 4.6 | -93 | | | | | | | | | | | | | | | |
| | 13/04/2021 | DPL3 | 5.8 | 8390 | 7 | -14 | | | | | | | | | | | | | | | |
| | 11/05/2021 | DPL3 | 6 | 8250 | 0.7 | -41 | | 210 | 2500 | | | 2.7 | 78 | 110 | 1100 | 38 | 180 | 0.07 | | 12 | 0.64 |
| 2021 Env Monitoring | 10/06/2021 | DPL3 | 5.8 | 12800 | 0 | | | | | | | | | | | | | | | | |
| | 8/07/2021 | DPL3 | 5.9 | 11500 | 0 | -151 | | | | | | | | | | | | | | | |
| | 9/08/2021 | DPL3 | 5.8 | 1120 | 0 | -26 | | 170 | 2600 | | | 3.1 | 90 | 130 | 1400 | 48 | 190 | 0.1 | | 13 | 0.71 |
| | 9/09/2021 | DPL3 | 5.7 | 6990 | 0 | -35 | | | | | | | | | | | | | | | |
| | 11/10/2021 | DPL3 | 6.1 | 6950 | 6.6 | -29 | | | | | | | | | | | | | | | |
| | 11/11/2021 | DPL3 | 6.5 | 7800 | | -2 | | 180 | 2900 | | | 2.8 | 110 | 150 | 1500 | 51 | 220 | 0.09 | | 12 | 0.72 |
| | 13/12/2021 | DPL3 | 6 | 7710 | 0.5 | 7 | | | | | | | | | | | | | | | |
| | 12/01/2022 | DPL3 | 5.8 | 7770 | 0.3 | -13 | | 170 | 2500 | | | 3.2 | 72 | 130 | 1400 | 50 | 190 | 0.07 | | 10 | 0.62 |
| | 9/02/2022 | DPL3 | 5.6 | 8660 | 0 | 14 | | | | | | | | | | | | | | | |
| | 14/03/2022 | DPL3 | 5.9 | 8720 | 0 | 30 | | | | | | | | | | | | | | | |
| | 13/04/2022 | DPL3 | 5.9 | 8550 | 0.2 | -3 | | 220 | 2000 | | | 3.1 | 81 | 120 | 1300 | 46 | 160 | 0.08 | | 12 | 0.74 |
| | 11/05/2022 | DPL3 | 6.1 | 7480 | 0.4 | 32 | | | | | | | | | | | | | | | |
| 2022 Env Monitoring | 9/06/2022 | DPL3 | 5.8 | 8380 | 0.4 | -6 | | | | | | | | | | | | | | | |
| | 11/07/2022 | DPL3 | 6.2 | 7930 | 0.28 | | | 190 | 2100 | | | 2.6 | 98 | 110 | 1100 | 40 | 140 | 0.1 | | 14 | 0.7 |
| | 10/08/2022 | DPL3 | 6.3 | 7510 | 1.9 | 11 | | | | | | | | | | | | | | | |
| | 13/09/2022 | DPL3 | 6.1 | 7370 | 0.5 | 30 | | | | | | | | | | | | | | | |
| | 13/10/2022 | DPL3 | 6 | 7170 | 0.8 | 58 | | 180 | 2600 | | | 1.5 | 73 | 120 | 1300 | 40 | 180 | 0.05 | | 4.1 | 0.53 |
| | 14/11/2022 | DPL3 | 6.2 | 6810 | 0.1 | 100 | | | | | | | | | | | | | | | |
| | 14/12/2022 | DPL3 | 6.2 | | 0.2 | | | | | | | | | | | | | | | | |
| | 12/01/2023 | DPL3 | 5.8 | 4630 | 0 | 35 | | | | | | | | | | | | | | | |
| | 13/02/2023 | DPL3 | 5.9 | 5000 | 0 | 26 | | 120 | 3200 | | | 3.4 | 110 | 180 | 1500 | 50 | 310 | 0.06 | 0.001 | 15 | 0.87 |
| | 15/03/2023 | DPL3 | 5.6 | 7310 | 0.7 | 172 | | | | | | | | | | | | | | | |
| | 11/04/2023 | DPL3 | 6 | 4460 | 1.1 | -24 | | | | | | | | | | | | | | | |
| | 11/05/2023 | DPL3 | 5.8 | 4870 | 0.6 | -22 | | | | | | | | | | | | | | | |
| 2023 Env Monitoring | 14/06/2023 | DPL3 | 6 | 4880 | 0 | -46 | | 140 | 2600 | | | 3.6 | 86 | 130 | 1400 | 46 | 230 | 0.07 | 0.001 | 9.5 | 0.7 |
| | 11/07/2023 | DPL3 | 6.2 | 5230 | 2.5 | -18 | | | | | | | | | | | | | | | |
| | 8/08/2023 | DPL3 | 5.8 | 1190 | 0 | -18 | | 130 | 3100 | | | 3.2 | 93 | 150 | 1500 | 47 | 280 | 0.08 | 0.001 | 11 | 0.77 |
| | 11/09/2023 | DPL3 | 5.7 | 1190 | 0 | -28 | | | | | | | | | | | | | | | |
| | 12/10/2023 | DPL3 | 5.6 | 1199 | 0 | -14 | | | | | | | | | | | | | | | |
| | 13/11/2023 | DPL3 | 5.6 | 1293 | 0 | -16 | | | | | | | | | | | | | | | |
| | 12/12/2023 | DPL3 | 6.5 | 7300 | 0 | 27 | | 180 | 2500 | | | 3.2 | 81 | 130 | 1300 | 43 | 24 | 0.05 | 0.001 | 7.6 | 0.8 |
| | 11/01/2024 | DPL3 | 6.2 | 7560 | 0.4 | 37 | | | | | | | | | | | | | | | |
| | 13/02/2024 | DPL3 | 6.1 | 8490 | 0 | -1 | | 170 | 2300 | | | 3.3 | 91 | 140 | 1400 | 47 | 200 | 0.06 | 0.001 | 10 | 0.75 |
| | 25/03/2024 | DPL3 | 6.2 | 7234 | 0 | 42 | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2024 ENV Monitoring | 11/04/2024 | DPL3 | 6.1 | 7741 | 0 | 27 | | | | | | | | | | | | | | | |
| | 8/05/2024 | DPL3 | 6.4 | 8780 | 0.6 | 44 | | | | | | | | | | | | | | | |
| | 12/06/2024 | DPL3 | 6.5 | 8780 | 1.6 | 66 | | 170 | 2600 | | | 2.4 | 85 | 130 | 1400 | 43 | 160 | 0.09 | 0.001 | 11 | 0.62 |
| | 11/07/2024 | DPL3 | 7.5 | 8650 | 2.2 | 31 | | | | | | | | | | | | | | | |
| | 13/08/2024 | DPL3 | 5.6 | 7930 | 0 | 57 | | | | | | | | | | | | | | | |
| | 11/09/2024 | DPL3 | 5.9 | 7420 | 0 | 49 | | 240 | 2800 | | | 2.5 | 83 | 130 | 1300 | 47 | 180 | 0.05 | 0.001 | 5.7 | 0.61 |
| | 10/10/2024 | DPL3 | 5.9 | 9070 | 0 | 38 | | | | | | | | | | | | | | | |
| | 12/11/2024 | DPL3 | 5.9 | 9022 | 0 | 39 | | | | | | | | | | | | | | | |
| | 11/12/2024 | DPL3 | 6.5 | 8810 | 8.8 | 22 | | 200 | 2600 | | | 2.9 | 84 | 130 | 1300 | 46 | 160 | 0.08 | 0.001 | 4.9 | 0.66 |
| 2025 Env Monitoring | 14/01/2025 | DPL3 | 6.6 | 8980 | 25.7 | 45.0 | | | | | | | | | | | | | | | |
| | 11/02/2025 | DPL3 | 5.5 | 8930 | 0.0 | 48.0 | | | | | | | | | | | | | | | |
| | 18/03/2025 | DPL3 | 5.6 | 6542 | 0.3 | 72.2 | | 150.0 | 2600 | | | 1.8 | 86.0 | 130.0 | 1400.0 | 47.0 | 170.0 | 0.06 | 0.001 | 8.9 | 0.54 |
| | 16/04/2025 | DPL3 | 5.9 | 8000 | 0.0 | 32.0 | | | | | | | | | | | | | | | |
| | 14/05/2025 | DPL3 | 6.3 | 8400 | 0.9 | 25.0 | | | | | | | | | | | | | | | |
| | 12/06/2025 | DPL3 | 5.6 | 7872 | 0.7 | -72.2 | | 270.0 | 2300.0 | | | 2.6 | 75.0 | 130.0 | 1400.0 | 46.0 | 850.0 | 0.09 | 0.001 | 11 | 0.65 |
| | 15/07/2025 | DPL3 | 5.8 | 8347 | 0.3 | -18.3 | | | | | | | | | | | | | | | |
| | 13/08/2025 | DPL3 | 5.9 | 8010 | 1.1 | -29.0 | | | | | | | | | | | | | | | |
| | 10/09/2025 | DPL3 | 5.9 | 8070 | 0.8 | 11.0 | | 160.0 | 2500 | | | 2.5 | 81.0 | 130.0 | 1400.0 | 46.0 | 150.0 | 0.07 | 0.001 | 12 | 0.63 |
| | 9/10/2025 | DPL3 | 6.1 | 8110 | 1.3 | 15.0 | | | | | | | | | | | | | | | |
| | 11/11/2025 | DPL3 | 6.5 | 8450 | 2.5 | 10.0 | | | | | | | | | | | | | | | |
| | 11/12/2025 | DPL3 | 5.6 | 7790 | 1.5 | 52.0 | | 170.0 | 2500 | | | | 2.7 | 140.0 | 1500.0 | 46.0 | 150.0 | 0.07 | 0.001 | 12 | 0.61 |
| **No of Samples** | | | **135** | **146** | **123** | **103** | **21** | **36** | **51** | **2** | **5** | **28** | **43** | **51** | **51** | **50** | **46** | **37** | **18** | **51** | **49** |
| **Minimum** | | | **3.88** | **568** | **0** | **-151** | **110** | **66** | **120** | **0.05** | **3** | **0.04** | **60** | **93** | **1.28** | **38** | **24** | **0.03** | **0.0009** | **0.74** | **0.51** |
| **Maximum** | | | **7.64** | **12800** | **399** | **1738** | **151** | **240** | **10000** | **0.1** | **4.1** | **3.6** | **150** | **236** | **1910** | **72** | **310** | **0.66** | **0.002** | **24** | **6.23** |
| **Average** | | | **6.08** | **7284.25** | **6.87** | **91.89** | **126.67** | **143.72** | **2621.37** | **0.08** | **3.74** | **2.63** | **82.19** | **126.36** | **1199.65** | **47.44** | **177.83** | **0.12** | **0.00** | **8.26** | **0.78** |
| 2011/2012 AEMR | Dec-11 | DPL5 | | | | | | | | | | | | | | | | | | | |
| | Mar-12 | DPL5 | | | | | | | 14 | | | | 0.5 | 1 | 9.1 | <5 | 5.9 | | <0.005 | 2.51 | <0.01 |
| | 30/05/2012 | DPL5 | 4.7 | 92 | 4.6 | 386 | | | | | | | | | | | | | | | |
| | Jun-12 | DPL5 | 4.8 | 81 | 6.6 | 347 | 2 | 1 | 17 | | | | 0.6 | 1.3 | 9.2 | <5 | 4.3 | | <0.005 | 1.01 | <0.01 |
| | 26/07/2012 | DPL5 | 4.7 | 92 | 3.7 | 313 | | | | | | | | | | | | | | | |
| | 27/08/2012 | DPL5 | 4.6 | 103 | 3.4 | 292 | | | | | | | | | | | | | | | |
| | 27/09/2012 | DPL5 | 4.5 | 102 | 2.6 | 266 | <1 | <1 | 19 | | | | 0.7 | 1.4 | 10 | <5 | 8.5 | | <0.005 | 0.89 | <0.01 |
| | 29/10/2012 | DPL5 | 4.4 | 108 | 2.2 | 288 | | | | | | | | | | | | | | | |
| 2012/2013 AEMR | Dec-12 | DPL5 | | | | | | | 18 | | | | 0.6 | 1.2 | 5.9 | <5 | 3.5 | | <0.005 | 2.16 | <0.01 |
| | Mar-13 | DPL5 | | | | | | | 12 | | | | 0.5 | 1.3 | 8.2 | <5 | 4 | | <0.005 | 0.09 | <0.01 |
| | Jun-13 | DPL5 | | | | | | | 30 | | | | 0.7 | 1.9 | 0.7 | <5 | 8.2 | | <0.005 | 0.31 | <0.01 |
| | Sep-13 | DPL5 | | | | | | | 640 | | | | 13 | 40 | 243 | 9 | | | <0.005 | 15 | 0.14 |
| 2013/2014 AEMR | 12/12/2013 | DPL5 | 4.8 | 334 | 2.3 | 106 | 3 | 2 | 89 | | | | 2.3 | 7.2 | 7.2 | <5 | 15 | | <0.005 | 4.81 | 0.04 |
| | 29/01/2014 | DPL5 | 4.9 | 314 | 4.2 | 161 | | | | | | | | | | | | | | | |
| | 24/02/2014 | DPL5 | 4.1 | 337 | 4.1 | 255 | | | | | | | | | | | | | | | |
| | 31/03/2014 | DPL5 | 5 | 359 | 3.3 | 107 | 2 | 1 | 110 | | | | 2.4 | 6.3 | 6.3 | <5 | 12 | | <0.005 | 3.52 | <0.01 |
| | 24/04/2014 | DPL5 | 4.7 | 110 | | 84 | | | | | | | | | | | | | | | |
| | 28/05/2014 | DPL5 | 4 | 239 | | 313 | | | | | | | | | | | | | | | |
| | 25/06/2014 | DPL5 | 3.6 | 566 | 2.1 | 375 | <1 | <1 | 140 | | | | 4.2 | 9.9 | 64 | <5 | 9.8 | | <0.005 | 1.73 | 0.05 |
| | 30/07/2014 | DPL5 | 3.7 | 639 | 4.6 | 238 | <1 | <1 | 140 | | | | 13 | 11 | 69 | <5 | 47 | 3.96 | <0.005 | 2 | 0.11 |
| | 29/08/2014 | DPL5 | 3.9 | 678 | 2.7 | 215 | NP | NP | 170 | | | | 4.9 | 12 | 75 | <5 | 16 | | <0.005 | 11 | 0.03 |
| | 29/09/2014 | DPL5 | 3.8 | 942 | 1.8 | 247 | | | | | | | | | | | | | | | |
| Appendix of 2015 AEMR | 28/11/2014 | DPL5 | 4.9 | 706 | 2.7 | 105 | | | | | | | | | | | | | | | |
| | 15/12/2014 | DPL5 | 5.2 | 801 | 2 | 115 | 5 | 3 | 220 | | | | 6.2 | 15 | 110 | <5 | 11 | 0.3 | <0.005 | 14 | 0.08 |
| | 22/01/2015 | DPL5 | 5 | 811 | 3.8 | 160 | | | | | | | | | | | | | | | |
| | 25/02/2015 | DPL5 | 4 | 433 | 6.2 | 178 | | | | | | | | | | | | | | | |
| | 26/03/2015 | DPL5 | 4.8 | 1066 | 3.9 | 144 | 2 | 2 | | | | | | | | | | | | | |
| | 24/04/2015 | DPL5 | 3.7 | 963 | 4.8 | 257 | | | | | | | | | | | | | | | |
| | 28/05/2015 | DPL5 | 3.8 | 611 | 2.5 | 325 | | | | | | | | | | | | | | | |
| | 17/09/2015 | DPL5 | 3.9 | 844 | 2.4 | 205 | NP | | 220 | | | 0.18 | 5.5 | 9.6 | 113 | <5 | 23 | 0.67 | <0.001 | 1.4 | 0.055 |
| | 21/10/2015 | DPL5 | 4.3 | 676 | 5.4 | 189 | | | | | | | | | | | | | | | |
| | 25/11/2015 | DPL5 | 5.2 | 390 | 6 | 135 | | | | | | | | | | | | | | | |
| | 11/12/2015 | DPL5 | 5.4 | 310 | 2.3 | 151 | 7 | 7 | 80 | | | | 2.2 | 3.9 | 41 | <5 | 12 | 0.13 | <0.001 | 7.21 | 0.027 |
| Appendix of 2016 AEMR | 25/01/2016 | DPL5 | 5.6 | 376 | 3.1 | 113 | | | | | | | | | | | | | | | |
| | 24/02/2016 | DPL5 | 5.6 | 335 | 2.9 | 76 | | | | | | | | | | | | | | | |
| | 24/03/2016 | DPL5 | 5.3 | 412 | 2.4 | 186 | 6 | 6 | 112 | | | | 2.99 | 3.88 | 42.05 | <5 | 13.372 | 0.148 | <0.001 | 4.597 | 0.022 |
| | 29/04/2016 | DPL5 | 4.6 | 285 | 6.2 | 259 | | | | | | | | | | | | | | | |
| | 24/05/2016 | DPL5 | 4.5 | 300 | 4.7 | 195 | | | | | | | | | | | | | | | |
| | 30/06/2016 | DPL5 | 4.3 | 385.7 | 2.9 | 271 | | | | | | | | | | | | | | | |
| | 21/07/2016 | DPL5 | 4.4 | 321.5 | 5.2 | 297 | | | | | | | | | | | | | | | |
| | 31/08/2016 | DPL5 | 4.4 | 348 | 4.4 | 230 | <1 | | 89 | | | | 2.2 | 2.8 | 57 | <5 | 28 | | 0.001 | 11.2 | 0.012 |
| | 29/09/2016 | DPL5 | 4.4 | 399 | 2.5 | 285 | | | | | | | | | | | | | | | |
| | 27/10/2016 | DPL5 | 4.4 | 399 | 2.5 | 285 | | | | | | | | | | | | | | | |
| | 29/11/2016 | DPL5 | 5.4 | 5.4 | 1.6 | 74 | | | | | | | | | | | | | | | |
| | 20/12/2016 | DPL5 | 5.2 | 298 | 3.3 | 244.5 | 5 | | 50 | | | | 2.3 | 2.8 | 47 | <5 | 21 | | 0.001 | 4.55 | 0.012 |
| Q1 2017 Env Monitoring report | 30/01/2017 | DPL5 | 5.2 | 260 | | | | | | | | | | | | | | | | | |
| | 27/02/2017 | DPL5 | 5.5 | 244 | | | | | | | | | | | | | | | | | |
| | 22/03/2017 | DPL5 | 5.1 | 300 | | | <5 | | 63 | 0.1 | 1 | 0.1 | | 2 | 55 | 1 | 22 | 0.2 | <0.001 | 1.5 | 0.009 |
| | 19/04/2017 | DPL5 | 5.1 | 203 | | | | | | | | | | | | | | | | | |
| | 17/05/2017 | DPL5 | 5.1 | 226 | | | | | | | | | | | | | | | | | |
| | 14/06/2017 | DPL5 | | | | | | | | | | | | | | | | | | | |
| | 12/07/2017 | DPL5 | 5.2 | 189 | | | | | | | | | | | | | | | | | |
| | 9/08/2017 | DPL5 | 5.1 | 200 | | | | | | | | | | | | | | | | | |
| | 6/09/2017 | DPL5 | 5.2 | 179 | | | 8 | | 26 | <0.05 | 1.3 | 0.055 | | <0.5 | 35 | 0.7 | 18 | 0.54 | <0.001 | 0.23 | <0.005 |
| | 4/10/2017 | DPL5 | 5.3 | 188 | | | | | | | | | | | | | | | | | |
| | 1/11/2017 | DPL5 | 5.3 | 197 | | | | | | | | | | | | | | | | | |
| | 29/11/2017 | DPL5 | 5 | 480 | | | | | | | | | | | | | | | | | |
| | 28/12/2017 | DPL5 | 4.5 | 2200 | | | <5 | | 640 | <0.05 | 0.6 | 0.24 | | 41 | 450 | 6.8 | 79 | 2.4 | <0.001 | 7.2 | 0.11 |
| 2018 Env Monitoring | 24/01/2018 | DPL5 | 4.42 | 2470 | | | | | | | | | | | | | | | | | |
| | 21/02/2018 | DPL5 | 4.53 | 1392 | | | | | | | | | | | | | | | | | |
| | 21/03/2018 | DPL5 | 4.58 | 1461 | | | 11 | | 370 | <0.05 | 0.4 | 0.14 | | 25 | 230 | 5.1 | 59 | 1.2 | <0.001 | 4.2 | 0.066 |
| | 18/04/2018 | DPL5 | 4.88 | 266 | | | | | | | | | | | | | | | | | |
| | 16/05/2018 | DPL5 | 4.78 | 486 | | | | | | | | | | | | | | | | | |
| | 13/06/2018 | DPL5 | 4.69 | 406 | | | <5 | | 96 | <0.05 | 0.4 | 0.098 | | 4.8 | 66 | 2.1 | 15 | 0.28 | <0.001 | 2.1 | 0.019 |
| | 11/07/2018 | DPL5 | 4.73 | 623 | | | | | | | | | | | | | | | | | |
| | 8/08/2018 | DPL5 | 4.61 | 252 | | | | | | | | | | | | | | | | | |
| | 5/09/2018 | DPL5 | 4.67 | 1880 | | | 4 | | 112 | | | 0.12 | | 7 | 58 | 2 | 14 | 0.36 | <0.001 | 3.11 | 0.0029 |
| | 5/10/2018 | DPL5 | 4.96 | 201 | | | | | | | | | | | | | | | | | |
| | 6/11/2018 | DPL5 | 4.99 | 296 | | | | | | | | | | | | | | | | | |
| | 7/12/2018 | DPL5 | 4.84 | 437 | | -112.6 | 2 | | 156 | | | 0.16 | | 8 | 80 | 2 | 20 | 0.31 | <0.001 | 3.66 | 0.039 |
| | 8/01/2019 | DPL5 | 5.13 | 259.66 | 12.15 | -36.9 | | | | | | | | | | | | | | | |
| | 5/02/2019 | DPL5 | 4.62 | 1140.4 | 0.43 | -40.9 | | | | | | | | | | | | | | | |
| | 8/03/2019 | DPL5 | 9.89 | 3168 | 48 | -82.4 | | 4 | 100 | | | | 2 | 5 | 16 | 2 | | 0.23 | <0.001 | | 0.02 |
| | 5/04/2019 | DPL5 | 4.63 | 1280 | 0.3 | NR | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2019 Env Monitoring | 7/05/2019 | DPL5 | 6.41 | 5623 | 9.5 | 121 | | | | | | | | | | | | | | | |
| | 4/06/2019 | DPL5 | 4.43 | 2310 | 0.6 | 2.4 | | <1 | 657 | | | | 1 | 41 | 337 | 7 | | 1.81 | <0.001 | | 0.127 |
| | 4/07/2019 | DPL5 | 6.41 | 563 | 9.5 | 121 | | | | | | | | | | | | | | | |
| | 1/08/2019 | DPL5 | 4.5 | 1780 | 10 | 46 | | <1 | 940 | | | | 15 | 56 | 462 | 10 | | 2.23 | <0.001 | | 0.212 |
| | 26/09/2019 | DPL5 | 4.35 | 657 | 5.3 | -14.4 | | | | | | | | | | | | | | | |
| | 24/10/2019 | DPL5 | 4.63 | 2380 | 10.8 | 61 | | | | | | | | | | | | | | | |
| | 22/11/2019 | DPL5 | 4.63 | 2200 | 11.6 | 66.1 | | <1 | 888 | | | | 14 | 55 | 54 | 10 | | 1.74 | <0.01 | | 0.16 |
| | 20/12/2019 | DPL5 | 5.71 | 22 | 43.1 | 59.7 | | | | | | | | | | | | | | | |
| 2020 Env Monitoring | 17/01/2020 | DPL5 | 4.5 | 2040 | 8.4 | | | | | | | | | | | | | | | | |
| | 14/02/2020 | DPL5 | | | | | | | | | | | | | | | | | | | |
| | 18/03/2020 | DPL5 | 4.65 | 4140 | 0.84 | -89 | | | 1500 | | | 0.37 | | 96 | 830 | 26 | 180 | 3.8 | 0.0009 | | 0.54 |
| | 16/04/2020 | DPL5 | 7.92 | 1770 | 1.03 | 63 | | | | | | | | | | | | | | | |
| | 14/05/2020 | DPL5 | 4.15 | 1210 | 0.3 | 147 | | | | | | | | | | | | | | | |
| | 11/06/2020 | DPL5 | 4.29 | 847 | 1.01 | 333 | | | 280 | | | | 7.7 | 17 | 160 | 4.8 | 56 | 0.57 | 0.001 | | 0.081 |
| | 9/07/2020 | DPL5 | 4.3 | 642 | 0 | 380 | | | | | | | | | | | | | | | |
| | 24/09/2020 | DPL5 | 5.68 | 149 | 0 | | | | 25 | | | 0.03 | 5 | 5 | 19 | 5 | 5 | 0.17 | 0.001 | | |
| | 8/10/2020 | DPL5 | 6.54 | 123 | 0.31 | 184 | | | | | | | | | | | | | | | |
| | 9/11/2020 | DPL5 | 6.24 | 285 | 0 | | | | 110 | | | 1.79 | 21 | 9 | 46 | 1.8 | 20 | 0.18 | 0.001 | | 0.011 |
| | 10/12/2020 | DPL5 | 6.62 | 4.83 | 0 | -216 | | | | | | | | | | | | | | | |
| 2021 Env Monitoring | 11/01/2021 | DPL5 | 5.67 | 256 | 4.99 | -94 | | | | | | | | | | | | | | | |
| | 11/02/2021 | DPL5 | 7.3 | 406 | 0.22 | -108 | | 20 | 120 | | | 0.2 | 5 | 5 | 72 | 5 | 72 | 0.24 | | 1.3 | 0.02 |
| | 15/03/2021 | DPL5 | 5.3 | 266 | 0.2 | 15 | | | | | | | | | | | | | | | |
| | 13/04/2021 | DPL5 | 5.6 | 349 | 1.5 | 220 | | | | | | | | | | | | | | | |
| | 11/05/2021 | DPL5 | 5.4 | 248 | 0.2 | 78 | | 20 | 42 | | | 0.05 | 0.9 | 1 | 40 | 1.4 | 28 | 0.38 | | 0.63 | 0.005 |
| | 10/06/2021 | DPL5 | 5 | 364 | 0 | | | | | | | | | | | | | | | | |
| | 8/07/2021 | DPL5 | 5.2 | 317 | 0 | | | | | | | | | | | | | | | | |
| | 9/08/2021 | DPL5 | 5 | 386 | 0 | 182 | | 20 | 71 | | | 0.07 | 1.4 | 2.5 | 55 | 2.1 | 34 | 0.45 | | 0.49 | 0.01 |
| | 9/09/2021 | DPL5 | 4.6 | 207 | 0 | 234 | | | | | | | | | | | | | | | |
| | 11/10/2021 | DPL5 | 4.6 | 247 | 0 | 161 | | | | | | | | | | | | | | | |
| | 11/11/2021 | DPL5 | 5.9 | 259 | | 79 | | 20 | 83 | | | 0.16 | 3.4 | 6.1 | 56 | 2.9 | 16 | 0.23 | | 3.8 | 0.017 |
| | 13/12/2021 | DPL5 | 5.3 | 384 | 0.3 | 17 | | | | | | | | | | | | | | | |
| 2022 Env Monitoring | 12/01/2022 | DPL5 | 5 | 487 | 0.4 | 64 | | 20 | 110 | | | 0.17 | 1 | 2.3 | 77 | 3.8 | 28 | 0.2 | | 0.71 | 0.024 |
| | 9/02/2022 | DPL5 | 5 | 405 | 0 | 51 | | | | | | | | | | | | | | | |
| | 14/03/2022 | DPL5 | 5 | 1930 | 0 | 95 | | | | | | | | | | | | | | | |
| | 13/04/2022 | DPL5 | 4.4 | 2660 | 0 | 25 | | 20 | 1200 | | | 0.86 | 22 | 77 | 600 | 17 | 110 | 2.3 | | 14 | 0.54 |
| | 11/05/2022 | DPL5 | 4.7 | 2570 | 0.3 | 108 | | | | | | | | | | | | | | | |
| | 9/06/2022 | DPL5 | 4.4 | 4650 | 0.3 | 68 | | | | | | | | | | | | | | | |
| | 11/07/2022 | DPL5 | 4 | 2370 | 1.58 | | | 20 | 810 | | | 0.54 | 25 | 53 | 390 | 11 | 42 | 1.8 | | 15 | 0.38 |
| | 10/08/2022 | DPL5 | 3.7 | 2460 | 0.6 | 270 | | | | | | | | | | | | | | | |
| | 13/09/2022 | DPL5 | 3.7 | 2580 | 0.2 | 393 | | | | | | | | | | | | | | | |
| | 13/10/2022 | DPL5 | 3.9 | 2160 | 0.4 | 194 | | 580 | 610 | | | 0.59 | 13 | 29 | 280 | 6.8 | 37 | 0.78 | | 12 | 0.18 |
| | 14/11/2022 | DPL5 | 4.9 | 1700 | 0.4 | 81 | | | | | | | | | | | | | | | |
| | 14/12/2022 | DPL5 | 4.5 | | 0.3 | | | | | | | | | | | | | | | | |
| 2023 Env Monitoring | 12/01/2023 | DPL5 | 4.1 | 890 | 0 | 123 | | | | | | | | | | | | | | | |
| | 13/02/2023 | DPL5 | 4.5 | 1170 | 0.03 | 115 | | 20 | 630 | | | 0.65 | 12 | 37 | 290 | 11 | 57 | 1.2 | 0.001 | 9.5 | 0.28 |
| | 15/03/2023 | DPL5 | 4.35 | 2080 | 0.5 | 121 | | | | | | | | | | | | | | | |
| | 11/04/2023 | DPL5 | 5.8 | 8530 | 0.3 | -55 | | | | | | | | | | | | | | | |
| | 11/05/2023 | DPL5 | 3.7 | 822 | 2.5 | 329 | | | | | | | | | | | | | | | |
| | 14/06/2023 | DPL5 | 3.8 | 761 | 0.3 | 405 | | 20 | 390 | | | 0.3 | 10 | 24 | 210 | 5.6 | 29 | 1.6 | 0.001 | 1.2 | 0.14 |
| | 11/07/2023 | DPL5 | 3.7 | 919 | 1.1 | 392 | | | | | | | | | | | | | | | |
| | 8/08/2023 | DPL5 | 3.7 | 2200 | 0 | 346 | | 20 | 450 | | | 0.38 | 9.5 | 24 | 270 | 7.9 | 54 | 1.3 | 0.001 | 0.42 | 0.14 |
| | 11/09/2023 | DPL5 | 3.7 | 2027 | 0 | 344 | | | | | | | | | | | | | | | |
| | 12/10/2023 | DPL5 | 3.7 | 2001 | 0 | 351 | | | | | | | | | | | | | | | |
| | 13/11/2023 | DPL5 | 3.6 | 1870 | 0 | 297 | | | | | | | | | | | | | | | |
| | 12/12/2023 | DPL5 | 6.5 | 7300 | 0 | 27 | | 20 | 300 | | | 0.28 | 7.7 | 20 | 160 | 4.8 | 28 | 0.2 | 0.001 | 10 | 0.099 |
| 2024 Env Monitoring | 11/01/2024 | DPL5 | 5.6 | 1010 | 0 | 124 | | | | | | | | | | | | | | | |
| | 13/02/2024 | DPL5 | 4.8 | 1040 | 1.3 | 152 | | 20 | 310 | | | 0.24 | 7.7 | 19 | 170 | 5.1 | 6.5 | 0.58 | 0.001 | 1.2 | 0.13 |
| | 25/03/2024 | DPL5 | 5.2 | 1050 | 0 | 156 | | | | | | | | | | | | | | | |
| | 11/04/2024 | DPL5 | 5.4 | 1045 | 0.1 | 134 | | | | | | | | | | | | | | | |
| | 8/05/2024 | DPL5 | 4.2 | 820 | 1.6 | 261 | | | | | | | | | | | | | | | |
| | 12/06/2024 | DPL5 | 5.2 | 710 | 0.1 | 221 | | 20 | 210 | | | 0.27 | 2.7 | 6.1 | 130 | 4.5 | 41 | 0.33 | 0.001 | 1 | 0.059 |
| | 11/07/2024 | DPL5 | 5.7 | 728 | 0.1 | 218 | | | | | | | | | | | | | | | |
| | 13/08/2024 | DPL5 | 4.2 | 405 | 0 | 200 | | | | | | | | | | | | | | | |
| | 11/09/2024 | DPL5 | 4.9 | 471 | 0 | 162 | | 33.4 | 100 | | | 0.1 | 2.3 | 3.8 | 90 | 2.9 | 92 | 0.2 | 0.001 | 0.62 | 0.029 |
| | 10/10/2024 | DPL5 | 5.8 | 425 | 0 | 67 | | | | | | | | | | | | | | | |
| | 12/11/2024 | DPL5 | 5.6 | 462 | 0 | 84 | | | | | | | | | | | | | | | |
| | 11/12/2024 | DPL5 | 5.1 | 653 | 0.1 | 108 | | 20 | 300 | | | 0.8 | 9.3 | 40 | 220 | 12 | 270 | 1.2 | 0.001 | 0.5 | 0.28 |
| 2025 Env Monitoring | 14/01/2025 | DPL5 | 6.7 | 509 | 6.1 | 66.0 | | | | | | | | | | | | | | | |
| | 11/02/2025 | DPL5 | 5.6 | 423 | 5.2 | -82.0 | | | | | | | | | | | | | | | |
| | 18/03/2025 | DPL5 | 4.8 | 922 | 0.5 | -76.8 | | 20.0 | 67 | | | 0.2 | 1.8 | 3.6 | 67.0 | 2.9 | 67.0 | 0.22 | 0.001 | 1.5 | 0.024 |
| | 16/04/2025 | DPL5 | 5.1 | 321 | 0.0 | 231.0 | | | | | | | | | | | | | | | |
| | 14/05/2025 | DPL5 | 5.8 | 439 | 0.0 | 97.0 | | | | | | | | | | | | | | | |
| | 12/06/2025 | DPL5 | 4.8 | 418 | 1.7 | 98.5 | | 20.0 | 28.0 | | | 0.4 | 1.7 | 4.7 | 68.0 | 3.2 | 110.0 | 0.23 | 0.001 | 0.96 | 0.12 |
| | 15/07/2025 | DPL5 | 5.0 | 382 | 0.7 | 182.3 | | | | | | | | | | | | | | | |
| | 13/08/2025 | DPL5 | 4.8 | 245 | 2.6 | 321.0 | | | | | | | | | | | | | | | |
| | 10/09/2025 | DPL5 | 5.2 | 204 | 6.0 | 257.0 | | 21.0 | 21 | | | 0.0 | 0.9 | 2.5 | 23.0 | 1.8 | 24.0 | 0.11 | 0.001 | 0.18 | 0.017 |
| | 9/10/2025 | DPL5 | 5.0 | 161 | 0.5 | 257.0 | | | | | | | | | | | | | | | |
| | 11/11/2025 | DPL5 | 5.6 | 255 | 0.7 | 65.0 | | | | | | | | | | | | | | | |
| | 11/12/2025 | DPL5 | 5.2 | 270 | 0.6 | 78.0 | | 20.0 | 24 | | | 1.4 | 1.6 | 4.6 | 30.0 | 2.6 | 37.0 | 0.13 | 0.001 | 4.6 | 0.027 |
| **No of Samples** | | | **133** | **144** | **118** | **100** | **12** | **24** | **49** | **1** | **5** | **27** | **41** | **48** | **49** | **32** | **44** | **36** | **14** | **41** | **40** |
| **Minimum** | | | **3.6** | **4.83** | **0** | **-216** | **2** | **1** | **12** | **0.1** | **0.4** | **0.03** | **0.5** | **1** | **0.7** | **0.7** | **3.5** | **0.13** | **0.0009** | **0.09** | **0.0029** |
| **Maximum** | | | **9.89** | **8530** | **48** | **405** | **11** | **580** | **1500** | **0.1** | **1.3** | **1.79** | **25** | **96** | **830** | **26** | **270** | **3.96** | **0.001** | **15** | **0.54** |
| **Average** | | | **4.87** | **943.06** | **2.96** | **164.82** | **4.75** | **38.31** | **283.04** | **0.10** | **0.74** | **0.33** | **6.42** | **17.79** | **---** | **6.22** | **38.07** | **0.95** | **0.00** | **4.45** | **0.11** |
| 2011/2012 AEMR | Dec-11 | DPL6 | | | | | | | 14 | | | | 2.7 | 3.6 | 4.9 | <5 | 37 | | <0.005 | 9.48 | 0.02 |
| | Mar-12 | DPL6 | | | | | | | 14 | | | | 3.3 | 4.5 | 8.4 | <5 | 42 | | <0.005 | 17 | 0.02 |
| | 30/05/2012 | DPL6 | 3.8 | 302 | 1 | 464 | | | | | | | | | | | | | | | |
| | Jun-12 | DPL6 | 4 | 324 | 2.8 | 345 | <1 | <1 | 14 | | | | 7.3 | 12 | 10 | <5 | 104 | | <0.005 | 17 | 0.11 |
| | 26/07/2012 | DPL6 | 4.6 | 331 | 3.3 | 14 | | | | | | | | | | | | | | | |
| | 27/08/2012 | DPL6 | 4.4 | 419 | 2 | 84 | | | | | | | | | | | | | | | |
| | 27/09/2012 | DPL6 | 4.3 | 363 | 2.2 | 279 | <1 | <1 | 15 | | | | 11 | 14 | 12 | <5 | 130 | | <0.005 | 24 | 0.16 |
| | 29/10/2012 | DPL6 | 4.4 | 425 | 4.9 | 127 | | | | | | | | | | | | | | | |
| 2012/2013 AEMR | Dec-12 | DPL6 | | | | | | | 15 | | | | 4.7 | 4.7 | 13 | <5 | 63 | | <0.005 | 15 | 0.07 |
| | Mar-13 | DPL6 | | | | | | | 14 | | | | 3.6 | 2.5 | 11 | <5 | 34 | | <0.005 | 20 | 0.07 |
| | Jun-13 | DPL6 | | | | | | | 18 | | | | 3.1 | 2.1 | 3.1 | <5 | 40 | | <0.005 | 15 | 0.04 |
| | Sep-13 | DPL6 | | | | | | | 16 | | | | 2.4 | 1.6 | 11 | <5 | | | <0.005 | 10 | 0.04 |
| | 12/12/2013 | DPL6 | 5.2 | 162 | 4.4 | 42 | 10 | 6 | 20 | | | | 4.5 | 1.5 | 1.5 | <5 | 30 | | <0.005 | 10 | 0.06 |
| | 29/01/2014 | DPL6 | 4.2 | 210 | 5.3 | 269 | | | | | | | | | | | | | | | |
| | 24/02/2014 | DPL6 | 4.2 | 228 | 4.5 | 268 | | | | | | | | | | | | | | | |
| | 31/03/2014 | DPL6 | 4.8 | 165 | 2.5 | 130 | 3 | 2 | 22 | | | | 5.6 | 1.8 | 1.8 | <5 | 34 | | <0.005 | 10.5 | 0.06 |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24/04/2014 | DPL6 | 5 | 156 | | 162 | | | | | | | | | | | | | | | |
| | 28/05/2014 | DPL6 | 3.8 | 198 | | 343 | | | | | | | | | | | | | | | |
| | 25/06/2014 | DPL6 | 3.2 | 497 | 6.1 | 440 | <1 | <1 | 17 | | | | 7 | 4.5 | 16 | <5 | 119 | | <0.005 | 13 | 0.2 |
| | 29/08/2014 | DPL6 | 4.1 | 1764 | 4.9 | 191 | NP | NP | 40 | | | | 45 | 23 | 16 | 9 | 958 | | <0.005 | 388 | 2.01 |
| | 29/09/2014 | DPL6 | 3.5 | 1699 | <1 | 302 | | | | | | | | | | | | | | | |
| | 28/11/2014 | DPL6 | 4.5 | 1622 | 2.8 | 90 | | | | | | | | | | | | | | | |
| | 15/12/2014 | DPL6 | 3.5 | 1700 | <0.1 | 290 | NP | <1 | <3 | | | | 134 | 26 | 24 | 10 | 768 | 10 | <0.005 | 322 | 1.91 |
| | 22/01/2015 | DPL6 | 4.1 | 1216 | 3.4 | 230 | | | | | | | | | | | | | | | |
| | 25/02/2015 | DPL6 | 3.7 | 951 | 1.6 | 213 | | | | | | | | | | | | | | | |
| Appendix of 2015 AEMR | 26/03/2015 | DPL6 | 4.2 | 1600 | 5.1 | 177 | NP | NP | | | | | | | | | | | | | |
| | 24/04/2015 | DPL6 | 4.0 | 1558 | 2.5 | 226 | | | | | | | | | | | | | | | |
| | 28/05/2015 | DPL6 | 3.9 | 2153 | 5.3 | 279 | | | | | | | | | | | | | | | |
| | 17/09/2015 | DPL6 | 3.8 | 2219 | 2 | 220 | NP | | 100 | | | 1.13 | 22 | 24 | 16 | 9 | 1490 | 147 | <0.001 | 580 | 3.65 |
| | 21/10/2015 | DPL6 | 3.6 | 2189 | 2 | 284 | | | | | | | | | | | | | | | |
| | 25/11/2015 | DPL6 | 3.3 | 2264 | 1.7 | 226 | | | | | | | | | | | | | | | |
| | 11/12/2015 | DPL6 | 3.4 | 2164 | 0.9 | 342 | <1 | <1 | 40 | | | | 50 | 23 | 18 | 10 | 1520 | 104 | 0.011 | 291 | 3 |
| | 25/01/2016 | DPL6 | 4.5 | 2056 | 1.1 | 52 | | | | | | | | | | | | | | | |
| | 24/02/2016 | DPL6 | 4.4 | 2056 | 2.3 | 78 | | | | | | | | | | | | | | | |
| | 24/03/2016 | DPL6 | 4.1 | 2031 | 1.5 | 183 | <1 | <1 | 23 | | | | 55.48 | 23.88 | | [1] 9 | 10.27 | 1382.076 | 94.142 | 0.026 | 428 | 3.75 |
| | 29/04/2016 | DPL6 | 3.9 | 1997 | 1.9 | 183 | | | | | | | | | | | | | | | |
| | 24/05/2016 | DPL6 | 3.8 | 1974 | 2.8 | 199 | | | | | | | | | | | | | | | |
| Appendix of 2016 AEMR | 30/06/2016 | DPL6 | 4.2 | 1810.2 | 3.3 | 275 | | | | | | | | | | | | | | | |
| | 21/07/2016 | DPL6 | 3.5 | 1731.9 | 1.3 | 338 | | | | | | | | | | | | | | | |
| | 31/08/2016 | DPL6 | 3.7 | 1783 | 3.8 | 262 | <1 | | 790 | | | | 24 | 22 | 14 | <5 | 1100 | | 0.001 | 241 | 1.96 |
| | 29/09/2016 | DPL6 | 3.8 | 1738 | 1.9 | 189 | | | | | | | | | | | | | | | |
| | 27/10/2016 | DPL6 | 3.8 | 1738 | 1.9 | 189 | | | | | | | | | | | | | | | |
| | 29/11/2016 | DPL6 | 3.8 | 3.8 | 2.3 | 182 | | | | | | | | | | | | | | | |
| | 20/12/2016 | DPL6 | 3.7 | 1752 | 2.1 | 274.7 | <1 | | <1 | | | | 21 | 33 | 16 | 9 | 1080 | | 0.001 | 259 | 1.96 |
| | 30/01/2017 | DPL6 | 3.6 | 1745 | | | | | | | | | | | | | | | | | |
| | 27/02/2017 | DPL6 | 3.8 | 1653 | | | | | | | | | | | | | | | | | |
| | 22/03/2017 | DPL6 | 3.8 | 1710 | | | <5 | | 17 | 0.3 | 2.5 | 0.54 | | 21 | 14 | 10 | 1200 | 59 | 0.004 | 370 | 1.9 |
| | 19/04/2017 | DPL6 | 3.9 | 1540 | | | | | | | | | | | | | | | | | |
| | 17/05/2017 | DPL6 | 3.8 | 1580 | | | | | | | | | | | | | | | | | |
| | 14/06/2017 | DPL6 | 3.7 | 1380 | | | <5 | | 17 | 0.2 | 1.6 | 0.59 | | 17 | 14 | 11 | 990 | 43 | 0.003 | 300 | 1.4 |
| Q1 2017 Env Monitoring report | 12/07/2017 | DPL6 | 3.9 | 1100 | | | | | | | | | | | | | | | | | |
| | 9/08/2017 | DPL6 | 3.9 | 1050 | | | | | | | | | | | | | | | | | |
| | 6/09/2017 | DPL6 | 3.7 | 977 | | | <5 | | 16 | <0.05 | 1.6 | 0.51 | | 11 | 12 | 8 | 370 | 17 | 0.002 | 180 | 0.93 |
| | 4/10/2017 | DPL6 | 3.9 | 1030 | | | | | | | | | | | | | | | | | |
| | 1/11/2017 | DPL6 | 3.9 | 1000 | | | | | | | | | | | | | | | | | |
| | 29/11/2017 | DPL6 | 3.9 | 919 | | | | | | | | | | | | | | | | | |
| | 28/12/2017 | DPL6 | 3.9 | 822 | | | <5 | | 18 | 0.1 | 1.6 | 0.41 | | 8.8 | 11 | 8 | 540 | 12 | 0.001 | 150 | 0.67 |
| | 24/01/2018 | DPL6 | 3.88 | 866 | | | | | | | | | | | | | | | | | |
| | 21/02/2018 | DPL6 | 3.84 | 822 | | | | | | | | | | | | | | | | | |
| | 21/03/2018 | DPL6 | 3.94 | 655 | | | <5 | | 20 | 11 | 1.3 | 0.3 | | 7.1 | 11 | 7.3 | 410 | 8.2 | 0.001 | 120 | 0.45 |
| | 18/04/2018 | DPL6 | 4.03 | 472 | | | | | | | | | | | | | | | | | |
| | 16/05/2018 | DPL6 | 3.98 | 469 | | | | | | | | | | | | | | | | | |
| 2018 Env Monitoring | 13/06/2018 | DPL6 | 3.89 | 533 | | | <5 | | 25 | 11 | 1.4 | 0.52 | | 5.2 | 11 | 6.5 | 320 | 6.7 | <0.001 | 74 | 0.4 |
| | 11/07/2018 | DPL6 | 3.92 | 463 | | | | | | | | | | | | | | | | | |
| | 8/08/2018 | DPL6 | 3.93 | 517 | | | | | | | | | | | | | | | | | |
| | 5/09/2018 | DPL6 | 3.82 | 600 | 6.82 | 14.5 | <1 | | 20 | 11 | | 0.25 | | 7 | 11 | 6 | 205 | 9.31 | 0.001 | | 0.498 |
| | 5/10/2018 | DPL6 | 3.99 | 641 | 8.8 | | | | | | | | | | | | | | | | |
| | 6/11/2018 | DPL6 | 4.02 | 634 | 14.1 | | | | | | | | | | | | | | | | |
| | 7/12/2018 | DPL6 | 4.01 | 618 | 3.2 | | <1 | | 17 | 11 | | 0.28 | | 8 | 11 | 6 | 328 | 12.1 | 0.001 | 123 | 0.659 |
| | 8/01/2019 | DPL6 | 4.07 | 607.54 | 10.04 | 39.9 | | | | | | | | | | | | | | | |
| | 5/02/2019 | DPL6 | 4.07 | 653.15 | 0.25 | -45.9 | | | | | | | | | | | | | | | |
| | 8/03/2019 | DPL6 | 5.78 | 10190 | 0.19 | -39.5 | | <1 | 18 | | | | 11 | 8 | 11 | 6 | 293 | 9.51 | <0.01 | 99.8 | 0.576 |
| | 5/04/2019 | DPL6 | 3.98 | 655 | 0.3 | NR | | | | | | | | | | | | | | | |
| | 7/05/2019 | DPL6 | 5.69 | 8160 | 0.6 | 0.1 | | | | | | | | | | | | | | | |
| 2019 Env Monitoring | 4/06/2019 | DPL6 | 3.9 | 611 | 0.4 | 25.6 | | <1 | 16 | | | | 10 | 8 | 11 | 6 | 288 | 9.92 | 0.001 | 108 | 0.54 |
| | 4/07/2019 | DPL6 | 5.69 | 8160 | 0.6 | 0.1 | | | | | | | | | | | | | | | |
| | 1/08/2019 | DPL6 | 3.93 | 473 | 2.8 | 53.8 | | <1 | 17 | | | | 8 | 6 | 10 | 4 | 231 | 8.03 | <0.001 | 92.6 | 0.538 |
| | 26/09/2019 | DPL6 | 3.93 | 109 | 0.8 | -19.9 | | | | | | | | | | | | | | | |
| | 24/10/2019 | DPL6 | 4.94 | 393 | 24.3 | <0.1 | | | | | | | | | | | | | | | |
| | 22/11/2019 | DPL6 | 3.96 | 463 | 2.5 | 36.9 | | <1 | 16 | | | | 7 | 6 | 12 | 6 | 187 | 3.21 | <0.01 | 45 | 0.225 |
| | 20/12/2019 | DPL6 | 4.84 | 262 | 35.9 | 80.6 | | | | | | | | | | | | | | | |
| 2020 Env Monitoring | 17/01/2020 | DPL6 | 4.7 | 249 | 7.7 | | | | | | | | | | | | | | | | |
| | 14/02/2020 | DPL6 | 4.09 | | | | | | | | | | 4 | 4 | 9 | 5 | 127 | 4.35 | 0.001 | 54.8 | 0.275 |
| | 18/03/2020 | DPL6 | 4.99 | 227 | 1.42 | -39 | | 19.9 | | | | 0.98 | | 2.1 | 7 | 3.6 | 73 | 0.8 | 0.0009 | 39 | 0.16 |
| | 16/04/2020 | DPL6 | 5.11 | 2250 | 1.52 | -26 | | | | | | | | | | | | | | | |
| | 14/05/2020 | DPL6 | 4.74 | 207 | 0.34 | -21 | | | | | | | | | | | | | | | |
| | 11/06/2020 | DPL6 | 4.29 | 253 | 0 | 32 | | 20 | | | | | 2.6 | 2.2 | 7.9 | 4.5 | 53 | 1.6 | 0.001 | 22 | 0.15 |
| | 9/07/2020 | DPL6 | 4.46 | 302 | 0 | 54 | | | | | | | | | | | | | | | |
| | 10/08/2020 | DPL6 | 4.31 | 520 | 0 | -13 | | | | | | | | | | | | | | | |
| | 24/09/2020 | DPL6 | 7.14 | 504 | 0.46 | | | 20 | | | | 2.4 | 5 | 5 | 28 | 7.2 | 160 | 0.56 | 0.001 | 73 | |
| | 8/10/2020 | DPL6 | 4.37 | 507 | 0 | 27 | | | | | | | | | | | | | | | |
| | 9/11/2020 | DPL6 | 6.68 | 490 | 0.95 | | | 20 | | | | 1.6 | 3.9 | 5.2 | 23 | 5 | 140 | 3.1 | 0.001 | 61 | 0.31 |
| | 10/12/2020 | DPL6 | 6.18 | 498 | 1.34 | -41 | | | | | | | | | | | | | | | |
| | 11/01/2021 | DPL6 | 4.3 | 444 | 0 | -58 | | | | | | | | | | | | | | | |
| | 11/02/2021 | DPL6 | 4.3 | 334 | 0 | -71 | | 20 | 47 | | | 0.96 | 16 | 5 | 13 | 5 | 110 | 1.7 | | 24 | 0.11 |
| | 15/03/2021 | DPL6 | 4.6 | 214 | 1.5 | 89 | | | | | | | | | | | | | | | |
| | 13/04/2021 | DPL6 | 4.8 | 234 | 0.1 | 3 | | | | | | | | | | | | | | | |
| | 11/05/2021 | DPL6 | 4.8 | 243 | 0 | 47 | | 20 | 21 | | | 0.9 | 7.3 | 2.1 | 10 | 3.5 | 65 | 0.56 | | 22 | 0.13 |
| | 10/06/2021 | DPL6 | 3.8 | 265 | 0 | | | | | | | | | | | | | | | | |
| 2021 Env Monitoring | 8/07/2021 | DPL6 | 4.22 | 292 | 1.93 | -12 | | | | | | | | | | | | | | | |
| | 9/08/2021 | DPL6 | 4.1 | 286 | 0 | 71 | | 20 | 18 | | | 0.97 | 24 | 21 | 74 | 3.9 | 83 | 1.5 | | 19 | 0.11 |
| | 9/09/2021 | DPL6 | 5.5 | 288 | 0 | 28 | | | | | | | | | | | | | | | |
| | 11/10/2021 | DPL6 | 3.9 | 196 | 0 | 103 | | | | | | | | | | | | | | | |
| | 11/11/2021 | DPL6 | 4.9 | 171 | | 110 | | 20 | 27 | | | 1 | 8.3 | 2.4 | 6.6 | 4 | 67 | 1.3 | | 26 | 0.14 |
| | 13/12/2021 | DPL6 | 4.9 | 163 | 0.3 | 1 | | | | | | | | | | | | | | | |
| | 12/01/2022 | DPL6 | 4.6 | 139 | 0.5 | 36 | | 20 | 21 | | | 0.62 | 2.1 | 1.4 | 13 | 3.1 | 41 | 0.47 | | 2.6 | 0.084 |
| | 9/02/2022 | DPL6 | 4.8 | 109 | 0 | 35 | | | | | | | | | | | | | | | |
| | 14/03/2022 | DPL6 | 6.1 | 109 | 0 | -24 | | | | | | | | | | | | | | | |
| | 13/04/2022 | DPL6 | 5.8 | 175 | 0 | -97 | | 20 | 19 | | | 0.71 | 4.4 | 2.3 | 10 | 2.7 | 46 | 0.14 | | 19 | 0.21 |
| | 11/05/2022 | DPL6 | 5.5 | 162 | 0 | 4 | | | | | | | | | | | | | | | |
| | 9/06/2022 | DPL6 | 4.8 | 139 | 0.2 | 21 | | | | | | | | | | | | | | | |
| 2022 Env Monitoring | 11/07/2022 | DPL6 | 4.6 | 157 | 0.6 | | | 20 | 36 | | | 0.56 | 4.2 | 2.3 | 10 | 3 | 43 | 0.57 | | 24 | 0.16 |
| | 10/08/2022 | DPL6 | 4.4 | 133 | 0 | 131 | | | | | | | | | | | | | | | |
| | 13/09/2022 | DPL6 | 4 | 113 | 0 | 184 | | | | | | | | | | | | | | | |
| | 13/10/2022 | DPL6 | 5.7 | 134 | 0.1 | -61 | | 20 | 25 | | | 1 | 2.1 | 1 | 9.2 | 2.2 | 26 | 0.12 | | 13 | 0.07 |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 14/11/2022 | DPL6 | 5.7 | 116 | 0.1 | -62 | | | | | | | | | | | | | | | |
| | 14/12/2022 | DPL6 | 5.5 | | 0.1 | | | | | | | | | | | | | | | | |
| 2023 Env Monitoring | 12/01/2023 | DPL6 | 5.2 | 69 | 0.1 | -16 | | | | | | | | | | | | | | | |
| | 13/02/2023 | DPL6 | 4.9 | 59 | 0 | 33 | | 20 | 17 | | | 0.63 | 2.9 | 1 | 9.2 | 2.3 | 32 | 0.15 | 0.001 | 9.5 | 0.057 |
| | 15/03/2023 | DPL6 | 5.1 | 102 | 0 | -6 | | | | | | | | | | | | | | | |
| | 11/04/2023 | DPL6 | 5.4 | 840 | 0.8 | -57 | | | | | | | | | | | | | | | |
| | 11/05/2023 | DPL6 | 4.7 | 76 | 1.6 | 1 | | | | | | | | | | | | | | | |
| | 14/06/2023 | DPL6 | 5.8 | 73 | 0.2 | -74 | | 20 | 20 | | | 1.7 | 2.8 | 1.2 | 9.9 | 2.6 | 14 | 0.11 | 0.001 | 7.6 | 0..73 |
| | 11/07/2023 | DPL6 | 4.9 | 93 | 0 | 59 | | | | | | | | | | | | | | | |
| | 8/08/2023 | DPL6 | 4.4 | 296 | 0 | 48 | | 20 | 18 | | | 0.89 | 7.3 | 3.5 | 28 | 7.3 | 95 | 0.61 | 0.001 | 16 | 0.2 |
| | 11/09/2023 | DPL6 | 4.8 | 193 | 0 | 67 | | | | | | | | | | | | | | | |
| | 12/10/2023 | DPL6 | 4.9 | 211 | 0 | 89 | | | | | | | | | | | | | | | |
| | 13/11/2023 | DPL6 | 4.7 | 301 | 0.2 | 34 | | | | | | | | | | | | | | | |
| | 12/12/2023 | DPL6 | 4.7 | 242 | 1.9 | 121 | | 20 | 12 | | | 0.93 | 13 | 3.2 | 6.6 | 3.3 | 110 | 1 | 0.001 | 14 | 0.2 |
| 2024 | 11/01/2024 | DPL6 | 5.1 | 235 | 0 | 86 | | | | | | | | | | | | | | | |
| | 13/02/2024 | DPL6 | 5.1 | 259 | 0.1 | 48 | | 20 | 10 | | | 0.83 | 11 | 4 | 7.6 | 4.1 | 93 | 1.2 | 0.001 | 30 | 0.23 |
| | 25/03/2024 | DPL6 | 5.1 | 205 | 0 | 75 | | | | | | | | | | | | | | | |
| | 11/04/2024 | DPL6 | 5.2 | 254 | 0 | 81 | | | | | | | | | | | | | | | |
| | 8/05/2024 | DPL6 | 5.8 | 234 | 1.5 | 147 | | | | | | | | | | | | | | | |
| | 12/06/2024 | DPL6 | 6.5 | 240 | 0.4 | -43 | | 49 | 16 | | | 9.2 | 5.5 | 1.9 | 11 | 5.9 | 33 | 0.27 | 0.001 | 12 | 0.09 |
| | 11/07/2024 | DPL6 | 8.4 | 385 | 2 | 78 | | | | | | | | | | | | | | | |
| | 13/08/2024 | DPL6 | 5.2 | 181 | 0 | 81 | | | | | | | | | | | | | | | |
| | 11/09/2024 | DPL6 | 4.7 | 183 | 0 | 110 | | 33.4 | 18 | | | 1.2 | 4.8 | 2.1 | 12 | 3.5 | 41 | 0.29 | 0.001 | 0.79 | 0.079 |
| | 10/10/2024 | DPL6 | 4.8 | 168 | 0 | 38 | | | | | | | | | | | | | | | |
| | 12/11/2024 | DPL6 | 6.1 | 155 | 8.7 | 25 | | | | | | | | | | | | | | | |
| | 11/12/2024 | DPL6 | 5.9 | 200 | 0.1 | -5 | | 20 | 14 | | | 2.4 | 5.8 | 3.4 | 13 | 4.7 | 48 | 0.24 | 0.001 | 0.5 | 0.14 |
| 2025 Env Monitoring | 14/01/2025 | DPL6 | 5.2 | 206 | 5.9 | 77.0 | | | | | | | | | | | | | | | |
| | 11/02/2025 | DPL6 | 6.2 | 202 | 2.1 | -195.0 | | | | | | | | | | | | | | | |
| | 18/03/2025 | DPL6 | 4.8 | 847 | 0.6 | -94.7 | | 20.0 | 15 | | | 0.66 | 3.8 | 3.3 | 11.0 | 4.3 | 61.0 | 0.7 | 0.001 | 21 | 0.14 |
| | 16/04/2025 | DPL6 | 5.4 | 225 | 0.0 | -6.0 | | | | | | | | | | | | | | | |
| | 14/05/2025 | DPL6 | 5.1 | 482 | 0.0 | 61.0 | | | | | | | | | | | | | | | |
| | 12/06/2025 | DPL6 | 3.5 | 277 | 0.3 | 329.0 | | 20.0 | 14.0 | | | 2.0 | 2.7 | 2.2 | 11.0 | 3.4 | 41.0 | 2.1 | 0.001 | 6.2 | 0.091 |
| | 15/07/2025 | DPL6 | 3.9 | 215 | 0.1 | 101.0 | | | | | | | | | | | | | | | |
| | 13/08/2025 | DPL6 | 4.4 | 189 | 1.1 | -52.0 | | | | | | | | | | | | | | | |
| | 10/09/2025 | DPL6 | 5.3 | 156 | 0.8 | 2.0 | | 20.0 | 16 | | | 1.2 | 1.7 | 1.5 | 9.5 | 2.8 | 56.0 | 0.15 | 0.001 | 6.8 | 0.077 |
| | 9/10/2025 | DPL6 | 5.7 | 182 | 1.3 | 27.0 | | | | | | | | | | | | | | | |
| | 11/11/2025 | DPL6 | 6.0 | 121 | 0.3 | -63.0 | | | | | | | | | | | | | | | |
| | 11/12/2025 | DPL6 | 5.3 | 151 | 0.7 | 20.0 | | 20.0 | 13 | | | 1.2 | 1.5 | 1.2 | 9.5 | 2.5 | 12.0 | 0.14 | 0.001 | 8.9 | 0.047 |
| **No of Samples** | | | **135** | **145** | **120** | **99** | **2** | **22** | **44** | **7** | **6** | **28** | **42** | **51** | **51** | **39** | **50** | **37** | **25** | **50** | **49** |
| **Minimum** | | | **3.2** | **3.8** | **0** | **-97** | **3** | **2** | **10** | **0.1** | **1.3** | **0.25** | **2.1** | **1.0** | **1.5** | **2.2** | **14** | **0.11** | **0.0009** | **0.50** | **0.02** |
| **Maximum** | | | **8.40** | **10190** | **35.9** | **464** | **10** | **49** | **790** | **11** | **2.5** | **9.2** | **134** | **33** | **74** | **11** | **1520** | **147** | **0.026** | **580** | **3.75** |
| **Average** | | | **4.51** | **835.95** | **2.16** | **103.03** | **6.50** | **20.47** | **39.27** | **6.37** | **1.67** | **1.21** | **13.80** | **8.18** | **"<"** | **5.86** | **315.86** | **15.51** | **0.00** | **96.44** | **0.63** |
| 2011/2012 AEMR | Dec-11 | DPL7 | | | | | | | 680 | | | | **16** | **24** | 451 | 36 | 207 | | <0.005 | 0.34 | 0.04 |
| | Mar-12 | DPL7 | | | | | | | 710 | | | | **16** | **24** | 649 | 28 | 210 | | <0.005 | 0.28 | 0.03 |
| | 30/05/2012 | DPL7 | 7.4 | 3451 | 3.6 | 241 | | | | | | | | | | | | | | | |
| | Jun-12 | DPL7 | 7.5 | 3446 | 5 | 249 | 550 | 336 | 700 | | | | 17 | 36 | 561 | 30 | 214 | | <0.005 | 0.32 | 0.05 |
| | 26/07/2012 | DPL7 | 7.4 | 3434 | 3.4 | -15 | | | | | | | | | | | | | | | |
| | 27/08/2012 | DPL7 | 7.6 | 3492 | 2.5 | 24 | | | | | | | | | | | | | | | |
| | 27/09/2012 | DPL7 | 7.4 | 3385 | 2.1 | 154 | 430 | 256 | 730 | | | | 15 | 32 | 530 | 28 | 226 | | <0.005 | 1.11 | 0.02 |
| | 29/10/2012 | DPL7 | 7.2 | 3416 | 1.7 | 52 | | | | | | | | | | | | | | | |
| 2012/2013 AEMR | Dec-12 | DPL7 | | | | | | | 730 | | | | 16 | 34 | 673 | 29 | 203 | | <0.005 | 0.56 | 0.02 |
| | Mar-13 | DPL7 | | | | | | | 750 | | | | 18 | 38 | 610 | 27 | 223 | | <0.005 | 0.72 | 0.05 |
| | Jun-13 | DPL7 | | | | | | | 740 | | | | 16 | 36 | 16 | 25 | 274 | | <0.005 | 1.56 | 0.03 |
| | Sep-13 | DPL7 | | | | | | | 750 | | | | 16 | 34 | 543 | 23 | | | <0.005 | 1.2 | 0.05 |
| 2013/2014 AEMR | 12/12/2013 | DPL7 | 7.2 | 3341 | 4.1 | 52 | 390 | 238 | 750 | | | | 18 | 38 | 38 | 26 | 249 | | <0.005 | 1.33 | 0.08 |
| | 29/01/2014 | DPL7 | 7.3 | 3243 | 3.9 | 154 | | | | | | | | | | | | | | | |
| | 24/02/2014 | DPL7 | 7.2 | 3151 | 2.4 | 231 | | | | | | | | | | | | | | | |
| | 31/03/2014 | DPL7 | 7.2 | 3358 | 2.8 | -2 | 410 | 250 | 720 | | | | 19 | 39 | 39 | 26 | 253 | | <0.005 | 1.52 | 0.04 |
| | 24/04/2014 | DPL7 | 7.5 | 3452 | | 116 | | | | | | | | | | | | | | | |
| | 28/05/2014 | DPL7 | 7.3 | 3468 | | 297 | | | | | | | | | | | | | | | |
| | 25/06/2014 | DPL7 | 4.6 | 69 | 2.3 | 320 | 1 | <1 | 15 | | | | 0.3 | 0.2 | 9.9 | <5 | 4.2 | | <0.005 | 0.85 | <0.01 |
| | 30/07/2014 | DPL7 | 7.5 | 3414 | 3.5 | 126 | 390 | 240 | 760 | | | | 19 | 41 | 656 | 27 | 261 | 0.41 | <0.005 | 1.42 | 0.02 |
| | 29/08/2014 | DPL7 | 7.5 | 3477 | 2.8 | 128 | 400 | 245 | 740 | | | | 17 | 37 | 611 | 25 | 236 | | <0.005 | 1.88 | 0.01 |
| | 29/09/2014 | DPL7 | 7.2 | 3436 | 4.9 | 173 | | | | | | | | | | | | | | | |
| Appendix of 2015 AEMR | 28/11/2014 | DPL7 | 7.1 | 3416 | 4.9 | 75 | | | | | | | | | | | | | | | |
| | 15/12/2014 | DPL7 | 7.2 | 3340 | 2.3 | 100 | 400 | 243 | 780 | | | | 22 | 43 | 685 | 29 | 211 | 0.34 | <0.005 | 1.62 | 0.06 |
| | 22/01/2015 | DPL7 | 7.1 | 3404 | 2.6 | 77 | | | | | | | | | | | | | | | |
| | 25/02/2015 | DPL7 | 7.4 | 3396 | 4.5 | 30 | | | | | | | | | | | | | | | |
| | 26/03/2015 | DPL7 | 7.1 | 3446 | 3.1 | 78 | 420 | 423 | 780 | | | | 18 | 38 | 651 | 26 | 250 | 0.51 | <0.001 | 2.62 | 0.077 |
| | 24/04/2015 | DPL7 | 7.5 | 3438 | 5.5 | 53 | | | | | | | | | | | | | | | |
| | 28/05/2015 | DPL7 | 7.5 | 3417 | 6 | 161 | | | | | | | | | | | | | | | |
| | 17/09/2015 | DPL7 | 7.3 | 3323 | 2.8 | 110 | 380 | | 760 | | | 0.06 | 18 | 39 | 644 | 25 | 250 | 0.62 | <0.001 | 2.53 | 0.025 |
| | 21/10/2015 | DPL7 | 7.2 | 3330 | 3.5 | 144 | | | | | | | | | | | | | | | |
| | 25/11/2015 | DPL7 | 7.2 | 3500 | 5.8 | 100 | | | | | | | | | | | | | | | |
| | 11/12/2015 | DPL7 | 7.2 | 3371 | 2.7 | 214 | 380 | 380 | 770 | | | | 17 | 37 | 644 | 24 | 272 | 0.04 | 0.0002 | 2.44 | 0.084 |
| Appendix of 2016 AEMR | 25/01/2016 | DPL7 | 7.1 | 3344 | 1.8 | -36.00 | | | | | | | | | | | | | | | |
| | 24/02/2016 | DPL7 | 7.2 | 3444 | 5.5 | -60.00 | | | | | | | | | | | | | | | |
| | 24/03/2016 | DPL7 | 7.2 | 3399 | 4.1 | -9.00 | 363 | 363 | 738 | | | | 18.21 | 38.01 | "<" | 26.08 | 260.218 | 0.356 | <0.001 | 1.772 | 0.084 |
| | 29/04/2016 | DPL7 | 7.4 | 3374 | 6.4 | 26.00 | | | | | | | | | | | | | | | |
| | 24/05/2016 | DPL7 | 7.4 | 3382 | 5.5 | -57.00 | | | | | | | | | | | | | | | |
| | 30/06/2016 | DPL7 | 7.4 | 3404.7 | 5.7 | 98.00 | | | | | | | | | | | | | | | |
| | 21/07/2016 | DPL7 | 7.5 | 3159 | 6.5 | -31.00 | | | | | | | | | | | | | | | |
| | 31/08/2016 | DPL7 | 7.3 | 3364 | 3.7 | -22.00 | 369 | | 760 | | | | 24 | 35 | 604 | 24 | 217 | | 0.001 | 2.07 | 0.082 |
| | 29/09/2016 | DPL7 | 7.2 | 3558 | 2.4 | 44.00 | | | | | | | | | | | | | | | |
| | 27/10/2016 | DPL7 | 7.2 | 3558 | 2.4 | 44.00 | | | | | | | | | | | | | | | |
| | 29/11/2016 | DPL7 | 7.1 | 7.1 | 2.4 | 20.00 | | | | | | | | | | | | | | | |
| | 20/12/2016 | DPL7 | 6.9 | 3527 | 4.5 | 229.3 | 372 | | 372 | | | | 18 | 38 | 648 | 25 | 263 | | 0.001 | 1.85 | 0.082 |
| Q1 2017 Env Monitoring report | 30/01/2017 | DPL7 | 6.9 | 3471 | | | | | | | | | | | | | | | | | |
| | 27/02/2017 | DPL7 | 7.1 | 3174 | | | | | | | | | | | | | | | | | |
| | 22/03/2017 | DPL7 | 7 | 3430 | | | 350 | | 360 | 0.1 | 2.1 | 0.19 | | 36 | 830 | 29 | 710 | 0.33 | <0.001 | 1.8 | 0.076 |
| | 19/04/2017 | DPL7 | | | | | | | | | | | | | | | | | | | |
| | 17/05/2017 | DPL7 | 6.9 | 3440 | | | | | | | | | | | | | | | | | |
| | 14/06/2017 | DPL7 | | | | | | | | | | | | | | | | | | | |
| | 12/07/2017 | DPL7 | 7 | 3360 | | | | | | | | | | | | | | | | | |
| | 9/08/2017 | DPL7 | 7 | 3480 | | | | | | | | | | | | | | | | | |
| | 6/09/2017 | DPL7 | 7 | 3380 | | | 390 | | 640 | 0.1 | 2.9 | 0.67 | | 38 | 940 | 31 | 350 | 0.33 | <0.001 | 1.3 | 0.065 |
| | 4/10/2017 | DPL7 | 7 | 3450 | | | | | | | | | | | | | | | | | |
| | 1/11/2017 | DPL7 | 6.9 | 3440 | | | | | | | | | | | | | | | | | |
| | 29/11/2017 | DPL7 | 6.8 | 344 | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2017 Env Monitoring | 28/12/2017 | DPL7 | 6.9 | 3410 | | | 380 | | 720 | 0.1 | 3.6 | 2.4 | | 38 | 930 | 30 | 250 | 0.33 | <0.001 | 1.4 | 0.063 |
| | 24/01/2018 | DPL7 | 6.84 | 3450 | | | | | | | | | | | | | | | | | |
| | 21/02/2018 | DPL7 | 6.83 | 3310 | | | | | | | | | | | | | | | | | |
| | 21/03/2018 | DPL7 | 6.78 | 3650 | | | 400 | | 710 | 0.2 | 3.7 | 2.3 | | 41 | 750 | 30 | 250 | 0.37 | <0.001 | 1.3 | 0.065 |
| | 18/04/2018 | DPL7 | 6.88 | 3500 | | | | | | | | | | | | | | | | | |
| | 16/05/2018 | DPL7 | 6.89 | 3480 | | | | | | | | | | | | | | | | | |
| 2018 Env Monitoring | 13/06/2018 | DPL7 | 6.89 | 3570 | | | 380 | | 680 | 0.1 | 3.9 | 2.3 | | 37 | 840 | 31 | 260 | 0.35 | <0.001 | 1.6 | 0.072 |
| | 11/07/2018 | DPL7 | 7.08 | 3220 | | | | | | | | | | | | | | | | | |
| | 8/08/2018 | DPL7 | 7.01 | 3510 | | | | | | | | | | | | | | | | | |
| | 5/09/2018 | DPL7 | 3.9 | 2680 | 57.6 | 391 | 393 | | 783 | | | 2.06 | | 40 | 651 | 26 | 232 | 0.49 | <0.001 | | 0.074 |
| | 5/10/2018 | DPL7 | 6.88 | 3340 | 7.5 | | | | | | | | | | | | | | | | |
| | 6/11/2018 | DPL7 | 6.73 | 3530 | 4 | | | | | | | | | | | | | | | | |
| | 7/12/2018 | DPL7 | 6.76 | 3310 | 2.3 | -112.6 | 395 | | 749 | | | 2.08 | | 39 | 635 | 25 | 278 | 0.5 | <0.001 | 1.7 | 0.659 |
| | 8/01/2019 | DPL7 | 6.75 | 3329.4 | 14.2 | -90.7 | | | | | | | | | | | | | | | |
| | 5/02/2019 | DPL7 | 6.74 | 3571.4 | 0.18 | -1620 | | | | | | | | | | | | | | | |
| | 8/03/2019 | DPL7 | 5.09 | 367 | 0.22 | 3.2 | | 415 | | | | | 755 | 39 | 675 | 25 | 267 | 0.44 | <0.01 | 1.63 | 0.072 |
| | 5/04/2019 | DPL7 | 6.74 | 3460 | 0.6 | NR | | | | | | | | | | | | | | | |
| | 7/05/2019 | DPL7 | 4.4 | 2320 | 0.7 | 0.1 | | | | | | | | | | | | | | | |
| 2019 Env Monitoring | 4/06/2019 | DPL7 | 6.68 | 3480 | 0.4 | 0.1 | | 380 | | | | | 671 | 40 | 656 | 25 | 316 | 0.34 | <0.001 | 1.57 | 0.078 |
| | 4/07/2019 | DPL7 | 4.4 | 2320 | 0.7 | 0.1 | | | | | | | | | | | | | | | |
| | 1/08/2019 | DPL7 | 6.88 | 3220 | 7.2 | <0.1 | | 393 | | | | | 639 | 38 | 607 | 22 | 265 | 0.51 | <0.001 | 1.8 | 0.082 |
| | 26/09/2019 | DPL7 | 7.35 | 3420 | 2.2 | 195 | | | | | | | | | | | | | | | |
| | 24/10/2019 | DPL7 | 7.51 | 3590 | 1.3 | 0.1 | | | | | | | | | | | | | | | |
| | 22/11/2019 | DPL7 | 6.71 | 3570 | 5.7 | <0.1 | | 388 | | | | | 803 | 39 | 637 | 24 | 264 | 0.48 | <0.001 | 1.48 | 0.074 |
| | 20/12/2019 | DPL7 | 6.82 | 3820 | 3.1 | <0.1 | | | | | | | | | | | | | | | |
| | 17/01/2020 | DPL7 | 7.25 | 3500 | 4.1 | | | | | | | | | | | | | | | | |
| | 16/01/2020 | DPL7 | | | | | | | | | | | | | | | | | | | |
| | 14/02/2020 | DPL7 | | | | | | | | | | | | | | | | | | | |
| | 18/03/2020 | DPL7 | 6.83 | 3110 | 0 | -155 | | 470 | 840 | | | 1.9 | | 44 | 730 | 28 | 270 | 0.41 | 0.0009 | 1.5 | 0.077 |
| | 16/04/2020 | DPL7 | 6.36 | 3070 | 1.58 | 8 | | | | | | | | | | | | | | | |
| | 14/05/2020 | DPL7 | 6.82 | 2960 | 0 | -63 | | | | | | | | | | | | | | | |
| 2020 Env Monitoring | 11/06/2020 | DPL7 | 6.78 | 2890 | 0 | -46 | | 790 | 700 | | | | 18 | 37 | 600 | 23 | 280 | 0.5 | 0.002 | 0.5 | 0.05 |
| | 9/07/2020 | DPL7 | 7.2 | 3190 | 0.5 | -69 | | | | | | | | | | | | | | | |
| | 10/08/2020 | DPL7 | 4.75 | 276 | 0 | 113 | | | | | | | | | | | | | | | |
| | 10/08/2020 | DPL7 | 7.12 | 3290 | 0.59 | -182100 | | | | | | | | | | | | | | | |
| | 24/09/2020 | DPL7 | 6.99 | 3220 | 0 | | | 6100 | 650 | | | 2.1 | 16 | 33 | 550 | 23 | 290 | 0.29 | 0.001 | 1.4 | |
| | 8/10/2020 | DPL7 | 7.27 | 3250 | 0 | -94 | | | | | | | | | | | | | | | |
| | 9/11/2020 | DPL7 | 7.49 | 3370 | 0 | | | 490 | 700 | | | 0.71 | 18 | 33 | 590 | 24 | 260 | 0.37 | 0.001 | 1.4 | 0.067 |
| | 10/12/2020 | DPL7 | 6.79 | 3150 | 0 | -228 | | | | | | | | | | | | | | | |
| | 11/01/2021 | DPL7 | 6.82 | 3440 | 0 | -249 | | | | | | | | | | | | | | | |
| | 11/02/2021 | DPL7 | 7.43 | 3600 | 0.47 | -152 | | 440 | 670 | | | 1.6 | 18 | 34 | 590 | 24 | 320 | 1 | | 1.2 | 0.069 |
| | 15/03/2021 | DPL7 | 6.9 | 3290 | 0.1 | -133 | | | | | | | | | | | | | | | |
| | 13/04/2021 | DPL7 | 6.8 | 3490 | 0.1 | -80 | | | | | | | | | | | | | | | |
| | 11/05/2021 | DPL7 | 6.9 | 3460 | 0.4 | -65 | | 580 | 710 | | | 2.3 | 18 | 33 | 570 | 23 | 270 | 0.5 | | 1 | 0.065 |
| 2021 Env Monitoring | 10/06/2021 | DPL7 | 6.8 | 4770 | 0 | | | | | | | | | | | | | | | | |
| | 8/07/2021 | DPL7 | 6.9 | 4600 | 0 | -126 | | | | | | | | | | | | | | | |
| | 9/08/2021 | DPL7 | 6.8 | 4420 | 0 | -179 | | 490 | 740 | | | 2.6 | 20 | 41 | 640 | 26 | 270 | 0.51 | | 1.3 | 0.075 |
| | 9/09/2021 | DPL7 | 6.8 | 2750 | 0 | -60 | | | | | | | | | | | | | | | |
| | 11/10/2021 | DPL7 | 6.9 | 2740 | 0 | -99 | | | | | | | | | | | | | | | |
| | 11/11/2021 | DPL7 | 7.6 | 2890 | 0 | -62 | | 380 | 780 | | | 2.4 | 14 | 32 | 590 | 24 | 270 | 0.5 | | 1.3 | 0.068 |
| | 13/12/2021 | DPL7 | 7 | 3170 | 0.3 | -52 | | | | | | | | | | | | | | | |
| | 12/01/2022 | DPL7 | 6.9 | 3180 | 0.2 | -85 | | | | | | | | | | | | | | | |
| | 9/02/2022 | DPL7 | 6.7 | 3470 | 0.1 | -51 | | 440 | 660 | | | 2.6 | 14 | 33 | 620 | 26 | 270 | 0.3 | | 1.4 | 0.062 |
| | 14/03/2022 | DPL7 | 7 | 3250 | 0 | -67 | | | | | | | | | | | | | | | |
| | 13/04/2022 | DPL7 | 6.9 | 3370 | 0 | -76 | | | | | | | | | | | | | | | |
| | 11/05/2022 | DPL7 | 7 | 3080 | 0.2 | -60 | | 580 | 680 | | | 2.6 | 17 | 35 | 620 | 25 | 240 | 0.5 | | 1.6 | 0.065 |
| 2022 Env Monitoring | 9/06/2022 | DPL7 | 6.8 | 3060 | 0 | -113 | | | | | | | | | | | | | | | |
| | 11/07/2022 | DPL7 | 7.1 | 2990 | 0.3 | | | | | | | | | | | | | | | | |
| | 10/08/2022 | DPL7 | 6.8 | 2880 | 1.2 | -10 | | 540 | 650 | | | 2.2 | 15 | 30 | 530 | 22 | 220 | 0.33 | | 1.7 | 0.064 |
| | 13/09/2022 | DPL7 | 7.1 | 2890 | 0 | -57 | | | | | | | | | | | | | | | |
| | 13/10/2022 | DPL7 | 6.8 | 2890 | 0.1 | -71 | | | | | | | | | | | | | | | |
| | 14/11/2022 | DPL7 | 7.3 | 2910 | 0.1 | -29 | | 460 | 700 | | | 0.21 | 15 | 28 | 550 | 20 | 260 | 0.23 | | 0.67 | 0.043 |
| | 14/12/2022 | DPL7 | 7.3 | | 0.1 | | | | | | | | | | | | | | | | |
| | 12/01/2023 | DPL7 | 6.9 | 1850 | 1.7 | -42 | | | | | | | | | | | | | | | |
| | 13/02/2023 | DPL7 | 7.1 | 1860 | 0 | -45 | | 410 | 680 | | | 0.87 | 15 | 34 | 560 | 23 | 280 | 1.1 | 0.001 | 1.5 | 0.063 |
| | 15/03/2023 | DPL7 | 6.7 | 3090 | 0.2 | 6 | | | | | | | | | | | | | | | |
| | 11/04/2023 | DPL7 | 7 | 1860 | 0.2 | -69 | | | | | | | | | | | | | | | |
| | 11/05/2023 | DPL7 | 6.8 | 1900 | 0.8 | -41 | | | | | | | | | | | | | | | |
| 2023 Env Monitoring | 14/06/2023 | DPL7 | 7.2 | 1890 | 0.7 | -81 | | 390 | 620 | | | 2.3 | 16 | 33 | 580 | 23 | 250 | 0.5 | 0.01 | 1.4 | 0.069 |
| | 11/07/2023 | DPL7 | 7 | 1930 | 0.5 | -58 | | | | | | | | | | | | | | | |
| | 8/08/2023 | DPL7 | 6.7 | 4690 | 0 | -96 | | 500 | 720 | | | 2.9 | 16 | 35 | 630 | 25 | 260 | 0.5 | 0.01 | 1.6 | 0.06 |
| | 11/09/2023 | DPL7 | 6.7 | 3019 | 0 | -81 | | | | | | | | | | | | | | | |
| | 12/10/2023 | DPL7 | 6.8 | 2990 | 0 | -93 | | | | | | | | | | | | | | | |
| | 13/11/2023 | DPL7 | 6.8 | 3121 | 0 | -84 | | | | | | | | | | | | | | | |
| | 12/12/2023 | DPL7 | 7.6 | 3120 | 0.3 | 7 | | 540 | 640 | | | 14 | 15 | 31 | 570 | 22 | 240 | 0.24 | 0.001 | 0.71 | 0.052 |
| | 11/01/2024 | DPL7 | 7.4 | 2820 | 0 | -30 | | | | | | | | | | | | | | | |
| | 13/02/2024 | DPL7 | 7 | 3200 | 0.1 | -15 | | 470 | 570 | | | 2.3 | 20 | 40 | 620 | 28 | 290 | 0.29 | 0.001 | 1.5 | 0.077 |
| | 25/03/2024 | DPL7 | 7.4 | 2390 | 0 | -26 | | | | | | | | | | | | | | | |
| | 11/04/2024 | DPL7 | 7.2 | 2943 | 0 | -32 | | | | | | | | | | | | | | | |
| | 8/05/2024 | DPL7 | 7.2 | 3021 | 0.1 | -26 | | | | | | | | | | | | | | | |
| 2024 Env Monitoring | 12/06/2024 | DPL7 | 7.4 | 3470 | 0.7 | 26 | | 460 | 620 | | | 0.1 | 18 | 35 | 660 | 24 | 230 | 0.24 | 0.001 | 1.2 | 0.052 |
| | 11/07/2024 | DPL7 | 7 | 3520 | 0.9 | 22 | | | | | | | | | | | | | | | |
| | 13/08/2024 | DPL7 | 6.4 | 2980 | 0 | 9 | | | | | | | | | | | | | | | |
| | 11/09/2024 | DPL7 | 6.7 | 3070 | 0 | 0 | | 680 | 720 | | | 0.22 | 17 | 35 | 620 | 27 | 240 | 0.23 | 0.001 | 0.99 | 0.052 |
| | 10/10/2024 | DPL7 | 6.4 | 3400 | 0 | -3 | | | | | | | | | | | | | | | |
| | 12/11/2024 | DPL7 | 6.4 | 3362 | 0 | -2 | | | | | | | | | | | | | | | |
| | 11/12/2024 | DPL7 | 6.5 | 2790 | 0.4 | 87 | | 330 | 460 | | | 0.71 | 13 | 26 | 440 | 22 | 180 | 0.13 | 0.001 | 0.61 | 0.08 |
| | 14/01/2025 | DPL7 | 6.5 | 3210 | 5.6 | -37.0 | | | | | | | | | | | | | | | |
| | 11/02/2025 | DPL7 | 6.9 | 3610 | 2.5 | -82.0 | | | | | | | | | | | | | | | |
| | 18/03/2025 | DPL7 | 6.5 | 3223 | 0.7 | -125.7 | | 410.0 | 670 | | | 1.9 | 17.0 | 35.0 | 620.0 | 25.0 | 380.0 | 0.34 | 0.001 | 0.47 | 0.059 |
| | 16/04/2025 | DPL7 | 6.9 | 3000 | 0.0 | -45.0 | | | | | | | | | | | | | | | |
| | 14/05/2025 | DPL7 | 7.5 | 8260 | 0.0 | -77.0 | | | | | | | | | | | | | | | |
| 2025 Env Monitoring | 12/06/2025 | DPL7 | 6.8 | 2662 | 0.2 | -169.0 | | 560.0 | 480.0 | | | 0.83 | 14.0 | 31.0 | 560.0 | 22.0 | 160.0 | 0.26 | 0.001 | 0.49 | 0.091 |
| | 15/07/2025 | DPL7 | 6.8 | 3005 | 0.2 | -135.5 | | | | | | | | | | | | | | | |
| | 13/08/2025 | DPL7 | 7.1 | 2270 | 0.9 | -172.0 | | | | | | | | | | | | | | | |
| | 10/09/2025 | DPL7 | 7.1 | 2670 | 4.8 | -39.0 | | 470.0 | 590 | | | 2.0 | 16.0 | 36.0 | 630.0 | 25.0 | 290.0 | 0.29 | 0.001 | 1.3 | 0.074 |
| | 9/10/2025 | DPL7 | 7.2 | 2400 | 1.1 | -31.0 | | | | | | | | | | | | | | | |
| | 11/11/2025 | DPL7 | 7.7 | 3180 | 1.1 | -86.0 | | | | | | | | | | | | | | | |
| | 11/12/2025 | DPL7 | 7.0 | 1760 | 0.4 | 55.0 | | 440.0 | 570 | | | 1.8 | 15.0 | 32.0 | 580.0 | 22.0 | 200.0 | 0.05 | 0.001 | 0.08 | 0.007 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **No of Samples** | 134 | 145 | 125 | 102 | 21 | 34 | 47 | 5 | 5 | 27 | 43 | 51 | 51 | 50 | 50 | 37 | 15 | 50 | 49 |
| **Minimum** | 3.9 | 7.1 | 0 | -182100 | 1 | 238 | 15 | 0.1 | 2.1 | 0.06 | 0.3 | 0.2 | 9.9 | 20 | 4.2 | 0.04 | 0.0002 | 0.28 | 0.01 |
| **Maximum** | 7.6 | 8260 | 57.6 | 391 | 550 | 6100 | 840 | 0.2 | 3.9 | 14.0 | 803 | 44 | 940 | 36 | 710 | 1 | 0.010 | 2.62 | 0.659 |
| **Average** | 6.93 | 3138.97 | 2.26 | -1790.51 | 378.24 | 590.88 | 678.45 | 0.12 | 3.24 | 2.10 | 81.85 | 35.06 | 586.50 | 25.78 | 258.31 | 0.42 | 0.00 | 1.36 | 0.07 |

# Long-term Pond Water Quality Monitoring at Dunloe Sands Quarry

| Data located | Date | Location | pH | EC | DO (membrane electrode) | "Red" | Alkalinity as CaCO3 | Bicarbonate as CaCO3 | Chloride | Turbidity | TDS | | | Chlorophyll 'a' | Oil and Grease | Total Phosphorus-P | Total I-N | Ammonia | Calcium | Magnesium | Sodium | Potassium | Sulfur ss | Aluminium | Arsenic (Total) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pH | µScm-1 | mg/L | | mg/L | mg/L | mg/L | NTU | mg/L | m | | µg/L | mg/L | mg/L | mg/ | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | | |
| 2011/2012 AEMR | 30/05/2012 | Lake | 5.8 | | | | | | | 190 | | | | | <2 | 0.09 | | | | | | | | | | | |
| | 27/06/2012 | Lake | 6 | | | | 3 | 2 | 8 | 34 | | | | | 4 | 0.04 | | | 13 | 1.5 | 6.3 | <5 | 41 | 1.21 | <0.005 | | |
| | 25/07/2012 | Lake | 7 | | | | | | | 18 | | | | | <2 | 0.02 | 33 | | | | | | | | | | |
| | 27/08/2012 | Lake | 5.7 | | | | | | | 100 | | | | | 2 | 0.04 | | | | | | | | | | | |
| | 27/09/2012 | Lake 1 | 4.6 | | | | <1 | <1 | 10 | 7.8 | | | | | <2 | 0.02 | | | 22 | 1.9 | 9 | <5 | 65 | 0.47 | <0.005 | | |
| | 29/10/2012 | Lake | 4.2 | | | | | | | 2.9 | | | | | <2 | <0.02 | | | | | | | | | | | |
| 2012/2013 AEMR | 25/11/2013 | Lake | 5.9 | | | | | | | 18 | | | | | <2 | 0.04 | | | | | | | | | | | |
| 2013/2014 AEMR | 12/12/2013 | Lake | 4.7 | | | | 2 | 1 | 22 | 33 | | | | | <2 | 0.06 | | | 75 | 8.6 | 15 | 5 | 244 | 8.92 | <0.005 | | |
| | 30/01/2014 | Lake | 4.4 | | | | | | | 31 | | | | | <2 | 0.03 | | | | | | | | | | | |
| | 24/02/2014 | Lake | 4.4 | | | | | | | 40 | | | | | <2 | 0.04 | | | | | | | | | | | |
| | 31/03/2014 | Lake | 4.9 | | | | | | | 70 | | | | | <2 | 0.04 | | | | | | | | | | | |
| | 28/04/2014 | Lake | 4.4 | | | | | | | 33 | | | | | <2 | 0.03 | | | | | | | | | | | |
| | 28/05/2014 | Lake | 4.1 | | | | | | | 42 | | | | | <2 | <0.02 | | | | | | | | | | | |
| | 25/06/2014 | Lake | 3.8 | | | | <1 | <1 | 35 | 72 | | | | | <2 | 0.08 | | | 109 | 16 | 23 | 6 | 413 | 26 | <0.005 | | |
| | 30/07/2014 | Lake | 4.3 | | | | | | | 79 | | | | | <2 | 0.02 | | | | | | | | | | | |
| | 29/08/2014 | Lake | 4.5 | | | | | | | 138 | | | | | 5 | 0.05 | | | | | | | | | | | |
| | 29/09/2014 | Lake | 3.8 | | | | <1 | <1 | | 68 | | | | | | 0.03 | | | | | | | | | | | |
| Appendix of 2013 AEMR | 28/11/2014 | Lake | 4 | | | | | | | 70 | | | | | <2 | 0.07 | | | | | | | | | | | |
| | 15/12/2014 | Lake | 4.4 | 1005 | | | NP | <1 | 40 | 119 | | | | | <2 | 0.14 | | | 159 | 18 | 29 | 7 | 394 | 33 | 0.008 | | |
| | 22/01/2015 | Lake 1 | 4.4 | 1029 | | | | | | 78 | | | | | <2 | 0.05 | | | | | | | | | | | |
| | 25/02/2015 | Lake 1 | 4.2 | | | | | | | 85 | | | | | <2 | 0.08 | | | | | | | | | | | |
| | 26/03/2015 | Lake 1 | 4.1 | | | | NP | NP | 38 | 34 | | | | | <2 | 0.25 | | | 92 | 12 | 22 | 6 | 369 | 24.2 | 0.003 | | |
| | 24/04/2015 | Lake | 4.3 | | | | | | | 59 | | | | | <2 | 0.1 | | | | | | | | | | | |
| | 28/05/2015 | Lake | 4.4 | | | | | | | 52 | | | | | <2 | 0.22 | | | | | | | | | | | |
| | 17/09/2015 | Lake | 4.5 | | | | NP | | 35 | 56 | | | | 6 | <2 | 0.1 | | 0.08 | 117 | 13 | 25 | 8 | 361 | 19.3 | 0.003 | | |
| | 21/10/2015 | Lake | 4.4 | | | | | | | 56 | | | | | <2 | 0.08 | | | | | | | | | | | |
| | 25/11/2015 | Lake | 3.7 | | | | | | | 5.1 | | | | | <2 | 0.03 | | | | | | | | | | | |
| | 11/12/2015 | Lake 1 | 4.2 | | | | <1 | <1 | 45 | 20 | | | | | <2 | 0.39 | | | 111 | 13 | 29 | 9 | 429 | 14.3 | 0.004 | | |
| Appendix of 2015 AEMR | 25/01/2016 | Pond | 3.9 | 1002 | | | | | | 7.9 | | | | | 6 | | | | | | | | | | | | |
| | 24/02/2016 | Pond | 4 | 1021 | | | | | | 6.1 | | | | | 2 | | | | | | | | | | | | |
| | 24/03/2016 | Pond | 3.9 | 1060 | | | | | | 7.2 | | | | | 2 | 0.07 | | | 112.71 | 14.14 | 43.28 | 9.32 | 382.38 | 10.93 | 0.002 | | |
| | 29/04/2016 | Pond | 4.4 | 1037 | | | | | | 7.7 | | | | | 2 | | | | | | | | | | | | |
| | 24/05/2016 | Pond | 4.9 | 1029 | | | | | | | | | | | 4 | | | | | | | | | | | | |
| | 30/06/2016 | Pond | 4.7 | 518.9 | | | | | | 4 | | | | 16 | 2 | 0.02 | | +0.02 | 57.45 | 7.218 | 24.38 | 5.39 | 185.14 | 4.51 | 0.002 | | |
| | 21/07/2016 | Pond | 4.5 | 546.4 | | | | | | 1.2 | | | | | 0 | | | | | | | | | | | | |
| | 31/08/2016 | Pond | 4 | | | | | | | 2 | | | | | 2 | | | | | | | | | | | | |
| | 29/09/2016 | Pond | 4.1 | | | | | | | 2.6 | | | | 10 | 2 | | | +0.02 | | 7.9 | 27 | 6 | 220 | 2.83 | 0.002 | | |
| | 27/10/2016 | Pond | 4 | | | | | | | 7.2 | | | | | 2 | | | | | | | | | | | | |
| | 29/11/2016 | Pond | 3.8 | | | | | | | 1.7 | | | | | 2 | | | | | | | | | | | | |
| | 20/12/2016 | Pond | 3.5 | | | | | | | 2.8 | | | | 2 | 2 | <0.02 | | 0.03 | | 9.3 | 29 | 7 | 251 | 4.01 | 0.001 | | |
| 2017 Env Monitoring | 30/01/2017 | Pond | 3.6 | | | | | | | 2.6 | | | | | <2 | | | | | | | | | | | | |
| | 27/02/2017 | Pond | 3.5 | | | | | | | 2.4 | | | | | <2 | | | | | | | | | | | | |
| | 22/03/2017 | Pond | 3.4 | | | | <5 | | 67 | 2.2 | | | | | <5.0 | <0.05 | | 0.013 | | 10 | 46 | 7 | 280 | 5.6 | <0.001 | | |
| | 19/04/2017 | Pond | 6.5 | | | | | | | 400 | | | | | <5.0 | | | | | | | | | | | | |
| | 17/05/2017 | Pond | 5.9 | | | | | | | 230 | | | | | <5.0 | | | | | | | | | | | | |
| | 14/06/2017 | Pond | 4.8 | | | | <5 | | 8 | 100 | | | | | <5.0 | 0.07 | | 0.03 | | 2 | 7 | 2 | 25 | 0.17 | <0.001 | | |
| | 12/07/2017 | Pond | 4.3 | | | | | | | 5.5 | | | | | <5.0 | | | | | | | | | | | | |
| | 9/08/2017 | Pond | 4.2 | | | | | | | 3.4 | | | | | <5.0 | | | | | | | | | | | | |
| | 6/09/2017 | Pond | 4.2 | | | | <5 | | 11 | 3.2 | | | | | <5.0 | <0.05 | | <0.005 | | 2 | 8 | 2 | 47 | 0.35 | <0.001 | | |
| | 4/10/2017 | Pond | 4.3 | | | | | | | 1.6 | | | | | <5.0 | | | | | | | | | | | | |
| | 1/11/2017 | Pond | 4.1 | | | | | | | 2.9 | | | | | <5.0 | | | | | | | | | | | | |
| | 29/11/2017 | Pond | 4.3 | | | | | | | 4 | | | | | <5.0 | | | | | | | | | | | | |
| | 28/12/2017 | Pond | 4.1 | | | | <5 | | 16 | 1 | | | | | <5.0 | <0.05 | | <0.005 | | 3.7 | 11 | 3 | 84 | 0.6 | <0.001 | | |
| 2018 Env Monitoring | 24/01/2018 | Dam 1 | 4.02 | | | | | | | 2.1 | | | | <1 | <5 | | | | | | | | | | | | |
| | 21/02/2018 | Dam 1 | 3.96 | | | | | | | 2.1 | | | | <1 | <5 | | | | | | | | | | | | |
| | 21/03/2018 | Dam 1 | 4.05 | | | | <5 | | 21 | 2.42 | | | | <1 | <5 | <0.05 | | <0.005 | | 5 | 14 | 3.6 | 99 | 0.88 | <0.001 | | |
| | 18/04/2018 | Dam 1 | 4.6 | | | | | | | 4.64 | | | | 1 | <5 | | | | | | | | | | | | |
| | 16/05/2018 | Dam 1 | 4.12 | | | | | | | 2.27 | | | | <1 | <5 | | | | | | | | | | | | |
| | 13/06/2018 | Dam 1 | 4.21 | | | | <5 | | 21 | 2.87 | | | | <1 | <5 | <0.05 | | <0.005 | | 4.9 | 14 | 3.6 | 110 | 0.82 | <0.001 | | |
| | 11/07/2018 | Dam 1 | 4.13 | | | | | | | 4.17 | | | | <1 | <5 | | | | | | | | | | | | |
| | 8/08/2018 | Dam 1 | 4.08 | | | | | | | 5.3 | | | | <1 | <5 | | | | | | | | | | | | |
| | 5/09/2018 | Dam 1 | 6.73 | | | | | | | 21 | | | | <1 | | 0.02 | | 0.04 | | | | | | | | | |
| | 5/10/2018 | Dam 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6/11/2018 | Dam 1 | 4.25 | | | ** | | | | 0.2 | | | | | | | | | | | | | | | | | |
| | 7/12/2018 | Dam 1 | 4.42 | | | | 1 | | 86 | 1.4 | | | | <1 | <5 | 0.18 | | 0.01 | | 9 | 45 | 4 | 135 | 0.72 | <0.002 | | |
| 2019 Env Monitoring | 8/01/2019 | Silt Pond Dam 2 | 8.21 | | 111.28 | | | | | 2.76 | | | | | NR | | | | | | | | | | | | |
| | 5/02/2019 | Silt Pond Dam 2 | 6.76 | | 7.74 | | | | | 0 | | | | | 5 | | | | | | | | | | | | |
| | 8/03/2019 | Silt Pond Dam 2 | 9.85 | | 5.97 | | | 8 | 71 | 0 | | | | 3 | 5 | | | | | 10 | 43 | 4 | 158 | 0.03 | 0.001 | | |
| | 5/04/2019 | Silt Pond Dam 2 | 6.8 | | 8.2 | | | | | 15 | | | | | 5 | | | | | | | | | | | | |
| | 7/05/2019 | Silt Pond Dam 2 | 3.94 | | 0.5 | | | | | 0.6 | | | | | 5 | | | | | | | | | | | | |
| | 4/06/2019 | Silt Pond Dam 2 | 6.08 | | 9.6 | | | 5 | 72 | 8.8 | | | | 1 | 5 | | | | | 10 | 42 | 4 | 164 | 0.01 | 0.001 | | |
| | 4/07/2019 | Silt Pond Dam 2 | 6.7 | | 9.5 | | | | | 7.6 | | | | | 8 | | | | | | | | | | | | |
| | 29/08/2019 | Silt Pond Dam 2 | 6.91 | | 10 | | | 11 | 65 | 14.1 | | | | 2 | NR | | | | | 9 | 36 | 4 | 164 | 0.02 | 0.001 | | |
| | 26/09/2019 | Silt Pond Dam 2 | 6.81 | | 9.3 | | | | | 15.5 | | | | | 5 | | | | | | | | | | | | |
| | 24/10/2019 | Silt Pond Dam 2 | 7.3 | | 84.3 | | | | | NR | | | | | 5 | | | | | | | | | | | | |
| | 22/11/2019 | Silt Pond Dam 2 | NRR | NRR | NRR | | | 22 | 80 | NRR | | | | 8 | 5 | | | | | 11 | 46 | 5 | 164 | 0.58 | 0.003 | | |
| | 20/12/2019 | Silt Pond Dam 2 | 6.99 | | 110 | | | | | 57.3 | | | | | 5 | | | | | | | | | | | | |
| 2020 Annual Review | 14/02/2020 | Silt Pond | 6.56 | | 8.9 | | | | | 4 | | | | 7 | 5 | 0.01 | | | | 10 | 44 | 5 | 146 | 0.03 | 0.001 | | |
| | 18/03/2020 | Silt Pond | 5.84 | | 5.27 | | | | | 48.2 | 379000 c | | | | 10 | | | | | | | | | | | | |
| | 16/04/2020 | Silt Pond | 5.55 | | 5.5 | | | | | 1.3 | 386000 c | | | | 10 | | | | | | | | | | | | |
| | 14/05/2020 | Silt Pond | 4.94 | | 7.63 | | | | | 12.3 | 388 | | | | 10 | | | | | | | | | | | | |
| | 11/06/2020 | Silt Pond | 5.17 | | 9.09 | | | | | 0 | 362 | | | | | | | | | | | | | | | | |
| | 9/07/2020 | Silt Pond | 5.91 | | 7.79 | | | | | 17.6 | 412 | | | | | | | | | | | | | | | | |
| | 15/08/2020 | Silt Pond | 4.79 | | 7.46 | | | | | 79.6 | 410 | | | | 5 | | | | | | | | | | | | |
| | 8/09/2020 | Silt Pond | 4.56 | | 6.18 | | | | | 9.4 | 433000 c | | | | 5 | | | | | | | | | | | | |
| | 8/10/2020 | Silt Pond | 4.56 | | 6.18 | | | | | 9.4 | 433000 c | | | | | | | | | | | | | | | | |
| | 9/11/2020 | Silt Pond | 4.34 | | 4.94 | | | | | 0 | 452 | | | 5 | 5 | | | | | 10 | 45 | 4.4 | 210 | 0.79 | 0.001 | | |
| | 24/11/2020 | Silt Pond | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10/12/2020 | Silt Pond | 5.76 | | 4.42 | | | | | 739 | 482 | | | | 5 | | | | | | | | | | | | |
| 2021 Annual Review | 11/02/2021 | Silt Pond | 5.8 | | 6.8 | | | | | 4.9 | 478000 | | | 5 | 5 | | | | | 12 | 62 | 4.7 | 230 | 0.05 | 0.001 | | |
| | 12/05/20021 | Silt Pond | 6.4 | | 7.3 | | | | | 6.8 | 453000 | | | 5 | 5 | | | | | 9.9 | 43 | 3.7 | 200 | 0.05 | 0.001 | | |
| | 9/08/2021 | Silt Pond | 6.6 | | 6 | | | | | 0.7 | 478000 | | | 5 | 42 | | | | | 12 | 47 | 3.9 | 210 | 0.05 | 0.001 | | |
| | 10/11/2021 | Silt Pond | 8.4 | | 6.7 | | | | | 21.9 | 285000 | | | 8.1 | 5 | | | | | | 51 | 3.8 | 210 | 0.06 | 0.001 | | |
| 2022 Env Monitoring | 9/02/2022 | Silt Pond | 6.6 | | 6 | | | | | 76 | 27.9 | 357000 | | | 5.0 | 5 | | | | 10 | 49 | 4.5 | 210 | 0.05 | 0.003 | 0.09 | 0.1 |
| | 11/05/2022 | Silt Pond | 4.6 | | 7 | | | | | 6 | 47.4 | 64000 | | | 5.0 | 5 | | | | 1.5 | 5 | 1.6 | 35 | 0.35 | 0.001 | 0.09 | 0.2 |
| | 10/08/2022 | Silt Pond | 4.3 | | 7 | | | | | 11 | 22.2 | 74000 | | | 5.0 | 5 | | | | 1.8 | 7 | 1.7 | 52 | 0.86 | 0.002 | 0.19 | 0.2 |
| | 14/11/2022 | Silt Pond | 7.1 | | 5 | | | | | 33 | 200.0 | 85000 | | | 5.0 | 5 | | | | 2 | 8 | 1.6 | 56 | 0.05 | 0.001 | 0.05 | 0.1 |
| 2023 Annual Review | 11/01/2023 | Silt Pond | 5.7 | 63 | 6.3 | | | | | | 33.9 | | | | | 7.5 | | | | | | | | | | | |
| | 13/02/2023 | Silt Pond | 5.5 | 108 | 4.7 | | | 20 | 11 | 75.3 | | | | 10.0 | 15 | | | 0.01 | | 2.3 | 7.6 | 2.2 | 62 | 0.05 | 0.001 | | |
| | 15/03/2023 | Silt Pond | 6.2 | 1490 | 6.4 | | | | | 301.0 | | | | | 12 | | | | | | | | | | | | |
| | 11/04/2023 | Silt Pond | 5.2 | 111 | 6.1 | | | | | 264.0 | | | | | 5.9 | | | | | | | | | | | | |
| | 11/05/2023 | Silt Pond | 3.9 | 124 | 6.9 | | | | | 5.1 | | | | | 10 | | | | | | | | | | | | |
| | 14/06/2023 | Silt Pond | 5.5 | 109 | 7.2 | | | 20 | 21 | 124.0 | | | | 5.0 | 31 | | | 0.01 | | 2.8 | 8.3 | 1.8 | 87 | 0.80 | 0.001 | | |
| | 11/07/2023 | Silt Pond | 5.8 | 121 | 7 | | | | | 56.6 | | | | | 5 | | | | | | | | | | | | |
| | 8/08/2023 | Silt Pond | 5.1 | 118 | 7 | | | 31 | 13 | 61.9 | | | | 8.0 | 8.7 | | | 0.04 | | 3.5 | 10 | 2.0 | 69 | 0.86 | 0.002 | | |
| | 11/09/2023 | Silt Pond | 8.9 | 166 | 8.3 | | | | | 61.0 | | | | | 5 | | | | | | | | | | | | |
| | 11/10/2023 | Silt Pond | 8.1 | 332 | 7.9 | | | | | 765.0 | | | | | 20 | | | | | | | | | | | | |
| | 13/11/2023 | Silt Pond | 7.5 | 213 | 5.7 | | | | | 1000.0 | | | | | 12 | | | | | | | | | | | | |
| | 12/12/2023 | Silt Pond | 7.9 | 297 | 6.6 | | | 20 | | 52.4 | | | | 10.0 | 5.9 | | | 0.17 | | 4 | | | | | | | |
| 2024 Annual Review | 11/01/2024 | Silt Pond | 7.1 | 249 | 7.6 | | | | | 24.4 | | | | | 20 | | | | | | | | | | | | |
| | 13/02/2024 | Silt Pond | 6.3 | 272 | 6.3 | | | 38 | 14 | 769.0 | | | | 29.0 | 7.9 | | | 0.02 | | 0.008 | 13 | 2.6 | 85 | 1.10 | 0.001 | | |
| | 25/03/2024 | Silt Pond | 9.1 | 289 | 7.7 | | | | | 30.5 | | | | | 5 | | | | | | | | | | | | |
| | 11/04/2024 | Silt Pond | 8.1 | 280 | 6.6 | | | | | 522.0 | | | | | 5 | | | | | | | | | | | | |
| | 8/05/2024 | Silt Pond | 5.5 | 258 | 8.2 | | | | | 350.0 | | | | | 11 | | | | | | | | | | | | |
| | 12/06/2024 | Silt Pond | 7.5 | 313 | 5.7 | | | 20 | 16 | 34.9 | | | | 5.0 | 6 | | | 0.01 | | 0.14 | 13 | 2.2 | 91 | 0.01 | 0.002 | | |
| | 10/07/2024 | Silt Pond | 4.9 | 316 | 5.2 | | | | | 7.2 | | | | | 5 | | | | | | | | | | | | |
| | 13/08/2024 | Silt Pond | 2.6 | 275 | 2.7 | | | | | 286.0 | | | | | 5 | | | | | | | | | | | | |
| | 11/09/2024 | Silt Pond | 5.7 | 293 | 4.4 | | | 49 | 19 | 277.0 | | | | 5.0 | 11 | | | 0.01 | | 0.009 | 14 | 2.7 | 110 | 0.05 | 0.001 | | |
| | 10/10/2024 | Silt Pond | 6.6 | 270 | 9.7 | | | | | 1000.0 | | | | | 17 | | | | | | | | | | | | |
| | 12/11/2024 | Silt Pond | 7.5 | 294 | 5.8 | | | | | 86.3 | | | | | 5.8 | | | | | | | | | | | | |
| | 11/12/2024 | Silt Pond | 6.9 | 240 | 3.4 | | | 36 | 13 | 21.9 | | | | 5.0 | 5 | | | 0.01 | | 0.05 | 13 | 2.2 | 78 | 0.06 | 0.001 | | |
| 2025 Annual Review | 14/01/2025 | SidPond | 6.9 | 250 | 5.4 | | | | | 409.0 | | | | | 5 | | | | | | | | | | | | |
| | 11/02/2025 | Silt Pond | 8.3 | 225 | 5.8 | | | | | 30.4 | | | | | 6.8 | | | | | | | | | | | | |
| | 18/03/2025 | Silt Pond | 6.9 | 836 | 8.5 | | | 20 | 27 | 12.1 | | | | 5.0 | 5 | | | 0.01 | | 3.9 | 13 | 2.8 | 74 | 0.07 | 0.001 | | |
| | 16/04/2024 | Silt Pond | 6.4 | 258 | 0 | | | | | 163.0 | | | | | 7.5 | | | | | | | | | | | | |
| | 14/05/2025 | Silt Pond | 7.9 | 730 | 5.5 | | | | | 226.0 | | | | | 5 | | | | | | | | | | | | |
| | 12/06/2025 | Silt Pond | 6.9 | 312 | 9.5 | | | 20 | 16 | 95.0 | | | | 17.0 | 7.5 | | | 0.01 | | 4.1 | 14 | 2.4 | 110 | 0.05 | 0.001 | | |
| | 15/07/2025 | Silt Pond | 8.0 | 312 | 11.1 | | | | | 25.3 | | | | | 2 | | | | | | | | | | | | |
| | 13/08/2025 | Silt Pond | 7.4 | 300 | 6.1 | | | | | 476.0 | | | | | 50 | | | | | | | | | | | | |
| | 10/09/2025 | Silt Pond | 10.1 | 435 | 7.8 | | | 63 | 40 | 75.5 | | | | 8.7 | 5 | | | 0.01 | | 6.7 | 29 | 2.8 | 96 | 0.08 | 0.001 | | |
| | 9/10/2025 | Silt Pond | 7.0 | 358 | 4.5 | | | | | 1000.0 | | | | | 5 | | | | | | | | | | | | |
| | 11/11/2025 | Silt Pond | 8.8 | 375 | 4.6 | | | | | 340.0 | | | | | 5 | | | | | | | | | | | | |
| | 11/12/2025 | Silt Pond | 7.9 | 403 | 4 | | | 28 | 21 | 1000.0 | | | | 5.0 | 5 | | | 0.08 | | 4.6 | 16 | 2.0 | 89 | 0.11 | 0.002 | | |
| | | Minimum | 2.6 | | 0.5 | ** | 1 | 1 | 8 | 0.6 | 155 | 4 | 1 | 5 | 0.01 | | | 0.01 | 13 | 0.008 | 5.4 | 1.6 | 25 | 0.01 | 0.001 | 0.05 | 0.05 |
| | | Maximum | 10.1 | 1490 | 111.3 | ** | 3 | 63 | 130.00 | 1000 | 478000 | 167 | 29 | 50 | 0.39 | 33 | | 0.17 | 159 | 18 | 62 | 5.32 | 429 | 33 | 0.008 | 0.24 | 0.24 |

| | | | Average | 5.80 | 504.01 | 11.66 | ** | 2.00 | 23.00 | 37.94 | 106.42 | 158409.87 | 61.79 | 6.58 | 7.46 | 0.68 | | 0.03 | 96.82 | 6.59 | 24.47 | 3.93 | 158.99 | 3.77 | 0.00 | 0.11 | 0.15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Data location | Date | Location | | pH | EC | DO (membrane electrode) | *Red | Alkalinity as CaCO3 | Bicarbonate as CaCO3 | Chloride | Turbidity | TDS | | Chlorophyll 'a' | Oil and Grease | Total Phosphorus-P | Total I-N | Ammonia | Calcium | Magnesium | Sodium | Potassium | Sulfur as | Aluminium | Arsenic (Total) | | |
| | | | | pH | µScm-1 | mg/L | | mg/L | mg/L | mg/L | NTU | mg/L | m | µg/L | mg/L | mg/L | mg/ | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | | |
| 2011/2012 AEMR | 30/05/2012 | Lake | | 5.8 | | | | | | | 190 | | | | +2 | 0.09 | | | | | | | | | | |
| | 27/06/2012 | Lake | | 6 | | | | 3 | 2 | 8 | 34 | | | | 4 | 0.04 | | | 13 | 1.5 | 6.3 | <5 | 41 | 1.21 | +0.005 | | |
| | 26/07/2012 | Lake | | 7 | | | | | | | 18 | | | | +2 | 0.02 | 33 | | | | | | | | | | |
| | 27/08/2012 | Lake | | 5.7 | | | | | | | 100 | | | | 2 | 0.04 | | | | | | | | | | | |
| | 27/09/2012 | Lake 1 | | 4.6 | | | | <1 | <1 | 10 | 7.8 | | | | +2 | 0.02 | | | 22 | 1.9 | 9 | <5 | 65 | 0.47 | +0.005 | | |
| | 29/10/2012 | Lake | | 4.2 | | | | | | | 2.9 | | | | +2 | +0.02 | | | | | | | | | | | |
| 2012/2013 AEMR | 25/11/2013 | Lake | | 5.9 | | | | | | | 18 | | | | +2 | 0.04 | | | | | | | | | | | |
| 2013/2014 AEMR | 12/12/2013 | Lake | | 4.7 | | | | 2 | 1 | 22 | 33 | | | | +2 | 0.06 | | | 75 | 8.6 | 15 | 5 | 244 | 8.92 | +0.005 | | |
| | 30/01/2014 | Lake | | 4.4 | | | | | | | 31 | | | | +2 | 0.03 | | | | | | | | | | | |
| | 24/02/2014 | Lake | | 4.4 | | | | | | | 40 | | | | +2 | 0.04 | | | | | | | | | | | |
| | 31/03/2014 | Lake | | 4.9 | | | | | | | 70 | | | | +2 | 0.04 | | | | | | | | | | | |
| | 28/04/2014 | Lake | | 4.4 | | | | | | | 33 | | | | +2 | 0.03 | | | | | | | | | | | |
| | 28/05/2014 | Lake | | 4.1 | | | | | | | 42 | | | | +2 | +0.02 | | | | | | | | | | | |
| | 25/06/2014 | Lake | | 3.8 | | | | <1 | <1 | 35 | 72 | | | | +2 | 0.08 | | | 109 | 16 | 23 | 6 | 413 | 26 | +0.005 | | |
| | 30/07/2014 | Lake | | 4.3 | | | | | | | 79 | | | | +2 | 0.02 | | | | | | | | | | | |
| | 29/08/2014 | Lake | | 4.5 | | | | | | | 138 | | | | 5 | 0.05 | | | | | | | | | | | |
| | 29/09/2014 | Lake | | 3.8 | | | | <1 | <1 | | 68 | | | | +2 | 0.03 | | | | | | | | | | | |
| Appendix of 2015 AEMR | 28/11/2014 | Lake | | 4 | | | | | | | 70 | | | | +2 | 0.07 | | | | | | | | | | | |
| | 15/12/2014 | Lake | | 4.4 | 1005 | | | NP | <1 | 40 | 119 | | | | +2 | 0.14 | | | 159 | 18 | 29 | 7 | 394 | 33 | 0.008 | | |
| | 22/01/2015 | Lake 1 | | 4.4 | 1029 | | | | | | 78 | | | | +2 | 0.05 | | | | | | | | | | | |
| | 25/02/2015 | Lake 1 | | 4.2 | | | | | | | 85 | | | | +2 | 0.06 | | | | | | | | | | | |
| | 26/03/2015 | Lake 1 | | 4.1 | | | | NP | NP | 38 | 34 | | | | +2 | 0.25 | | | 92 | 12 | 22 | 6 | 369 | 24.2 | 0.003 | | |
| | 24/04/2015 | Lake | | 4.3 | | | | | | | 59 | | | | +2 | 0.1 | | | | | | | | | | | |
| | 28/05/2015 | Lake | | 4.4 | | | | | | | 52 | | | | +2 | 0.22 | | | | | | | | | | | |
| | 17/09/2015 | Lake | | 4.5 | | | | NP | | 35 | 56 | | | 6 | +2 | 0.1 | | 0.05 | 117 | 13 | 25 | 6 | 361 | 19.3 | 0.003 | | |
| | 21/10/2015 | Lake | | 4.4 | | | | | | | 56 | | | | +2 | 0.08 | | | | | | | | | | | |
| | 25/11/2015 | Lake | | 3.7 | | | | | | | 5.1 | | | | +2 | 0.03 | | | | | | | | | | | |
| | 11/12/2015 | Lake 1 | | 4.2 | | | | <1 | <1 | 45 | 20 | | | | +2 | 0.39 | | | 111 | 13 | 29 | 9 | 429 | 14.3 | 0.004 | | |
| Appendix of 2016 AEMR | 25/01/2016 | Pond | | 3.9 | 1022 | | | | | | 7.9 | | | | 6 | | | | | | | | | | | | |
| | 24/02/2016 | Pond | | 4 | 1021 | | | | | | 6.1 | | | | 2 | | | | | | | | | | | | |
| | 24/03/2016 | Pond | | 3.9 | 1060 | | | | | | 7.2 | | | | 2 | 0.07 | | | 112.71 | 14.14 | 43.26 | 9.32 | 382.36 | 10.93 | 0.002 | | |
| | 28/04/2016 | Pond | | 4.4 | 1037 | | | | | | 7.7 | | | | 2 | | | | | | | | | | | | |
| | 24/05/2016 | Pond | | 4.9 | 1029 | | | | | | | | | | 4 | | | | | | | | | | | | |
| | 30/06/2016 | Pond | | 4.7 | 518.9 | | | | | | 4 | | | 16 | 2 | 0.02 | | +0.02 | 57.45 | 7.218 | 24.38 | 5.39 | 185.14 | 4.51 | 0.002 | | |
| | 21/07/2016 | Pond | | 4.5 | 546.4 | | | | | | 1.2 | | | | 0 | | | | | | | | | | | | |
| | 31/08/2016 | Pond | | 4 | | | | | | | 2 | | | | 2 | | | | | | | | | | | | |
| | 29/09/2016 | Pond | | 4.1 | | | | | | | 2.6 | | | 10 | 2 | | | +0.02 | | 7.9 | 27 | 6 | 220 | 2.83 | 0.002 | | |
| | 27/10/2016 | Pond | | 4 | | | | | | | 7.2 | | | | 2 | | | | | | | | | | | | |
| | 29/11/2016 | Pond | | 3.8 | | | | | | | 1.7 | | | | 2 | | | | | | | | | | | | |
| | 20/12/2016 | Pond | | 3.5 | | | | | | | 2.8 | | | 2 | 2 | +0.02 | | 0.03 | | 9.3 | 29 | 7 | 251 | 4.01 | 0.001 | | |
| 2017 Q1 Env Monitoring report | 30/01/2017 | Pond | | 3.6 | | | | | | | 2.6 | | | | +2 | | | | | | | | | | | | |
| | 27/02/2017 | Pond | | 3.5 | | | | | | | 2.4 | | | | +2 | | | | | | | | | | | | |
| | 22/03/2017 | Pond | | 3.4 | | | | <5 | | 67 | 2.2 | | | | +5.0 | +0.05 | | 0.013 | | 10 | 46 | 7 | 260 | 5.6 | +0.001 | | |
| | 19/04/2017 | Pond | | 6.5 | | | | | | | 400 | | | | +5.0 | | | | | | | | | | | | |
| | 17/05/2017 | Pond | | 5.9 | | | | | | | 230 | | | | +5.0 | | | | | | | | | | | | |
| | 14/06/2017 | Pond | | 4.8 | | | | <5 | | 8 | 100 | | | | +5.0 | 0.07 | | 0.03 | | 2 | 7 | 2 | 25 | 0.17 | +0.001 | | |
| | 12/07/2017 | Pond | | 4.3 | | | | | | | 5.5 | | | | +5.0 | | | | | | | | | | | | |
| | 9/08/2017 | Pond | | 4.2 | | | | | | | 3.4 | | | | +5.0 | | | | | | | | | | | | |
| | 6/09/2017 | Pond | | 4.2 | | | | <5 | | 11 | 3.2 | | | | +5.0 | +0.05 | | +0.005 | | 2 | 8 | 2 | 47 | 0.35 | +0.001 | | |
| | 4/10/2017 | Pond | | 4.3 | | | | | | | 1.6 | | | | +5.0 | | | | | | | | | | | | |
| | 1/11/2017 | Pond | | 4.1 | | | | | | | 2.9 | | | | +5.0 | | | | | | | | | | | | |
| | 29/11/2017 | Pond | | 4.3 | | | | | | | 4 | | | | +5.0 | | | | | | | | | | | | |
| | 28/12/2017 | Pond | | 4.1 | | | | <5 | | 16 | 1 | | | | +5.0 | +0.05 | | +0.005 | | 3.7 | 11 | 3 | 84 | 0.6 | +0.001 | | |
| 2018 Env Monitoring | 24/01/2018 | Dam 1 | | 4.02 | | | | | | | 2.1 | | | +1 | +5 | | | | | | | | | | | | |
| | 21/02/2018 | Dam 1 | | 3.96 | | | | | | | 2.1 | | | +1 | +5 | | | | | | | | | | | | |
| | 21/03/2018 | Dam 1 | | 4.05 | | | | <5 | | 21 | 2.42 | | | +1 | +5 | +0.05 | | +0.005 | | 5 | 14 | 3.6 | 99 | 0.88 | +0.001 | | |
| | 18/04/2018 | Dam 1 | | 4.6 | | | | | | | 4.64 | | | 1 | +5 | | | | | | | | | | | | |
| | 16/05/2018 | Dam 1 | | 4.12 | | | | | | | 2.27 | | | +1 | +5 | | | | | | | | | | | | |
| | 13/06/2018 | Dam 1 | | 4.21 | | | | <5 | | 21 | 2.87 | | | +1 | +5 | +0.05 | | +0.005 | | 4.9 | 14 | 3.6 | 110 | 0.62 | +0.001 | | |
| | 11/07/2018 | Dam 1 | | 4.13 | | | | | | | 4.17 | | | +1 | +5 | | | | | | | | | | | | |
| | 8/08/2018 | Dam 1 | | 4.08 | | | | | | | 5.3 | | | +1 | +5 | | | | | | | | | | | | |
| | 5/09/2018 | Dam 1 | | 6.73 | | | | | | | 21 | | | +1 | | 0.02 | | 0.04 | | | | | | | | | |
| | 3/10/2018 | Dam 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6/11/2018 | Dam 1 | | 4.25 | | | ** | | | | 0.2 | | | | | | | | | | | | | | | | |
| | 7/12/2018 | Dam 1 | | 4.42 | | | | 1 | | 86 | 1.4 | | | +1 | +5 | 0.18 | | 0.01 | | 9 | 45 | 4 | 135 | 0.72 | +0.002 | | |
| 2019 Env Monitoring | 8/01/2019 | Dredge Pond Dam 1 | | 4.45 | | | | | | | 0.7 | | | | NR | | | | | | | | | | | | |
| | 5/02/2019 | Dredge Pond Dam 1 | | 4.41 | | | | | | | 0 | | | | 5 | | | | | | | | | | | | |
| | 6/03/2019 | Dredge Pond Dam 1 | | 4.12 | | | | | 1 | 81 | 0 | | | 2 | 5 | | | | | 10 | 47 | 5 | 164 | 0.84 | 0.001 | | |
| | 5/04/2019 | Dredge Pond Dam 1 | | 4.24 | | | | | | | 3.4 | | | | 5 | | | | | | | | | | | | |
| | 7/05/2019 | Dredge Pond Dam 1 | | 4.18 | | | | | | | 50.8 | | | | 5 | | | | | | | | | | | | |
| | 4/06/2019 | Dredge Pond Dam 1 | | 4.06 | | | | | 1 | 74 | 1.8 | | | 1 | 5 | | | | | 10 | 44 | 5 | 170 | 0.76 | 0.001 | | |
| | 4/07/2019 | Dredge Pond Dam 1 | | 4.15 | | | | | | | 1.8 | | | | 5 | | | | | | | | | | | | |
| | 29/08/2019 | Dredge Pond Dam 1 | | 4.35 | | | | | 1 | 66 | 1.9 | | | 1 | NR | | | | | 9 | 37 | 4 | 174 | 0.68 | 0.001 | | |
| | 26/09/2019 | Dredge Pond Dam 1 | | 5.54 | | | | | | | 8 | | | | 5 | | | | | | | | | | | | |
| | 24/10/2019 | Dredge Pond Dam 1 | | 4.42 | | | | | | | NR | | | | 5 | | | | | | | | | | | | |
| | 22/11/2019 | Dredge Pond Dam 1 | | 3.95 | | | | | 1 | 95 | 1.1 | | | 1 | 5 | | | | | 11 | 53 | 5 | 171 | 0.92 | 0.003 | | |
| | 20/12/2019 | Dredge Pond Dam 1 | | 5.13 | | | | | | | 12.7 | | | | 5 | | | | | | | | | | | | |
| 2020 Annual Review | 18/03/2020 | Dredge Pond | | 6.52 | | | | | | | 0.5 | 397000 c | | | 10 | | | | | | | | | | | | |
| | 16/04/2020 | Dredge Pond | | 4.72 | | | | | | | 1.2 | 407000 c | | | 10 | | | | | | | | | | | | |
| | 14/05/2020 | Dredge Pond | | 3.87 | | | | | | | 6.9 | 397 | | | 10 | | | | | | | | | | | | |
| | 11/06/2020 | Dredge Pond | | 3.69 | | 8.38 | | | | | 0 | 391 | | | | | | | | | | | | | | | |
| | 9/07/2020 | Dredge Pond | | 3.87 | | 6.89 | | | | | 1.6 | 433 | | | | | | | | | | | | | | | |
| | 10/08/2020 | Dredge Pond | | 4.06 | | 7.43 | | | | | 61.5 | 189 | | | 5 | | | | | | | | | | | | |
| | 8/09/2020 | Dredge Pond | | 3.88 | | 3.88 | | | | | 4 | 420000 c | | | 5 | | | | | | | | | | | | |
| | 8/10/2020 | Dredge Pond | | 3.88 | | 3.88 | | | | | 4 | 420000 c | | | | | | | | | | | | | | | |
| | 9/11/2020 | Dredge Pond | | 3.86 | | 6.48 | | | | 88 | 0 | 454000 c | | 5 | 5 | | | | | 10 | 44 | 5 | 146 | 1.8 | 0.001 | | |
| | 24/11/2020 | Dredge Pond | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10/12/2020 | Dredge Pond | | 3.83 | | 8.63 | | | | | 40.9 | 155 | | | 5 | | | | | | | | | | | | |
| 2021 Annual Review | 11/02/2021 | Dredge Pond | | 4.7 | | 7.12 | | | | 100 | 1.2 | 476000 | | 5 | 5.2 | | | | | 23 | 57 | 4.6 | 240 | 0.95 | 0.001 | | |
| | 12/05/2021 | Dredge Pond | | 5.9 | | 7.4 | | | | 100 | 0 | 453000 | | 5 | 5 | | | | | 10 | 44 | 3.7 | 190 | 0.12 | 0.001 | | |
| | 9/08/2021 | Dredge Pond | | 6.3 | | 5.9 | | | | 86 | 0 | 478000 | | 5 | 10 | | | | | 27 | 51 | 6 | 200 | 0.12 | 0.001 | | |
| | 10/11/2021 | Dredge Pond | | 7.9 | | 8 | | | | 83 | 29.5 | 266000 | | 8.9 | 5 | | | | | | 51 | 3.7 | 210 | 0.05 | 0.001 | | |
| 2022 Env Monitoring | 9/02/2022 | Dredge Pond | | 6.6 | | 7 | | | | 78 | 11.6 | 358000 | | 5.0 | 5 | | | | | 9.6 | 48 | 4.5 | 200 | 0.05 | 0.001 | 0.05 | 0.1 |
| | 11/05/2022 | Dredge Pond | | 6.4 | | 8 | | | | 7 | 61.4 | 31000 | | 5.0 | 5 | | | | | 1.3 | 5 | 1.4 | 13 | 0.11 | 0.001 | 0.14 | 0.0 |
| | 10/08/2022 | Dredge Pond | | 3.9 | | 8 | | | | 8 | 16.9 | 49000 | | 5.0 | 5 | | | | | 1.5 | 5.8 | 1.5 | 32 | 0.50 | 0.001 | 0.13 | 0.2 |
| | 14/11/2022 | Dredge Pond | | 5.8 | | 6 | | | | 16 | 11.6 | 67000 | | 5.0 | 5 | | | | | 1.6 | 7 | 1.3 | 34 | 0.11 | 0.001 | 0.11 | 0.2 |
| 2023 Annual Review | 11/01/2023 | Dredge Pond | | 5.0 | 116 | 6.7 | | | | | 1.1 | | | | 5.7 | | | | | | | | | | | | |
| | 13/02/2023 | Dredge Pond | | 4.8 | 73 | 5.6 | | | 20 | 13 | 5.8 | | | 10.0 | 14 | | | 0.01 | | 2 | | 2.1 | 51 | 0.02 | 0.001 | | |
| | 15/03/2023 | Dredge Pond | | 4.8 | 120 | 7.2 | | | | | 4.6 | | | | 17 | | | | | | | | | | | | |
| | 11/04/2023 | Dredge Pond | | 5.3 | 960 | 6.3 | | | | | 1.7 | | | | 5 | | | | | | | | | | | | |
| | 11/05/2023 | Dredge Pond | | 5.6 | 103 | 7.8 | | | | | 1.0 | | | | 10 | | | | | | | | | | | | |
| | 14/06/2023 | Dredge Pond | | 4.4 | 105 | 7.5 | | | 20 | 11 | 1.8 | | | 11.0 | 18 | | | 0.01 | | 2.6 | | 1.7 | 54 | 0.68 | 0.002 | | |
| | 11/07/2023 | Dredge Pond | | 4.8 | 103 | 8.1 | | | | | 2.9 | | | | 5 | | | | | | | | | | | | |
| | 8/08/2023 | Dredge Pond | | 4.8 | 103 | 7.8 | | | 20 | 11 | 1.9 | | | 5.0 | 5 | | | 0.01 | | 2.7 | | 1.8 | 62 | 0.25 | 0.001 | | |
| | 11/09/2023 | Dredge Pond | | 7.0 | 120 | 8.3 | | | | | 5.1 | | | | 5 | | | | | | | | | | | | |
| | 11/10/2023 | Dredge Pond | | 8.2 | 245 | 7.5 | | | | | 74.7 | | | | 23 | | | | | | | | | | | | |
| | 13/11/2023 | Dredge Pond | | 7.2 | 210 | 7.5 | | | | | 4.5 | | | | 10 | | | | | | | | | | | | |
| | 12/12/2023 | Dredge Pond | | 7.6 | 229 | 8 | | | 20 | 17 | 4.7 | | | 5.0 | 5 | | | 0.05 | | 3.6 | | 2.0 | 81 | 0.09 | 0.001 | | |
| 2024 Annual Review | 11/01/2024 | Dredge Pond | | 7.3 | 247 | 8.5 | | | | | 5.8 | | | | 13 | | | | | | | | | | | | |
| | 13/02/2024 | Dredge Pond | | 6.0 | 218 | 9.1 | | | 20 | 14 | 2.5 | | | 5.8 | 8.6 | | | | | | | | | | | | |
| | 22/03/2024 | Dredge Pond | | 7.8 | 251 | 7.7 | | | | | 6.6 | | | | 5 | | | 0.01 | | 4.2 | 12 | 2.4 | 90 | 0.20 | 0.001 | | |
| | 11/04/2024 | Dredge Pond | | 8.4 | 264 | 7.6 | | | | | 4.6 | | | | 5.8 | | | | | | | | | | | | |
| | 9/05/2024 | Dredge Pond | | 7.7 | 276 | 8.1 | | | | | 2.9 | | | | 12 | | | | | | | | | | | | |
| | 12/06/2024 | Dredge Pond | | 6.5 | 251 | 8 | | | 37 | 17 | 5.1 | | | 5.0 | 5 | | | 0.01 | | 3.9 | 13 | 2.3 | 92 | 0.01 | 0.002 | | |
| | 10/07/2024 | Dredge Pond | | 5.7 | 257 | 6.5 | | | | | 244.0 | | | | 11 | | | | | | | | | | | | |
| | 13/08/2024 | Dredge Pond | | 4.9 | 268 | 9.6 | | | | | 133.0 | | | | 11 | | | | | | | | | | | | |
| | 11/09/2024 | Dredge Pond | | 6.7 | 263 | 9.7 | | | 39 | 19 | 880.0 | | | 5.0 | 5.5 | | | 0.01 | | 4.5 | 14 | 2.4 | 100 | 0.09 | 0.001 | | |
| | 10/10/2024 | Dredge Pond | | 6.4 | 236 | 12.6 | | | | | 57.0 | | | | 19 | | | | | | | | | | | | |
| | 12/11/2024 | Dredge Pond | | 8.6 | 228 | 20.8 | | | | | 4.0 | | | | 39 | | | | | | | | | | | | |
| | 11/12/2024 | Dredge Pond | | 6.5 | 224 | 9.8 | | | 23 | 14 | 2.8 | | | 5.0 | 7.5 | | | 0.02 | | 3.5 | 13 | 2.3 | 83 | 0.10 | 0.001 | | |
| 2025 Annual Review | 14/01/2025 | Dredge Pond | | 6.9 | 221 | 4.6 | | | | | 440.0 | | | | 5.9 | | | | | | | | | | | | |
| | 11/02/2025 | Dredge Pond | | 8.0 | 233 | 6.3 | | | | | 4.9 | | | | 7.8 | | | | | | | | | | | | |
| | 18/03/2025 | Dredge Pond | | 7.2 | 925 | 7.9 | | | 34 | 22 | 9.2 | | | 5.0 | 5.1 | | | 0.01 | | 4.7 | 13 | 2.8 | 85 | 0.26 | 0.001 | | |
| | 16/04/2025 | Dredge Pond | | 5.9 | 248 | 0 | | | | | 174.0 | | | | 7.0 | | | | | | | | | | | | |
| | 14/05/2025 | Dredge Pond | | 8.2 | 607 | 12.02 | | | | | 1000.0 | | | | 5.0 | | | | | | | | | | | | |
| | 13/06/2025 | Dredge Pond | | 6.8 | 269 | 9.7 | | | 39 | 15 | 9.0 | | | 5.0 | 6.6 | | | 0.01 | | 3.6 | 13 | 1.8 | 64 | 0.05 | 0.001 | | |
| | 15/07/2025 | Dredge Pond | | 7.7 | 275 | 11.6 | | | | | 26.2 | | | | 3 | | | | | | | | | | | | |
| | 13/08/2025 | Dredge Pond | | 7.7 | 254 | 6.8 | | | | | 84.8 | | | | 6 | | | | | | | | | | | | |
| | 10/09/2025 | Dredge Pond | | 7.9 | 285 | 7.2 | | | 22 | 19 | 0.0 | | | 5.0 | 8 | | | 0.01 | | 3.9 | 15 | 2.0 | 79 | 0.05 | 0.001 | | |
| | 9/10/2025 | Dredge Pond | | 8.2 | 302 | 7.2 | | | | | 156.0 | | | | 11 | | | | | | | | | | | | |
| | 11/11/2025 | Dredge Pond | | 9.4 | 298 | 7.6 | | | | | 71.2 | | | | 5 | | | | | | | | | | | | |
| | 11/12/2025 | Dredge Pond | | 9.1 | 306 | 7 | | | 35 | 25 | 21.8 | | | 11.0 | 5 | | | 0.02 | | 5.8 | 20 | 2.4 | 130 | 0.07 | 0.001 | | |
| | | | Minimum | 3.4 | 47 | 0.0 | 138 | 1 | 1 | 7 | 0 | 155 | 4 | 0 | 0 | 0.02 | 0.01 | 0.01 | 13 | 1.3 | 5.1 | 1 | 13 | 0.01 | 0.001 | | |
| | | | Maximum | 9.4 | 1060 | 116 | 3520 | 3 | 39 | 100 | 1000 | 478000 | 187 | 1000 | 39 | 0.39 | 33 | 0.08 | 159 | 27 | 57 | 9.32 | 429 | 33 | 0.008 | | |
| | | | Average | 5.16 | 477.97 | 12.63 | 756.67 | 2.00 | 18.61 | 36.79 | 46.53 | 196562.79 | *** | 46.53 | 6.82 | 0.08 | 1.36 | 0.02 | *** | 7.28 | 23.64 | 3.90 | 162.26 | 3.81 | 0.002 | | |