MOTT MACDONALD

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**Attn: Mr. Titus Yeung – Senior Resident Engineer**

**Your Reference**

**Our Reference**
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**Contract No. CM 04/2021**

**Independent Environmental Checker for Environmental Monitoring Works for Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities**

**Environmental Permit No. EP-488/2014/A**

**Monthly EM&A Report for April 2024 (Rev. 1)**

14 May 2024

**By Email**

Dear Sir,

I refer to the Monthly EM&A Report for April 2024 (Rev. 1) under the captioned Project, which was certified on 13 May 2024 by the Environmental Team Leader appointed under Condition 2.1 of Environmental Permit No. EP-488/2014/A (hereafter referred to as "EP").

I hereby verify the abovementioned submission in accordance with EP Conditions 1.9 and 4.4.

Should you have any queries regarding the captioned or require any further information, please contact the undersigned at 2828 5751.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Liz Lo
Independent Environmental Checker
T +852 2828 5751
Liz.Lo@mottmac.com

Encl.

| | | | |
|---|---|---|---|
| c.c. | DSD | Ir. QIU Yujing, Eugene | By Email |
| | Atkins China Limited | Ir. Dennis Cheung / Ir. Winnie Choi | By Email |
| | Acuity Sustainability Consulting Limited | Mr. Kevin Li | By Email |
| | Build King Civil Engineering Limited | Mr. Alvin Lei / Mr. Lawrence Lam | By Email |

# Drainage Services Department

**The Government of the Hong Kong Special Administrative Region**

## Contract No. DC/2019/07

# Environmental Monitoring Works for Outlying Islands Sewerage Stage 2 – Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities

# 33rd Monthly Environmental Monitoring and Audit Report – April 2024

Document No.

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| | Prepared by: | Reviewed by: | Certified by: |
|---|---|---|---|
| Name | Michael CHEUNG | Tandy TSE | Kevin LI |
| Position | Environmental Team Member | Environmental Team Member | Environmental Team Leader |
| Signature |  |  |  |
| Date: | 7/5/2024 | 13/5/2024 | 13/5/2024 |

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## REVISION HISTORY

| REV. | DESCRIPTION OF MODIFICATION | DATE |
|---|---|---|
| 0 | First Issue for Comments | 9 May 2024 |
| 1 | Updated in accordance with IEC's comments | 13 May 2024 |

# CONTENTS

## EXECUTIVE SUMMARY

A.1 Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (DEP) granted the Environmental Permit (No. EP-488/2014/A) to DSD for the Project.

A.2 Upon the requirement of the Environmental Permit (EP), the Monthly EM&A Monitoring Report shall be submitted to the DEP within 10 working days after the end of the reporting month. The submissions shall be verified by the Independent Environmental Checker (IEC) and complied with the requirements set out in the Environmental Monitoring and Audit (EM&A) Manual before submission to the DEP as stipulated in Condition 4.4 of the EP.

A.3 The commencement date of the Project was 6 August 2021. Impact environmental monitoring of 24-hour TSP, 1-hour TSP and noise was conducted as stipulated in Condition 4.2 of the EP. This is the 33rd Monthly EM&A Report for the Project summarizing the monitoring results and audit findings of the EM&A programme at selected locations at and around Cheung Chau during the reporting period from 1 to 30 April 2024.

A.4 Key activities carried out in this reporting period for the Project included the followings:

- Trial Pit and Ground Investigation
- Construction of MBR Treatment Facilities
- Mechanical Installation of Sludge Digestor Building and Sludge Holding Tanks
- MVAC Installation Works
- Lifting Appliance Installation for Sludge Digestor Building
- FS Installation
- Construction of Preliminary Treatment Facilities
- Laying of Underground Pipes, Utilities and Construction of Manholes
- Demolition of Existing Transformer House

A.5 The major environmental impacts brought by the above construction works include:

- Construction dust and noise generation from construction works and piling works
- Wastewater generated from construction activities
- Waste generation from the construction activities

A.6 The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:

- Dust suppression by regular wetting and water spraying for construction works
- Reduction of noise from equipment and machinery on-site
- Mitigation measures preventing seepage of muddy water
- Sorting and storage of general refuse and construction waste

A.7 Five (5) sessions of air monitoring were carried out at all designated monitoring locations. No exceedance of Action or Limit Level was recorded.

A.8 Five (5) sessions of noise monitoring were carried out at all designated monitoring locations. No exceedance of Action or Limit Level was recorded.

A.9 Results of the monitoring for air quality and airborne noise are given in **Table A** and **Table B** as follows:

**Table A – Monitoring Results (Dust)**

| Locations | Dust in μg/m³ | | | |
|---|---|---|---|---|
| | Average | | Range | |
| | TSP-1hr | TSP-24hr | TSP-1hr | TSP-24hr |
| A1a | 65 | 74 | 60 – 72 | 36 – 161 |
| A2a | 73 | 59 | 63 – 85 | 36 - 72 |

**Table B – Monitoring Results (Noise)**

| Locations | Noise in dB(A) | |
|---|---|---|
| | Average | Range |
| | $L_{eq\ (30\ min)}$ (7:00-19:00) | $L_{eq\ (30\ min)}$ (7:00-19:00) |
| N2a | 70.1 | 69.0 – 70.6 |
| N3a | 72.5 | 70.3 – 74.5 |

s: +3 dB(A) free-field corrections have been made to N3a.

A.10 According to Section 4.3.3 of the EM&A Manual, Site inspection shall be carried out by the ET and attention shall be paid to the mitigation measures recommended for water pollution control. Weekly site inspections were carried out and no non-compliance was spotted during the reporting month.

A.11 Waste management mitigation measures were properly implemented in the reporting period.

A.12 For cultural heritage impact, as this Project does not involve proposed sewers works, according to Section 6.1.5 of the EM&A Manual, no EM&A requirement is considered necessary during the construction and operational phase of upgrading of Cheung Chau STW and Pak She SPS.

A.13 The recommended landscape and visual mitigation measures were properly implemented in the reporting period.

A.14 Weekly site inspections of the construction work by ET were carried out on 2, 10, 16, 23, and 29 April 2024.

A.15 No environmental complaint was received during the reporting period.

A.16 No notification of summons or prosecution was received in the reporting period.

A.17 A map of the construction site and monitoring locations are shown in **Appendix A**.

A.18 The summary of permit / licences for this Project is presented in **Table C** below:

**Table C – Summary of Permit / Licences**

| Nature | Number | Issue Date | Expiry Date |
|---|---|---|---|
| Environmental Permit | EP-488/2014/A | 13/05/2021 | N/A |
| Notification pursuant to Air Pollution Control (Construction Dust) Regulation | 462303 | 26/11/2020 | N/A |
| Waste Disposal Billing Account | 7039094 | 8/2/2024 | N/A |
| | 7040870 | 19/1/2024 | N/A |
| Chemical Waste Producer | 5213-920-B2500-05 | 31/12/2020 | N/A |
| Effluent Discharge Licence under Water Pollution Control Ordinance | WT00038597-2021 | 20/08/2021 | 31/08/2026 |

# 1. INTRODUCTION

## 1.1. BACKGROUND

1.1.1. Drainage Services Department (DSD) has contracted Build King Civil Engineering Limited (BK) to carry out the Outlying Islands Sewerage Stage 2 – Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities under Contract No. DC/2019/07.

1.1.2. Acuity Sustainability Consulting Limited (ASCL) is commissioned by BK to undertake the Environmental Team (ET) services as required and/or implied, both explicitly and implicitly, in the Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) (Register No. AEIAR-181/2013) and Environmental Monitoring and Audit Manual (EM&A Manual) for the Project; and to carry out the Environmental Monitoring and Audit (EM&A) programme in fulfillment of the EIA Report's EM&A requirements under Agreement No. CE 15/2010 (DS).

## 1.2. PROJECT DESCRIPTION

1.2.1 The purpose of the Project is to upgrade the sewerage collection, treatment and disposal facilities in Cheung Chau in order to cater for the projected ultimate population and planned developments in Cheung Chau to meet the increased demand and to achieve more stringent effluent quality standards. The key elements of the proposed works for the Project will include as follows:

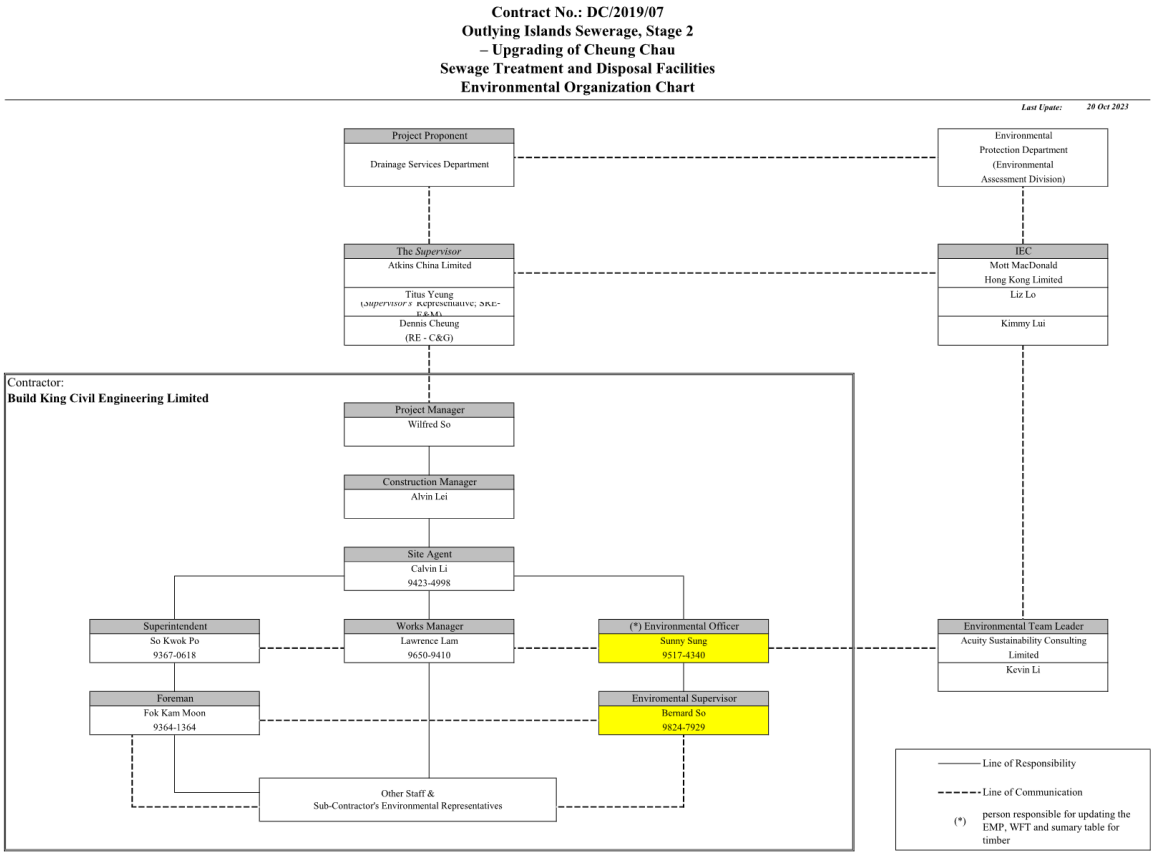
- Expansion of the sewage treatment capacity and upgrading of the treatment level of the existing Cheung Chau Sewage Treatment Works (Cheung Chau STW) to secondary treatment level; and

- Expansion of the pumping capacity of the existing Pak She Sewage Pumping Station (Pak She SPS).

## 1.3. PROJECT ORGANIZATION STRUCTURE

1.3.1 The Project organization structure is presented in **Figure 1.1**.

**Figure 1.1 Project Organization Structure**




| Party | Role | Contact Person | Phone No. |
|---|---|---|---|
| Drainage Services Department HKSAR (DSD) | Project Proponent | QIU Yujiing, Eugene | 2594 7298 |
| Supervisor / Supervisor's Representative (Atkins China Limited) | Resident Engineer | Dennis Cheung | 2675 3910 |
| Environmental Team (Acuity Sustainability Consulting Limited) | Environmental Team Leader | Kevin Li | 2698 6833 |
| Independent Environmental Checker (Mott Macdonald Hong Kong Limited) | Independent Environmental Checker | Liz Lo | 2828 5751 |
| Contractor (Build King Construction Limited) | Site Agent<br>Environmental Officer<br>Environmental Supervisor | Calvin Li<br>Sunny Sung<br>Bernard So | 9423 4998<br>9517 4340<br>9824 7929 |

## 1.4. SUMMARY OF CONSTRUCTION WORKS

1.4.1 Details of the major construction activities undertaken in this and the next reporting periods are shown below. The construction programme is presented in **Appendix B**.

Key activities carried out in this reporting period for the Project included the followings:

- Trial Pit and Ground Investigation
- Construction of MBR Treatment Facilities
- Mechanical Installation of Sludge Digestor Building and Sludge Holding Tanks
- MVAC Installation Works
- Lifting Appliance Installation for Sludge Digestor Building
- FS Installation
- Construction of Preliminary Treatment Facilities
- Laying of Underground Pipes, Utilities and Construction of Manholes
- Demolition of Existing Transformer House

Key activities to be carried out in the next reporting period for the Project included the followings:

- Trial Pit and Ground Investigation
- Construction of MBR Treatment Facilities
- Mechanical Installation of Sludge Digestor Building and Sludge Holding Tanks
- MVAC Installation Works
- Lifting Appliance Installation for Sludge Digestor Building
- FS Installation
- Construction of Preliminary Treatment Facilities
- Laying of Underground Pipes, Utilities and Construction of Manholes
- Demolition of Existing Transformer House

## 1.5. PURPOSE OF THE REPORT

1.5.1 According to the EM&A Manual for the Project, monitoring for air quality and noise should be conducted throughout the construction period of the Project.

1.5.2 The EM&A requirements for environmental monitoring are set out in the EM&A Manual. Environmental aspect of construction noise and air quality were identified as the key issues requiring implementation of monitoring programme during the construction phase of the Project.

1.5.3 This report is summarizing the monitoring results and audit findings of the EM&A programme during the reporting period from 1 April to 30 April 2024.

# 2. AIR QUALITY

## 2.1. AIR QUALITY PARAMETERS

2.1.1 The air quality parameters to be monitored includes:

- 24-hour TSP;
- 1-hour TSP; and

## 2.2. MONITORING CRITERIA

2.2.1 Dust monitoring was carried out at the designated monitoring location at least once in every six-days to obtain 24-hour TSP samples. One-hour TSP sampling shall also be done at least 3 times in every six-days while the highest dust impact occurs.

2.2.2 Before commencing the impact monitoring, the ET Leader shall inform the IEC of the impact monitoring programme such that the IEC can conduct on-site audit to ensure accuracy of the impact monitoring results.

2.2.3 In case of non-compliance with the air quality criteria, additional monitoring as specified in the Action Plan shall be conducted within 24 hours after the result is obtained. This additional monitoring shall be continued until the excessive dust emission or the deterioration in air quality is rectified.

## 2.3. MONITORING REQUIREMENTS AND EQUIPMENT

2.3.1 1-hour and 24-hour TSP levels were measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the United States Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.

2.3.2 High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:

(i) 0.6 – 1.7 $m^3$ per minute adjustable flow range;

(ii) equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;

(iii) installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;

(iv) capable of providing a minimum exposed area of 406 $cm^2$;

(v) flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;

(vi) equipped with a shelter to protect the filter and sampler;

(vii) incorporated with an electronic mass flow rate controller or other equivalent devices;

(viii) equipped with a flow recorder for continuous monitoring;

(ix) provided with a peaked roof inlet;

(x) incorporated with a manometer;

(xi) able to hold and seal the filter paper to the sampler housing at horizontal position;

(xii) easily changeable filter; and

(xiii) capable of operating continuously for a 24-hour period.

2.3.3 The ET is responsible for provision of the monitoring equipment. They shall ensure that sufficient number of HVSs with an appropriate calibration kit is available for carrying out the impact monitoring, and ad hoc monitoring. The HVSs shall be equipped with an electronic mass flow controller and be calibrated against a traceable standard at regular intervals. All the equipment, calibration kit, filter papers, etc., shall be clearly labelled.

2.3.4 Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognised primary standard and be calibrated annually. The concerned parties such as ER shall properly document the calibration data for future reference. All the data shall be converted into standard temperature and pressure condition.

2.3.5 If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, he shall submit sufficient information to the ER to prove that the instrument is capable of achieving a comparable result to the HVS. The instrument shall also be calibrated regularly, and the 1-hour sampling shall be determined periodically by the HVS to check the validity and accuracy of the results measured by direct reading method.

Laboratory Measurement / Analysis

2.3.6 A clean laboratory with constant temperature and humidity control and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory shall be HOKLAS accredited.

2.3.7 Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.

2.3.8 After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity-controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

2.3.9 1-hour TSP levels and 24-hour TSP had been measured with direct reading dust meters and High Volume Samplers respectively. The details of equipment used for monitoring are listed in **Table 2.1**, and the calibration certificates are presented in **Appendix C**.

**Table 2.1 Equipment Used for Air Quality Monitoring**

| Equipment | Model | Serial Number |
|---|---|---|
| Portable Dust Meter – 1-hour TSP | SIBATA Digital Dust Indicator (Model: LD-5R) | 2Y6550<br>2Y6549 |
| High Volume Samplers – 24-hour TSP | Tisch TE-5170X High Volume Air Sampler | 1048<br>1085 |
| Calibrator Kit | Tisch TE-5025A Calibration Kit | 3465 |

## 2.4. MONITORING LOCATIONS

2.4.1 The ET agreed with the ER and the IEC on the position of the HVS for the installation of the monitoring equipment. When positioning the samplers, the following points were noted:

(i) a horizontal platform with appropriate support to secure the samplers against gusty wind shall be provided;

(ii) no two samplers shall be placed less than 2 meters apart;

(iii) the distance between the sampler and an obstacle, such as buildings, must be at least twice the height that the obstacle protrudes above the sampler;

(iv) a minimum of 2 meters of separation from walls, parapets and penthouses is required for rooftop samplers;

(v) a minimum of 2 meters separation from any supporting structure, measured horizontally is required;

(vi) no furnace or incinerator flue is nearby;

(vii) airflow around the sampler is unrestricted;

(viii) the sampler is more than 20 meters from the dripline;

(ix) any wire fence and gate, to protect the sampler, shall not cause any obstruction during monitoring

(x) permission must be obtained to set up the samplers and to obtain access to the monitoring stations; and

(xi) a secured supply of electricity is needed to operate the samplers.

2.4.2 The proposed dust monitoring station is presented in **Table 2.2** and the respective locations are shown in Figure 2.1 of the EM&A Manual.

**Table 2.2 Proposed Dust Monitoring Stations**

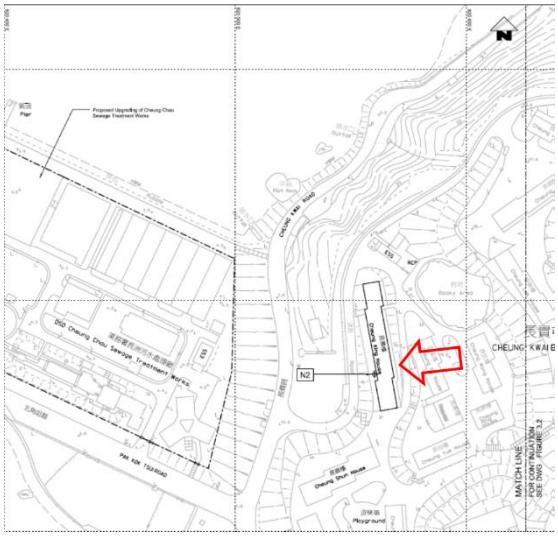
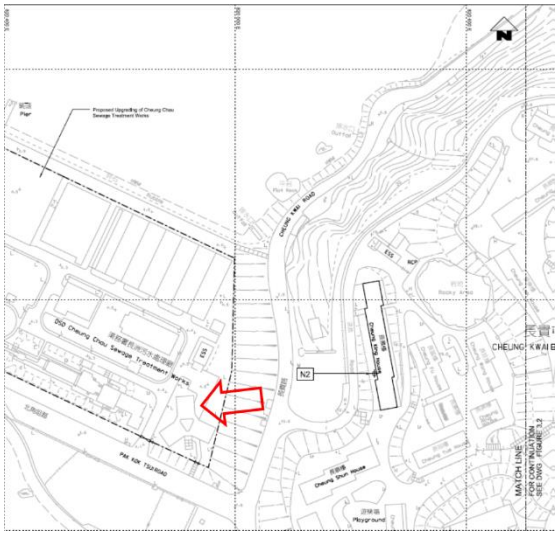
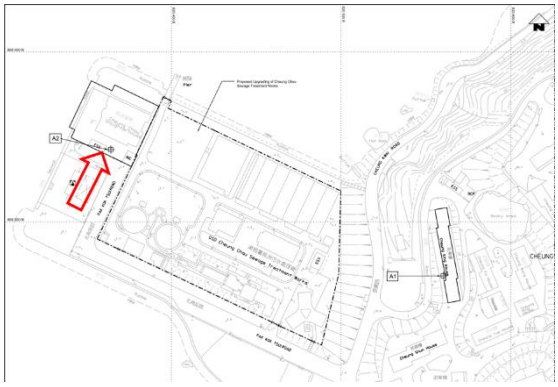
| ID No. | Location | Nature of Use | Remarks |
|---|---|---|---|
| A1 | Cheung King House, Cheung Kwai Estate | Residential | Specified in the EM&A Manual but proposed to change location |
| A1a | The admin building inside the construction site | Institutional | Proposed alternative location to replace A1 |
| A2 | Cheung Chau Slaughter House | Slaughter house | Specified in the EM&A Manual but proposed to change location |
| A2a | The existing outfall pumping station inside the construction site | Institutional | Proposed alternative location to replace A2 |

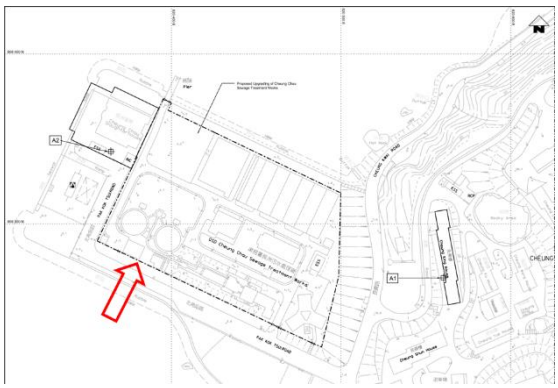
2.4.3 As secured electricity supply was not able to be provided at Monitoring Station A1, Monitoring Station A1a was then proposed. The proposed Monitoring Station A1a is the Admin Building inside the construction site. It is located at a similar direction as A1 from the construction site, but much closer to any major dust emission source than A1.

2.4.4 Monitoring Station A2 is now abandoned, only limited access can be granted and power supply cannot be guaranteed which may not feasible to be a monitoring location. An alternative location A2a, which is the existing outfall pumping station Building inside the construction site. Location A2a is about 30 meters away from the Cheung Chau slaughter house and closer to the dust emission source.

2.4.5 The proposed alternative monitoring locations meet the guidelines and requirements specified in Section 2.4.1 and 2.4.2 of the EM&A Manual. **Table 2.3** shows the photographs of the air monitoring locations.

**Table 2.3 Photo of Proposed HVS Position at Dust Monitoring Stations**

| ID | HVS Position | Direction of Photo |
|---|---|---|
| A1 |  |  |
| The proposed Monitoring Station A1a is the Admin Building inside the construction site. It is located at a similar direction as A1 from the construction site, but much closer to any major dust emission source than A1. | | |
| A1a |  |  |
| A2 |  |  |
| Because Monitoring Station A2 is now abandoned, only limited access can be granted and power supply cannot be guarunteed which may not feasible to be a monitoring location. | | |

| ID | HVS Position | Direction of Photo |
|---|---|---|
| A2a |  |  |

## 2.5. RESULTS AND ANALYSIS

2.5.1 The 1-hour TSP and 24-hour TSP measurement data are shown in Appendix D and summarized in **Table 2.4** and **Table 2.5** respectively.

**Table 2.4 Summary of 1-hour TSP Monitoring Results**

| Monitoring Location | Average(µg/m3) | Range(µg/m3) |
|---|---|---|
| A1a | 65 | 60 - 72 |
| A2a | 73 | 63 - 85 |

**Table 2.5 Summary of 24-hour TSP Monitoring Results**

| Monitoring Location | Average(µg/m3) | Range(µg/m3) |
|---|---|---|
| A1a | 74 | 36 – 161 |
| A2a | 59 | 36 - 72 |

## 2.6. ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

2.6.1 The baseline monitoring results formed the basis for determining the air quality criteria for the impact monitoring. The ET shall compare the impact monitoring results with air quality criteria set up for 24-hour TSP and 1-hour TSP. **Table 2.6** shows the air quality criteria, namely Action and Limit levels to be used.

**Table 2.6 Action / Limit Levels for Air Quality**

| Parameters | Action Level | Limit Level |
|---|---|---|
| 1-hour TSP Level in µg/m³ | For baseline level ≤ 200 µg/m³<br>AL = (BL * 1.3 + LL)/2<br>For baseline level > 200 µg/m³<br>AL = LL | 260 µg/m³ |
| 24-hour TSP Level in µg/m³ | For baseline level ≤ 384 µg/m³<br>AL = (BL * 1.3 + LL)/2<br>For baseline level > 384 µg/m³<br>AL = LL | 500 µg/m³ |

2.6.2 The derived Action/Limit Levels are presented in **Table 2.7**.

**Table 2.7 Derived Action / Limit Levels for Air Quality**

| Parameters | Monitoring Location | Action Level µg/m³ | Limit Level µg/m³ |
|---|---|---|---|
| 1-hour TSP Level in µg/m³ | A1a | 151 | 260 |
| | A2a | 154 | |
| 24-hour TSP Level in µg/m³ | A1a | 270 | 500 |
| | A2a | 271 | |

## 2.7. EVENT AND ACTION PLAN

2.7.1 Should non-compliance of the air quality criteria occur, actions in accordance with the Action Plan in **Table 2.8** shall be carried out.

**Table 2.8 Event and Action Plan for Air Quality (Construction Dust)**

| EVENT | ACTION PLAN FOR CONSTRUCTION DUST | | | |
|---|---|---|---|---|
| | ET | IEC | ER | CONTRACTOR |
| | ACTION LEVEL | | | |
| Exceedance for one sample | 1. Identify source, investigate the causes of exceedance and propose remedial measures;<br>2. Inform IEC and ER;<br>3. Repeat measurement to confirm finding; and<br>4. Increase monitoring frequency to daily. | 1. Check monitoring data submitted by ET; and<br>2. Check Contractor's working method. | 1. Notify Contractor. | 1. Rectify any unacceptable practice; and<br>2. Amend working methods if appropriate. |
| Exceedance for two or more consecutive samples | 1. Identify source;<br>2. Inform IEC and ER;<br>3. Advise the ER on the effectiveness of the proposed remedial measures;<br>4. Repeat measurements to confirm findings;<br>5. Increase monitoring frequency to daily;<br>6. Discuss with IEC and Contractor on remedial actions required;<br>7. If exceedance continues, arrange meeting with IEC and ER; and<br>8. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method;<br>3. Discuss with ET and Contractor on possible remedial measures;<br>4. Advise the ET on the effectiveness of the proposed remedial measures; and<br>5. Supervise implementation of remedial measures | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor; and<br>3. Ensure remedial measures properly implemented. | 1. Submit proposals for remedial to IEC within 3 working days of notification;<br>2. Implement the agreed proposals; and<br>3. Amend proposal if appropriate. |

# 3. NOISE

## 3.1. MONITORING CRITERIA

3.1.1 Impact monitoring was conducted once a week between 07:00-19:00 hours on normal weekdays.

3.1.2 **Table 3.1** summarizes the monitoring parameters, frequency and duration of the noise monitoring.

**Table 3.1 Noise Monitoring Parameters, Time, Frequency and Duration**

| Time | Duration | Interval | Parameters |
|---|---|---|---|
| Daytime: 0700-1900 hrs | Once per week | Continuously in $L_{eq\ 5min}$/$L_{eq\ 30min}$ (average of 6 consecutive $L_{eq\ 5min}$) | $L_{eq\ 5min}$, $L_{eq\ 30min}$, $L_{10}$ & $L_{90}$ |

## 3.2. MONITORING REQUIREMENTS AND EQUIPMENT

3.2.1 Sound level meters and calibrators shall comply with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specification as referred to in the Technical Memorandum (TM) issued under the Noise Control Ordinance.

3.2.2 Sound level meters were calibrated using a portable calibrator prior to and following each noise measurement. Where the difference between the calibration levels is greater than 1.0 dB(A), the measurement shall be repeated. Calibrated hand-held anemometers were supplied for the measurement of wind speeds during noise monitoring periods.

3.2.3 Noise measurements should not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.2.4 The details of equipment used for impact monitoring are listed in **Table 3.2**, and the calibration certificates are presented in Appendix E.

**Table 3.2 Equipment Used for Noise Monitoring**

| Equipment | Model | Serial Number |
|---|---|---|
| Sound Level Meter | SVANTEK 971 | 96063 |
| Acoustic Calibrator | Rion NC-75 | 34724243 |

## 3.3. MONITORING LOCATION

3.3.1 According to the environmental findings detailed in the EIA report, the designated locations for the construction noise monitoring are listed in **Table 3.3** and shown in Figure 3.1 – 3.8 of the EM&A Manual.

Table 3.3 Noise Monitoring Stations for Noise Monitoring

| ID No. | Location | Nature of Uses | Remarks | Façade/Free-field |
|---|---|---|---|---|
| N2 | Cheung King House, Cheung Kwai Estate | Residential | Specified in the EM&A Manual but proposed to change location | Façade |
| N2a | Admin Building inside the Construction Site | Institutional | Proposed alternative location to replace N2 | Façade |
| N3 | No. 1A Pak She Second Lane | Residential | Specified in the EM&A Manual but proposed to change location | Free-field |
| N3a | Cheung Chau Fire Station | Fire Station | Proposed alternative location to replace N3 | Free-field |

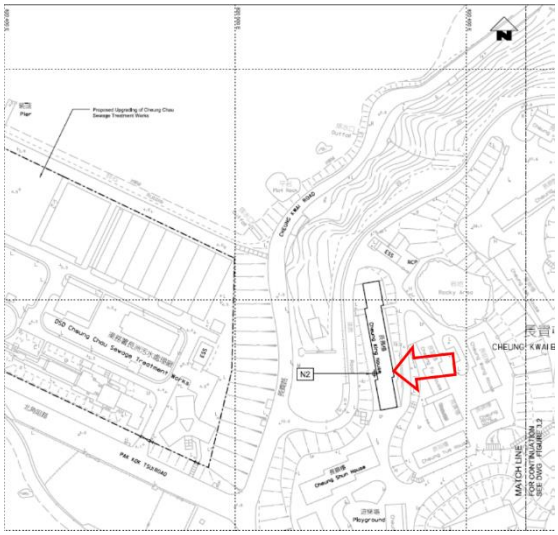
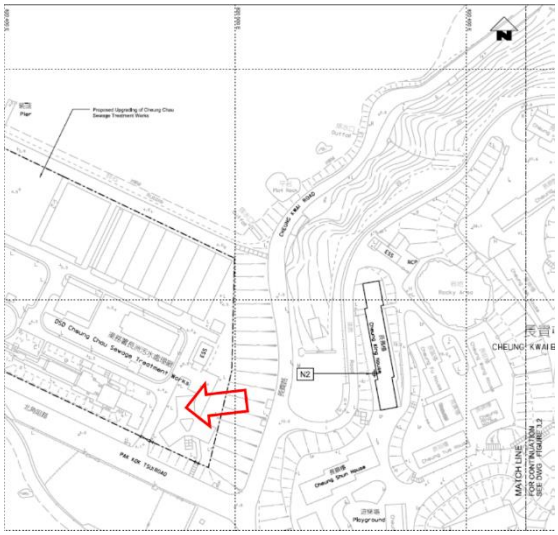
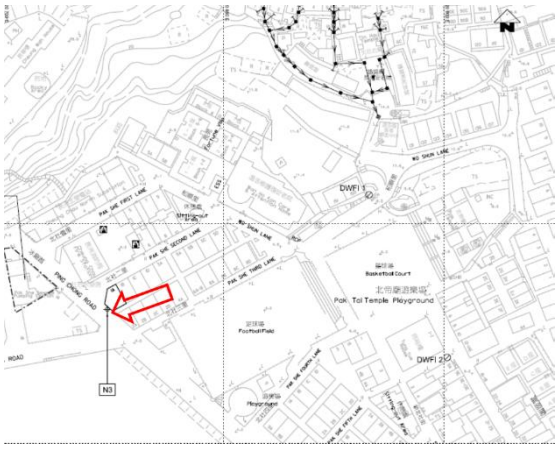
3.3.2 For this Contract, only N2 and N3 need to be monitored since all the other monitoring stations specified in the EM&A Manual are for sewers works but this Contract does not include sewers works.

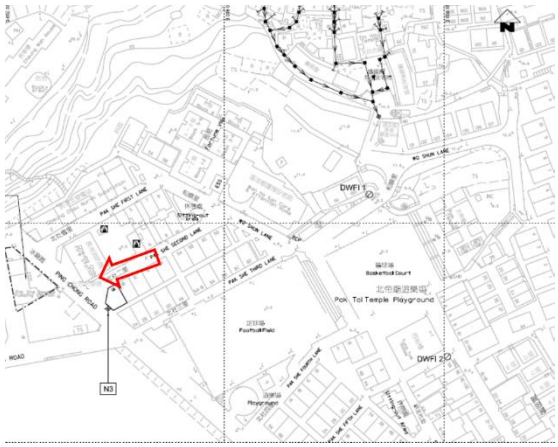
3.3.3 The proposed Monitoring Station N2a is the Admin Building inside the construction site. It is located at a similar direction as N2 from the construction site, but much closer to any major noise emission source than N2.

3.3.4 According to Figure 3.3 of the EM&A Manual, Location N3 is placed in front of a restaurant on Ping Chong Road. It may pose potential danger to pedestrians, cyclists, drivers and the equipment. A proposed monitoring location N3a, which is about 5 m away from the original monitoring location. N3a is at the corner of the Cheung Chau Fire Station. This location is safer and meets the guidelines and requirements specified in Section 3.4.1 and 3.4.2 of the EM&A Manual.

3.3.5 The monitoring locations should normally be made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. **Table 3.4** showed photographs and indications of the proposed position of sound level meters to be placed for the baseline and impact monitoring.

**Table 3.4 Photo of Proposed Sound Level Meter Position at Noise Monitoring Stations**

| ID | Sound Level Meter Position | Direction of Photo |
|---|---|---|
| N2 |  |  |
| The proposed Monitoring Station N2a is the Admin Building inside the construction site. It is located at a similar direction as N2 from the construction site, but much closer to any major noise emission source than N2. | | |
| N2a |  |  |
| N3 |  |  |
| According to Figure 3.3 of the EM&A Manual, Location N3 is placed in front of a restaurant on Ping Chong Road. It may pose potential danger to pedestrians, cyclists, drivers and the equipment. | | |

| ID | Sound Level Meter Position | Direction of Photo |
|---|---|---|
| N3a |  |  |

## 3.4. RESULTS AND ANALYSIS

3.4.1 The noise monitoring was carried out in April 2024. The measurement data are shown in Appendix F and summarized in **Table 3.5**.

**Table 3.5 Summary of Noise Monitoring Results**

| Monitoring Location | Time Period | Average[dB(A)) | Range[dB(A)) |
|---|---|---|---|
| N2a | Daytime (0700-1900) | 70.1 | 69.0 – 70.6 |
| N3a | Daytime (0700-1900) | 72.5 | 70.3 – 74.5 |

s: +3 dB(A) free-field corrections have been made to the data of N3a.

## 3.5. ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

3.5.1 The Action and Limit levels for construction noise are shown in **Table 3.6**. All NSRs identified in the Project are classified with an Area Sensitivity Rating (ASR) A in accordance with the Technical Memorandum on Noise from Construction Work Other Than Percussive Piling.

**Table 3.6 Action / Limit Levels for Construction Noise**

| Time Period | Action | Limit |
|---|---|---|
| 07:00-19:00 hours on normal weekdays; | When one or more documented complaints are received | 75dB(A) |

## 3.6. EVENT AND ACTION PLAN

3.6.1 Should non-compliance of the noise monitoring criteria occur, actions in accordance with the Action Plan in **Table 3.7** shall be carried out.

**Table 3.7 Event and Action Plan for Construction Noise**

| Event | ET | IEC | ER | CONTRACTOR |
|---|---|---|---|---|
| Action Level | 1. Notify ER, IEC and Contractor;<br>2. Carry out investigation;<br>3. Report the results of investigation to the IEC, ER and Contractor;<br>4. Discuss with the IEC and contractor and formulate remedial measures; and<br>5. Increase monitoring frequency to check the effectiveness of mitigation measures. | 1. Review the investigation results submitted by the ET;<br>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and<br>3. Advise the ER on the effectiveness of the proposed remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; and<br>4. Supervise the implementation of remedial measures. | 1. Submit noise mitigation proposals to IEC and ER; and<br>2. Implement noise mitigation proposals. |
| Limit Level | 1. Notify IEC, ER, EPD & Contractor;<br>2. Identify source and investigate the cause of exceedance;<br>3. Repeat measurement to confirm findings;<br>4. Increase monitoring frequency;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Discuss with the IEC, Contractor and ER on remedial measures required;<br>7. Assess the effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and<br>8. If exceedance stops, cease additional monitoring. | 1. Discuss amongst ET, ER and Contractor on the potential remedial actions; and<br>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. In consolidation with the EIC, agree with the Contractor on the remedial measures to be implemented;<br>4. Supervise the implementation of remedial measures; and<br>5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. | 1. Take immediate action to avoid further exceedance;<br>2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification;<br>3. Implement the agreed proposals;<br>4. Submit further proposal if problem still not under control; and<br>5. Stop the relevant portion of works as determined by ER, until the exceedance is abated. |

# 4. WATER QUALITY

4.1 As suggested in Section 4.3 of the EM&A Manual, regular site audit was carried out to ensure that the recommended mitigation measures were properly implemented during the construction phase of upgrading of Cheung Chau STW and Pak She SPS. Site audit included site inspections and compliance audits were conducted in the reporting period.

4.2 Site inspections were carried out by the ET on 2, 10, 16, 23, and 29 April 2024. No major deficiency was observed and the implementation of recommended for water pollution control was considered satisfactory.

4.3 Compliance audits were undertaken that a valid discharge license was issued by EPD on 20 August 2021. The Contractor was reminded to make sure any effluent discharge from construction activities of the Project site should meet the requirements stipulated in the discharge license and monitoring of the treated effluent quality from the Works Areas should be carried out in accordance with the Water Pollution Control Ordinance license that is under the ambit of the relevant regional EPD office.

4.4 According to the Specific Conditions B2 in Part B of the discharge licence issued under WPCO, a sample of discharge was taken on 8 April 2024 for testing. The test results were under the limitations of the requirements. The quality of the discharge compliant with the requirements of the discharge licence.

# 5. WASTE MANAGEMENT

5.1 The waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes, and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are presented in **Table 5.1**.

**Contract No: DC/2019/07**
**Outlying Islands Sewerage Stage 2 – Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities**

**Name of Department :** Drainage Services Department

**Contract No./ Work Order No. :** DC/2019/07
**Project Title:** Outlying Islands Sewerage Stage 2 – Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities
**Contractor:** Build King Civil Engineering Limited
**Trip Ticket Account (Main Account):** 7039094
**Trip Ticket Account (Vessel Account):** 7040870
**Marine Dumping Permit (Type 1 - Open Sea Disposal):** EP/MD/23-041
**Marine Dumping Permit (Type 2 - Confined Marine Disposal):** EP/MD/23-033

## Table 5.1 Monthly Summary Waste Flow Table for 2024 (in Weight)

(All quantities shall be rounded off to 3 decimal places) updated on: 02-May-2024

| Month | Actual Quantities of Inert C&D Materials Generated / Imported (in '000 kg) | | | | | | Actual Quantities of Other C&D Materials / Wastes Generated | | | | | Marine Dumping | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Quantities Generated [a+b+c+d+e+f+g+h+i] | Broken Concrete (including rock for recycling into aggregates) (a) | Reused in the Contract (b) | Reused in Other Projects (c) | Disposed as Public Fill (d) | Imported C&D Material | Metal (e) (in '000kg) | Paper/ Cardboard Packaging (f) (in '000kg) | Plastic (g) (bottles/containers, plastic sheets/ foams from package material) (in '000kg) | Chemical Waste (h) (in '000kg) | Others (i) (e.g. General Refuse etc.) (in '000kg) | Type 1 - Open Sea Disposal (in $m^3$) | Type 2 - Confined Marine Disposal (in $m^3$) |
| Jan-2024 | 1588.4400 | 0.0000 | 0.0000 | 0.0000 | 1563.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 25.4400 | 0.0000 | 0.0000 |
| Feb-2024 | 44.9600 | 0.0000 | 0.0000 | 0.0000 | 18.1200 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 26.8400 | 0.0000 | 0.0000 |
| Mar-2024 | 40.6700 | 0.0000 | 0.0000 | 0.0000 | 18.1100 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 22.5600 | 0.0000 | 0.0000 |
| Apr-2024 | 30.2400 | 0.0000 | 0.0000 | 0.0000 | 24.6400 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 5.6000 | 0.0000 | 0.0000 |
| May-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Jun-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Half-year total | 1704.3100 | 0.0000 | 0.0000 | 0.0000 | 1623.8700 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 80.4400 | 0.0000 | 0.0000 |
| Jul-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Aug-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Sep-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Oct-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Nov-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Dec-2024 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Yearly Total | 1704.3100 | 0.0000 | 0.0000 | 0.0000 | 1623.8700 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 80.4400 | 0.0000 | 0.0000 |

(All quantities shall be rounded off to 3 decimal places)

| Year | Actual Quantities of Inert C&D Materials Generated / Imported (in '000 kg) | | | | | | Actual Quantities of Other C&D Materials / Wastes Generated | | | | | Marine Dumping | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Quantities Generated [a+b+c+d+e+f+g+h+i] | Broken Concrete (including rock for recycling into aggregates) (a) | Reused in the Contract (b) | Reused in Other Projects (c) | Disposed as Public Fill (d) | Imported C&D Material | Metal (in '000kg) | Paper/ Cardboard Packaging (in '000kg) | Plastic (bottles/containers, plastic sheets/ foams from package material) (in '000kg) | Chemical Waste (in '000kg) | Others (e.g. General Refuse etc.) (in '000kg) | Type 1 - Open Sea Disposal (in $m^3$) | Type 2 - Confined Marine Disposal (in $m^3$) |
| 2020 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2021 | 858.3600 | 0.0000 | 0.0000 | 0.0000 | 786.3000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 72.0600 | 0.0000 | 0.0000 |
| 2022 | 17081.7200 | 0.0000 | 0.0000 | 0.0000 | 17032.3700 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 49.3500 | 525.0000 | 203.0000 |
| 2023 | 49757.9100 | 0.0000 | 0.0000 | 0.0000 | 49610.8700 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.2000 | 146.8400 | 835.0000 | 1350.0000 |
| 2024 | 1704.3100 | 0.0000 | 0.0000 | 0.0000 | 1623.8700 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 80.4400 | 0.0000 | 0.0000 |
| 2025 | 0.0000 | | | | | | | | | | | | |
| 2026 | 0.0000 | | | | | | | | | | | | |
| Total | 69402.3000 | 0.0000 | 0.0000 | 0.0000 | 69053.4100 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.2000 | 348.6900 | 1360.0000 | 1553.0000 |

Remark:

1) Density of C&D material to be 2 metric ton/m3
2) Density of General Refuse to be 1.6 metric ton/m3
3) Density of Chemical Waste to be 0.88 metric ton/m3

Notes:

(1) *The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Sites.*
(2) *Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.*
(3) *The summary table shall be submitted to the Project Manager monthly together with the Waste Flow Table for review and monitoring in accordance with the PS Clause 25.20(8)*

# 6. LANDSCAPE & VISUAL

6.1 The EIA Report has recommended landscape and visual mitigation measures to be undertaken during construction and operational phases of the upgrading of Cheung Chau STW under this Project. The implementation and maintenance of landscape mitigation measures were checked to ensure that they are fully realized and that potential conflicts between the proposed landscape measures and any other project works and without compromise to the intention of the mitigation measures.

6.2 Regular audits were carried out to ensure all the recommended landscape and visual mitigation measures were effectively implemented.

6.3 The EM&A Manual proposed mitigation measures were checked on a regular basis to ensure compliance with the intended aims of the EIA.

# 7. SITE INSPECTION AUDIT

7.1 Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out 2, 10, 16, 23, and 29 April 2024. A joint site inspection with IEC was carried out on 29 April 2024.

7.2 Environmental deficiencies were observed during weekly site inspections. Key observations during the site inspections and during the reporting period are summarized in **Table 7.1**.

**Table 7.1 Site Observations**

| Date | Environmental Observations | Follow-up Status | Reminders |
|---|---|---|---|
| 2 April 2024 | NIL | N.A. | NIL |
| 10 April 2024 | NIL | N.A. | NIL |
| 16 April 2024 | NIL | N.A. | NIL |
| 23 April 2024 | NIL | N.A. | NIL |
| 29 April 2024 | NIL | N.A. | NIL |

7.3 According to the EIA Study Report, Environmental Permit, contract documents and EM&A Manual, the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix G**.

# 8. ENVIRONMENTAL NON-CONFORMANCE

## 8.1. SUMMARY OF EXCEEDANCES

8.1.1 No exceedance of Action and Limit Levels of air quality and construction noise was recorded in the reporting month.

## 8.2. Summary of Environmental Complaint

8.2.1 No environmental complaint was recorded in the reporting month.

## 8.3. SUMMARY OF ENVIRONMENTAL SUMMON AND SUCCESSFUL PROSECUTION

8.3.1 There was no successful environmental prosecution or notification of summons received since the Project commencement.

# 9. CONCLUSION

9.1 This is the 33rd Monthly EM&A Report for the Project which summarizes the key findings of the programme during the reporting period from 1 April to 30 April 2024 in accordance with the EM&A Manual and the requirement under EP-488/2014/A.

9.2 Five (5) sessions of air and five (5) sessions of noise monitoring were carried out at the monitoring locations sited at Cheung Chau in the reporting month.

9.3 Site audits were conducted as mitigation measures recommended for water pollution control and landscape and visual impact monitoring in the reporting period. Proper mitigation measures were implemented.

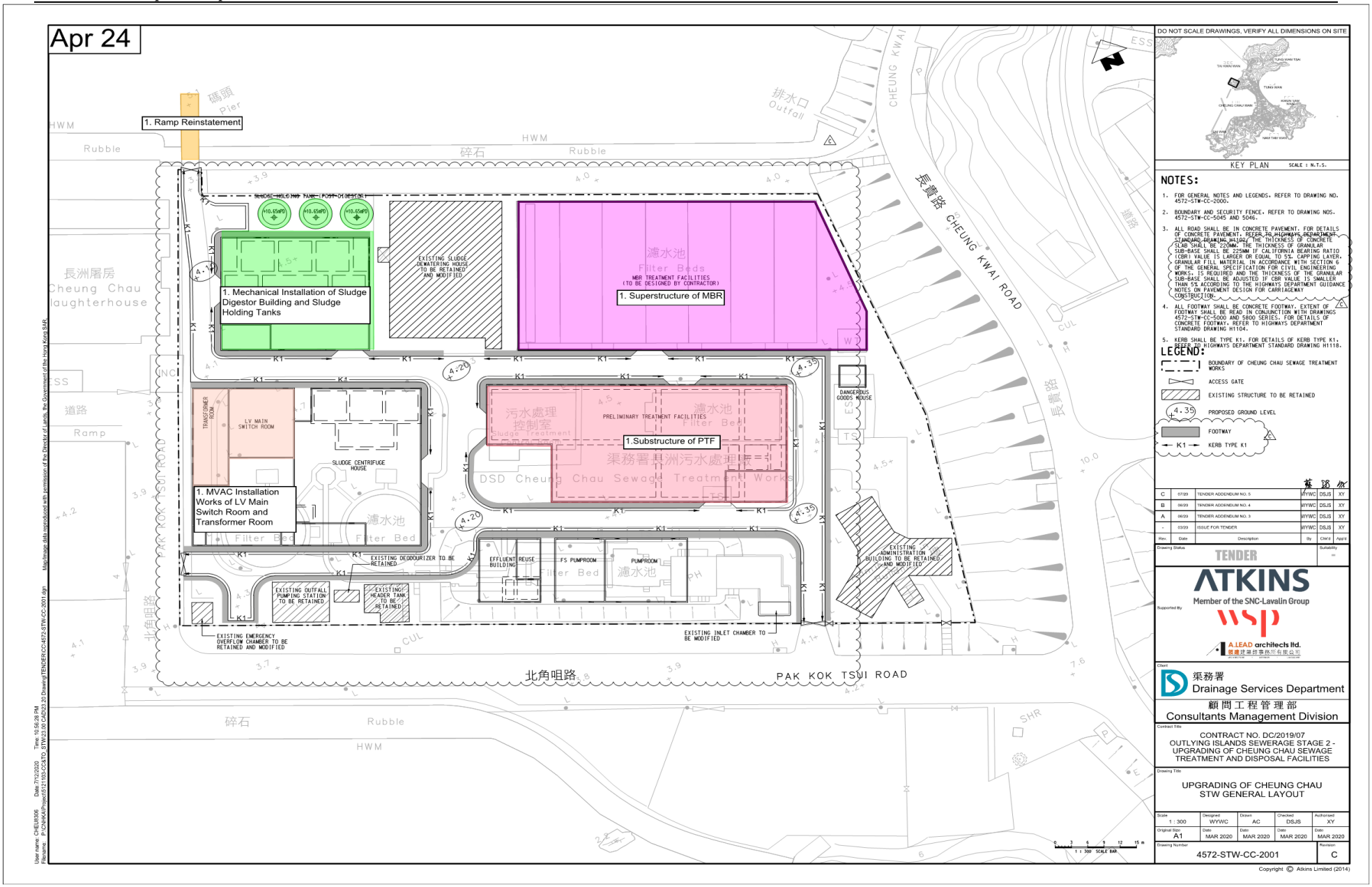
9.4 Weekly environmental site inspections were conducted during the reporting period. Only minor deficiencies were observed during site inspections. The environmental performance of the project was therefore considered satisfactory.

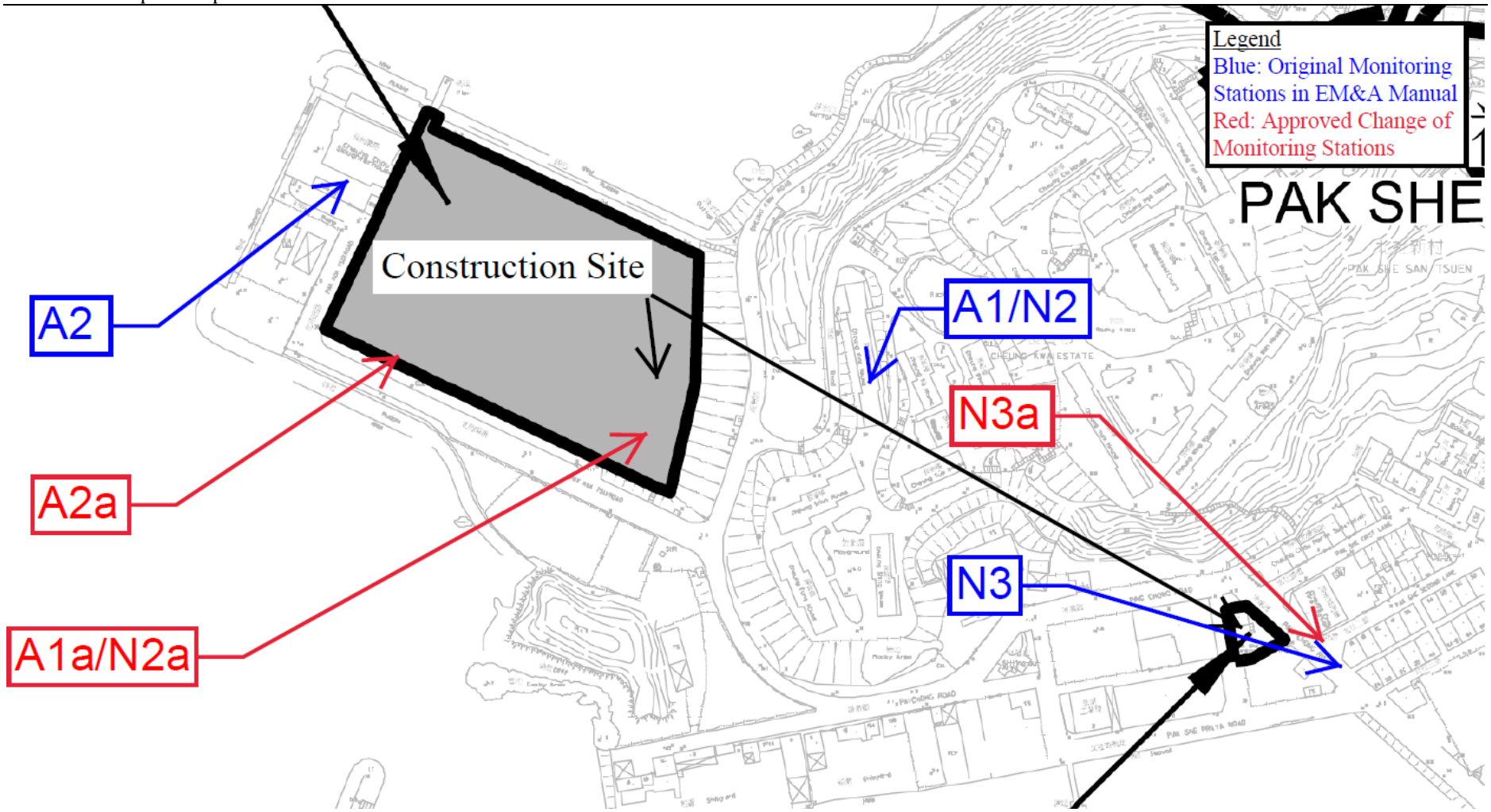
9.5 No exceedance of Action or Limit Level was recorded in the reporting period.

9.6 No environmental complaint was received in the reporting period.

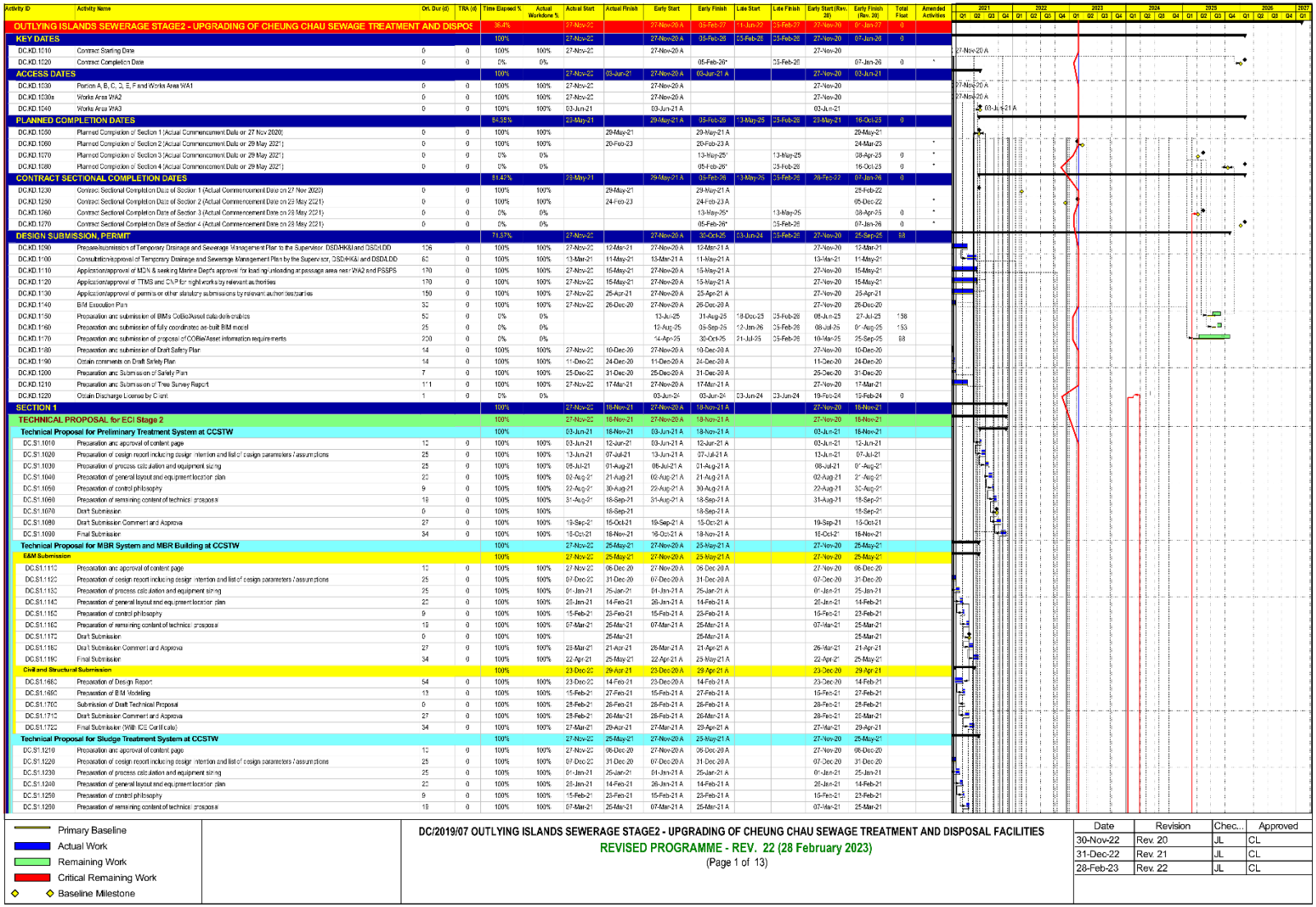
9.7 No notification of summons or prosecution was received during the reporting period.

# APPENDIX A
# Location Plan and Noise and Dust Monitoring Stations


Apr 24
1. Ramp Reinstatement
1. Mechanical Installation of Sludge Digestor Building and Sludge Holding Tanks
EXISTING SLUDGE DEWATERING HOUSE TO BE RETAINED AND MODIFIED
1. Superstructure of MBR
1. MVAC Installation Works of LV Main Switch Room and Transformer Room
1.Substructure of PTF
EXISTING DEODORIZER TO BE RETAINED
EXISTING OUTFALL PUMPING STATION TO BE RETAINED
EXISTING HEADER TANK TO BE RETAINED
EXISTING EMERGENCY OVERFLOW CHAMBER TO BE RETAINED AND MODIFIED
EXISTING INLET CHAMBER TO BE MODIFIED
EXISTING ADMINISTRATION BUILDING TO BE RETAINED AND MODIFIED
DANGEROUS GOODS HOUSE
CHEUNG KWAI ROAD
PAK KOK TSUI ROAD
北角咀路
DO NOT SCALE DRAWINGS, VERIFY ALL DIMENSIONS ON SITE
KEY PLAN
NOTES:
LEGEND:
TENDER
ATKINS
Member of the SNC-Lavalin Group
wsp
A.LEAD architects ltd.
渠務署
Drainage Services Department
顧問工程管理部
Consultants Management Division
CONTRACT NO. DC/2019/07
OUTLYING ISLANDS SEWERAGE STAGE 2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
UPGRADING OF CHEUNG CHAU STW GENERAL LAYOUT
4572-STW-CC-2001
C
Copyright © Atkins Limited (2014)



# APPENDIX B
# Construction Programme

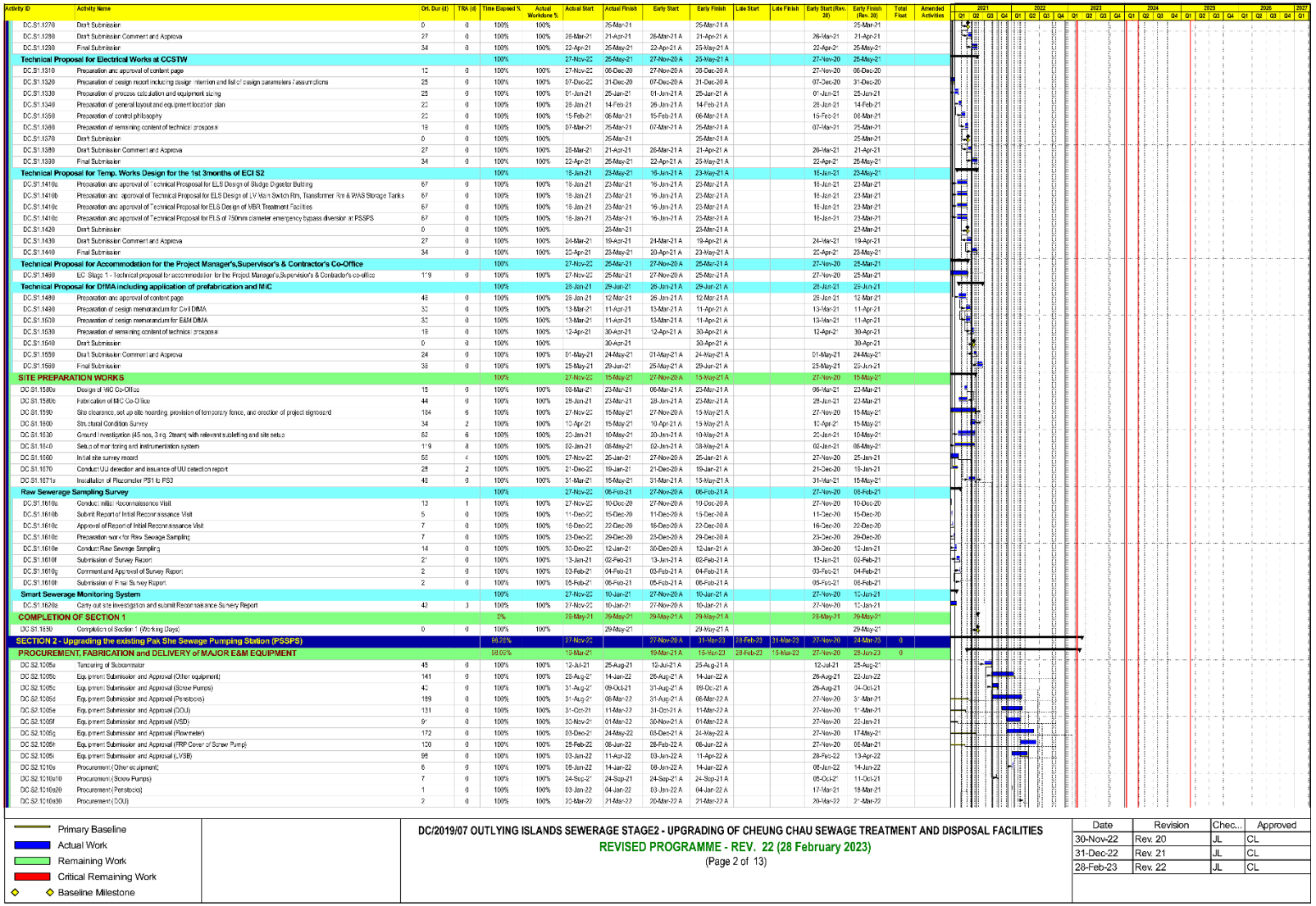


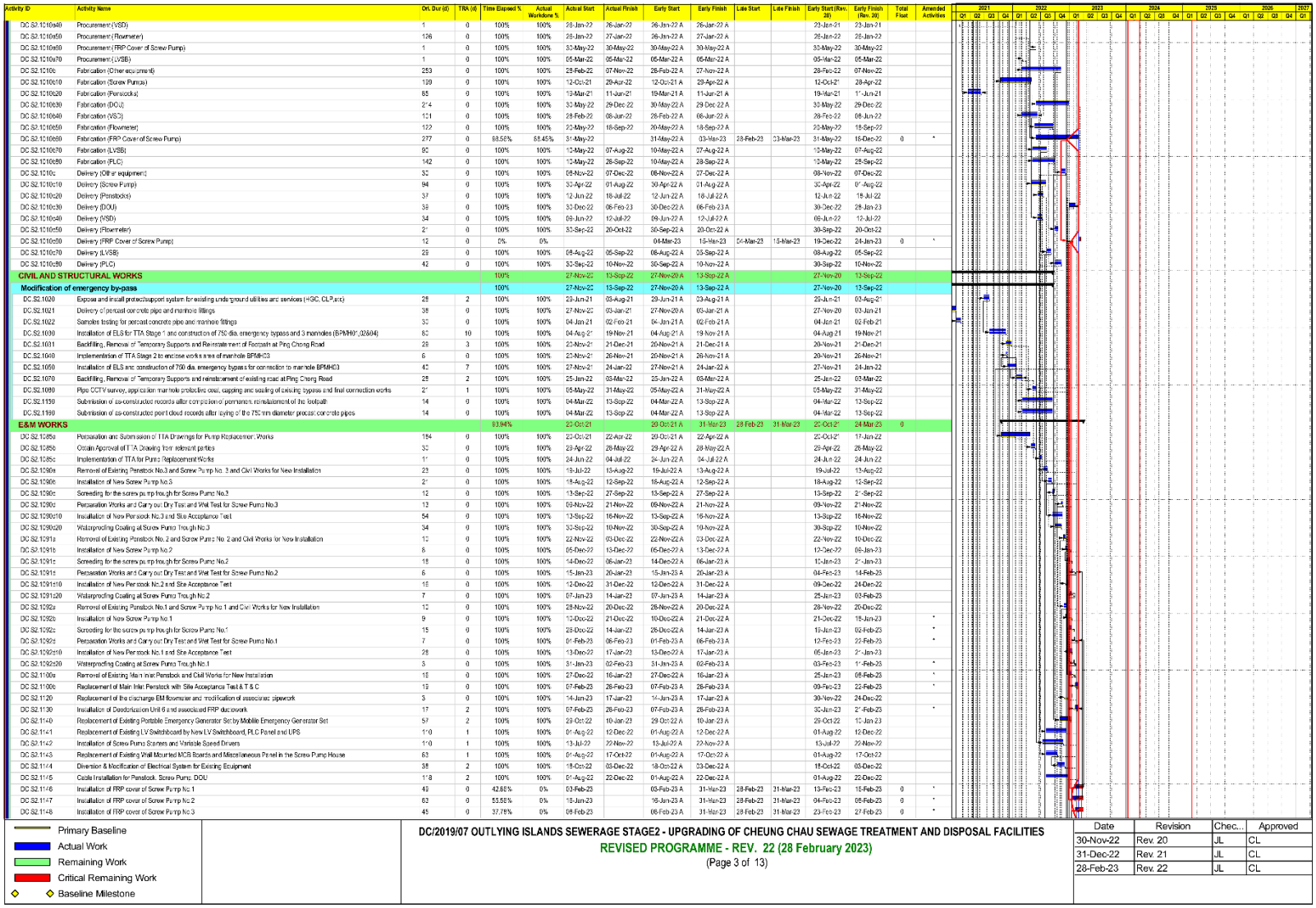
| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 28) | Early Finish (Rev. 28) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOS | | | | 36.4% | | 27-Nov-20 | | 27-Nov-20 A | 05-Feb-27 | 11-Jun-22 | 05-Feb-27 | 27-Nov-20 | 01-Jan-27 | 0 | |
| KEY DATES | | | | 100% | | 27-Nov-20 | | 27-Nov-20 A | 05-Feb-26 | 05-Feb-26 | 05-Feb-26 | 27-Nov-20 | 07-Jan-26 | 0 | |
| DC.KD.1010 | Contract Starting Date | 0 | 0 | 100% | 100% | 27-Nov-20 | | 27-Nov-20 A | | | | 27-Nov-20 | | | |
| DC.KD.1020 | Contract Completion Date | 0 | 0 | 0% | 0% | | | 05-Feb-26* | | | 05-Feb-26 | | 07-Jan-26 | 0 | * |
| ACCESS DATES | | | | 100% | | 27-Nov-20 | 03-Jun-21 | 27-Nov-20 A | 03-Jun-21 A | | | 27-Nov-20 | 03-Jun-21 | | |
| DC.KD.1030 | Portion A, B, C, D, E, F and Works Area WA1 | 0 | 0 | 100% | 100% | 27-Nov-20 | | 27-Nov-20 A | | | | 27-Nov-20 | | | |
| DC.KD.1030a | Works Area WA2 | 0 | 0 | 100% | 100% | 27-Nov-20 | | 27-Nov-20 A | | | | 27-Nov-20 | | | |
| DC.KD.1040 | Works Area WA3 | 0 | 0 | 100% | 100% | 03-Jun-21 | | 03-Jun-21 A | | | | 03-Jun-21 | | | |
| PLANNED COMPLETION DATES | | | | 84.35% | | 29-May-21 | | 29-May-21 A | 05-Feb-26 | 13-May-25 | 25-Feb-26 | 29-May-21 | 16-Oct-25 | 0 | |
| DC.KD.1050 | Planned Completion of Section 1 (Actual Commencement Date on 27 Nov 2020) | 0 | 0 | 100% | 100% | 29-May-21 | | 29-May-21 A | | | | 29-May-21 | | | |
| DC.KD.1060 | Planned Completion of Section 2 (Actual Commencement Date on 29 May 2021) | 0 | 0 | 100% | 100% | 20-Feb-23 | | 20-Feb-23 A | | | | 24-Mar-23 | | | * |
| DC.KD.1070 | Planned Completion of Section 3 (Actual Commencement Date on 29 May 2021) | 0 | 0 | 0% | 0% | | | 13-May-25* | | 13-May-25 | | 09-Apr-25 | | 0 | * |
| DC.KD.1080 | Planned Completion of Section 4 (Actual Commencement Date on 29 May 2021) | 0 | 0 | 0% | 0% | | | 05-Feb-26* | | 05-Feb-26 | | 16-Oct-25 | | 0 | * |
| CONTRACT SECTIONAL COMPLETION DATES | | | | 81.47% | | 29-May-21 | | 29-May-21 A | 05-Feb-26 | 13-May-25 | 25-Feb-26 | 28-Feb-22 | 07-Jan-26 | 0 | |
| DC.KD.1230 | Contract Sectional Completion Date of Section 1 (Actual Commencement Date on 27 Nov 2020) | 0 | 0 | 100% | 100% | 29-May-21 | | 29-May-21 A | | | | 28-Feb-22 | | | |
| DC.KD.1250 | Contract Sectional Completion Date of Section 2 (Actual Commencement Date on 29 May 2021) | 0 | 0 | 100% | 100% | 24-Feb-23 | | 24-Feb-23 A | | | | 05-Dec-22 | | | * |
| DC.KD.1260 | Contract Sectional Completion Date of Section 3 (Actual Commencement Date on 29 May 2021) | 0 | 0 | 0% | 0% | | | 13-May-25* | | 13-May-25 | | 09-Apr-25 | | 0 | * |
| DC.KD.1270 | Contract Sectional Completion Date of Section 4 (Actual Commencement Date on 29 May 2021) | 0 | 0 | 0% | 0% | | | 05-Feb-26* | | 05-Feb-26 | | 07-Jan-26 | | 0 | * |
| DESIGN SUBMISSION, PERMIT | | | | 71.37% | | 27-Nov-20 | | 27-Nov-20 A | 30-Oct-25 | 03-Jun-24 | 25-Feb-26 | 27-Nov-20 | 25-Sep-25 | 88 | |
| DC.KD.1090 | Preparation/submission of Temporary Drainage and Sewerage Management Plan to the Supervisor, DSD/HK&I and DSD/LDD | 126 | 0 | 100% | 100% | 27-Nov-20 | 12-Mar-21 | 27-Nov-20 A | 12-Mar-21 A | | | 27-Nov-20 | 12-Mar-21 | | |
| DC.KD.1100 | Consultation/approval of Temporary Drainage and Sewerage Management Plan by the Supervisor, DSD/HK&I and DSD/LDD | 60 | 0 | 100% | 100% | 13-Mar-21 | 11-May-21 | 13-Mar-21 A | 11-May-21 A | | | 13-Mar-21 | 11-May-21 | | |
| DC.KD.1110 | Application/approval of MDN & seeking Marine Dept's approval for loading/unloading at passage area near WA2 and PSSPS | 170 | 0 | 100% | 100% | 27-Nov-20 | 15-May-21 | 27-Nov-20 A | 15-May-21 A | | | 27-Nov-20 | 15-May-21 | | |
| DC.KD.1120 | Application/approval of TTMS and CNP for night works by relevant authorities | 170 | 0 | 100% | 100% | 27-Nov-20 | 15-May-21 | 27-Nov-20 A | 15-May-21 A | | | 27-Nov-20 | 15-May-21 | | |
| DC.KD.1130 | Application/approval of permits or other statutory submissions by relevant authorities/parties | 150 | 0 | 100% | 100% | 27-Nov-20 | 25-Apr-21 | 27-Nov-20 A | 25-Apr-21 A | | | 27-Nov-20 | 25-Apr-21 | | |
| DC.KD.1140 | BIM Execution Plan | 30 | 0 | 100% | 100% | 27-Nov-20 | 26-Dec-20 | 27-Nov-20 A | 26-Dec-20 A | | | 27-Nov-20 | 26-Dec-20 | | |
| DC.KD.1150 | Preparation and submission of BIMs CoBie/Asset data deliverables | 50 | 0 | 0% | 0% | | | 13-Jul-25 | 31-Aug-25 | 18-Dec-25 | 25-Feb-26 | 08-Jul-25 | 27-Jul-25 | 138 | |
| DC.KD.1160 | Preparation and submission of fully coordinated as-built BIM model | 25 | 0 | 0% | 0% | | | 12-Aug-25 | 05-Sep-25 | 12-Jan-26 | 25-Feb-26 | 08-Jul-25 | 01-Aug-25 | 153 | |
| DC.KD.1170 | Preparation and submission of proposal of COBie/Asset information requirements | 200 | 0 | 0% | 0% | | | 14-Apr-25 | 30-Oct-25 | 21-Jul-25 | 25-Feb-26 | 10-Mar-25 | 25-Sep-25 | 88 | |
| DC.KD.1180 | Preparation and submission of Draft Safety Plan | 14 | 0 | 100% | 100% | 27-Nov-20 | 10-Dec-20 | 27-Nov-20 A | 10-Dec-20 A | | | 27-Nov-20 | 10-Dec-20 | | |
| DC.KD.1190 | Obtain comments on Draft Safety Plan | 14 | 0 | 100% | 100% | 11-Dec-20 | 24-Dec-20 | 11-Dec-20 A | 24-Dec-20 A | | | 11-Dec-20 | 24-Dec-20 | | |
| DC.KD.1200 | Preparation and Submission of Safety Plan | 7 | 0 | 100% | 100% | 25-Dec-20 | 31-Dec-20 | 25-Dec-20 A | 31-Dec-20 A | | | 25-Dec-20 | 31-Dec-20 | | |
| DC.KD.1210 | Preparation and Submission of Tree Survey Report | 111 | 0 | 100% | 100% | 27-Nov-20 | 17-Mar-21 | 27-Nov-20 A | 17-Mar-21 A | | | 27-Nov-20 | 17-Mar-21 | | |
| DC.KD.1220 | Obtain Discharge License by Client | 1 | 0 | 0% | 0% | | | 03-Jun-24 | 03-Jun-24 | 23-Jun-24 | 23-Jun-24 | 19-Feb-24 | 19-Feb-24 | 0 | |
| SECTION 1 | | | | 100% | | 27-Nov-20 | 18-Nov-21 | 27-Nov-20 A | 18-Nov-21 A | | | 27-Nov-20 | 18-Nov-21 | | |
| TECHNICAL PROPOSAL for EC Stage 2 | | | | 100% | | 27-Nov-20 | 18-Nov-21 | 27-Nov-20 A | 18-Nov-21 A | | | 27-Nov-20 | 18-Nov-21 | | |
| Technical Proposal for Preliminary Treatment System at CCSTW | | | | 100% | | 03-Jun-21 | 18-Nov-21 | 03-Jun-21 A | 18-Nov-21 A | | | 03-Jun-21 | 18-Nov-21 | | |
| DC.S1.1010 | Preparation and approval of content page | 10 | 0 | 100% | 100% | 03-Jun-21 | 12-Jun-21 | 03-Jun-21 A | 12-Jun-21 A | | | 03-Jun-21 | 12-Jun-21 | | |
| DC.S1.1020 | Preparation of design report including design intention and list of design parameters / assumptions | 25 | 0 | 100% | 100% | 13-Jun-21 | 07-Jul-21 | 13-Jun-21 A | 07-Jul-21 A | | | 13-Jun-21 | 07-Jul-21 | | |
| DC.S1.1030 | Preparation of process calculation and equipment sizing | 25 | 0 | 100% | 100% | 08-Jul-21 | 01-Aug-21 | 08-Jul-21 A | 01-Aug-21 A | | | 08-Jul-21 | 01-Aug-21 | | |
| DC.S1.1040 | Preparation of general layout and equipment location plan | 22 | 0 | 100% | 100% | 02-Aug-21 | 21-Aug-21 | 02-Aug-21 A | 21-Aug-21 A | | | 02-Aug-21 | 21-Aug-21 | | |
| DC.S1.1050 | Preparation of control philosophy | 9 | 0 | 100% | 100% | 22-Aug-21 | 30-Aug-21 | 22-Aug-21 A | 30-Aug-21 A | | | 22-Aug-21 | 30-Aug-21 | | |
| DC.S1.1060 | Preparation of remaining content of technical proposal | 18 | 0 | 100% | 100% | 31-Aug-21 | 18-Sep-21 | 31-Aug-21 A | 18-Sep-21 A | | | 31-Aug-21 | 18-Sep-21 | | |
| DC.S1.1070 | Draft Submission | 0 | 0 | 100% | 100% | | 18-Sep-21 | | 18-Sep-21 A | | | | 18-Sep-21 | | |
| DC.S1.1080 | Draft Submission Comment and Approval | 27 | 0 | 100% | 100% | 19-Sep-21 | 15-Oct-21 | 19-Sep-21 A | 15-Oct-21 A | | | 19-Sep-21 | 15-Oct-21 | | |
| DC.S1.1090 | Final Submission | 34 | 0 | 100% | 100% | 18-Oct-21 | 18-Nov-21 | 18-Oct-21 A | 18-Nov-21 A | | | 18-Oct-21 | 18-Nov-21 | | |
| Technical Proposal for MBR System and MBR Building at CCSTW | | | | 100% | | 27-Nov-20 | 25-May-21 | 27-Nov-20 A | 25-May-21 A | | | 27-Nov-20 | 25-May-21 | | |
| E&M Submission | | | | 100% | | 27-Nov-20 | 25-May-21 | 27-Nov-20 A | 25-May-21 A | | | 27-Nov-20 | 25-May-21 | | |
| DC.S1.1110 | Preparation and approval of content page | 10 | 0 | 100% | 100% | 27-Nov-20 | 06-Dec-20 | 27-Nov-20 A | 06-Dec-20 A | | | 27-Nov-20 | 06-Dec-20 | | |
| DC.S1.1120 | Preparation of design report including design intention and list of design parameters / assumptions | 25 | 0 | 100% | 100% | 07-Dec-20 | 31-Dec-20 | 07-Dec-20 A | 31-Dec-20 A | | | 07-Dec-20 | 31-Dec-20 | | |
| DC.S1.1130 | Preparation of process calculation and equipment sizing | 25 | 0 | 100% | 100% | 01-Jan-21 | 25-Jan-21 | 01-Jan-21 A | 25-Jan-21 A | | | 01-Jan-21 | 25-Jan-21 | | |
| DC.S1.1140 | Preparation of general layout and equipment location plan | 22 | 0 | 100% | 100% | 26-Jan-21 | 14-Feb-21 | 26-Jan-21 A | 14-Feb-21 A | | | 26-Jan-21 | 14-Feb-21 | | |
| DC.S1.1150 | Preparation of control philosophy | 9 | 0 | 100% | 100% | 15-Feb-21 | 23-Feb-21 | 15-Feb-21 A | 23-Feb-21 A | | | 15-Feb-21 | 23-Feb-21 | | |
| DC.S1.1160 | Preparation of remaining content of technical proposal | 18 | 0 | 100% | 100% | 07-Mar-21 | 25-Mar-21 | 07-Mar-21 A | 25-Mar-21 A | | | 07-Mar-21 | 25-Mar-21 | | |
| DC.S1.1170 | Draft Submission | 0 | 0 | 100% | 100% | | 25-Mar-21 | | 25-Mar-21 A | | | | 25-Mar-21 | | |
| DC.S1.1180 | Draft Submission Comment and Approval | 27 | 0 | 100% | 100% | 26-Mar-21 | 21-Apr-21 | 26-Mar-21 A | 21-Apr-21 A | | | 26-Mar-21 | 21-Apr-21 | | |
| DC.S1.1190 | Final Submission | 34 | 0 | 100% | 100% | 22-Apr-21 | 25-May-21 | 22-Apr-21 A | 25-May-21 A | | | 22-Apr-21 | 25-May-21 | | |
| Civil and Structural Submission | | | | 100% | | 23-Dec-20 | 29-Apr-21 | 23-Dec-20 A | 29-Apr-21 A | | | 23-Dec-20 | 29-Apr-21 | | |
| DC.S1.1660 | Preparation of Design Report | 54 | 0 | 100% | 100% | 23-Dec-20 | 14-Feb-21 | 23-Dec-20 A | 14-Feb-21 A | | | 23-Dec-20 | 14-Feb-21 | | |
| DC.S1.1690 | Preparation of BIM Modeling | 13 | 0 | 100% | 100% | 15-Feb-21 | 27-Feb-21 | 15-Feb-21 A | 27-Feb-21 A | | | 15-Feb-21 | 27-Feb-21 | | |
| DC.S1.1700 | Submission of Draft Technical Proposal | 0 | 0 | 100% | 100% | 28-Feb-21 | 28-Feb-21 | 28-Feb-21 A | 28-Feb-21 A | | | 28-Feb-21 | 28-Feb-21 | | |
| DC.S1.1710 | Draft Submission Comment and Approval | 27 | 0 | 100% | 100% | 28-Feb-21 | 26-Mar-21 | 28-Feb-21 A | 26-Mar-21 A | | | 28-Feb-21 | 25-Mar-21 | | |
| DC.S1.1720 | Final Submission (With ICE Certificate) | 34 | 0 | 100% | 100% | 27-Mar-21 | 29-Apr-21 | 27-Mar-21 A | 29-Apr-21 A | | | 27-Mar-21 | 29-Apr-21 | | |
| Technical Proposal for Sludge Treatment System at CCSTW | | | | 100% | | 27-Nov-20 | 25-May-21 | 27-Nov-20 A | 25-May-21 A | | | 27-Nov-20 | 25-May-21 | | |
| DC.S1.1210 | Preparation and approval of content page | 10 | 0 | 100% | 100% | 27-Nov-20 | 06-Dec-20 | 27-Nov-20 A | 06-Dec-20 A | | | 27-Nov-20 | 06-Dec-20 | | |
| DC.S1.1220 | Preparation of design report including design intention and list of design parameters / assumptions | 25 | 0 | 100% | 100% | 07-Dec-20 | 31-Dec-20 | 07-Dec-20 A | 31-Dec-20 A | | | 07-Dec-20 | 31-Dec-20 | | |
| DC.S1.1230 | Preparation of process calculation and equipment sizing | 25 | 0 | 100% | 100% | 01-Jan-21 | 25-Jan-21 | 01-Jan-21 A | 25-Jan-21 A | | | 01-Jan-21 | 25-Jan-21 | | |
| DC.S1.1240 | Preparation of general layout and equipment location plan | 22 | 0 | 100% | 100% | 26-Jan-21 | 14-Feb-21 | 26-Jan-21 A | 14-Feb-21 A | | | 26-Jan-21 | 14-Feb-21 | | |
| DC.S1.1250 | Preparation of control philosophy | 9 | 0 | 100% | 100% | 15-Feb-21 | 23-Feb-21 | 15-Feb-21 A | 23-Feb-21 A | | | 15-Feb-21 | 23-Feb-21 | | |
| DC.S1.1260 | Preparation of remaining content of technical proposal | 18 | 0 | 100% | 100% | 07-Mar-21 | 25-Mar-21 | 07-Mar-21 A | 25-Mar-21 A | | | 07-Mar-21 | 25-Mar-21 | | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 1 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |



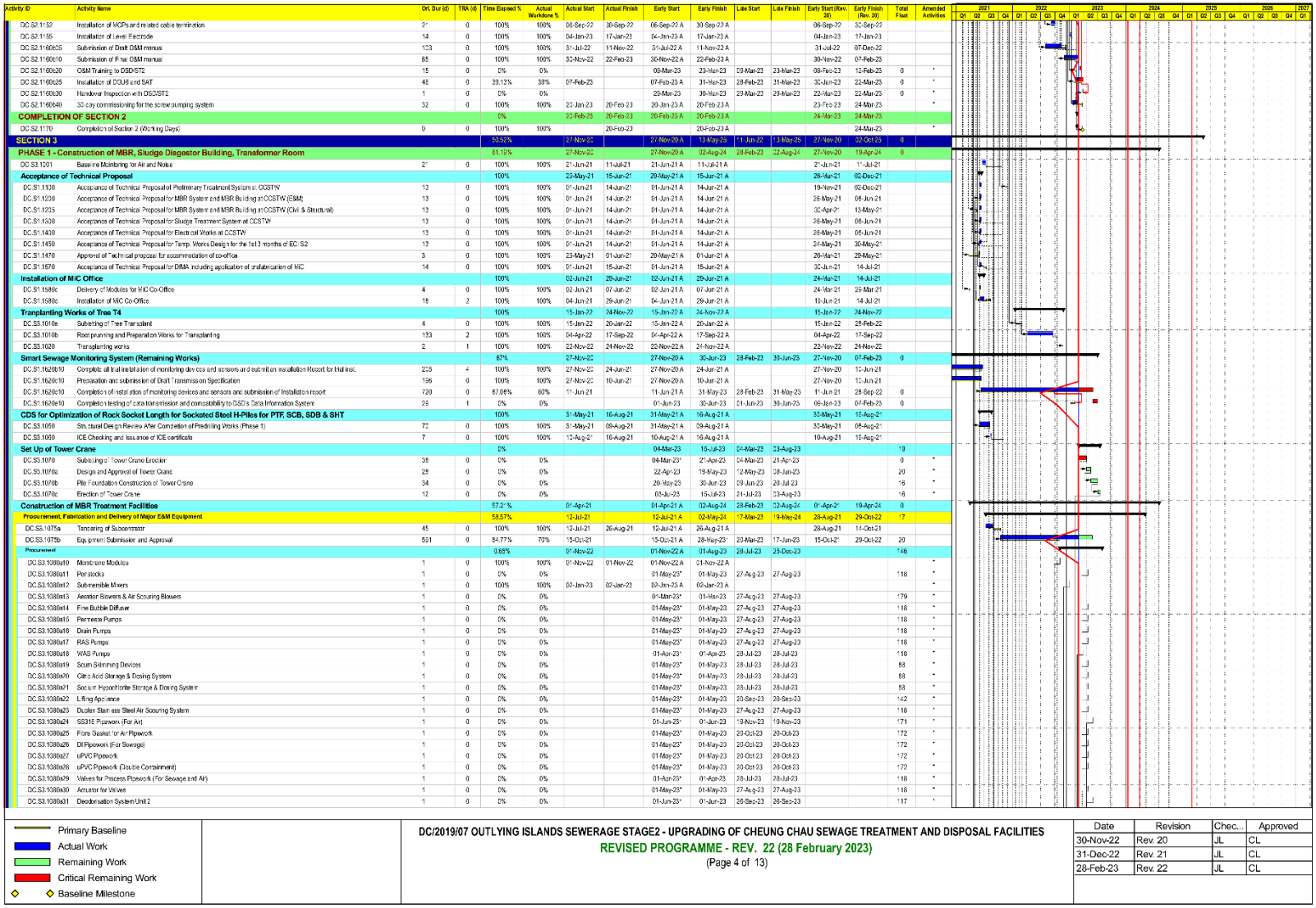


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 28) | Early Finish (Rev. 28) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S2.1010s40 | Procurement (VSD) | 1 | 0 | 100% | 100% | 26-Jan-22 | 26-Jan-22 | 26-Jan-22 A | 26-Jan-22 A | | | 23-Jan-21 | 23-Jan-21 | | |
| DC.S2.1010s50 | Procurement (Flowmeter) | 126 | 0 | 100% | 100% | 26-Jan-22 | 27-Jan-22 | 26-Jan-22 A | 27-Jan-22 A | | | 26-Jan-22 | 26-Jan-22 | | |
| DC.S2.1010s60 | Procurement (FRP Cover of Screw Pump) | 1 | 0 | 100% | 100% | 30-May-22 | 30-May-22 | 30-May-22 A | 30-May-22 A | | | 30-May-22 | 30-May-22 | | |
| DC.S2.1010s70 | Procurement (LVSB) | 1 | 0 | 100% | 100% | 05-Mar-22 | 05-Mar-22 | 05-Mar-22 A | 05-Mar-22 A | | | 05-Mar-22 | 05-Mar-22 | | |
| DC.S2.1010c | Fabrication (Other equipment) | 253 | 0 | 100% | 100% | 28-Feb-22 | 07-Nov-22 | 28-Feb-22 A | 27-Nov-22 A | | | 28-Feb-22 | 07-Nov-22 | | |
| DC.S2.1010c10 | Fabrication (Screw Pumps) | 129 | 0 | 100% | 100% | 12-Oct-21 | 29-Apr-22 | 12-Oct-21 A | 29-Apr-22 A | | | 12-Oct-21 | 28-Apr-22 | | |
| DC.S2.1010c20 | Fabrication (Penstocks) | 65 | 0 | 100% | 100% | 19-Mar-21 | 11-Jun-21 | 19-Mar-21 A | 11-Jun-21 A | | | 19-Mar-21 | 11-Jun-21 | | |
| DC.S2.1010c30 | Fabrication (DOU) | 214 | 0 | 100% | 100% | 30-May-22 | 29-Dec-22 | 30-May-22 A | 29-Dec-22 A | | | 30-May-22 | 29-Dec-22 | | |
| DC.S2.1010c40 | Fabrication (VSD) | 121 | 0 | 100% | 100% | 28-Feb-22 | 08-Jun-22 | 28-Feb-22 A | 08-Jun-22 A | | | 28-Feb-22 | 08-Jun-22 | | |
| DC.S2.1010c50 | Fabrication (Flowmeter) | 122 | 0 | 100% | 100% | 20-May-22 | 18-Sep-22 | 20-May-22 A | 18-Sep-22 A | | | 20-May-22 | 18-Sep-22 | | |
| DC.S2.1010c60 | Fabrication (FRP Cover of Screw Pump) | 277 | 0 | 68.56% | 68.45% | 31-May-22 | | 31-May-22 A | 03-Mar-23 | 28-Feb-23 | 03-Mar-23 | 31-May-22 | 16-Dec-22 | 0 | * |
| DC.S2.1010c70 | Fabrication (LVSB) | 92 | 0 | 100% | 100% | 10-May-22 | 07-Aug-22 | 10-May-22 A | 07-Aug-22 A | | | 10-May-22 | 07-Aug-22 | | |
| DC.S2.1010c80 | Fabrication (PLC) | 142 | 0 | 100% | 100% | 10-May-22 | 26-Sep-22 | 10-May-22 A | 26-Sep-22 A | | | 10-May-22 | 26-Sep-22 | | |
| DC.S2.1010c | Delivery (Other equipment) | 32 | 0 | 100% | 100% | 08-Nov-22 | 07-Dec-22 | 08-Nov-22 A | 07-Dec-22 A | | | 08-Nov-22 | 07-Dec-22 | | |
| DC.S2.1010c10 | Delivery (Screw Pump) | 94 | 0 | 100% | 100% | 30-Apr-22 | 01-Aug-22 | 30-Apr-22 A | 01-Aug-22 A | | | 30-Apr-22 | 01-Aug-22 | | |
| DC.S2.1010c20 | Delivery (Penstocks) | 37 | 0 | 100% | 100% | 12-Jun-22 | 18-Jul-22 | 12-Jun-22 A | 18-Jul-22 A | | | 12-Jun-22 | 18-Jul-22 | | |
| DC.S2.1010c30 | Delivery (DOU) | 38 | 0 | 100% | 100% | 30-Dec-22 | 06-Feb-23 | 30-Dec-22 A | 06-Feb-23 A | | | 30-Dec-22 | 28-Jan-23 | | |
| DC.S2.1010c40 | Delivery (VSD) | 34 | 0 | 100% | 100% | 09-Jun-22 | 12-Jul-22 | 09-Jun-22 A | 12-Jul-22 A | | | 09-Jun-22 | 12-Jul-22 | | |
| DC.S2.1010c50 | Delivery (Flowmeter) | 21 | 0 | 100% | 100% | 30-Sep-22 | 20-Oct-22 | 30-Sep-22 A | 20-Oct-22 A | | | 30-Sep-22 | 20-Oct-22 | | |
| DC.S2.1010c60 | Delivery (FRP Cover of Screw Pump) | 12 | 0 | 0% | 0% | | | 04-Mar-23 | 15-Mar-23 | 04-Mar-23 | 15-Mar-23 | 19-Dec-22 | 24-Jan-23 | 0 | * |
| DC.S2.1010c70 | Delivery (LVSB) | 28 | 0 | 100% | 100% | 08-Aug-22 | 05-Sep-22 | 08-Aug-22 A | 05-Sep-22 A | | | 08-Aug-22 | 05-Sep-22 | | |
| DC.S2.1010c80 | Delivery (PLC) | 42 | 0 | 100% | 100% | 30-Sep-22 | 10-Nov-22 | 30-Sep-22 A | 10-Nov-22 A | | | 30-Sep-22 | 10-Nov-22 | | |
| **CIVIL AND STRUCTURAL WORKS** | | | | 100% | | 27-Nov-20 | 13-Sep-22 | 27-Nov-20 A | 13-Sep-22 A | | | 27-Nov-20 | 13-Sep-22 | | |
| **Modification of emergency by-pass** | | | | 100% | | 27-Nov-20 | 13-Sep-22 | 27-Nov-20 A | 13-Sep-22 A | | | 27-Nov-20 | 13-Sep-22 | | |
| DC.S2.1020 | Expose and install protect/support system for existing underground utilities and services (HGC, CLP,etc) | 28 | 2 | 100% | 100% | 29-Jun-21 | 03-Aug-21 | 29-Jun-21 A | 03-Aug-21 A | | | 29-Jun-21 | 02-Aug-21 | | |
| DC.S2.1021 | Delivery of precast concrete pipe and manhole fittings | 38 | 0 | 100% | 100% | 27-Nov-20 | 03-Jan-21 | 27-Nov-20 A | 03-Jan-21 A | | | 27-Nov-20 | 03-Jun-21 | | |
| DC.S2.1022 | Samples testing for precast concrete pipe and manhole fittings | 30 | 0 | 100% | 100% | 04-Jan-21 | 02-Feb-21 | 04-Jan-21 A | 02-Feb-21 A | | | 04-Jan-21 | 02-Feb-21 | | |
| DC.S2.1030 | Installation of ELS for TTA Stage 1 and construction of 750 dia. emergency bypass and 3 manholes (BPMH01,02&04) | 80 | 10 | 100% | 100% | 04-Aug-21 | 19-Nov-21 | 04-Aug-21 A | 19-Nov-21 A | | | 04-Aug-21 | 19-Nov-21 | | |
| DC.S2.1031 | Backfilling, Removal of Temporary Supports and Reinstatement of Footpath at Ping Chong Road | 28 | 3 | 100% | 100% | 20-Nov-21 | 21-Dec-21 | 20-Nov-21 A | 21-Dec-21 A | | | 20-Nov-21 | 21-Dec-21 | | |
| DC.S2.1040 | Implementation of TTA Stage 2 to enclose works area of manhole BPMH03 | 6 | 0 | 100% | 100% | 20-Nov-21 | 26-Nov-21 | 20-Nov-21 A | 26-Nov-21 A | | | 20-Nov-21 | 26-Nov-21 | | |
| DC.S2.1050 | Installation of ELS and construction of 750 dia. emergency bypass for connection to manhole BPMH03 | 42 | 7 | 100% | 100% | 27-Nov-21 | 24-Jan-22 | 27-Nov-21 A | 24-Jan-22 A | | | 27-Nov-21 | 24-Jan-22 | | |
| DC.S2.1070 | Backfilling, Removal of Temporary Supports and reinstatement of existing road at Ping Chong Road | 28 | 2 | 100% | 100% | 25-Jan-22 | 03-Mar-22 | 25-Jan-22 A | 03-Mar-22 A | | | 25-Jan-22 | 03-Mar-22 | | |
| DC.S2.1080 | Pipe CCTV survey, application manhole protective coat, capping and sealing of existing bypass and final connection works | 21 | 1 | 100% | 100% | 05-May-22 | 31-May-22 | 05-May-22 A | 31-May-22 A | | | 05-May-22 | 31-May-22 | | |
| DC.S2.1150 | Submission of as-constructed records after completion of permanent reinstatement of the footpath | 14 | 0 | 100% | 100% | 04-Mar-22 | 13-Sep-22 | 04-Mar-22 A | 13-Sep-22 A | | | 04-Mar-22 | 13-Sep-22 | | |
| DC.S2.1160 | Submission of as-constructed point cloud records after laying of the 750 mm diameter precast concrete pipes | 14 | 0 | 100% | 100% | 04-Mar-22 | 13-Sep-22 | 04-Mar-22 A | 13-Sep-22 A | | | 04-Mar-22 | 13-Sep-22 | | |
| **E&M WORKS** | | | | 93.94% | | 23-Oct-21 | | 20-Oct-21 A | 31-Mar-23 | 28-Feb-23 | 31-Mar-23 | 25-Oct-21 | 24-Mar-23 | 0 | |
| DC.S2.1085a | Perpaation and Submission of TTA Drawings for Pump Replacement Works | 184 | 0 | 100% | 100% | 23-Oct-21 | 22-Apr-22 | 20-Oct-21 A | 22-Apr-22 A | | | 25-Oct-21 | 17-Jun-22 | | |
| DC.S2.1085b | Obtain Approval of TTA Drawing from relevant parties | 30 | 0 | 100% | 100% | 29-Apr-22 | 28-May-22 | 29-Apr-22 A | 28-May-22 A | | | 29-Apr-22 | 28-May-22 | | |
| DC.S2.1085c | Implementation of TTA for Pump Replacement Works | 11 | 0 | 100% | 100% | 24-Jun-22 | 04-Jul-22 | 24-Jun-22 A | 04-Jul-22 A | | | 24-Jun-22 | 24-Jun-22 | | |
| DC.S2.1090a | Removal of Existing Penstock No.3 and Screw Pump No. 3 and Civil Works for New Installation | 23 | 0 | 100% | 100% | 19-Jul-22 | 13-Aug-22 | 19-Jul-22 A | 13-Aug-22 A | | | 19-Jul-22 | 13-Aug-22 | | |
| DC.S2.1090b | Installation of New Screw Pump No.3 | 21 | 0 | 100% | 100% | 18-Aug-22 | 12-Sep-22 | 18-Aug-22 A | 12-Sep-22 A | | | 18-Aug-22 | 12-Sep-22 | | |
| DC.S2.1090c | Screeding for the screw pump trough for Screw Pump No.3 | 12 | 0 | 100% | 100% | 13-Sep-22 | 27-Sep-22 | 13-Sep-22 A | 27-Sep-22 A | | | 13-Sep-22 | 21-Sep-22 | | |
| DC.S2.1090d | Perpaation Works and Carry out Dry Test and Wet Test for Screw Pump No.3 | 12 | 0 | 100% | 100% | 09-Nov-22 | 21-Nov-22 | 09-Nov-22 A | 21-Nov-22 A | | | 09-Nov-22 | 21-Nov-22 | | |
| DC.S2.1090d10 | Installation of New Penstock No.3 and Site Acceptance Test | 54 | 0 | 100% | 100% | 13-Sep-22 | 16-Nov-22 | 13-Sep-22 A | 16-Nov-22 A | | | 13-Sep-22 | 16-Nov-22 | | |
| DC.S2.1090d20 | Waterproofing Coating at Screw Pump Trough No.3 | 34 | 0 | 100% | 100% | 30-Sep-22 | 10-Nov-22 | 30-Sep-22 A | 10-Nov-22 A | | | 30-Sep-22 | 10-Nov-22 | | |
| DC.S2.1091a | Removal of Existing Penstock No. 2 and Screw Pump No. 2 and Civil Works for New Installation | 10 | 0 | 100% | 100% | 22-Nov-22 | 03-Dec-22 | 22-Nov-22 A | 03-Dec-22 A | | | 22-Nov-22 | 10-Dec-22 | | |
| DC.S2.1091b | Installation of New Screw Pump No.2 | 8 | 0 | 100% | 100% | 05-Dec-22 | 13-Dec-22 | 05-Dec-22 A | 13-Dec-22 A | | | 12-Dec-22 | 06-Jan-23 | | |
| DC.S2.1091c | Screeding for the screw pump trough for Screw Pump No.2 | 18 | 0 | 100% | 100% | 14-Dec-22 | 06-Jan-23 | 14-Dec-22 A | 06-Jan-23 A | | | 10-Jan-23 | 2*-Jan-23 | | |
| DC.S2.1091d | Perpaation Works and Carry out Dry Test and Wet Test for Screw Pump No.2 | 6 | 0 | 100% | 100% | 15-Jan-23 | 20-Jan-23 | 15-Jan-23 A | 20-Jan-23 A | | | 04-Feb-23 | 14-Feb-23 | | |
| DC.S2.1091d10 | Installation of New Penstock No.2 and Site Acceptance Test | 18 | 0 | 100% | 100% | 12-Dec-22 | 31-Dec-22 | 12-Dec-22 A | 31-Dec-22 A | | | 09-Dec-22 | 24-Dec-22 | | |
| DC.S2.1091d20 | Waterproofing Coating at Screw Pump Trough No.2 | 7 | 0 | 100% | 100% | 07-Jan-23 | 14-Jan-23 | 07-Jan-23 A | 14-Jan-23 A | | | 25-Jan-23 | 03-Feb-23 | | |
| DC.S2.1092a | Removal of Existing Penstock No.1 and Screw Pump No.1 and Civil Works for New Installation | 12 | 0 | 100% | 100% | 28-Nov-22 | 20-Dec-22 | 28-Nov-22 A | 20-Dec-22 A | | | 28-Nov-22 | 20-Dec-22 | | |
| DC.S2.1092b | Installation of New Screw Pump No.1 | 9 | 0 | 100% | 100% | 13-Dec-22 | 21-Dec-22 | 10-Dec-22 A | 21-Dec-22 A | | | 21-Dec-22 | 18-Jan-23 | | * |
| DC.S2.1092c | Screeding for the screw pump trough for Screw Pump No.1 | 15 | 0 | 100% | 100% | 28-Dec-22 | 14-Jan-23 | 28-Dec-22 A | 14-Jan-23 A | | | 10-Jan-23 | 02-Feb-23 | | * |
| DC.S2.1092d | Perpaation Works and Carry out Dry Test and Wet Test for Screw Pump No.1 | 7 | 0 | 100% | 100% | 01-Feb-23 | 08-Feb-23 | 01-Feb-23 A | 08-Feb-23 A | | | 12-Feb-23 | 22-Feb-23 | | * |
| DC.S2.1092d10 | Installation of New Penstock No.1 and Site Acceptance Test | 28 | 0 | 100% | 100% | 13-Dec-22 | 17-Jan-23 | 13-Dec-22 A | 17-Jan-23 A | | | 05-Jan-23 | 2*-Jan-23 | | |
| DC.S2.1092d20 | Waterproofing Coating at Screw Pump Trough No.1 | 5 | 0 | 100% | 100% | 31-Jan-23 | 02-Feb-23 | 31-Jan-23 A | 02-Feb-23 A | | | 03-Feb-23 | 11-Feb-23 | | * |
| DC.S2.1100a | Removal of Existing Main Inlet Penstock and Civil Works for New Installation | 18 | 0 | 100% | 100% | 27-Dec-22 | 16-Jan-23 | 27-Dec-22 A | 16-Jan-23 A | | | 25-Jan-23 | 08-Feb-23 | | * |
| DC.S2.1100c | Replacement of Main Inlet Penstock with Site Acceptance Test & T & C | 19 | 0 | 100% | 100% | 07-Feb-23 | 26-Feb-23 | 07-Feb-23 A | 26-Feb-23 A | | | 09-Feb-23 | 22-Feb-23 | | * |
| DC.S2.1120 | Replacement of the discharge EM flowmeter and modification of associated pipework | 3 | 0 | 100% | 100% | 14-Jun-23 | 17-Jun-23 | 14-Jun-23 A | 17-Jun-23 A | | | 30-Nov-22 | 24-Dec-22 | | |
| DC.S2.1130 | Installation of Deodorization Unit 6 and associated FRP ductwork | 17 | 2 | 100% | 100% | 07-Feb-23 | 26-Feb-23 | 07-Feb-23 A | 26-Feb-23 A | | | 30-Jun-23 | 2*-Feb-23 | | * |
| DC.S2.1140 | Replacement of Existing Portable Emergency Generator Set by Mobile Emergency Generator Set | 57 | 2 | 100% | 100% | 29-Oct-22 | 10-Jan-23 | 29-Oct-22 A | 10-Jan-23 A | | | 29-Oct-22 | 10-Jan-23 | | |
| DC.S2.1141 | Replacement of Existing LV Switchboard by New LV Switchboard, PLC Panel and UPS | 110 | 1 | 100% | 100% | 01-Aug-22 | 12-Dec-22 | 01-Aug-22 A | 12-Dec-22 A | | | 01-Aug-22 | 12-Dec-22 | | |
| DC.S2.1142 | Installation of Screw Pump Starters and Variable Speed Drivers | 110 | 1 | 100% | 100% | 13-Jul-22 | 22-Nov-22 | 13-Jul-22 A | 22-Nov-22 A | | | 13-Jul-22 | 22-Nov-22 | | |
| DC.S2.1143 | Replacement of Existing Wall Mounted MCB Boards and Miscellaneous Panel in the Screw Pump House | 63 | 1 | 100% | 100% | 01-Aug-22 | 17-Oct-22 | 01-Aug-22 A | 17-Oct-22 A | | | 01-Aug-22 | 17-Oct-22 | | |
| DC.S2.1144 | Diversion & Modification of Electrical System for Existing Equipment | 38 | 2 | 100% | 100% | 18-Oct-22 | 03-Dec-22 | 18-Oct-22 A | 03-Dec-22 A | | | 18-Oct-22 | 03-Dec-22 | | |
| DC.S2.1145 | Cable Installation for Penstock, Screw Pump, DOU | 118 | 2 | 100% | 100% | 01-Aug-22 | 22-Dec-22 | 01-Aug-22 A | 22-Dec-22 A | | | 01-Aug-22 | 22-Dec-22 | | |
| DC.S2.1146 | Installation of FRP cover of Screw Pump No.1 | 49 | 0 | 42.86% | 0% | 03-Feb-23 | | 03-Feb-23 A | 31-Mar-23 | 28-Feb-23 | 31-Mar-23 | 13-Feb-23 | 16-Feb-23 | 0 | * |
| DC.S2.1147 | Installation of FRP cover of Screw Pump No.2 | 63 | 0 | 55.56% | 0% | 16-Jun-23 | | 16-Jun-23 A | 31-Mar-23 | 28-Feb-23 | 31-Mar-23 | 04-Feb-23 | 08-Feb-23 | 0 | * |
| DC.S2.1148 | Installation of FRP cover of Screw Pump No.3 | 45 | 0 | 37.78% | 0% | 08-Feb-23 | | 08-Feb-23 A | 31-Mar-23 | 28-Feb-23 | 31-Mar-23 | 23-Feb-23 | 27-Feb-23 | 0 | * |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 3 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

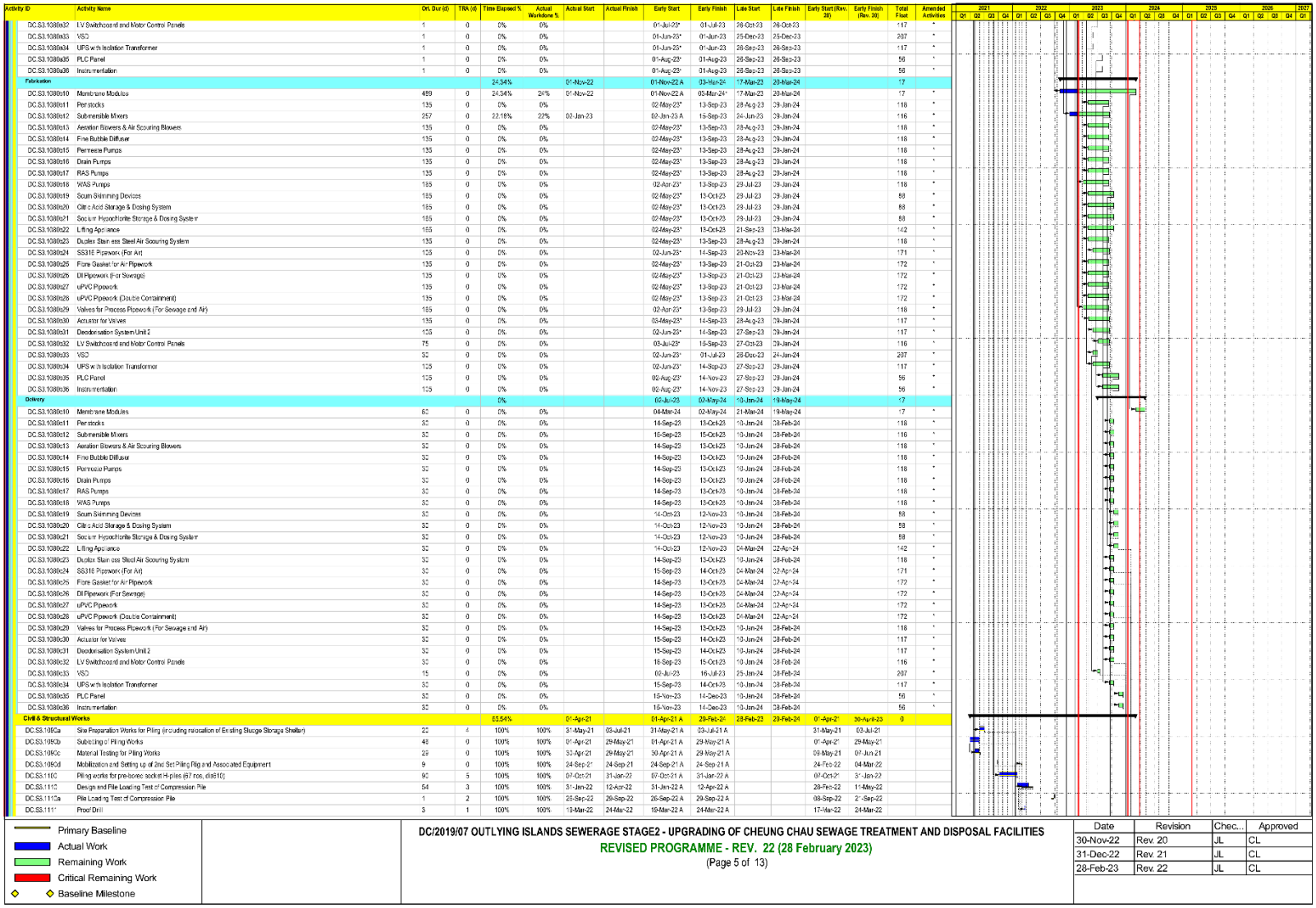


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 20) | Early Finish (Rev. 20) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S2.1152 | Installation of MCPs and related cable termination | 21 | 0 | 100% | 100% | 06-Sep-22 | 30-Sep-22 | 06-Sep-22 A | 30-Sep-22 A | | | 06-Sep-22 | 30-Sep-22 | | |
| DC.S2.1155 | Installation of Level Electrode | 14 | 0 | 100% | 100% | 04-Jan-23 | 17-Jan-23 | 04-Jan-23 A | 17-Jan-23 A | | | 04-Jan-23 | 17-Jan-23 | | |
| DC.S2.1160c05 | Submission of Draft O&M manuals | 123 | 0 | 100% | 100% | 31-Jul-22 | 11-Nov-22 | 31-Jul-22 A | 11-Nov-22 A | | | 31-Jul-22 | 07-Dec-22 | | |
| DC.S2.1160c10 | Submission of Final O&M manuals | 65 | 0 | 100% | 100% | 30-Nov-22 | 22-Feb-23 | 30-Nov-22 A | 22-Feb-23 A | | | 30-Nov-22 | 07-Feb-23 | | |
| DC.S2.1160c20 | O&M Training to DSD/ST2 | 15 | 0 | 0% | 0% | | | 08-Mar-23 | 23-Mar-23 | 09-Mar-23 | 23-Mar-23 | 08-Feb-23 | 12-Feb-23 | 0 | * |
| DC.S2.1160c25 | Installation of DCU6 and SAT | 48 | 0 | 39.12% | 39% | 07-Feb-23 | | 07-Feb-23 A | 31-Mar-23 | 28-Feb-23 | 31-Mar-23 | 30-Jan-23 | 22-Mar-23 | 0 | * |
| DC.S2.1160c30 | Handover Inspection with DSD/ST2 | 1 | 0 | 0% | 0% | | | 28-Mar-23 | 30-Mar-23 | 29-Mar-23 | 29-Mar-23 | 22-Mar-23 | 22-Mar-23 | 0 | * |
| DC.S2.1160c40 | 30-day commissioning for the screw pumping system | 32 | 0 | 100% | 100% | 20 Jan 23 | 20-Feb-23 | 20 Jan 23 A | 20-Feb-23 A | | | 23-Feb-23 | 24-Mar-23 | | * |
| COMPLETION OF SECTION 2 | | | | 0% | | 20-Feb-23 | 20-Feb-23 | 20-Feb-23 A | 20-Feb-23 A | | | 24-Mar-23 | 24-Mar-23 | | |
| DC.S2.1170 | Completion of Section 2 (Working Days) | 0 | 0 | 100% | 100% | | 20-Feb-23 | | 20-Feb-23 A | | | | 24-Mar-23 | | * |
| SECTION 3 | | | | 50.52% | | 27-Nov-20 | | 27-Nov-20 A | 13-May-25 | 11-Jun-22 | 13-May-25 | 27-Nov-20 | 22-Oct-25 | 0 | |
| PHASE 1 - Construction of MBR, Sludge Diagestor Building, Transformer Room | | | | 81.12% | | 27-Nov-20 | | 27-Nov-20 A | 02-Aug-24 | 28-Feb-23 | 22-Aug-24 | 27-Nov-20 | 19-Apr-24 | 0 | |
| DC.S3.1201 | Baseline Monitoring for Air and Noise | 21 | 0 | 100% | 100% | 21-Jun-21 | 11-Jul-21 | 21-Jun-21 A | 11-Jul-21 A | | | 21-Jun-21 | 11-Jul-21 | | |
| Acceptance of Technical Proposal | | | | 100% | | 29-May-21 | 15-Jun-21 | 29-May-21 A | 15-Jun-21 A | | | 26-Mar-21 | 02-Dec-21 | | |
| DC.S1.1130 | Acceptance of Technical Proposal of Preliminary Treatment System at COSTW | 13 | 0 | 100% | 100% | 01-Jun-21 | 14-Jun-21 | 01-Jun-21 A | 14-Jun-21 A | | | 19-Nov-21 | 02-Dec-21 | | |
| DC.S1.1200 | Acceptance of Technical Proposal for MBR System and MBR Building at COSTW (E&M) | 13 | 0 | 100% | 100% | 01-Jun-21 | 14-Jun-21 | 01-Jun-21 A | 14-Jun-21 A | | | 26-May-21 | 08-Jun-21 | | |
| DC.S1.1205 | Acceptance of Technical Proposal for MBR System and MBR Building at COSTW (Civil & Structural) | 13 | 0 | 100% | 100% | 01-Jun-21 | 14-Jun-21 | 01-Jun-21 A | 14-Jun-21 A | | | 30-Apr-21 | 13-May-21 | | |
| DC.S1.1300 | Acceptance of Technical Proposal for Sludge Treatment System at COSTW | 13 | 0 | 100% | 100% | 01-Jun-21 | 14-Jun-21 | 01-Jun-21 A | 14-Jun-21 A | | | 26-May-21 | 08-Jun-21 | | |
| DC.S1.1400 | Acceptance of Technical Proposal for Electrical Works at COSTW | 13 | 0 | 100% | 100% | 01-Jun-21 | 14-Jun-21 | 01-Jun-21 A | 14-Jun-21 A | | | 26-May-21 | 08-Jun-21 | | |
| DC.S1.1450 | Acceptance of Technical Proposal for Temp. Works Design for the 1st 3 months of EC S2 | 13 | 0 | 100% | 100% | 01-Jun-21 | 14-Jun-21 | 01-Jun-21 A | 14-Jun-21 A | | | 24-May-21 | 30-May-21 | | |
| DC.S1.1470 | Approval of Technical proposal for accommodation of co-office | 3 | 0 | 100% | 100% | 29-May-21 | 01-Jun-21 | 29-May-21 A | 01-Jun-21 A | | | 26-Mar-21 | 29-May-21 | | |
| DC.S1.1570 | Acceptance of Technical Proposal for DIMA including application of prefabrication of MIC | 14 | 0 | 100% | 100% | 01-Jun-21 | 15-Jun-21 | 01-Jun-21 A | 15-Jun-21 A | | | 30-Jun-21 | 14-Jul-21 | | |
| Installation of MIC Office | | | | 100% | | 02-Jun-21 | 29-Jun-21 | 02-Jun-21 A | 29-Jun-21 A | | | 24-Mar-21 | 14-Jul-21 | | |
| DC.S1.1580c | Delivery of Modules for MIC Co-Office | 4 | 0 | 100% | 100% | 02 Jun 21 | 07-Jun-21 | 02 Jun 21 A | 07-Jun-21 A | | | 24-Mar-21 | 29 Mar 21 | | |
| DC.S1.1580c | Installation of MIC Co-Office | 18 | 2 | 100% | 100% | 04-Jun-21 | 29-Jun-21 | 04-Jun-21 A | 29-Jun-21 A | | | 18-Jun-21 | 14-Jul-21 | | |
| Tranplanting Works of Tree T4 | | | | 100% | | 15-Jan-22 | 24-Nov-22 | 15-Jan-22 A | 24-Nov-22 A | | | 15-Jan-22 | 24-Nov-22 | | |
| DC.S3.1010a | Subletting of Tree Transplant | 4 | 0 | 100% | 100% | 15-Jan-22 | 20-Jan-22 | 15-Jan-22 A | 20-Jan-22 A | | | 15-Jan-22 | 28-Feb-22 | | |
| DC.S3.1010b | Root pruning and Preparation Works for Transplanting | 133 | 2 | 100% | 100% | 04-Apr-22 | 17-Sep-22 | 04-Apr-22 A | 17-Sep-22 A | | | 04-Apr-22 | 17-Sep-22 | | |
| DC.S3.1020 | Transplanting works | 2 | 1 | 100% | 100% | 22-Nov-22 | 24-Nov-22 | 22-Nov-22 A | 24-Nov-22 A | | | 22-Nov-22 | 24-Nov-22 | | |
| Smart Sewage Monitoring System (Remaining Works) | | | | 87% | | 27-Nov-20 | | 27-Nov-20 A | 30-Jun-23 | 28-Feb-23 | 30-Jun-23 | 27-Nov-20 | 07-Feb-23 | 0 | |
| DC.S1.1620b10 | Complete all the installation of monitoring devices and sensors and submit an installation Report for trial inst. | 225 | 4 | 100% | 100% | 27-Nov-20 | 24-Jun-21 | 27-Nov-20 A | 24-Jun-21 A | | | 27-Nov-20 | 10-Jun-21 | | |
| DC.S1.1620c10 | Preparation and submission of Draft Transmission Specification | 136 | 0 | 100% | 100% | 27-Nov-20 | 10-Jun-21 | 27-Nov-20 A | 10-Jun-21 A | | | 27-Nov-20 | 10-Jun-21 | | |
| DC.S1.1620c10 | Completion of installation of monitoring devices and sensors and submission of Installation report | 720 | 0 | 87.08% | 80% | 11-Jun-21 | | 11-Jun-21 A | 31-May-23 | 28-Feb-23 | 31-May-23 | 11-Jun-21 | 28-Sep-22 | 0 | |
| DC.S1.1620e10 | Completion testing of data transmission and compatibility to DSD's Data Information System | 28 | 1 | 0% | 0% | | | 01-Jun-23 | 30-Jun-23 | 01-Jun-23 | 30-Jun-25 | 05-Jan-23 | 07-Feb-23 | 0 | |
| CDS for Optimization of Rock Socket Length for Socketed Steel H-Piles for PTF, SCB, SDB & SHT | | | | 100% | | 31-May-21 | 16-Aug-21 | 31-May-21 A | 16-Aug-21 A | | | 30-May-21 | 16-Aug-21 | | |
| DC.S3.1050 | Structural Design Review After Completion of Predrilling Works (Phase 1) | 72 | 0 | 100% | 100% | 31-May-21 | 09-Aug-21 | 31-May-21 A | 09-Aug-21 A | | | 30-May-21 | 08-Aug-21 | | |
| DC.S3.1060 | ICE Checking and Issuance of ICE certificate | 7 | 0 | 100% | 100% | 10-Aug-21 | 16-Aug-21 | 10-Aug-21 A | 16-Aug-21 A | | | 10-Aug-21 | 16-Aug-21 | | |
| Set Up of Tower Crane | | | | 0% | | | | 04-Mar-23 | 15-Jul-23 | 04-Mar-23 | 23-Aug-23 | | | 19 | |
| DC.S3.1070 | Subletting of Tower Crane Erection | 38 | 0 | 0% | 0% | | | 04-Mar-23* | 21-Apr-23 | 04-Mar-23 | 21-Apr-23 | | | 0 | * |
| DC.S3.1070a | Design and Approval of Tower Crane | 28 | 0 | 0% | 0% | | | 22-Apr-23 | 19-May-23 | 12-May-23 | 08-Jun-23 | | | 20 | * |
| DC.S3.1070b | Pile Foundation Construction of Tower Crane | 34 | 0 | 0% | 0% | | | 20-May-23 | 30-Jun-23 | 09-Jun-23 | 20-Jul-23 | | | 16 | * |
| DC.S3.1070c | Erection of Tower Crane | 12 | 0 | 0% | 0% | | | 03-Jul-23 | 15-Jul-23 | 21-Jul-23 | 03-Aug-23 | | | 16 | * |
| Construction of MBR Treatment Facilities | | | | 57.2% | | 01-Apr-21 | | 01-Apr-21 A | 02-Aug-24 | 28-Feb-23 | 02-Aug-24 | 01-Apr-21 | 19-Apr-24 | 0 | |
| Procurement, Fabrication and Delivery of Major E&M Equipment | | | | 58.57% | | 12-Jul-21 | | 12-Jul-21 A | 02-May-24 | 17-Mar-23 | 19-May-24 | 28-Aug-21 | 29-Oct-22 | 17 | |
| DC.S3.1075a | Tendering of Subcontractor | 45 | 0 | 100% | 100% | 12-Jul-21 | 26-Aug-21 | 12-Jul-21 A | 26-Aug-21 A | | | 28-Aug-21 | 14-Oct-21 | | |
| DC.S3.1075b | Equipment Submission and Approval | 591 | 0 | 84.77% | 70% | 15-Oct-21 | | 15-Oct-21 A | 28-May-25* | 20-Mar-23 | 17-Jun-25 | 15-Oct-21 | 29-Oct-22 | 20 | |
| Procurement | | | | 0.65% | | 01-Nov-22 | | 01-Nov-22 A | 01-Aug-23 | 28-Jul-23 | 25-Dec-23 | | | 146 | |
| DC.S3.1080a10 | Membrane Modules | 1 | 0 | 100% | 100% | 01-Nov-22 | 01-Nov-22 | 01-Nov-22 A | 01-Nov-22 A | | | | | | * |
| DC.S3.1080a11 | Penstocks | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a12 | Submersible Mixers | 1 | 0 | 100% | 100% | 02-Jan-23 | 02-Jan-23 | 02-Jan-23 A | 02-Jan-23 A | | | | | | * |
| DC.S3.1080a13 | Aeration Blowers & Air Scouring Blowers | 1 | 0 | 0% | 0% | | | 01-Mar-23* | 01-Mar-23 | 27-Aug-23 | 27-Aug-23 | | | 179 | * |
| DC.S3.1080a14 | Fine Bubble Diffuser | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a15 | Permeate Pumps | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a16 | Drain Pumps | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a17 | RAS Pumps | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a18 | WAS Pumps | 1 | 0 | 0% | 0% | | | 01-Apr-23* | 01-Apr-23 | 28-Jul-23 | 28-Jul-23 | | | 118 | * |
| DC.S3.1080a19 | Scum Skimming Devices | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 28-Jul-23 | 28-Jul-23 | | | 88 | * |
| DC.S3.1080a20 | Citric Acid Storage & Dosing System | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 28-Jul-23 | 28-Jul-23 | | | 88 | * |
| DC.S3.1080a21 | Sodium Hypochlorite Storage & Dosing System | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 28-Jul-23 | 28-Jul-23 | | | 88 | * |
| DC.S3.1080a22 | Lifting Appliance | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 20-Sep-23 | 20-Sep-23 | | | 142 | * |
| DC.S3.1080a23 | Duplex Stainless Steel Air Scouring System | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a24 | SS316 Pipework (For Air) | 1 | 0 | 0% | 0% | | | 01-Jun-23* | 01-Jun-23 | 19-Nov-23 | 19-Nov-23 | | | 171 | * |
| DC.S3.1080a25 | Flore Basket for Air Pipework | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 20-Oct-23 | 20-Oct-23 | | | 172 | * |
| DC.S3.1080a26 | DI Pipework (For Sewage) | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 20-Oct-23 | 20-Oct-23 | | | 172 | * |
| DC.S3.1080a27 | uPVC Pipework | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 20-Oct-23 | 20-Oct-23 | | | 172 | * |
| DC.S3.1080a28 | uPVC Pipework (Double Containment) | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 20-Oct-23 | 20-Oct-23 | | | 172 | * |
| DC.S3.1080a29 | Valves for Process Pipework (For Sewage and Air) | 1 | 0 | 0% | 0% | | | 01-Apr-23* | 01-Apr-23 | 28-Jul-23 | 28-Jul-23 | | | 118 | * |
| DC.S3.1080a30 | Actuator for Valves | 1 | 0 | 0% | 0% | | | 01-May-23* | 01-May-23 | 27-Aug-23 | 27-Aug-23 | | | 118 | * |
| DC.S3.1080a31 | Deodorisation System Unit 2 | 1 | 0 | 0% | 0% | | | 01-Jun-23* | 01-Jun-23 | 26-Sep-23 | 26-Sep-23 | | | 117 | * |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 4 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

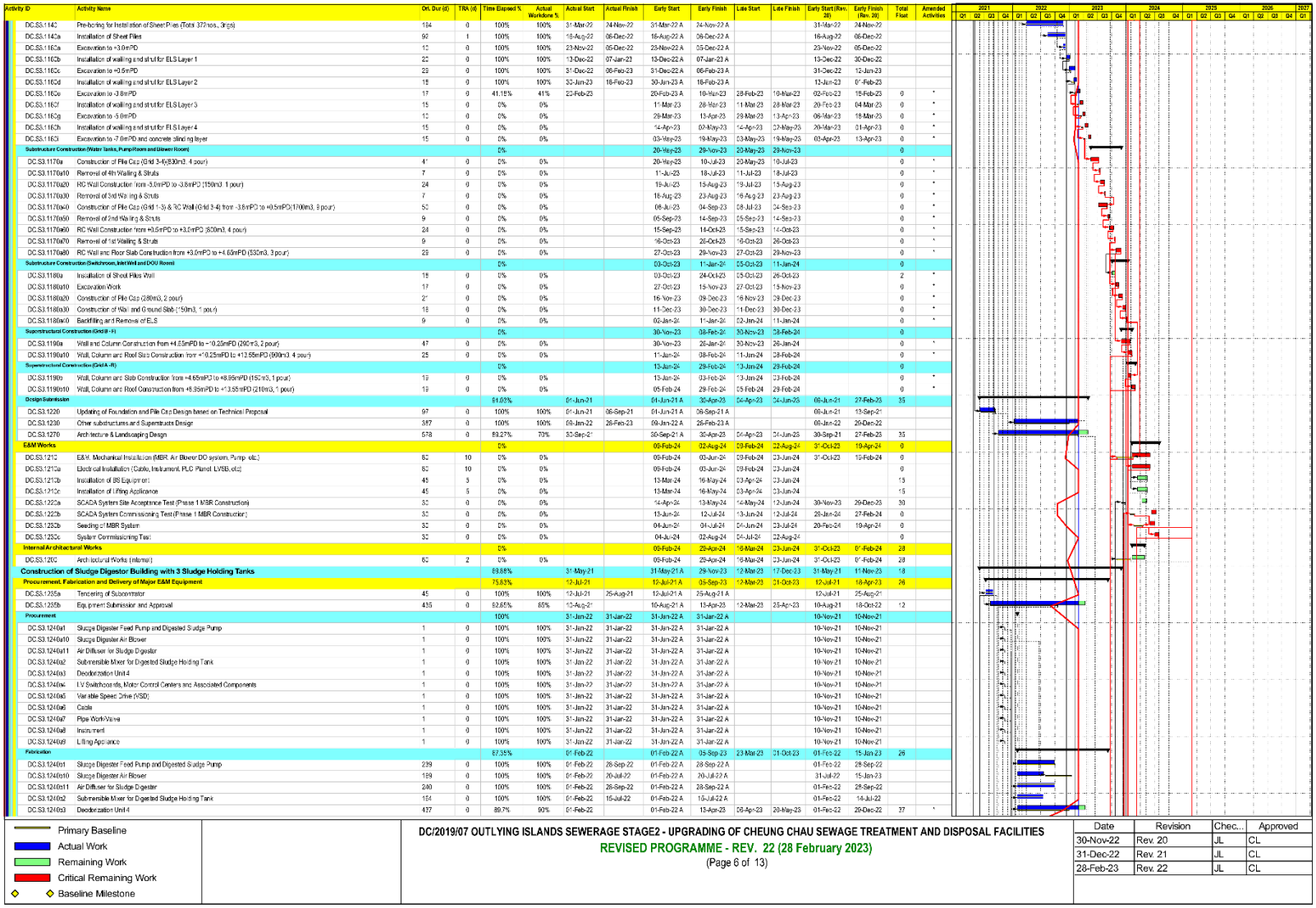


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 20) | Early Finish (Rev. 20) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.1080e32 | LV Switchboard and Motor Control Panels | 1 | 0 | 0% | 0% | | | 01-Jul-23* | 01-Jul-23 | 26-Oct-23 | 26-Oct-23 | | | 117 | * |
| DC.S3.1080e33 | VSD | 1 | 0 | 0% | 0% | | | 01-Jun-23* | 01-Jun-23 | 25-Dec-23 | 25-Dec-23 | | | 207 | * |
| DC.S3.1080e34 | UPS with Isolation Transformer | 1 | 0 | 0% | 0% | | | 01-Jun-23* | 01-Jun-23 | 26-Sep-23 | 26-Sep-23 | | | 117 | * |
| DC.S3.1080e35 | PLC Panel | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 26-Sep-23 | 26-Sep-23 | | | 56 | * |
| DC.S3.1080e36 | Instrumentation | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 26-Sep-23 | 26-Sep-23 | | | 56 | * |
| Fabrication | | | | 24.34% | | 01-Nov-22 | | 01-Nov-22 A | 03-Mar-24 | 17-Mar-23 | 20-Mar-24 | | | 17 | |
| DC.S3.1080c10 | Membrane Modules | 489 | 0 | 24.34% | 24% | 01-Nov-22 | | 01-Nov-22 A | 03-Mar-24* | 17-Mar-23 | 20-Mar-24 | | | 17 | * |
| DC.S3.1080d11 | Pen stocks | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d12 | Submersible Mixers | 257 | 0 | 22.18% | 22% | 02-Jan-23 | | 02-Jan-23 A | 15-Sep-23 | 24-Jun-23 | 29-Jan-24 | | | 116 | * |
| DC.S3.1080d13 | Aeration Blowers & Air Scouring Blowers | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d14 | Fine Bubble Diffuser | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d15 | Permeate Pumps | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d16 | Drain Pumps | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d17 | RAS Pumps | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d18 | WAS Pumps | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 29-Jul-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d19 | Scum Skimming Devices | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Oct-23 | 29-Jul-23 | 29-Jan-24 | | | 88 | * |
| DC.S3.1080d20 | Citric Acid Storage & Dosing System | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Oct-23 | 29-Jul-23 | 29-Jan-24 | | | 88 | * |
| DC.S3.1080d21 | Sodium Hypochlorite Storage & Dosing System | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Oct-23 | 29-Jul-23 | 29-Jan-24 | | | 88 | * |
| DC.S3.1080d22 | Lifting Appliance | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Oct-23 | 21-Sep-23 | 03-Mar-24 | | | 142 | * |
| DC.S3.1080d23 | Duplex Stainless Steel Air Scouring System | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d24 | SS316 Pipework (For Air) | 135 | 0 | 0% | 0% | | | 02-Jun-23* | 14-Sep-23 | 20-Nov-23 | 03-Mar-24 | | | 171 | * |
| DC.S3.1080d25 | Flore Gasket for Air Pipework | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 21-Oct-23 | 03-Mar-24 | | | 172 | * |
| DC.S3.1080d26 | DI Pipework (For Sewage) | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 21-Oct-23 | 03-Mar-24 | | | 172 | * |
| DC.S3.1080d27 | uPVC Pipework | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 21-Oct-23 | 03-Mar-24 | | | 172 | * |
| DC.S3.1080d28 | uPVC Pipework (Double Containment) | 135 | 0 | 0% | 0% | | | 02-May-23* | 13-Sep-23 | 21-Oct-23 | 03-Mar-24 | | | 172 | * |
| DC.S3.1080d29 | Valves for Process Pipework (For Sewage and Air) | 135 | 0 | 0% | 0% | | | 02-Aug-23* | 13-Sep-23 | 29-Jul-23 | 29-Jan-24 | | | 118 | * |
| DC.S3.1080d30 | Actuator for Valves | 135 | 0 | 0% | 0% | | | 02-May-23* | 14-Sep-23 | 28-Aug-23 | 29-Jan-24 | | | 117 | * |
| DC.S3.1080d31 | Deodorisation System Unit 2 | 135 | 0 | 0% | 0% | | | 02-Jun-23* | 14-Sep-23 | 27-Sep-23 | 29-Jan-24 | | | 117 | * |
| DC.S3.1080d32 | LV Switchboard and Motor Control Panels | 75 | 0 | 0% | 0% | | | 02-Jul-23* | 15-Sep-23 | 27-Oct-23 | 29-Jan-24 | | | 116 | * |
| DC.S3.1080d33 | VSD | 32 | 0 | 0% | 0% | | | 02-Jun-23* | 01-Jul-23 | 26-Dec-23 | 24-Jan-24 | | | 207 | * |
| DC.S3.1080d34 | UPS with Isolation Transformer | 125 | 0 | 0% | 0% | | | 02-Jun-23* | 14-Sep-23 | 27-Sep-23 | 29-Jan-24 | | | 117 | * |
| DC.S3.1080d35 | PLC Panel | 125 | 0 | 0% | 0% | | | 02-Aug-23* | 14-Nov-23 | 27-Sep-23 | 29-Jan-24 | | | 56 | * |
| DC.S3.1080d36 | Instrumentation | 125 | 0 | 0% | 0% | | | 02-Aug-23* | 14-Nov-23 | 27-Sep-23 | 29-Jan-24 | | | 56 | * |
| Delivery | | | | 0% | | | | 02-Jul-23 | 03-May-24 | 10-Jan-24 | 19-May-24 | | | 17 | |
| DC.S3.1080e10 | Membrane Modules | 60 | 0 | 0% | 0% | | | 04-Mar-24 | 02-May-24 | 21-Mar-24 | 19-May-24 | | | 17 | * |
| DC.S3.1080e11 | Pen stocks | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e12 | Submersible Mixers | 32 | 0 | 0% | 0% | | | 16-Sep-23 | 15-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 116 | * |
| DC.S3.1080e13 | Aeration Blowers & Air Scouring Blowers | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e14 | Fine Bubble Diffuser | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e15 | Permeate Pumps | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e16 | Drain Pumps | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e17 | RAS Pumps | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e18 | WAS Pumps | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e19 | Scum Skimming Devices | 32 | 0 | 0% | 0% | | | 14-Oct-23 | 12-Nov-23 | 10-Jan-24 | 28-Feb-24 | | | 88 | * |
| DC.S3.1080e20 | Citric Acid Storage & Dosing System | 32 | 0 | 0% | 0% | | | 14-Oct-23 | 12-Nov-23 | 10-Jan-24 | 28-Feb-24 | | | 88 | * |
| DC.S3.1080e21 | Sodium Hypochlorite Storage & Dosing System | 32 | 0 | 0% | 0% | | | 14-Oct-23 | 12-Nov-23 | 10-Jan-24 | 28-Feb-24 | | | 88 | * |
| DC.S3.1080e22 | Lifting Appliance | 32 | 0 | 0% | 0% | | | 14-Oct-23 | 12-Nov-23 | 04-Mar-24 | 22-Apr-24 | | | 142 | * |
| DC.S3.1080e23 | Duplex Stainless Steel Air Scouring System | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e24 | SS316 Pipework (For Air) | 32 | 0 | 0% | 0% | | | 15-Sep-23 | 14-Oct-23 | 04-Mar-24 | 22-Apr-24 | | | 171 | * |
| DC.S3.1080e25 | Flore Gasket for Air Pipework | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 04-Mar-24 | 22-Apr-24 | | | 172 | * |
| DC.S3.1080e26 | DI Pipework (For Sewage) | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 04-Mar-24 | 22-Apr-24 | | | 172 | * |
| DC.S3.1080e27 | uPVC Pipework | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 04-Mar-24 | 22-Apr-24 | | | 172 | * |
| DC.S3.1080e28 | uPVC Pipework (Double Containment) | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 04-Mar-24 | 22-Apr-24 | | | 172 | * |
| DC.S3.1080e29 | Valves for Process Pipework (For Sewage and Air) | 32 | 0 | 0% | 0% | | | 14-Sep-23 | 13-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 118 | * |
| DC.S3.1080e30 | Actuator for Valves | 32 | 0 | 0% | 0% | | | 15-Sep-23 | 14-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 117 | * |
| DC.S3.1080e31 | Deodorisation System Unit 2 | 32 | 0 | 0% | 0% | | | 15-Sep-23 | 14-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 117 | * |
| DC.S3.1080e32 | LV Switchboard and Motor Control Panels | 32 | 0 | 0% | 0% | | | 16-Sep-23 | 15-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 116 | * |
| DC.S3.1080e33 | VSD | 15 | 0 | 0% | 0% | | | 02-Jul-23 | 16-Jul-23 | 25-Jan-24 | 28-Feb-24 | | | 207 | * |
| DC.S3.1080e34 | UPS with Isolation Transformer | 32 | 0 | 0% | 0% | | | 15-Sep-23 | 14-Oct-23 | 10-Jan-24 | 28-Feb-24 | | | 117 | * |
| DC.S3.1080e35 | PLC Panel | 32 | 0 | 0% | 0% | | | 15-Nov-23 | 14-Dec-23 | 10-Jan-24 | 28-Feb-24 | | | 56 | * |
| DC.S3.1080e36 | Instrumentation | 32 | 0 | 0% | 0% | | | 15-Nov-23 | 14-Dec-23 | 10-Jan-24 | 28-Feb-24 | | | 56 | * |
| Civil & Structural Works | | | | 55.54% | | 01-Apr-21 | | 01-Apr-21 A | 29-Feb-24 | 28-Feb-23 | 29-Feb-24 | 01-Apr-21 | 30-Apr-23 | 0 | |
| DC.S3.1080a | Site Preparation Works for Piling (including relocation of Existing Sludge Storage Shelter) | 22 | 4 | 100% | 100% | 31-May-21 | 03-Jul-21 | 31-May-21 A | 03-Jul-21 A | | | 31-May-21 | 03-Jul-21 | | |
| DC.S3.1080b | Subletting of Piling Works | 46 | 0 | 100% | 100% | 01-Apr-21 | 29-May-21 | 01-Apr-21 A | 29-May-21 A | | | 01-Apr-21 | 29-May-21 | | |
| DC.S3.1080c | Material Testing for Piling Works | 23 | 0 | 100% | 100% | 30-Apr-21 | 29-May-21 | 30-Apr-21 A | 29-May-21 A | | | 09-May-21 | 07-Jun-21 | | |
| DC.S3.1080d | Mobilization and Setting up of 2nd Set Piling Rig and Associated Equipment | 9 | 0 | 100% | 100% | 24-Sep-21 | 24-Sep-21 | 24-Sep-21 A | 24-Sep-21 A | | | 24-Feb-22 | 04-Mar-22 | | |
| DC.S3.1100 | Piling works for pre-bore socket H-piles (67 nos, dia610) | 90 | 5 | 100% | 100% | 07-Oct-21 | 31-Jan-22 | 07-Oct-21 A | 31-Jan-22 A | | | 07-Oct-21 | 31-Jan-22 | | |
| DC.S3.1112 | Design and Pile Loading Test of Compression Pile | 54 | 3 | 100% | 100% | 31-Jan-22 | 12-Apr-22 | 31-Jan-22 A | 12-Apr-22 A | | | 28-Feb-22 | 11-May-22 | | |
| DC.S3.1112a | Pile Loading Test of Compression Pile | 1 | 2 | 100% | 100% | 28-Sep-22 | 29-Sep-22 | 28-Sep-22 A | 29-Sep-22 A | | | 08-Sep-22 | 21-Sep-22 | | |
| DC.S3.1111 | Proof Drill | 3 | 1 | 100% | 100% | 18-Mar-22 | 24-Mar-22 | 18-Mar-22 A | 24-Mar-22 A | | | 17-Mar-22 | 24-Mar-22 | | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 5 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

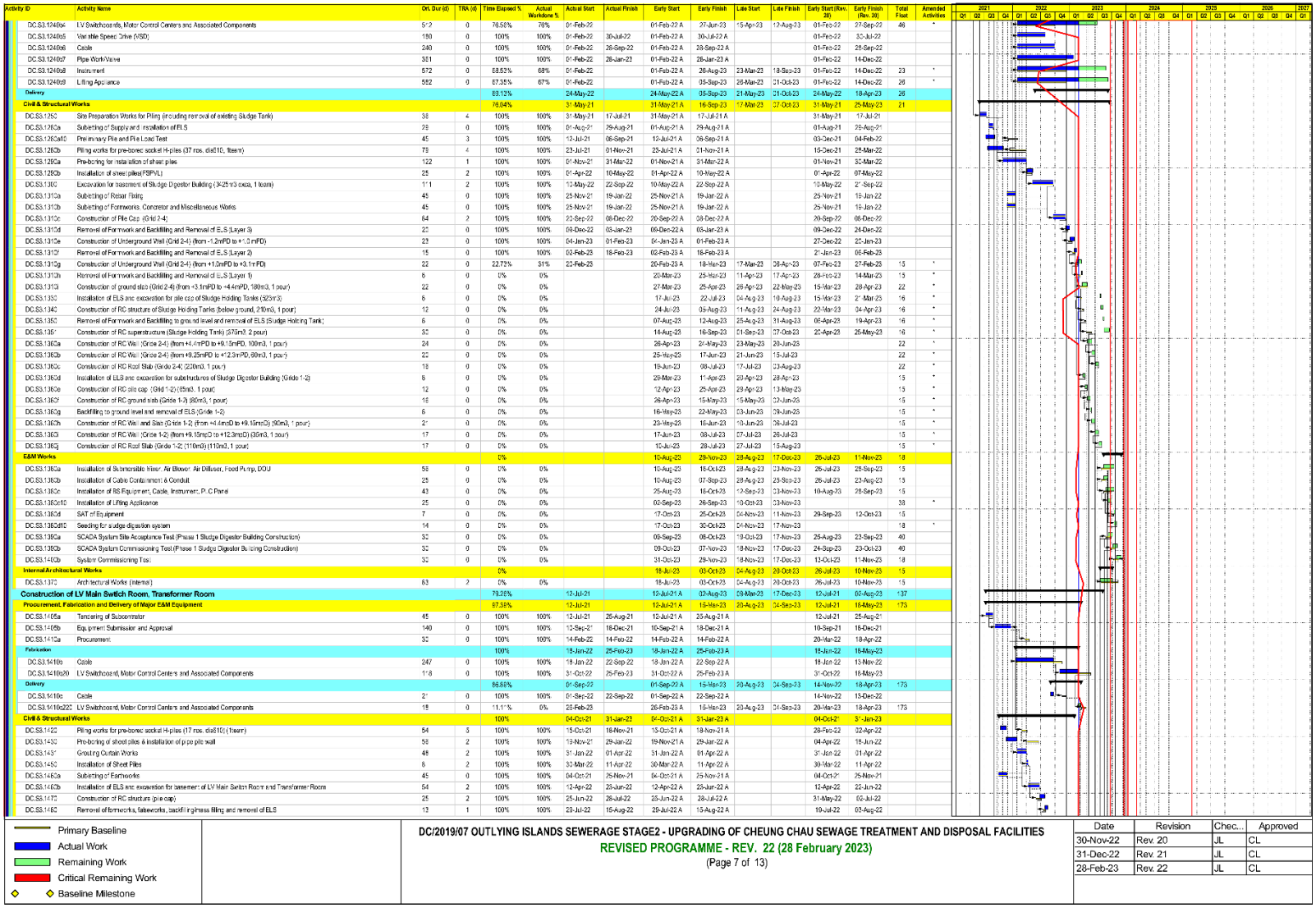


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 20) | Early Finish (Rev. 20) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.1142 | Pre-boring for Installation of Sheet Piles (Total 372nos., 2rigs) | 184 | 0 | 100% | 100% | 31-Mar-22 | 24-Nov-22 | 31-Mar-22 A | 24-Nov-22 A | | | 31-Mar-22 | 24-Nov-22 | | |
| DC.S3.1142a | Installation of Sheet Piles | 92 | 1 | 100% | 100% | 16-Aug-22 | 06-Dec-22 | 16-Aug-22 A | 06-Dec-22 A | | | 16-Aug-22 | 06-Dec-22 | | |
| DC.S3.1162a | Excavation to +3.0mPD | 12 | 0 | 100% | 100% | 23-Nov-22 | 05-Dec-22 | 23-Nov-22 A | 05-Dec-22 A | | | 23-Nov-22 | 05-Dec-22 | | |
| DC.S3.1162b | Installation of walling and strut for ELS Layer 1 | 22 | 0 | 100% | 100% | 13-Dec-22 | 07-Jan-23 | 13-Dec-22 A | 07-Jan-23 A | | | 13-Dec-22 | 30-Dec-22 | | |
| DC.S3.1162c | Excavation to +0.5mPD | 28 | 0 | 100% | 100% | 31-Dec-22 | 06-Feb-23 | 31-Dec-22 A | 06-Feb-23 A | | | 31-Dec-22 | 12-Jan-23 | | |
| DC.S3.1162d | Installation of walling and strut for ELS Layer 2 | 18 | 0 | 100% | 100% | 30-Jan-23 | 16-Feb-23 | 30-Jan-23 A | 16-Feb-23 A | | | 13-Jan-23 | 01-Feb-23 | | |
| DC.S3.1162e | Excavation to -3.8mPD | 17 | 0 | 41.18% | 41% | 20-Feb-23 | | 20-Feb-23 A | 16-Mar-23 | 28-Feb-23 | 19-Mar-23 | 02-Feb-23 | 15-Feb-23 | 0 | * |
| DC.S3.1162f | Installation of walling and strut for ELS Layer 3 | 15 | 0 | 0% | 0% | | | 17-Mar-23 | 28-Mar-23 | 11-Mar-23 | 28-Mar-23 | 20-Feb-23 | 04-Mar-23 | 0 | * |
| DC.S3.1162g | Excavation to -5.0mPD | 12 | 0 | 0% | 0% | | | 29-Mar-23 | 13-Apr-23 | 29-Mar-23 | 13-Apr-23 | 06-Mar-23 | 18-Mar-23 | 0 | * |
| DC.S3.1162h | Installation of walling and strut for ELS Layer 4 | 15 | 0 | 0% | 0% | | | 14-Apr-23 | 02-May-23 | 14-Apr-23 | 02-May-23 | 20-Mar-23 | 01-Apr-23 | 0 | * |
| DC.S3.1162i | Excavation to -7.0mPD and concrete blinding layer | 15 | 0 | 0% | 0% | | | 03-May-23 | 19-May-23 | 03-May-23 | 19-May-23 | 02-Apr-23 | 13-Apr-23 | 0 | * |
| | **Substructure Construction (Water tanks, Pump Room and Blower Room)** | | | 0% | | | | 20-May-23 | 29-Nov-23 | 20-May-23 | 29-Nov-23 | | | 0 | |
| DC.S3.1170a | Construction of Pile Cap (Grid 3-W)(830m3, 4 pour) | 41 | 0 | 0% | 0% | | | 20-May-23 | 10-Jul-23 | 20-May-23 | 10-Jul-23 | | | 0 | * |
| DC.S3.1170a10 | Removal of 4th Walling & Struts | 7 | 0 | 0% | 0% | | | 11-Jul-23 | 18-Jul-23 | 11-Jul-23 | 18-Jul-23 | | | 0 | * |
| DC.S3.1170a20 | RC Wall Construction from -3.0mPD to -3.8mPD (150m3, 1 pour) | 24 | 0 | 0% | 0% | | | 19-Jul-23 | 15-Aug-23 | 19-Jul-23 | 15-Aug-23 | | | 0 | * |
| DC.S3.1170a30 | Removal of 3rd Walling & Struts | 7 | 0 | 0% | 0% | | | 16-Aug-23 | 23-Aug-23 | 16-Aug-23 | 23-Aug-23 | | | 0 | * |
| DC.S3.1170a40 | Construction of Pile Cap (Grid 1-3) & RC Wall (Grid 3-4) from -3.8mPD to +0.5mPD(1700m3, 8 pour) | 50 | 0 | 0% | 0% | | | 08-Jul-23 | 04-Sep-23 | 08-Jul-23 | 04-Sep-23 | | | 0 | * |
| DC.S3.1170a50 | Removal of 2nd Walling & Struts | 9 | 0 | 0% | 0% | | | 05-Sep-23 | 14-Sep-23 | 05-Sep-23 | 14-Sep-23 | | | 0 | * |
| DC.S3.1170a60 | RC Wall Construction from +0.5mPD to +3.0mPD (600m3, 4 pour) | 24 | 0 | 0% | 0% | | | 15-Sep-23 | 14-Oct-23 | 15-Sep-23 | 14-Oct-23 | | | 0 | * |
| DC.S3.1170a70 | Removal of 1st Walling & Struts | 9 | 0 | 0% | 0% | | | 16-Oct-23 | 26-Oct-23 | 16-Oct-23 | 26-Oct-23 | | | 0 | * |
| DC.S3.1170a80 | RC Wall and Roof Slab Construction from +3.0mPD to +4.65mPD (530m3, 3 pour) | 28 | 0 | 0% | 0% | | | 27-Oct-23 | 29-Nov-23 | 27-Oct-23 | 29-Nov-23 | | | 0 | * |
| | **Substructure Construction (Switchroom, Inlet Well and DOU Room)** | | | 0% | | | | 03-Oct-23 | 11-Jan-24 | 05-Oct-23 | 11-Jan-24 | | | 0 | |
| DC.S3.1180a | Installation of Sheet Piles Wall | 18 | 0 | 0% | 0% | | | 03-Oct-23 | 24-Oct-23 | 05-Oct-23 | 26-Oct-23 | | | 2 | * |
| DC.S3.1180a10 | Excavation Work | 17 | 0 | 0% | 0% | | | 27-Oct-23 | 15-Nov-23 | 27-Oct-23 | 15-Nov-23 | | | 0 | * |
| DC.S3.1180a20 | Construction of Pile Cap (280m3, 2 pour) | 21 | 0 | 0% | 0% | | | 16-Nov-23 | 09-Dec-23 | 16-Nov-23 | 09-Dec-23 | | | 0 | * |
| DC.S3.1180a30 | Construction of Wall and Ground Slab (*50m3, 1 pour) | 18 | 0 | 0% | 0% | | | 11-Dec-23 | 30-Dec-23 | 11-Dec-23 | 30-Dec-23 | | | 0 | * |
| DC.S3.1180a40 | Backfilling and Removal of ELS | 9 | 0 | 0% | 0% | | | 02-Jan-24 | 11-Jan-24 | 02-Jan-24 | 11-Jan-24 | | | 0 | * |
| | **Superstructural Construction (Grid B - H)** | | | 0% | | | | 30-Nov-23 | 08-Feb-24 | 30-Nov-23 | 08-Feb-24 | | | 0 | |
| DC.S3.1190a | Wall and Column Construction from +4.65mPD to +10.25mPD (290m3, 2 pour) | 47 | 0 | 0% | 0% | | | 30-Nov-23 | 26-Jan-24 | 30-Nov-23 | 26-Jan-24 | | | 0 | * |
| DC.S3.1190a10 | Wall, Column and Roof Slab Construction from +10.25mPD to +12.65mPD (600m3, 4 pour) | 28 | 0 | 0% | 0% | | | 17-Jan-24 | 08-Feb-24 | 11-Jan-24 | 28-Feb-24 | | | 0 | * |
| | **Superstructural Construction (Grid A -B)** | | | 0% | | | | 13-Jan-24 | 29-Feb-24 | 13-Jan-24 | 29-Feb-24 | | | 0 | |
| DC.S3.1190b | Wall, Column and Slab Construction from +4.65mPD to +8.95mPD (150m3, 1 pour) | 19 | 0 | 0% | 0% | | | 13-Jan-24 | 03-Feb-24 | 13-Jan-24 | 23-Feb-24 | | | 0 | * |
| DC.S3.1190b10 | Wall, Column and Roof Construction from +8.95mPD to +13.55mPD (210m3, 1 pour) | 19 | 0 | 0% | 0% | | | 05-Feb-24 | 29-Feb-24 | 05-Feb-24 | 29-Feb-24 | | | 0 | * |
| | **Design Submission** | | | 91.03% | | 01-Jun-21 | | 01-Jun-21 A | 30-Apr-23 | 04-Apr-23 | 24-Jun-25 | 06-Jun-21 | 27-Feb-25 | 35 | |
| DC.S3.1220 | Updating of Foundation and Pile Cap Design based on Technical Proposal | 97 | 0 | 100% | 100% | 01-Jun-21 | 06-Sep-21 | 01-Jun-21 A | 06-Sep-21 A | | | 06-Jun-21 | 13-Sep-21 | | |
| DC.S3.1230 | Other substructures and Superstructs Design | 387 | 0 | 100% | 100% | 09-Jun-22 | 26-Feb-23 | 09-Jun-22 A | 26-Feb-23 A | | | 06-Jun-22 | 29-Dec-22 | | |
| DC.S3.1270 | Architecture & Landscaping Design | 578 | 0 | 69.27% | 70% | 30-Sep-21 | | 30-Sep-21 A | 30-Apr-23 | 04-Apr-23 | 24-Jun-25 | 30-Sep-21 | 27-Feb-25 | 35 | |
| | **E&M Works** | | | 0% | | | | 09-Feb-24 | 02-Aug-24 | 09-Feb-24 | 22-Aug-24 | 31-Oct-23 | 19-Apr-24 | 0 | |
| DC.S3.1210 | E&M, Mechanical Installation (MBR, Air Blower DO system, Pump etc.) | 62 | 10 | 0% | 0% | | | 09-Feb-24 | 03-Jun-24 | 09-Feb-24 | 23-Jun-24 | 31-Oct-23 | 19-Feb-24 | 0 | |
| DC.S3.1210a | Electrical Installation (Cable, Instrument, PLC Panel, LVSB, etc) | 62 | 10 | 0% | 0% | | | 09-Feb-24 | 03-Jun-24 | 09-Feb-24 | 23-Jun-24 | | | 0 | |
| DC.S3.1210b | Installation of BS Equipment | 45 | 5 | 0% | 0% | | | 13-Mar-24 | 16-May-24 | 03-Apr-24 | 23-Jun-24 | | | 15 | |
| DC.S3.1210c | Installation of Lifting Appliance | 45 | 5 | 0% | 0% | | | 13-Mar-24 | 16-May-24 | 03-Apr-24 | 23-Jun-24 | | | 15 | |
| DC.S3.1220a | SCADA System Site Acceptance Test (Phase 1 MBR Construction) | 30 | 0 | 0% | 0% | | | 14-Apr-24 | 13-May-24 | 14-May-24 | 12-Jun-24 | 30-Nov-23 | 29-Dec-23 | 30 | |
| DC.S3.1220b | SCADA System Commissioning Test (Phase 1 MBR Construction) | 30 | 0 | 0% | 0% | | | 15-Jun-24 | 12-Jul-24 | 13-Jun-24 | 12-Jul-24 | 28-Jan-24 | 27-Feb-24 | 0 | |
| DC.S3.1230b | Seeding of MBR System | 32 | 0 | 0% | 0% | | | 04-Jun-24 | 04-Jul-24 | 04-Jun-24 | 23-Jul-24 | 29-Feb-24 | 19-Apr-24 | 0 | |
| DC.S3.1230c | System Commissioning Test | 32 | 0 | 0% | 0% | | | 04-Jul-24 | 02-Aug-24 | 04-Jul-24 | 22-Aug-24 | | | 0 | |
| | **Internal Architectural Works** | | | 0% | | | | 09-Feb-24 | 29-Apr-24 | 16-Mar-24 | 23-Jun-24 | 31-Oct-23 | 01-Feb-24 | 28 | |
| DC.S3.1260 | Architectural Works (Internal) | 62 | 2 | 0% | 0% | | | 09-Feb-24 | 29-Apr-24 | 16-Mar-24 | 23-Jun-24 | 31-Oct-23 | 01-Feb-24 | 28 | |
| | **Construction of Sludge Digestor Building with 3 Sludge Holding Tanks** | | | 69.88% | | 31-May-21 | | 31-May-21 A | 29-Nov-23 | 12-Mar-23 | 17-Dec-23 | 31-May-21 | 11-Nov-23 | 18 | |
| | **Procurement, Fabrication and Delivery of Major E&M Equipment** | | | 75.83% | | 12-Jul-21 | | 12-Jul-21 A | 03-Sep-23 | 12-Mar-23 | 31-Oct-23 | 12-Jul-21 | 18-Apr-23 | 26 | |
| DC.S3.1235a | Tendering of Subcontractor | 45 | 0 | 100% | 100% | 12-Jul-21 | 25-Aug-21 | 12-Jul-21 A | 25-Aug-21 A | | | 12-Jul-21 | 25-Aug-21 | | |
| DC.S3.1235b | Equipment Submission and Approval | 435 | 0 | 82.85% | 85% | 10-Aug-21 | | 10-Aug-21 A | 15-Apr-23 | 12-Mar-23 | 25-Apr-23 | 10-Aug-21 | 18-Oct-22 | 12 | |
| | **Procurement** | | | 100% | | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a1 | Sludge Digester Feed Pump and Digested Sludge Pump | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a10 | Sludge Digester Air Blower | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a11 | Air Diffuser for Sludge Digestor | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a2 | Submersible Mixer for Digested Sludge Holding Tank | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a3 | Deodorization Unit 4 | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a4 | LV Switchboards, Motor Control Centers and Associated Components | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a5 | Variable Speed Drive (VSD) | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a6 | Cable | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a7 | Pipe Work/Valve | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a8 | Instrument | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| DC.S3.1240a9 | Lifting Appliance | 1 | 0 | 100% | 100% | 31-Jan-22 | 31-Jan-22 | 31-Jan-22 A | 31-Jan-22 A | | | 10-Nov-21 | 10-Nov-21 | | |
| | **Fabrication** | | | 87.35% | | 01-Feb-22 | | 01-Feb-22 A | 03-Sep-23 | 23-Mar-23 | 31-Oct-23 | 01-Feb-22 | 15-Jan-23 | 26 | |
| DC.S3.1240b1 | Sludge Digester Feed Pump and Digested Sludge Pump | 239 | 0 | 100% | 100% | 01-Feb-22 | 28-Sep-22 | 01-Feb-22 A | 28-Sep-22 A | | | 01-Feb-22 | 28-Sep-22 | | |
| DC.S3.1240b10 | Sludge Digester Air Blower | 189 | 0 | 100% | 100% | 01-Feb-22 | 20-Jul-22 | 01-Feb-22 A | 20-Jul-22 A | | | 31-Jul-22 | 15-Jan-23 | | |
| DC.S3.1240b11 | Air Diffuser for Sludge Digester | 240 | 0 | 100% | 100% | 01-Feb-22 | 28-Sep-22 | 01-Feb-22 A | 28-Sep-22 A | | | 01-Feb-22 | 28-Sep-22 | | |
| DC.S3.1240b2 | Submersible Mixer for Digested Sludge Holding Tank | 154 | 0 | 100% | 100% | 01-Feb-22 | 15-Jul-22 | 01-Feb-22 A | 15-Jul-22 A | | | 01-Feb-22 | 14-Jul-22 | | |
| DC.S3.1240b3 | Deodorization Unit 4 | 437 | 0 | 89.7% | 90% | 01-Feb-22 | | 01-Feb-22 A | 13-Apr-23 | 06-Apr-23 | 20-May-23 | 01-Feb-22 | 29-Dec-22 | 37 | * |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 6 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

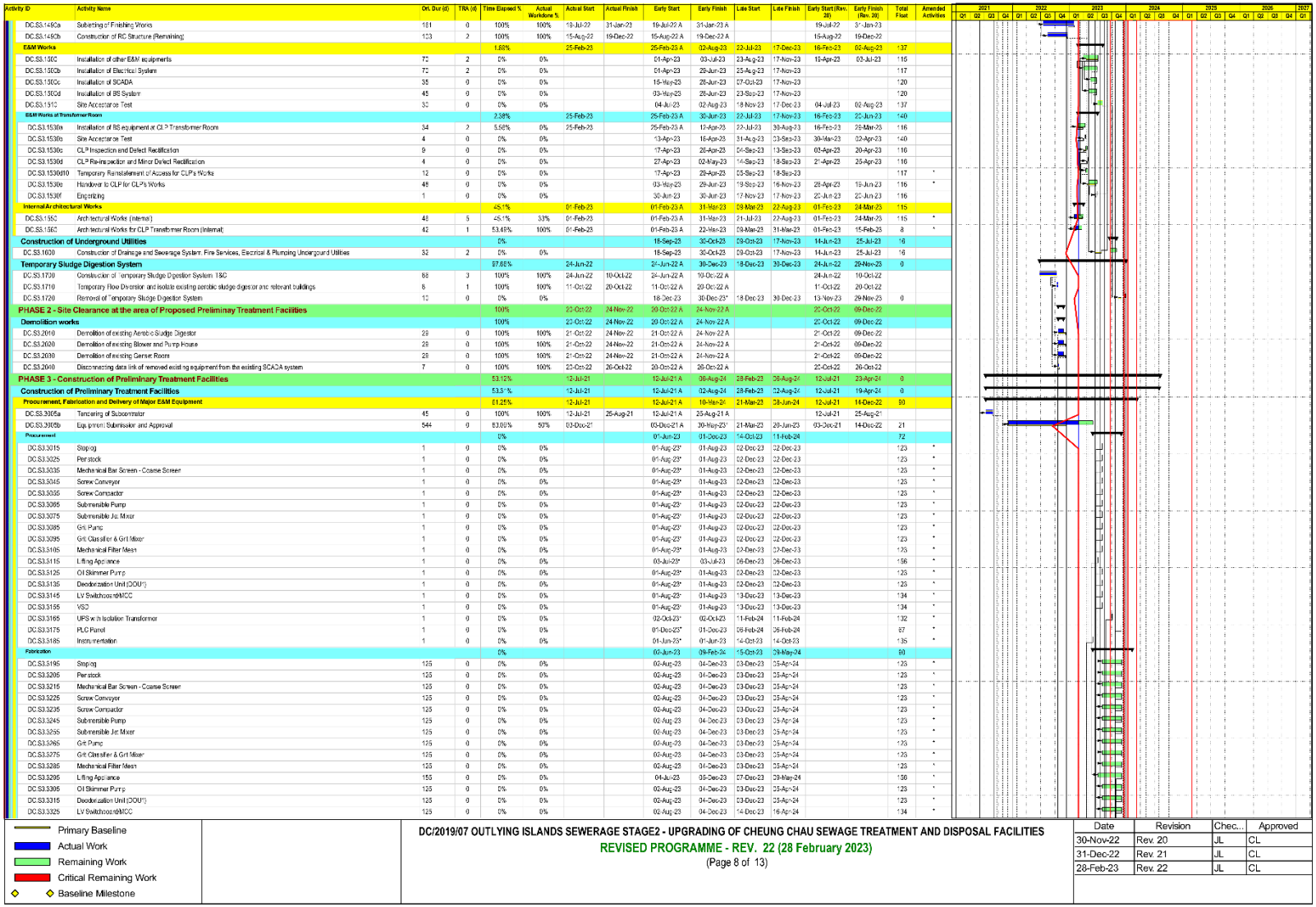


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 28) | Early Finish (Rev. 28) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.1240o4 | LV Switchboards, Motor Control Centers and Associated Components | 512 | 0 | 76.56% | 76% | 01-Feb-22 | | 01-Feb-22 A | 27-Jun-23 | 15-Apr-23 | 12-Aug-23 | 01-Feb-22 | 27-Sep-22 | 46 | * |
| DC.S3.1240o5 | Variable Speed Drive (VSD) | 180 | 0 | 100% | 100% | 01-Feb-22 | 30-Jul-22 | 01-Feb-22 A | 30-Jul-22 A | | | 01-Feb-22 | 30-Jul-22 | | |
| DC.S3.1240o6 | Cable | 240 | 0 | 100% | 100% | 01-Feb-22 | 26-Sep-22 | 01-Feb-22 A | 28-Sep-22 A | | | 01-Feb-22 | 28-Sep-22 | | |
| DC.S3.1240o7 | Pipe Work/Valve | 321 | 0 | 100% | 100% | 01-Feb-22 | 26-Jan-23 | 01-Feb-22 A | 26-Jan-23 A | | | 01-Feb-22 | 14-Dec-22 | | |
| DC.S3.1240o8 | Instrument | 572 | 0 | 68.53% | 68% | 01-Feb-22 | | 01-Feb-22 A | 26-Aug-23 | 23-Mar-23 | 18-Sep-23 | 01-Feb-22 | 14-Dec-22 | 23 | * |
| DC.S3.1240o9 | Lifting Appliance | 552 | 0 | 67.35% | 67% | 01-Feb-22 | | 01-Feb-22 A | 05-Sep-23 | 26-Mar-23 | 21-Oct-23 | 01-Feb-22 | 14-Dec-22 | 26 | * |
| **Delivery** | | | | 89.12% | | 24-May-22 | | 24-May-22 A | 05-Sep-23 | 21-May-23 | 21-Oct-23 | 24-May-22 | 18-Apr-23 | 26 | |
| **Civil & Structural Works** | | | | 78.04% | | 31-May-21 | | 31-May-21 A | 16-Sep-23 | 17-Mar-23 | 27-Oct-23 | 31-May-21 | 25-May-23 | 21 | |
| DC.S3.1125c | Site Preparation Works for Piling (including removal of existing Sludge Tank) | 38 | 4 | 100% | 100% | 31-May-21 | 17-Jul-21 | 31-May-21 A | 17-Jul-21 A | | | 31-May-21 | 17-Jul-21 | | |
| DC.S3.1126a | Subletting of Supply and Installation of ELS | 28 | 0 | 100% | 100% | 01-Aug-21 | 29-Aug-21 | 01-Aug-21 A | 29-Aug-21 A | | | 01-Aug-21 | 29-Aug-21 | | |
| DC.S3.1126a10 | Preliminary Pile and Pile Load Test | 45 | 3 | 100% | 100% | 12-Jul-21 | 06-Sep-21 | 12-Jul-21 A | 06-Sep-21 A | | | 03-Dec-21 | 04-Feb-22 | | |
| DC.S3.1126b | Piling works for pre-bored socket H-piles (37 nos. dia610, 1team) | 75 | 4 | 100% | 100% | 23-Jul-21 | 01-Nov-21 | 23-Jul-21 A | 31-Nov-21 A | | | 16-Dec-21 | 28-Mar-22 | | |
| DC.S3.1126a | Pre-boring for installation of sheet piles | 122 | 1 | 100% | 100% | 01-Nov-21 | 31-Mar-22 | 01-Nov-21 A | 31-Mar-22 A | | | 01-Nov-21 | 30-Mar-22 | | |
| DC.S3.1126b | Installation of sheet piles(PSPVL) | 25 | 2 | 100% | 100% | 01-Apr-22 | 10-May-22 | 01-Apr-22 A | 10-May-22 A | | | 01-Apr-22 | 07-May-22 | | |
| DC.S3.1300 | Excavation for basement of Sludge Digestor Building (3-25 m3 excs, 1 team) | 111 | 2 | 100% | 100% | 10-May-22 | 22-Sep-22 | 10-May-22 A | 22-Sep-22 A | | | 10-May-22 | 27-Sep-22 | | |
| DC.S3.1312a | Subletting of Rebar Fixing | 45 | 0 | 100% | 100% | 25-Nov-21 | 19-Jan-22 | 25-Nov-21 A | 19-Jan-22 A | | | 25-Nov-21 | 19-Jan-22 | | |
| DC.S3.1312b | Subletting of Formworks, Concretor and Miscellaneous Works | 45 | 0 | 100% | 100% | 25-Nov-21 | 19-Jan-22 | 25-Nov-21 A | 19-Jan-22 A | | | 25-Nov-21 | 19-Jan-22 | | |
| DC.S3.1312c | Construction of Pile Cap (Grid 2-4) | 64 | 2 | 100% | 100% | 20-Sep-22 | 08-Dec-22 | 20-Sep-22 A | 08-Dec-22 A | | | 20-Sep-22 | 08-Dec-22 | | |
| DC.S3.1312d | Removal of Formwork and Backfilling and Removal of ELS (Layer 3) | 22 | 0 | 100% | 100% | 08-Dec-22 | 03-Jan-23 | 08-Dec-22 A | 03-Jan-23 A | | | 09-Dec-22 | 24-Dec-22 | | |
| DC.S3.1312e | Construction of Underground Wall (Grid 2-4) (from -1.2mPD to +1.0 mPD) | 23 | 0 | 100% | 100% | 04-Jan-23 | 01-Feb-23 | 04-Jan-23 A | 01-Feb-23 A | | | 27-Dec-22 | 20-Jan-23 | | |
| DC.S3.1312f | Removal of Formwork and Backfilling and Removal of ELS (Layer 2) | 15 | 0 | 100% | 100% | 02-Feb-23 | 16-Feb-23 | 02-Feb-23 A | 16-Feb-23 A | | | 21-Jan-23 | 06-Feb-23 | | |
| DC.S3.1312g | Construction of Underground Wall (Grid 2-4) (from +1.0mPD to +3.1mPD) | 22 | 0 | 22.73% | 31% | 23-Feb-23 | | 20-Feb-23 A | 18-Mar-23 | 17-Mar-23 | 06-Apr-23 | 07-Feb-23 | 27-Feb-23 | 15 | * |
| DC.S3.1312h | Removal of Formwork and Backfilling and Removal of ELS (Layer 1) | 6 | 0 | 0% | 0% | | | 20-Mar-23 | 25-Mar-23 | 11-Apr-23 | 17-Apr-23 | 28-Feb-23 | 14-Mar-23 | 15 | * |
| DC.S3.1313 | Construction of ground slab (Grid 2-4) (from +3.1mPD to +4.4mPD, 180m3, 1 pour) | 22 | 0 | 0% | 0% | | | 27-Mar-23 | 25-Apr-23 | 26-Apr-23 | 22-May-23 | 15-Mar-23 | 28-Apr-23 | 22 | * |
| DC.S3.1330 | Installation of ELS and excavation for pile cap of Sludge Holding Tanks (325m3) | 6 | 0 | 0% | 0% | | | 17-Jul-23 | 22-Jul-23 | 04-Aug-23 | 10-Aug-23 | 15-Mar-23 | 21-Mar-23 | 16 | * |
| DC.S3.1340 | Construction of RC structure of Sludge Holding Tanks (below ground, 210m3, 1 pour) | 12 | 0 | 0% | 0% | | | 24-Jul-23 | 05-Aug-23 | 11-Aug-23 | 24-Aug-23 | 22-Mar-23 | 04-Apr-23 | 16 | * |
| DC.S3.1350 | Removal of Formwork and Backfilling to ground level and removal of ELS (Sludge Holding Tank) | 6 | 0 | 0% | 0% | | | 07-Aug-23 | 12-Aug-23 | 25-Aug-23 | 31-Aug-23 | 05-Apr-23 | 10-Apr-23 | 16 | * |
| DC.S3.1351 | Construction of RC superstructure (Sludge Holding Tank) (375m3, 2 pour) | 32 | 0 | 0% | 0% | | | 14-Aug-23 | 16-Sep-23 | 01-Sep-23 | 07-Oct-23 | 22-Apr-23 | 25-May-23 | 16 | * |
| DC.S3.1362a | Construction of RC Wall (Grid 2-4) (from +4.4mPD to +9.15mPD, 100m3, 1 pour) | 24 | 0 | 0% | 0% | | | 26-Apr-23 | 24-May-23 | 23-May-23 | 20-Jun-23 | | | 22 | * |
| DC.S3.1362b | Construction of RC Wall (Grid 2-4) (from +9.25mPD to +12.3mPD, 60m3, 1 pour) | 22 | 0 | 0% | 0% | | | 25-May-23 | 17-Jun-23 | 21-Jun-23 | 15-Jul-23 | | | 22 | * |
| DC.S3.1362c | Construction of RC Roof Slab (Grid 2-4) (220m3, 1 pour) | 18 | 0 | 0% | 0% | | | 19-Jun-23 | 08-Jul-23 | 17-Jul-23 | 03-Aug-23 | | | 22 | * |
| DC.S3.1363d | Installation of ELS and excavation for substructures of Sludge Digestor Building (Grids 1-2) | 6 | 0 | 0% | 0% | | | 28-Mar-23 | 11-Apr-23 | 20-Apr-23 | 28-Apr-23 | | | 15 | * |
| DC.S3.1363e | Construction of RC pile cap (Grid 1-2) (25m3, 1 pour) | 12 | 0 | 0% | 0% | | | 12-Apr-23 | 25-Apr-23 | 29-Apr-23 | 13-May-23 | | | 15 | * |
| DC.S3.1363f | Construction of RC ground slab (Grids 1-2) (80m3, 1 pour) | 18 | 0 | 0% | 0% | | | 26-Apr-23 | 15-May-23 | 15-May-23 | 02-Jun-23 | | | 15 | * |
| DC.S3.1363g | Backfilling to ground level and removal of ELS (Grids 1-2) | 6 | 0 | 0% | 0% | | | 16-May-23 | 22-May-23 | 03-Jun-23 | 09-Jun-23 | | | 15 | * |
| DC.S3.1363h | Construction of RC Wall and Slab (Grids 1-2) (from +4.4mD to +9.15mD) (90m3, 1 pour) | 21 | 0 | 0% | 0% | | | 23-May-23 | 16-Jun-23 | 10-Jun-23 | 06-Jul-23 | | | 15 | * |
| DC.S3.1363i | Construction of RC Wall (Grids 1-2) (from +9.15mD to +12.3mD) (35m3, 1 pour) | 17 | 0 | 0% | 0% | | | 17-Jun-23 | 08-Jul-23 | 07-Jul-23 | 26-Jul-23 | | | 15 | * |
| DC.S3.1363j | Construction of RC Roof Slab (Grids 1-2) (110m3) (110m3, 1 pour) | 17 | 0 | 0% | 0% | | | 10-Jul-23 | 28-Jul-23 | 27-Jul-23 | 15-Aug-23 | | | 15 | * |
| **E&M Works** | | | | 0% | | | | 10-Aug-23 | 29-Nov-23 | 28-Aug-23 | 17-Dec-23 | 26-Jul-23 | 11-Nov-23 | 18 | |
| DC.S3.1362a | Installation of Submersible Mixer, Air Blower, Air Diffuser, Feed Pump, DOU | 58 | 0 | 0% | 0% | | | 10-Aug-23 | 18-Oct-23 | 28-Aug-23 | 23-Nov-23 | 26-Jul-23 | 28-Sep-23 | 15 | |
| DC.S3.1362b | Installation of Cable Containment & Conduit | 25 | 0 | 0% | 0% | | | 10-Aug-23 | 07-Sep-23 | 28-Aug-23 | 25-Sep-23 | 26-Jul-23 | 23-Aug-23 | 15 | |
| DC.S3.1362c | Installation of RS Equipment, Cable, Instrument, P.C Panel | 43 | 0 | 0% | 0% | | | 25-Aug-23 | 18-Oct-23 | 12-Sep-23 | 03-Nov-23 | 10-Aug-23 | 28-Sep-23 | 15 | |
| DC.S3.1362d10 | Installation of Lifting Applicance | 25 | 0 | 0% | 0% | | | 02-Sep-23 | 26-Sep-23 | 10-Oct-23 | 03-Nov-23 | | | 38 | * |
| DC.S3.1362d | SAT of Equipment | 7 | 0 | 0% | 0% | | | 17-Oct-23 | 25-Oct-23 | 04-Nov-23 | 11-Nov-23 | 29-Sep-23 | 12-Oct-23 | 15 | |
| DC.S3.1362d10 | Seeding for sludge digestion system | 14 | 0 | 0% | 0% | | | 17-Oct-23 | 30-Oct-23 | 04-Nov-23 | 17-Nov-23 | | | 18 | * |
| DC.S3.1362a | SCADA System Site Acceptance Test (Phase 1 Sludge Digestor Building Construction) | 32 | 0 | 0% | 0% | | | 09-Sep-23 | 08-Oct-23 | 19-Oct-23 | 17-Nov-23 | 25-Aug-23 | 23-Sep-23 | 40 | |
| DC.S3.1362b | SCADA System Commissioning Test (Phase 1 Sludge Digestor Building Construction) | 32 | 0 | 0% | 0% | | | 09-Oct-23 | 07-Nov-23 | 18-Nov-23 | 17-Dec-23 | 24-Sep-23 | 23-Oct-23 | 40 | |
| DC.S3.1400b | System Commissioning Test | 32 | 0 | 0% | 0% | | | 31-Oct-23 | 29-Nov-23 | 18-Nov-23 | 17-Dec-23 | 12-Oct-23 | 11-Nov-23 | 18 | |
| **Internal Architectural Works** | | | | 0% | | | | 18-Jul-23 | 03-Oct-23 | 04-Aug-23 | 20-Oct-23 | 26-Jul-23 | 10-Nov-23 | 15 | |
| DC.S3.1372 | Architectural Works (Internal) | 63 | 2 | 0% | 0% | | | 18-Jul-23 | 03-Oct-23 | 04-Aug-23 | 20-Oct-23 | 26-Jul-23 | 10-Nov-23 | 15 | |
| **Construction of LV Main Switch Room, Transformer Room** | | | | 73.28% | | 12-Jul-21 | | 12-Jul-21 A | 02-Aug-23 | 19-Mar-23 | 17-Dec-23 | 12-Jul-21 | 02-Aug-23 | 137 | |
| **Procurement, Fabrication and Delivery of Major E&M Equipment** | | | | 97.38% | | 12-Jul-21 | | 12-Jul-21 A | 15-Mar-23 | 20-Aug-23 | 24-Sep-23 | 12-Jul-21 | 16-May-23 | 173 | |
| DC.S3.1405a | Tendering of Subcontractor | 45 | 0 | 100% | 100% | 12-Jul-21 | 25-Aug-21 | 12-Jul-21 A | 25-Aug-21 A | | | 12-Jul-21 | 25-Aug-21 | | |
| DC.S3.1405b | Equipment Submission and Approval | 140 | 0 | 100% | 100% | 12-Sep-21 | 16-Dec-21 | 10-Sep-21 A | 18-Dec-21 A | | | 10-Sep-21 | 16-Dec-21 | | |
| DC.S3.1412a | Procurement | 32 | 0 | 100% | 100% | 14-Feb-22 | 14-Feb-22 | 14-Feb-22 A | 14-Feb-22 A | | | 20-Mar-22 | 18-Apr-22 | | |
| **Fabrication** | | | | 100% | | 18-Jun-22 | 25-Feb-23 | 18-Jun-22 A | 25-Feb-23 A | | | 18-Jun-22 | 16-May-23 | | |
| DC.S3.1410o | Cable | 247 | 0 | 100% | 100% | 18-Jun-22 | 22-Sep-22 | 18-Jun-22 A | 22-Sep-22 A | | | 18-Jun-22 | 13-Nov-22 | | |
| DC.S3.1410o20 | LV Switchboard, Motor Control Centers and Associated Components | 168 | 0 | 100% | 100% | 31-Oct-22 | 25-Feb-23 | 31-Oct-22 A | 25-Feb-23 A | | | 31-Oct-22 | 16-May-23 | | |
| **Delivery** | | | | 86.68% | | 01-Sep-22 | | 01-Sep-22 A | 15-Mar-23 | 20-Aug-23 | 24-Sep-23 | 14-Nov-22 | 18-Apr-23 | 173 | |
| DC.S3.1410o | Cable | 21 | 0 | 100% | 100% | 01-Sep-22 | 22-Sep-22 | 01-Sep-22 A | 22-Sep-22 A | | | 14-Nov-22 | 13-Dec-22 | | |
| DC.S3.1410o222 | LV Switchboard, Motor Control Centers and Associated Components | 18 | 0 | 11.11% | 0% | 28-Feb-23 | | 28-Feb-23 A | 15-Mar-23 | 20-Aug-23 | 24-Sep-23 | 20-Mar-23 | 18-Apr-23 | 173 | |
| **Civil & Structural Works** | | | | 100% | | 04-Oct-21 | 31-Jan-23 | 04-Oct-21 A | 31-Jan-23 A | | | 04-Oct-21 | 31-Jan-23 | | |
| DC.S3.1422 | Piling works for pre-bored socket H-piles (17 nos. dia610) (1team) | 54 | 3 | 100% | 100% | 15-Oct-21 | 16-Nov-21 | 15-Oct-21 A | 19-Nov-21 A | | | 28-Feb-22 | 02-Apr-22 | | |
| DC.S3.1430 | Pre-boring of sheet piles & installation of pipe pile wall | 58 | 2 | 100% | 100% | 19-Nov-21 | 29-Jan-22 | 19-Nov-21 A | 29-Jan-22 A | | | 04-Apr-22 | 18-Jun-22 | | |
| DC.S3.1431 | Grouting Curtain Works | 48 | 2 | 100% | 100% | 31-Jan-22 | 01-Apr-22 | 31-Jan-22 A | 01-Apr-22 A | | | 31-Jan-22 | 01-Apr-22 | | |
| DC.S3.1450 | Installation of Sheet Piles | 8 | 2 | 100% | 100% | 30-Mar-22 | 11-Apr-22 | 30-Mar-22 A | 11-Apr-22 A | | | 30-Mar-22 | 11-Apr-22 | | |
| DC.S3.1460a | Subletting of Earthworks | 45 | 0 | 100% | 100% | 04-Oct-21 | 25-Nov-21 | 04-Oct-21 A | 25-Nov-21 A | | | 04-Oct-21 | 25-Nov-21 | | |
| DC.S3.1460b | Installation of ELS and excavation for basement of LV Main Switch Room and Transformer Room | 54 | 2 | 100% | 100% | 12-Apr-22 | 23-Jun-22 | 12-Apr-22 A | 23-Jun-22 A | | | 12-Apr-22 | 22-Jun-22 | | |
| DC.S3.1472 | Construction of RC structure (pile cap) | 25 | 2 | 100% | 100% | 25-Jun-22 | 26-Jul-22 | 25-Jun-22 A | 28-Jul-22 A | | | 31-May-22 | 02-Jul-22 | | |
| DC.S3.1482 | Removal of formworks, falseworks, backfilling/grass filling and removal of ELS | 13 | 1 | 100% | 100% | 29-Jul-22 | 15-Aug-22 | 29-Jul-22 A | 15-Aug-22 A | | | 19-Jul-22 | 03-Aug-22 | | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 7 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

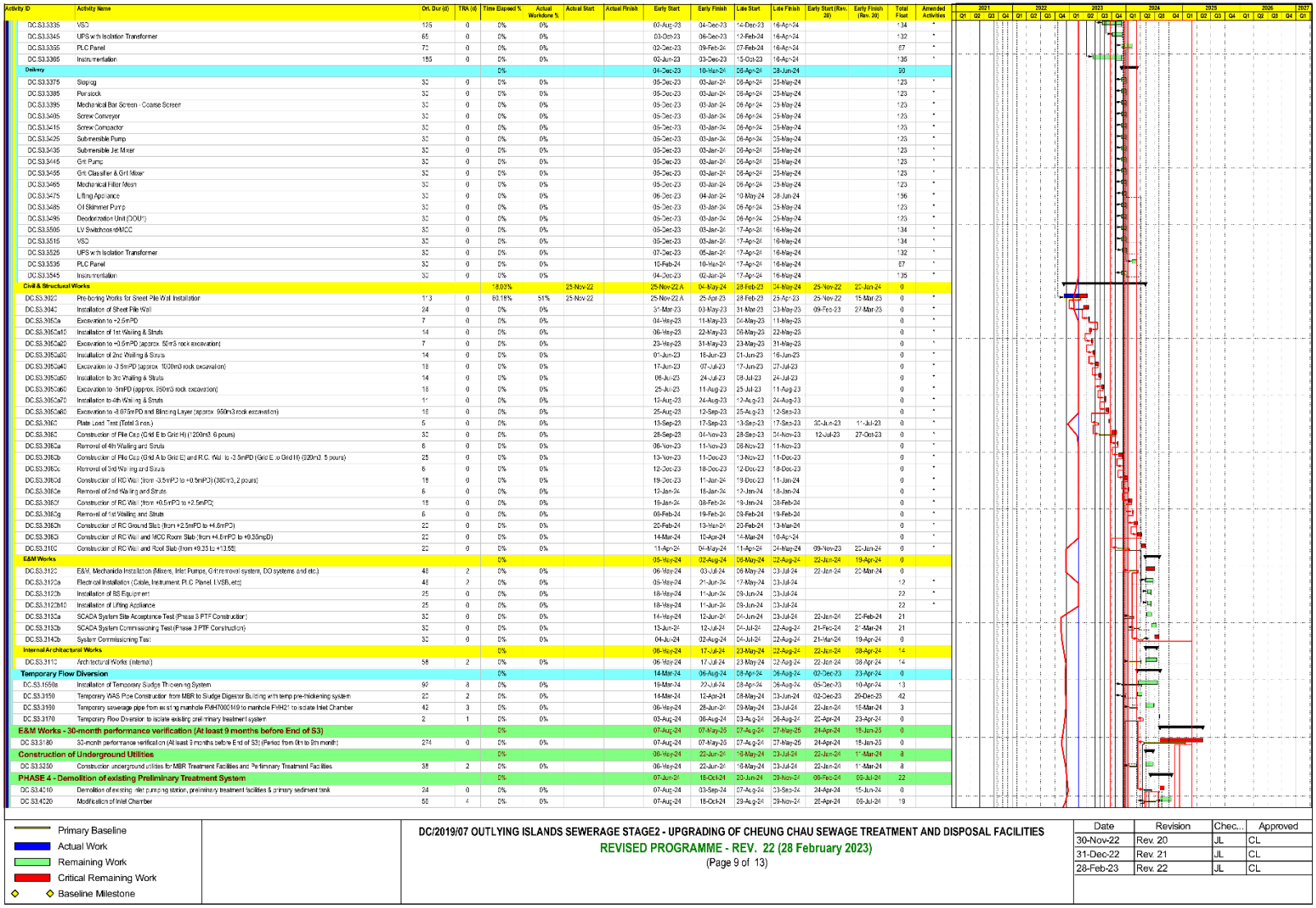


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 28) | Early Finish (Rev. 28) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.SS.1490a | Subletting of Finishing Works | 181 | 0 | 100% | 100% | 19-Jul-22 | 31-Jan-23 | 19-Jul-22 A | 31-Jan-23 A | | | 19-Jul-22 | 31-Jan-23 | | |
| DC.SS.1490b | Construction of RC Structure (Remaining) | 123 | 2 | 100% | 100% | 15-Aug-22 | 19-Dec-22 | 15-Aug-22 A | 19-Dec-22 A | | | 15-Aug-22 | 19-Dec-22 | | |
| E&M Works | | | | 1.88% | | 25-Feb-23 | | 25-Feb-23 A | 02-Aug-23 | 22-Jul-23 | 17-Dec-23 | 16-Feb-23 | 02-Aug-23 | 137 | |
| DC.SS.1500 | Installation of other E&M equipments | 72 | 2 | 0% | 0% | | | 01-Apr-23 | 03-Jul-23 | 23-Aug-23 | 17-Nov-23 | 18-Apr-23 | 03-Jul-23 | 116 | |
| DC.SS.1500b | Installation of Electrical System | 72 | 2 | 0% | 0% | | | 01-Apr-23 | 28-Jun-23 | 25-Aug-23 | 17-Nov-23 | | | 117 | |
| DC.SS.1500c | Installation of SCADA | 35 | 0 | 0% | 0% | | | 16-May-23 | 28-Jun-23 | 07-Oct-23 | 17-Nov-23 | | | 120 | |
| DC.SS.1500d | Installation of BS System | 45 | 0 | 0% | 0% | | | 03-May-23 | 28-Jun-23 | 23-Sep-23 | 17-Nov-23 | | | 120 | |
| DC.SS.1510 | Site Acceptance Test | 30 | 0 | 0% | 0% | | | 04-Jul-23 | 02-Aug-23 | 18-Nov-23 | 17-Dec-23 | 04-Jul-23 | 02-Aug-23 | 137 | |
| E&M Works at Transformer Room | | | | 2.38% | | 25-Feb-23 | | 25-Feb-23 A | 30-Jun-23 | 22-Jul-23 | 17-Nov-23 | 16-Feb-23 | 30-Jun-23 | 140 | |
| DC.SS.1530a | Installation of BS equipment at CLP Transformer Room | 34 | 2 | 5.56% | 0% | 25-Feb-23 | | 25-Feb-23 A | 12-Apr-23 | 22-Jul-23 | 30-Aug-23 | 16-Feb-23 | 28-Mar-23 | 116 | |
| DC.SS.1530b | Site Acceptance Test | 4 | 0 | 0% | 0% | | | 13-Apr-23 | 16-Apr-23 | 31-Aug-23 | 03-Sep-23 | 30-Mar-23 | 02-Apr-23 | 140 | |
| DC.SS.1530c | CLP Inspection and Defect Rectification | 9 | 0 | 0% | 0% | | | 17-Apr-23 | 26-Apr-23 | 04-Sep-23 | 13-Sep-23 | 03-Apr-23 | 20-Apr-23 | 116 | |
| DC.SS.1530d | CLP Re-inspection and Minor Defect Rectification | 4 | 0 | 0% | 0% | | | 27-Apr-23 | 02-May-23 | 14-Sep-23 | 18-Sep-23 | 21-Apr-23 | 25-Apr-23 | 116 | |
| DC.SS.1530d10 | Temporary Reinstatement of Access for CLP's Works | 12 | 0 | 0% | 0% | | | 17-Apr-23 | 28-Apr-23 | 05-Sep-23 | 18-Sep-23 | | | 117 | * |
| DC.SS.1530e | Handover to CLP for CLP's Works | 48 | 0 | 0% | 0% | | | 03-May-23 | 29-Jun-23 | 19-Sep-23 | 16-Nov-23 | 26-Apr-23 | 19-Jun-23 | 116 | * |
| DC.SS.1530f | Engraving | 1 | 0 | 0% | 0% | | | 30-Jun-23 | 30-Jun-23 | 17-Nov-23 | 17-Nov-23 | 20-Jun-23 | 20-Jun-23 | 116 | |
| Internal Architectural Works | | | | 45.1% | | 01-Feb-23 | | 01-Feb-23 A | 31-Mar-23 | 09-Mar-23 | 22-Aug-23 | 01-Feb-23 | 24-Mar-23 | 115 | |
| DC.SS.1550 | Architectural Works (Internal) | 48 | 5 | 45.1% | 53% | 01-Feb-23 | | 01-Feb-23 A | 31-Mar-23 | 21-Jul-23 | 22-Aug-23 | 01-Feb-23 | 24-Mar-23 | 115 | * |
| DC.SS.1560 | Architectural Works for CLP Transformer Room (Internal) | 42 | 1 | 53.48% | 100% | 01-Feb-23 | | 01-Feb-23 A | 22-Mar-23 | 09-Mar-23 | 31-Mar-23 | 01-Feb-23 | 15-Feb-23 | 8 | * |
| Construction of Underground Utilities | | | | 0% | | | | 18-Sep-23 | 30-Oct-23 | 09-Oct-23 | 17-Nov-23 | 14-Jun-23 | 25-Jul-23 | 16 | |
| DC.SS.1600 | Construction of Drainage and Sewerage System, Fire Services, Electrical & Plumbing Underground Utilities | 32 | 2 | 0% | 0% | | | 18-Sep-23 | 30-Oct-23 | 09-Oct-23 | 17-Nov-23 | 14-Jun-23 | 25-Jul-23 | 16 | |
| Temporary Sludge Digestion System | | | | 97.66% | | 24-Jun-22 | | 24-Jun-22 A | 30-Dec-23 | 18-Dec-23 | 30-Dec-23 | 24-Jun-22 | 29-Nov-23 | 0 | |
| DC.SS.1700 | Construction of Temporary Sludge Digestion System T&C | 88 | 3 | 100% | 100% | 24-Jun-22 | 10-Oct-22 | 24-Jun-22 A | 10-Oct-22 A | | | 24-Jun-22 | 10-Oct-22 | | |
| DC.SS.1710 | Temporary Flow Diversion and isolate existing aerobic sludge digester and relevant buildings | 8 | 1 | 100% | 100% | 11-Oct-22 | 20-Oct-22 | 11-Oct-22 A | 20-Oct-22 A | | | 11-Oct-22 | 20-Oct-22 | | |
| DC.SS.1720 | Removal of Temporary Sludge Digestion System | 10 | 0 | 0% | 0% | | | 18-Dec-23 | 30-Dec-23* | 18-Dec-23 | 30-Dec-23 | 13-Nov-23 | 29-Nov-23 | 0 | |
| PHASE 2 - Site Clearance at the area of Proposed Preliminay Treatment Facilities | | | | 100% | | 20-Oct-22 | 24-Nov-22 | 20-Oct-22 A | 24-Nov-22 A | | | 20-Oct-22 | 09-Dec-22 | | |
| Demolition works | | | | 100% | | 20-Oct-22 | 24-Nov-22 | 20-Oct-22 A | 24-Nov-22 A | | | 20-Oct-22 | 09-Dec-22 | | |
| DC.SS.2010 | Demolition of existing Aerobic Sludge Digestor | 28 | 0 | 100% | 100% | 21-Oct-22 | 24-Nov-22 | 21-Oct-22 A | 24-Nov-22 A | | | 21-Oct-22 | 09-Dec-22 | | |
| DC.SS.2020 | Demolition of existing Blower and Pump House | 28 | 0 | 100% | 100% | 21-Oct-22 | 24-Nov-22 | 21-Oct-22 A | 24-Nov-22 A | | | 21-Oct-22 | 09-Dec-22 | | |
| DC.SS.2030 | Demolition of existing Genset Room | 28 | 0 | 100% | 100% | 21-Oct-22 | 24-Nov-22 | 21-Oct-22 A | 24-Nov-22 A | | | 21-Oct-22 | 09-Dec-22 | | |
| DC.SS.2040 | Disconnecting data link of removed existing equipment from the existing SCADA system | 7 | 0 | 100% | 100% | 20-Oct-22 | 26-Oct-22 | 20-Oct-22 A | 26-Oct-22 A | | | 20-Oct-22 | 26-Oct-22 | | |
| PHASE 3 - Construction of Preliminary Treatment Facilities | | | | 53.12% | | 12-Jul-21 | | 12-Jul-21 A | 06-Aug-24 | 28-Feb-23 | 06-Aug-24 | 12-Jul-21 | 23-Apr-24 | 0 | |
| Construction of Preliminary Treatment Facilities | | | | 53.3 % | | 12-Jul-21 | | 12-Jul-21 A | 02-Aug-24 | 28-Feb-23 | 02-Aug-24 | 12-Jul-21 | 19-Apr-24 | 0 | |
| Procurement, Fabrication and Delivery of Major E&M Equipment | | | | 81.25% | | 12-Jul-21 | | 12-Jul-21 A | 10-Mar-24 | 21-Mar-23 | 28-Jun-24 | 12-Jul-21 | 14-Dec-22 | 80 | |
| DC.SS.3005a | Tendering of Subcontractor | 45 | 0 | 100% | 100% | 12-Jul-21 | 25-Aug-21 | 12-Jul-21 A | 25-Aug-21 A | | | 12-Jul-21 | 25-Aug-21 | | |
| DC.SS.3005b | Equipment Submission and Approval | 544 | 0 | 83.09% | 50% | 03-Dec-21 | | 03-Dec-21 A | 30-May-23* | 21-Mar-23 | 20-Jun-23 | 03-Dec-21 | 14-Dec-22 | 21 | |
| Procurement | | | | 0% | | | | 01-Jun-23 | 01-Dec-23 | 14-Oct-23 | 11-Feb-24 | | | 72 | |
| DC.SS.3015 | Sluice Gate | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3025 | Penstock | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3035 | Mechanical Bar Screen - Coarse Screen | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3045 | Screw Conveyor | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3055 | Screw Compactor | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3065 | Submersible Pump | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3075 | Submersible Jet Mixer | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3085 | Grit Pump | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3095 | Grit Classifier & Grit Mixer | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3105 | Mechanical Filter Mesh | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3115 | Lifting Appliance | 1 | 0 | 0% | 0% | | | 03-Jul-23* | 03-Jul-23 | 06-Dec-23 | 06-Dec-23 | | | 156 | * |
| DC.SS.3125 | Oil Skimmer Pump | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3135 | Deodorization Unit (DOU1) | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 02-Dec-23 | 02-Dec-23 | | | 123 | * |
| DC.SS.3145 | LV Switchboard/MCC | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 13-Dec-23 | 13-Dec-23 | | | 134 | * |
| DC.SS.3155 | VSD | 1 | 0 | 0% | 0% | | | 01-Aug-23* | 01-Aug-23 | 13-Dec-23 | 13-Dec-23 | | | 134 | * |
| DC.SS.3165 | UPS with Isolation Transformer | 1 | 0 | 0% | 0% | | | 02-Oct-23* | 02-Oct-23 | 11-Feb-24 | 11-Feb-24 | | | 132 | * |
| DC.SS.3175 | PLC Panel | 1 | 0 | 0% | 0% | | | 01-Dec-23* | 01-Dec-23 | 06-Feb-24 | 06-Feb-24 | | | 67 | * |
| DC.SS.3185 | Instrumentation | 1 | 0 | 0% | 0% | | | 01-Jun-23* | 01-Jun-23 | 14-Oct-23 | 14-Oct-23 | | | 135 | * |
| Fabrication | | | | 0% | | | | 02-Jun-23 | 09-Feb-24 | 15-Oct-23 | 29-May-24 | | | 80 | |
| DC.SS.3195 | Sluice Gate | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3205 | Penstock | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3215 | Mechanical Bar Screen - Coarse Screen | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3225 | Screw Conveyor | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3235 | Screw Compactor | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3245 | Submersible Pump | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3255 | Submersible Jet Mixer | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3265 | Grit Pump | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3275 | Grit Classifier & Grit Mixer | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3285 | Mechanical Filter Mesh | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3295 | Lifting Appliance | 155 | 0 | 0% | 0% | | | 04-Jul-23 | 05-Dec-23 | 07-Dec-23 | 29-May-24 | | | 156 | * |
| DC.SS.3305 | Oil Skimmer Pump | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3315 | Deodorization Unit (DOU1) | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 03-Dec-23 | 25-Apr-24 | | | 123 | * |
| DC.SS.3325 | LV Switchboard/MCC | 125 | 0 | 0% | 0% | | | 02-Aug-23 | 04-Dec-23 | 14-Dec-23 | 16-Apr-24 | | | 134 | * |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 8 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

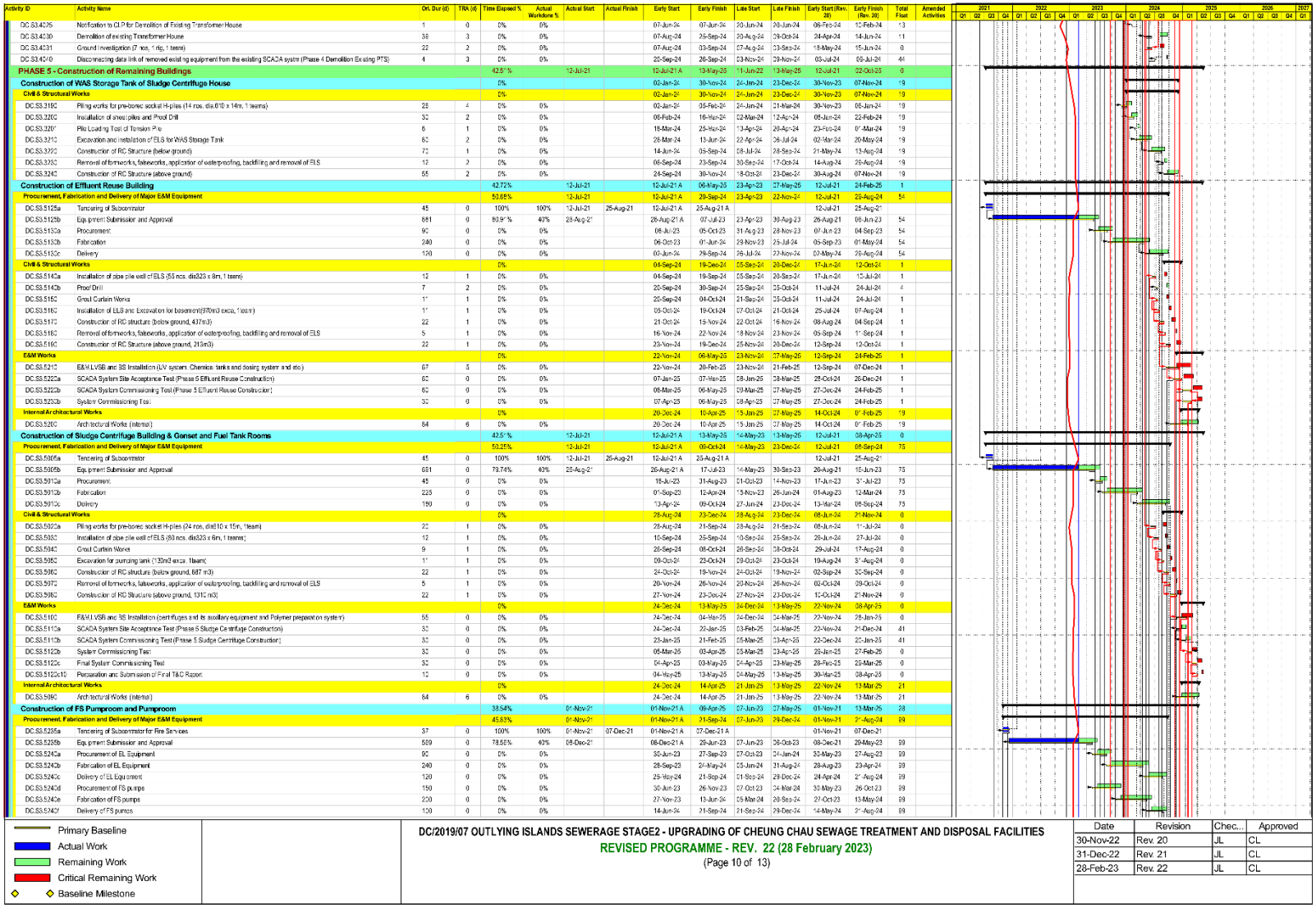


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 20) | Early Finish (Rev. 20) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.3335 | VSD | 126 | 0 | 0% | 0% | | | 07-Aug-23 | 04-Dec-23 | 14-Dec-23 | 16-Apr-24 | | | 134 | * |
| DC.S3.3345 | UPS with Isolation Transformer | 65 | 0 | 0% | 0% | | | 03-Oct-23 | 06-Dec-23 | 12-Feb-24 | 16-Apr-24 | | | 132 | * |
| DC.S3.3355 | PLC Panel | 72 | 0 | 0% | 0% | | | 02-Dec-23 | 09-Feb-24 | 07-Feb-24 | 16-Apr-24 | | | 67 | * |
| DC.S3.3365 | Instrumentation | 155 | 0 | 0% | 0% | | | 02-Jun-23 | 03-Dec-23 | 15-Oct-23 | 16-Apr-24 | | | 135 | * |
| Delivery | | | | 0% | | | | 04-Dec-23 | 16-Mar-24 | 06-Apr-24 | 28-Jun-24 | | | 90 | |
| DC.S3.3375 | Stoplog | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3385 | Pen stock | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3395 | Mechanical Bar Screen - Coarse Screen | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3405 | Screw Conveyor | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3415 | Screw Compactor | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3425 | Submersible Pump | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3435 | Submersible Jet Mixer | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3445 | Grit Pump | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3455 | Grit Classifier & Grit Mixer | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3465 | Mechanical Filter Mesh | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3475 | Lifting Appliance | 32 | 0 | 0% | 0% | | | 06-Dec-23 | 04-Jan-24 | 10-May-24 | 28-Jun-24 | | | 156 | * |
| DC.S3.3485 | Oil Skimmer Pump | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3495 | Deodorization Unit (DOU*) | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 06-Apr-24 | 25-May-24 | | | 123 | * |
| DC.S3.3505 | LV Switchboard/MCC | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 17-Apr-24 | 16-May-24 | | | 134 | * |
| DC.S3.3515 | VSD | 32 | 0 | 0% | 0% | | | 05-Dec-23 | 03-Jan-24 | 17-Apr-24 | 16-May-24 | | | 134 | * |
| DC.S3.3525 | UPS with Isolation Transformer | 32 | 0 | 0% | 0% | | | 07-Dec-23 | 05-Jan-24 | 17-Apr-24 | 16-May-24 | | | 132 | * |
| DC.S3.3535 | PLC Panel | 32 | 0 | 0% | 0% | | | 10-Feb-24 | 10-Mar-24 | 17-Apr-24 | 16-May-24 | | | 67 | * |
| DC.S3.3545 | Instrumentation | 32 | 0 | 0% | 0% | | | 04-Dec-23 | 02-Jan-24 | 17-Apr-24 | 16-May-24 | | | 135 | * |
| Civil & Structural Works | | | | 18.03% | | 25-Nov-22 | | 25-Nov-22 A | 04-May-24 | 28-Feb-23 | 24-May-24 | 25-Nov-22 | 22-Jun-24 | 0 | |
| DC.S3.3022 | Pre-boring Works for Sheet Pile Wall Installation | 113 | 0 | 80.18% | 51% | 25-Nov-22 | | 25-Nov-22 A | 25-Apr-23 | 28-Feb-23 | 25-Apr-23 | 25-Nov-22 | 15-Mar-23 | 0 | * |
| DC.S3.3042 | Installation of Sheet Pile Wall | 24 | 0 | 0% | 0% | | | 31-Mar-23 | 03-May-23 | 31-Mar-23 | 03-May-23 | 09-Feb-23 | 27-Mar-23 | 0 | * |
| DC.S3.3052a | Excavation to +2.5mPD | 7 | 0 | 0% | 0% | | | 04-May-23 | 11-May-23 | 04-May-23 | 11-May-23 | | | 0 | * |
| DC.S3.3052a10 | Installation of 1st Walling & Struts | 14 | 0 | 0% | 0% | | | 06-May-23 | 22-May-23 | 09-May-23 | 22-May-23 | | | 0 | * |
| DC.S3.3052a20 | Excavation to +0.5mPD (approx. 50m3 rock excavation) | 7 | 0 | 0% | 0% | | | 23-May-23 | 31-May-23 | 23-May-23 | 31-May-23 | | | 0 | * |
| DC.S3.3052a30 | Installation of 2nd Walling & Struts | 14 | 0 | 0% | 0% | | | 01-Jun-23 | 16-Jun-23 | 01-Jun-23 | 16-Jun-23 | | | 0 | * |
| DC.S3.3052a40 | Excavation to -3.5mPD (approx. 1030m3 rock excavation) | 18 | 0 | 0% | 0% | | | 17-Jun-23 | 07-Jul-23 | 17-Jun-23 | 07-Jul-23 | | | 0 | * |
| DC.S3.3052a50 | Installation to 3rd Walling & Struts | 14 | 0 | 0% | 0% | | | 08-Jul-23 | 24-Jul-23 | 08-Jul-23 | 24-Jul-23 | | | 0 | * |
| DC.S3.3052a60 | Excavation to -5mPD (approx. 950m3 rock excavation) | 18 | 0 | 0% | 0% | | | 25-Jul-23 | 11-Aug-23 | 25-Jul-23 | 11-Aug-23 | | | 0 | * |
| DC.S3.3052a70 | Installation to 4th Walling & Struts | 11 | 0 | 0% | 0% | | | 12-Aug-23 | 24-Aug-23 | 12-Aug-23 | 24-Aug-23 | | | 0 | * |
| DC.S3.3052a80 | Excavation to -8.075mPD and Blinding Layer (approx. 950m3 rock excavation) | 18 | 0 | 0% | 0% | | | 25-Aug-23 | 12-Sep-23 | 25-Aug-23 | 12-Sep-23 | | | 0 | * |
| DC.S3.3060 | Plate Load Test (Total 3 nos.) | 5 | 0 | 0% | 0% | | | 13-Sep-23 | 17-Sep-23 | 13-Sep-23 | 17-Sep-23 | 30-Jun-23 | 11-Jul-23 | 0 | * |
| DC.S3.3061 | Construction of Pile Cap (Grid E to Grid H) (1,200m3, 6 pours) | 32 | 0 | 0% | 0% | | | 28-Sep-23 | 04-Nov-23 | 28-Sep-23 | 04-Nov-23 | 12-Jul-23 | 27-Oct-23 | 0 | * |
| DC.S3.3062a | Removal of 4th Walling and Struts | 6 | 0 | 0% | 0% | | | 06-Nov-23 | 11-Nov-23 | 06-Nov-23 | 11-Nov-23 | | | 0 | * |
| DC.S3.3062b | Construction of Pile Cap (Grid A to Grid E) and R.C. Wall to -3.5mPD (Grid E to Grid H) (920m3, 5 pours) | 25 | 0 | 0% | 0% | | | 13-Nov-23 | 11-Dec-23 | 13-Nov-23 | 11-Dec-23 | | | 0 | * |
| DC.S3.3062c | Removal of 3rd Walling and Struts | 6 | 0 | 0% | 0% | | | 12-Dec-23 | 18-Dec-23 | 12-Dec-23 | 18-Dec-23 | | | 0 | * |
| DC.S3.3062d | Construction of RC Wall (from -3.5mPD to +0.5mPD) (360m3, 2 pours) | 18 | 0 | 0% | 0% | | | 19-Dec-23 | 11-Jan-24 | 19-Dec-23 | 11-Jan-24 | | | 0 | * |
| DC.S3.3062e | Removal of 2nd Walling and Struts | 6 | 0 | 0% | 0% | | | 12-Jan-24 | 18-Jan-24 | 12-Jan-24 | 18-Jan-24 | | | 0 | * |
| DC.S3.3062f | Construction of RC Wall (from +0.5mPD to +2.5mPD) | 18 | 0 | 0% | 0% | | | 19-Jan-24 | 08-Feb-24 | 19-Jan-24 | 08-Feb-24 | | | 0 | * |
| DC.S3.3062g | Removal of 1st Walling and Struts | 6 | 0 | 0% | 0% | | | 09-Feb-24 | 19-Feb-24 | 09-Feb-24 | 19-Feb-24 | | | 0 | * |
| DC.S3.3062h | Construction of RC Ground Slab (from +2.5mPD to +4.6mPD) | 22 | 0 | 0% | 0% | | | 20-Feb-24 | 13-Mar-24 | 20-Feb-24 | 13-Mar-24 | | | 0 | * |
| DC.S3.3062i | Construction of RC Wall and MCC Room Slab (from +4.6mPD to +9.35mPD) | 22 | 0 | 0% | 0% | | | 14-Mar-24 | 10-Apr-24 | 14-Mar-24 | 10-Apr-24 | | | 0 | * |
| DC.S3.3100 | Construction of RC Wall and Roof Slab (from +9.35 to +13.55) | 22 | 0 | 0% | 0% | | | 11-Apr-24 | 04-May-24 | 11-Apr-24 | 04-May-24 | 09-Nov-23 | 22-Jun-24 | 0 | * |
| E&M Works | | | | 0% | | | | 05-May-24 | 02-Aug-24 | 06-May-24 | 22-Aug-24 | 22-Jun-24 | 19-Apr-24 | 0 | |
| DC.S3.3122 | E&M, Mechanical Installation (Mixers, Inlet Pumps, Grit removal system, DO systems and etc.) | 48 | 2 | 0% | 0% | | | 06-May-24 | 03-Jul-24 | 06-May-24 | 03-Jul-24 | 22-Jun-24 | 20-Mar-24 | 0 | |
| DC.S3.3122a | Electrical Installation (Cable, Instrument, PLC Panel, LVSB, etc) | 48 | 2 | 0% | 0% | | | 05-May-24 | 21-Jun-24 | 17-May-24 | 03-Jul-24 | | | 12 | * |
| DC.S3.3122b | Installation of BS Equipment | 25 | 0 | 0% | 0% | | | 18-May-24 | 17-Jun-24 | 29-Jun-24 | 03-Jul-24 | | | 22 | * |
| DC.S3.3122b10 | Installation of Lifting Appliance | 25 | 0 | 0% | 0% | | | 18-May-24 | 17-Jun-24 | 29-Jun-24 | 03-Jul-24 | | | 22 | * |
| DC.S3.3132a | SCADA System Site Acceptance Test (Phase 3 PTF Construction) | 32 | 0 | 0% | 0% | | | 14-May-24 | 12-Jun-24 | 04-Jun-24 | 23-Jul-24 | 22-Jun-24 | 20-Feb-24 | 21 | |
| DC.S3.3132b | SCADA System Commissioning Test (Phase 3 PTF Construction) | 32 | 0 | 0% | 0% | | | 13-Jun-24 | 12-Jul-24 | 04-Jul-24 | 22-Aug-24 | 21-Feb-24 | 2*-Mar-24 | 21 | |
| DC.S3.3142b | System Commissioning Test | 32 | 0 | 0% | 0% | | | 04-Jul-24 | 02-Aug-24 | 04-Jul-24 | 22-Aug-24 | 21-Mar-24 | 19-Apr-24 | 0 | |
| Internal Architectural Works | | | | 0% | | | | 06-May-24 | 17-Jul-24 | 23-May-24 | 22-Aug-24 | 22-Jun-24 | 08-Apr-24 | 14 | |
| DC.S3.3112 | Architectural Works (Internal) | 58 | 2 | 0% | 0% | | | 06-May-24 | 17-Jul-24 | 23-May-24 | 22-Aug-24 | 22-Jun-24 | 08-Apr-24 | 14 | |
| Temporary Flow Diversion | | | | 0% | | | | 14-Mar-24 | 06-Aug-24 | 08-Apr-24 | 26-Aug-24 | 02-Dec-23 | 23-Apr-24 | 0 | |
| DC.S3.3150a | Installation of Temporary Sludge Thickening System | 90 | 8 | 0% | 0% | | | 14-Mar-24 | 22-Jul-24 | 08-Apr-24 | 26-Aug-24 | 05-Dec-23 | 10-Apr-24 | 13 | |
| DC.S3.3150 | Temporary WAS Pipe Construction from MBR to Sludge Digestor Building with temp pre-thickening system | 23 | 2 | 0% | 0% | | | 14-Mar-24 | 12-Apr-24 | 08-May-24 | 03-Jun-24 | 02-Dec-23 | 29-Dec-23 | 42 | |
| DC.S3.3160 | Temporary sewerage pipe from existing manhole FMH7000149 to manhole FMH21 to isolate Inlet Chamber | 42 | 3 | 0% | 0% | | | 06-May-24 | 26-Jun-24 | 09-May-24 | 23-Jul-24 | 22-Jan-24 | 16-Mar-24 | 3 | |
| DC.S3.3170 | Temporary Flow Diversion to isolate existing preliminary treatment system | 2 | 1 | 0% | 0% | | | 03-Aug-24 | 06-Aug-24 | 23-Aug-24 | 26-Aug-24 | 25-Apr-24 | 23-Apr-24 | 0 | |
| E&M Works - 30-month performance verification (At least 9 months before End of S3) | | | | 0% | | | | 07-Aug-24 | 07-May-25 | 27-Aug-24 | 27-May-25 | 24-Apr-24 | 19-Jun-23 | 0 | |
| DC.S3.3180 | 30-month performance verification (At least 9 months before End of S3) (Period from 6th to 9th month) | 274 | 0 | 0% | 0% | | | 07-Aug-24 | 07-May-25 | 27-Aug-24 | 27-May-25 | 24-Apr-24 | 19-Jun-23 | 0 | |
| Construction of Underground Utilities | | | | 0% | | | | 06-May-24 | 22-Jun-24 | 16-May-24 | 23-Jul-24 | 22-Jun-24 | 1*-Mar-24 | 8 | |
| DC.S3.3250 | Construction underground utilities for MBR Treatment Facilities and Preliminary Treatment Facilities | 38 | 2 | 0% | 0% | | | 06-May-24 | 22-Jun-24 | 16-May-24 | 23-Jul-24 | 22-Jun-24 | 1*-Mar-24 | 8 | |
| PHASE 4 - Demolition of existing Preliminary Treatment System | | | | 0% | | | | 07-Aug-24 | 18-Oct-24 | 25-Jun-24 | 29-Nov-24 | 06-Feb-24 | 09-Jul-24 | 22 | |
| DC.S3.4010 | Demolition of existing inlet pumping station, preliminary treatment facilities & primary sediment tank | 24 | 0 | 0% | 0% | | | 07-Aug-24 | 03-Sep-24 | 27-Aug-24 | 03-Sep-24 | 24-Apr-24 | 15-Jun-24 | 0 | |
| DC.S3.4020 | Modification of Inlet Chamber | 58 | 4 | 0% | 0% | | | 07-Aug-24 | 18-Oct-24 | 29-Aug-24 | 29-Nov-24 | 25-Apr-24 | 09-Jul-24 | 19 | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 9 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

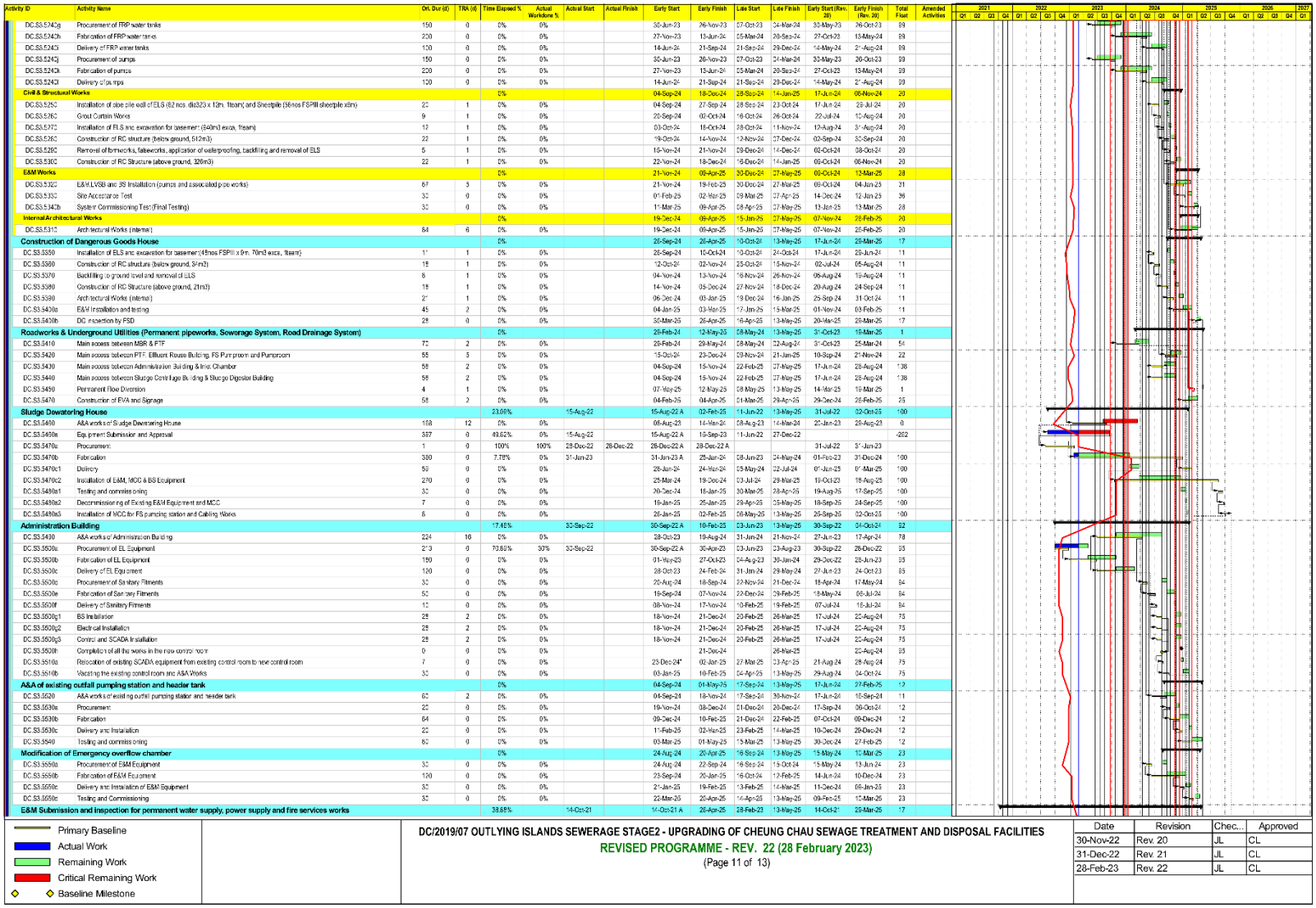


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 20) | Early Finish (Rev. 20) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.4026 | Notification to CLP for Demolition of Existing Transformer House | 1 | 0 | 0% | 0% | | | 07-Jun-24 | 07-Jun-24 | 20-Jun-24 | 20-Jun-24 | 06-Feb-24 | 12-Feb-24 | 13 | |
| DC.S3.4030 | Demolition of existing Transformer House | 38 | 3 | 0% | 0% | | | 07-Aug-24 | 26-Sep-24 | 20-Aug-24 | 09-Oct-24 | 24-Apr-24 | 14-Jun-24 | 11 | |
| DC.S3.4031 | Ground Investigation (7 nos, 1 rig, 1 team) | 22 | 2 | 0% | 0% | | | 07-Aug-24 | 03-Sep-24 | 07-Aug-24 | 03-Sep-24 | 13-May-24 | 15-Jun-24 | 0 | |
| DC.S3.4040 | Disconnecting data link of removed existing equipment from the existing SCADA system (Phase 4 Demolition Existing PTS) | 4 | 3 | 0% | 0% | | | 20-Sep-24 | 26-Sep-24 | 23-Nov-24 | 29-Nov-24 | 03-Jul-24 | 09-Jul-24 | 44 | |
| **PHASE 5 - Construction of Remaining Buildings** | | | | 42.51% | | 12-Jul-21 | | 12-Jul-21 A | 13-May-25 | 11-Jun-22 | 13-May-25 | 12-Jul-21 | 22-Oct-25 | 0 | |
| **Construction of WAS Storage Tank of Sludge Centrifuge House** | | | | 0% | | | | 02-Jan-24 | 30-Nov-24 | 24-Jun-24 | 23-Dec-24 | 30-Nov-23 | 07-Nov-24 | 19 | |
| **Civil & Structural Works** | | | | 0% | | | | 02-Jan-24 | 30-Nov-24 | 24-Jun-24 | 23-Dec-24 | 30-Nov-23 | 07-Nov-24 | 19 | |
| DC.S3.3180 | Piling works for pre-bored socket H-piles (14 nos. dia.610 x 14m, 1 teams) | 28 | 4 | 0% | 0% | | | 02-Jan-24 | 05-Feb-24 | 24-Jun-24 | 21-Mar-24 | 30-Nov-23 | 05-Jan-24 | 19 | |
| DC.S3.3200 | Installation of sheet piles and Proof Drill | 32 | 2 | 0% | 0% | | | 06-Feb-24 | 16-Mar-24 | 02-Mar-24 | 12-Apr-24 | 06-Jun-24 | 22-Feb-24 | 19 | |
| DC.S3.3201 | Pile Loading Test of Tension Pile | 6 | 1 | 0% | 0% | | | 18-Mar-24 | 25-Mar-24 | 13-Apr-24 | 20-Apr-24 | 23-Feb-24 | 01-Mar-24 | 19 | |
| DC.S3.3210 | Excavation and installation of ELS for WAS Storage Tank | 60 | 2 | 0% | 0% | | | 26-Mar-24 | 13-Jun-24 | 22-Apr-24 | 06-Jul-24 | 02-Mar-24 | 20-May-24 | 19 | |
| DC.S3.3220 | Construction of RC Structure (below ground) | 72 | 1 | 0% | 0% | | | 14-Jun-24 | 05-Sep-24 | 08-Jul-24 | 28-Sep-24 | 21-May-24 | 13-Aug-24 | 19 | |
| DC.S3.3230 | Removal of formworks, falseworks, application of waterproofing, backfilling and removal of ELS | 12 | 2 | 0% | 0% | | | 06-Sep-24 | 23-Sep-24 | 30-Sep-24 | 17-Oct-24 | 14-Aug-24 | 29-Aug-24 | 19 | |
| DC.S3.3240 | Construction of RC Structure (above ground) | 55 | 2 | 0% | 0% | | | 24-Sep-24 | 30-Nov-24 | 18-Oct-24 | 23-Dec-24 | 30-Aug-24 | 07-Nov-24 | 19 | |
| **Construction of Effluent Reuse Building** | | | | 42.72% | | 12-Jul-21 | | 12-Jul-21 A | 06-May-25 | 23-Apr-23 | 27-May-25 | 12-Jul-21 | 24-Feb-25 | 1 | |
| **Procurement, Fabrication and Delivery of Major E&M Equipment** | | | | 50.88% | | 12-Jul-21 | | 12-Jul-21 A | 20-Sep-24 | 23-Apr-23 | 22-Nov-24 | 12-Jul-21 | 25-Aug-24 | 54 | |
| DC.S3.5125a | Tendering of Subcontractor | 45 | 0 | 100% | 100% | 12-Jul-21 | 25-Aug-21 | 12-Jul-21 A | 25-Aug-21 A | | | 12-Jul-21 | 25-Aug-21 | | |
| DC.S3.5125b | Equipment Submission and Approval | 661 | 0 | 80.9 % | 40% | 26-Aug-21 | | 26-Aug-21 A | 07-Jul-23 | 23-Apr-23 | 30-Aug-23 | 26-Aug-21 | 06-Jun-23 | 54 | |
| DC.S3.5130a | Procurement | 90 | 0 | 0% | 0% | | | 08-Jul-23 | 05-Oct-23 | 31-Aug-23 | 28-Nov-23 | 07-Jun-23 | 04-Sep-23 | 54 | |
| DC.S3.5130b | Fabrication | 240 | 0 | 0% | 0% | | | 06-Oct-23 | 01-Jun-24 | 29-Nov-23 | 25-Jul-24 | 05-Sep-23 | 01-May-24 | 54 | |
| DC.S3.5130c | Delivery | 120 | 0 | 0% | 0% | | | 02-Jun-24 | 29-Sep-24 | 26-Jul-24 | 22-Nov-24 | 02-May-24 | 29-Aug-24 | 54 | |
| **Civil & Structural Works** | | | | 0% | | | | 04-Sep-24 | 19-Dec-24 | 05-Sep-24 | 20-Dec-24 | 17-Jun-24 | 12-Oct-24 | 1 | |
| DC.S3.5140a | Installation of pipe pile wall of ELS (55 nos. dia323 x 8m, 1 team) | 12 | 1 | 0% | 0% | | | 04-Sep-24 | 19-Sep-24 | 05-Sep-24 | 20-Sep-24 | 17-Jun-24 | 12-Jul-24 | 1 | |
| DC.S3.5140b | Proof Drill | 7 | 2 | 0% | 0% | | | 20-Sep-24 | 30-Sep-24 | 25-Sep-24 | 05-Oct-24 | 11-Jul-24 | 24-Jul-24 | 4 | |
| DC.S3.5150 | Grout Curtain Works | 11 | 1 | 0% | 0% | | | 20-Sep-24 | 04-Oct-24 | 21-Sep-24 | 05-Oct-24 | 11-Jul-24 | 24-Jul-24 | 1 | |
| DC.S3.5160 | Installation of ELS and Excavation for basement(970m3 excl. 1team) | 11 | 1 | 0% | 0% | | | 05-Oct-24 | 19-Oct-24 | 07-Oct-24 | 21-Oct-24 | 25-Jul-24 | 07-Aug-24 | 1 | |
| DC.S3.5170 | Construction of RC structure (below ground, 437m3) | 22 | 1 | 0% | 0% | | | 21-Oct-24 | 15-Nov-24 | 22-Oct-24 | 16-Nov-24 | 08-Aug-24 | 04-Sep-24 | 1 | |
| DC.S3.5180 | Removal of formworks, falseworks, application of waterproofing, backfilling and removal of ELS | 5 | 1 | 0% | 0% | | | 16-Nov-24 | 22-Nov-24 | 18-Nov-24 | 23-Nov-24 | 05-Sep-24 | 11-Sep-24 | 1 | |
| DC.S3.5190 | Construction of RC Structure (above ground, 213m3) | 22 | 1 | 0% | 0% | | | 23-Nov-24 | 19-Dec-24 | 25-Nov-24 | 20-Dec-24 | 12-Sep-24 | 12-Oct-24 | 1 | |
| **E&M Works** | | | | 0% | | | | 22-Nov-24 | 06-May-25 | 23-Nov-24 | 27-May-25 | 12-Sep-24 | 24-Feb-25 | 1 | |
| DC.S3.5210 | E&M LVSB and SS Installation (LV system, Chemical tanks and dosing system and etc) | 67 | 5 | 0% | 0% | | | 22-Nov-24 | 20-Feb-25 | 23-Nov-24 | 21-Feb-25 | 12-Sep-24 | 07-Dec-24 | 1 | |
| DC.S3.5220a | SCADA System Site Acceptance Test (Phase 5 Effluent Reuse Construction) | 60 | 0 | 0% | 0% | | | 07-Jan-25 | 07-Mar-25 | 08-Jan-25 | 08-Mar-25 | 28-Oct-24 | 26-Dec-24 | 1 | |
| DC.S3.5220b | SCADA System Commissioning Test (Phase 5 Effluent Reuse Construction) | 60 | 0 | 0% | 0% | | | 08-Mar-25 | 06-May-25 | 09-Mar-25 | 27-May-25 | 27-Dec-24 | 24-Feb-25 | 1 | |
| DC.S3.5230 | System Commissioning Test | 30 | 0 | 0% | 0% | | | 07-Apr-25 | 06-May-25 | 09-Apr-25 | 27-May-25 | 27-Dec-24 | 24-Feb-25 | 1 | |
| **Internal Architectural Works** | | | | 0% | | | | 20-Dec-24 | 10-Apr-25 | 15-Jan-25 | 27-May-25 | 14-Oct-24 | 07-Feb-25 | 19 | |
| DC.S3.5200 | Architectural Works (Internal) | 64 | 6 | 0% | 0% | | | 20-Dec-24 | 10-Apr-25 | 15-Jan-25 | 27-May-25 | 14-Oct-24 | 07-Feb-25 | 19 | |
| **Construction of Sludge Centrifuge Building & Genset and Fuel Tank Rooms** | | | | 42.51% | | 12-Jul-21 | | 12-Jul-21 A | 13-May-25 | 14-May-23 | 13-May-25 | 12-Jul-21 | 08-Apr-25 | 0 | |
| **Procurement, Fabrication and Delivery of Major E&M Equipment** | | | | 50.25% | | 12-Jul-21 | | 12-Jul-21 A | 08-Oct-24 | 14-May-23 | 23-Dec-24 | 12-Jul-21 | 08-Sep-24 | 75 | |
| DC.S3.5905a | Tendering of Subcontractor | 45 | 0 | 100% | 100% | 12-Jul-21 | 25-Aug-21 | 12-Jul-21 A | 25-Aug-21 A | | | 12-Jul-21 | 25-Aug-21 | | |
| DC.S3.5905b | Equipment Submission and Approval | 661 | 0 | 79.74% | 40% | 26-Aug-21 | | 26-Aug-21 A | 17-Jul-23 | 14-May-23 | 30-Sep-23 | 26-Aug-21 | 16-Jun-23 | 75 | |
| DC.S3.5912a | Procurement | 45 | 0 | 0% | 0% | | | 18-Jul-23 | 31-Aug-23 | 01-Oct-23 | 14-Nov-23 | 17-Jun-23 | 31-Jul-23 | 75 | |
| DC.S3.5912b | Fabrication | 225 | 0 | 0% | 0% | | | 01-Sep-23 | 12-Apr-24 | 15-Nov-23 | 26-Jun-24 | 01-Aug-23 | 12-Mar-24 | 75 | |
| DC.S3.5912c | Delivery | 180 | 0 | 0% | 0% | | | 13-Apr-24 | 09-Oct-24 | 27-Jun-24 | 23-Dec-24 | 13-Mar-24 | 08-Sep-24 | 75 | |
| **Civil & Structural Works** | | | | 0% | | | | 26-Aug-24 | 23-Dec-24 | 28-Aug-24 | 23-Dec-24 | 08-Jun-24 | 21-Nov-24 | 0 | |
| DC.S3.5920a | Piling works for pre-bored socket H-piles (24 nos, dia610 x 15m, 1team) | 28 | 1 | 0% | 0% | | | 26-Aug-24 | 21-Sep-24 | 28-Aug-24 | 21-Sep-24 | 08-Jun-24 | 11-Jul-24 | 0 | |
| DC.S3.5930 | Installation of pipe pile wall of ELS (60 nos. dia323 x 8m, 1 teams) | 12 | 1 | 0% | 0% | | | 10-Sep-24 | 26-Sep-24 | 10-Sep-24 | 25-Sep-24 | 26-Jun-24 | 27-Jul-24 | 0 | |
| DC.S3.5940 | Grout Curtain Works | 9 | 1 | 0% | 0% | | | 26-Sep-24 | 08-Oct-24 | 26-Sep-24 | 08-Oct-24 | 29-Jul-24 | 17-Aug-24 | 0 | |
| DC.S3.5950 | Excavation for pumping tank (130m3 excl. 1team) | 11 | 1 | 0% | 0% | | | 09-Oct-24 | 23-Oct-24 | 09-Oct-24 | 23-Oct-24 | 19-Aug-24 | 31-Aug-24 | 0 | |
| DC.S3.5960 | Construction of RC structure (below ground, 687 m3) | 22 | 1 | 0% | 0% | | | 24-Oct-24 | 19-Nov-24 | 24-Oct-24 | 19-Nov-24 | 02-Sep-24 | 30-Sep-24 | 0 | |
| DC.S3.5970 | Removal of formworks, falseworks, application of waterproofing, backfilling and removal of ELS | 5 | 1 | 0% | 0% | | | 20-Nov-24 | 26-Nov-24 | 20-Nov-24 | 26-Nov-24 | 02-Oct-24 | 09-Oct-24 | 0 | |
| DC.S3.5980 | Construction of RC Structure (above ground, 131C m3) | 22 | 1 | 0% | 0% | | | 27-Nov-24 | 23-Dec-24 | 27-Nov-24 | 23-Dec-24 | 10-Oct-24 | 21-Nov-24 | 0 | |
| **E&M Works** | | | | 0% | | | | 24-Dec-24 | 13-May-25 | 24-Dec-24 | 13-May-25 | 22-Nov-24 | 08-Apr-25 | 0 | |
| DC.S3.5100 | E&M LVSB and SS Installation (centrifuges and its auxiliary equipment and Polymer preparation system) | 55 | 0 | 0% | 0% | | | 24-Dec-24 | 06-Mar-25 | 24-Dec-24 | 24-Mar-25 | 22-Nov-24 | 28-Jan-25 | 0 | |
| DC.S3.5110a | SCADA System Site Acceptance Test (Phase 5 Sludge Centrifuge Construction) | 30 | 0 | 0% | 0% | | | 24-Dec-24 | 22-Jan-25 | 03-Feb-25 | 24-Mar-25 | 22-Nov-24 | 21-Dec-24 | 41 | |
| DC.S3.5110b | SCADA System Commissioning Test (Phase 5 Sludge Centrifuge Construction) | 30 | 0 | 0% | 0% | | | 23-Jan-25 | 21-Feb-25 | 05-Mar-25 | 03-Apr-25 | 22-Dec-24 | 22-Jan-25 | 41 | |
| DC.S3.5120b | System Commissioning Test | 30 | 0 | 0% | 0% | | | 06-Mar-25 | 03-Apr-25 | 05-Mar-25 | 03-Apr-25 | 23-Jan-25 | 27-Feb-25 | 0 | |
| DC.S3.5120c | Final System Commissioning Test | 30 | 0 | 0% | 0% | | | 04-Apr-25 | 03-May-25 | 04-Apr-25 | 03-May-25 | 28-Feb-25 | 29-Mar-25 | 0 | |
| DC.S3.5120c10 | Preparation and Submission of Final T&C Report | 10 | 0 | 0% | 0% | | | 04-May-25 | 13-May-25 | 04-May-25 | 13-May-25 | 30-Mar-25 | 08-Apr-25 | 0 | |
| **Internal Architectural Works** | | | | 0% | | | | 24-Dec-24 | 14-Apr-25 | 21-Jan-25 | 13-May-25 | 22-Nov-24 | 13-Mar-25 | 21 | |
| DC.S3.5090 | Architectural Works (Internal) | 64 | 6 | 0% | 0% | | | 24-Dec-24 | 14-Apr-25 | 21-Jan-25 | 13-May-25 | 22-Nov-24 | 13-Mar-25 | 21 | |
| **Construction of FS Pumproom and Pumproom** | | | | 38.54% | | 01-Nov-21 | | 01-Nov-21 A | 06-Apr-25 | 07-Jun-23 | 27-May-25 | 01-Nov-21 | 13-Mar-25 | 28 | |
| **Procurement, Fabrication and Delivery of Major E&M Equipment** | | | | 45.83% | | 01-Nov-21 | | 01-Nov-21 A | 21-Sep-24 | 07-Jun-23 | 29-Dec-24 | 01-Nov-21 | 31-Aug-24 | 89 | |
| DC.S3.5235a | Tendering of Subcontractor for Fire Services | 37 | 0 | 100% | 100% | 01-Nov-21 | 07-Dec-21 | 01-Nov-21 A | 07-Dec-21 A | | | 01-Nov-21 | 07-Dec-21 | | |
| DC.S3.5235b | Equipment Submission and Approval | 589 | 0 | 78.56% | 40% | 08-Dec-21 | | 08-Dec-21 A | 25-Jun-23 | 07-Jun-23 | 08-Oct-23 | 08-Dec-21 | 29-May-23 | 89 | |
| DC.S3.5240a | Procurement of EL Equipment | 90 | 0 | 0% | 0% | | | 30-Jun-23 | 27-Sep-23 | 07-Oct-23 | 04-Jan-24 | 30-May-23 | 27-Aug-23 | 89 | |
| DC.S3.5240b | Fabrication of EL Equipment | 240 | 0 | 0% | 0% | | | 28-Sep-23 | 24-May-24 | 05-Jan-24 | 31-Aug-24 | 28-Aug-23 | 23-Apr-24 | 89 | |
| DC.S3.5240c | Delivery of EL Equipment | 120 | 0 | 0% | 0% | | | 25-May-24 | 21-Sep-24 | 01-Sep-24 | 29-Dec-24 | 24-Apr-24 | 21-Aug-24 | 89 | |
| DC.S3.5240d | Procurement of FS pumps | 150 | 0 | 0% | 0% | | | 30-Jun-23 | 26-Nov-23 | 07-Oct-23 | 04-Mar-24 | 30-May-23 | 26-Oct-23 | 89 | |
| DC.S3.5240e | Fabrication of FS pumps | 220 | 0 | 0% | 0% | | | 27-Nov-23 | 15-Jun-24 | 05-Mar-24 | 20-Sep-24 | 27-Oct-23 | 13-May-24 | 89 | |
| DC.S3.5240f | Delivery of FS pumps | 120 | 0 | 0% | 0% | | | 16-Jun-24 | 21-Sep-24 | 21-Sep-24 | 29-Dec-24 | 14-May-24 | 21-Aug-24 | 89 | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 10 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

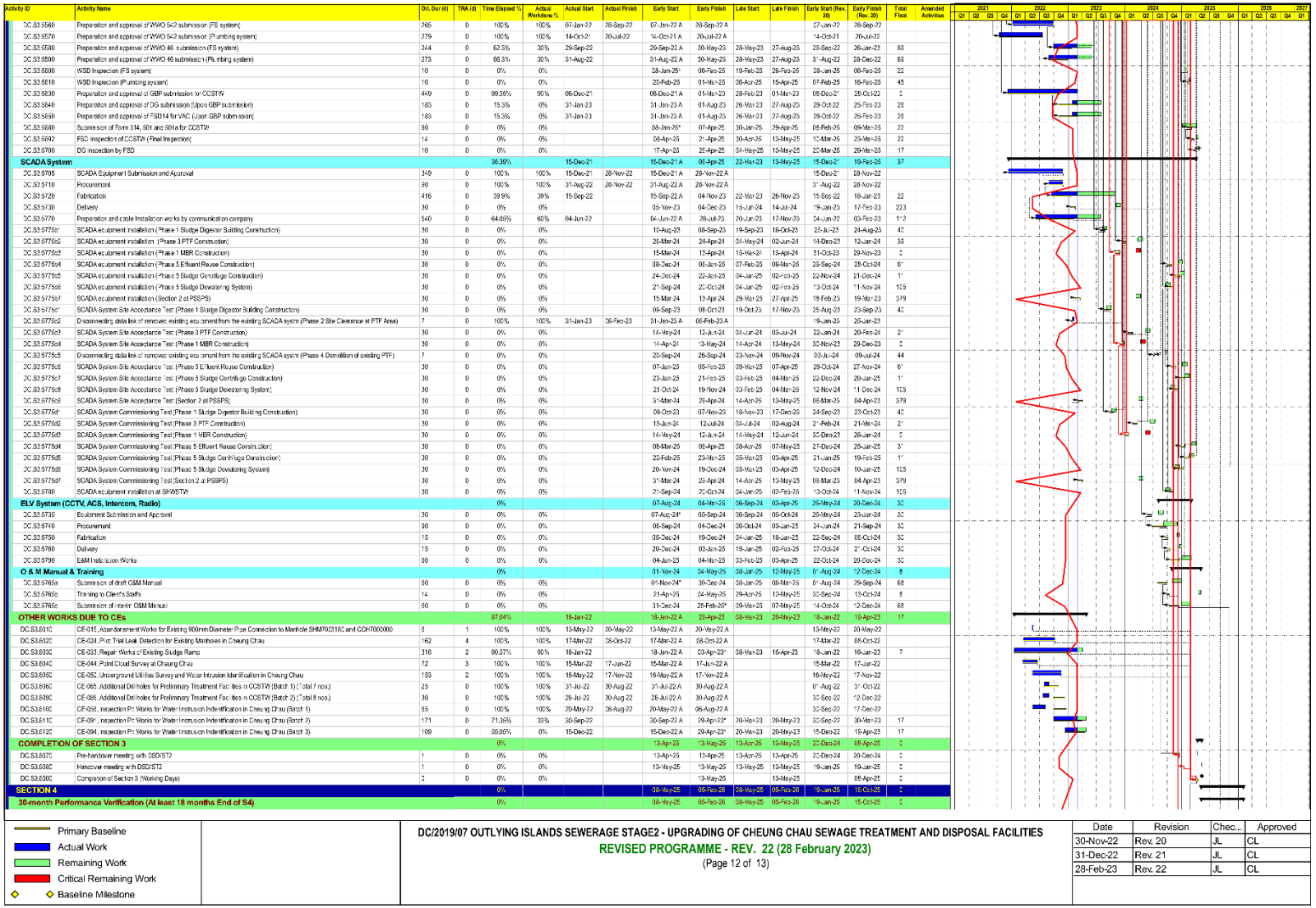


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 28) | Early Finish (Rev. 28) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.5342g | Procurement of FRP water tanks | 150 | 0 | 0% | 0% | | | 30-Jun-23 | 26-Nov-23 | 07-Oct-23 | 04-Mar-24 | 30-May-23 | 26-Oct-23 | 89 | |
| DC.S3.5342h | Fabrication of FRP water tanks | 220 | 0 | 0% | 0% | | | 27-Nov-23 | 15-Jun-24 | 05-Mar-24 | 20-Sep-24 | 27-Oct-23 | 13-May-24 | 89 | |
| DC.S3.5342i | Delivery of FRP water tanks | 120 | 0 | 0% | 0% | | | 14-Jun-24 | 21-Sep-24 | 21-Sep-24 | 29-Dec-24 | 14-May-24 | 2*-Aug-24 | 89 | |
| DC.S3.5342j | Procurement of pumps | 150 | 0 | 0% | 0% | | | 30-Jun-23 | 26-Nov-23 | 07-Oct-23 | 04-Mar-24 | 30-May-23 | 26-Oct-23 | 89 | |
| DC.S3.5342k | Fabrication of pumps | 220 | 0 | 0% | 0% | | | 27-Nov-23 | 15-Jun-24 | 05-Mar-24 | 20-Sep-24 | 27-Oct-23 | 13-May-24 | 89 | |
| DC.S3.5342l | Delivery of pumps | 120 | 0 | 0% | 0% | | | 14-Jun-24 | 21-Sep-24 | 21-Sep-24 | 29-Dec-24 | 14-May-24 | 2*-Aug-24 | 89 | |
| **Civil & Structural Works** | | | | 0% | | | | 04-Sep-24 | 18-Dec-24 | 28-Sep-24 | 14-Jan-25 | 17-Jun-24 | 06-Nov-24 | 20 | |
| DC.S3.5250 | Installation of sloe pile wall of ELS (82 nos. dia323 x 12m, 16sqm) and Sheetpile (36nos FSPIII sheetpile x9m) | 22 | 1 | 0% | 0% | | | 04-Sep-24 | 27-Sep-24 | 28-Sep-24 | 23-Oct-24 | 17-Jun-24 | 23-Jul-24 | 20 | |
| DC.S3.5260 | Grout Curtain Works | 9 | 1 | 0% | 0% | | | 20-Sep-24 | 02-Oct-24 | 16-Oct-24 | 26-Oct-24 | 22-Jul-24 | 10-Aug-24 | 20 | |
| DC.S3.5270 | Installation of ELS and excavation for basement (640m3 excav, 16sqm) | 12 | 1 | 0% | 0% | | | 03-Oct-24 | 16-Oct-24 | 28-Oct-24 | 11-Nov-24 | 12-Aug-24 | 3*-Aug-24 | 20 | |
| DC.S3.5280 | Construction of RC structure (below ground, 512m3) | 22 | 1 | 0% | 0% | | | 19-Oct-24 | 14-Nov-24 | 12-Nov-24 | 27-Dec-24 | 02-Sep-24 | 30-Sep-24 | 20 | |
| DC.S3.5290 | Removal of formworks, falseworks, application of waterproofing, backfilling and removal of ELS | 5 | 1 | 0% | 0% | | | 15-Nov-24 | 21-Nov-24 | 09-Dec-24 | 14-Dec-24 | 02-Oct-24 | 08-Oct-24 | 20 | |
| DC.S3.5300 | Construction of RC Structure (above ground, 326m3) | 22 | 1 | 0% | 0% | | | 22-Nov-24 | 18-Dec-24 | 15-Dec-24 | 14-Jan-25 | 09-Oct-24 | 06-Nov-24 | 20 | |
| **E&M Works** | | | | 0% | | | | 21-Nov-24 | 08-Apr-25 | 30-Dec-24 | 27-May-25 | 09-Oct-24 | 13-Mar-25 | 28 | |
| DC.S3.5320 | E&M LVSB and 3S Installation (pumps and associated pipe works) | 67 | 5 | 0% | 0% | | | 21-Nov-24 | 19-Feb-25 | 30-Dec-24 | 27-Mar-25 | 09-Oct-24 | 04-Jun-25 | 31 | |
| DC.S3.5330 | Site Acceptance Test | 30 | 0 | 0% | 0% | | | 01-Feb-25 | 02-Mar-25 | 09-Mar-25 | 07-Apr-25 | 14-Dec-24 | 12-Jun-25 | 36 | |
| DC.S3.5340b | System Commissioning Test (Final Testing) | 30 | 0 | 0% | 0% | | | 11-Mar-25 | 09-Apr-25 | 08-Apr-25 | 07-May-25 | 13-Jan-25 | 13-Mar-25 | 28 | |
| **Internal Architectural Works** | | | | 0% | | | | 19-Dec-24 | 08-Apr-25 | 15-Jan-25 | 27-May-25 | 07-Nov-24 | 28-Feb-25 | 20 | |
| DC.S3.5310 | Architectural Works (internal) | 64 | 6 | 0% | 0% | | | 19-Dec-24 | 08-Apr-25 | 15-Jan-25 | 27-May-25 | 07-Nov-24 | 28-Feb-25 | 20 | |
| **Construction of Dangerous Goods House** | | | | 0% | | | | 26-Sep-24 | 26-Apr-25 | 10-Oct-24 | 13-May-25 | 17-Jun-24 | 28-Mar-25 | 17 | |
| DC.S3.5350 | Installation of ELS and excavation for basement (48nos FSPIII x 9m, 70m3 excv, 16sqm) | 11 | 1 | 0% | 0% | | | 26-Sep-24 | 10-Oct-24 | 10-Oct-24 | 24-Oct-24 | 17-Jun-24 | 28-Jun-24 | 11 | |
| DC.S3.5360 | Construction of RC structure (below ground, 34m3) | 15 | 1 | 0% | 0% | | | 12-Oct-24 | 02-Nov-24 | 25-Oct-24 | 15-Nov-24 | 02-Jul-24 | 05-Aug-24 | 11 | |
| DC.S3.5370 | Backfilling to ground level and removal of ELS | 8 | 1 | 0% | 0% | | | 04-Nov-24 | 13-Nov-24 | 16-Nov-24 | 26-Nov-24 | 05-Aug-24 | 19-Aug-24 | 11 | |
| DC.S3.5380 | Construction of RC Structure (above ground, 21m3) | 15 | 1 | 0% | 0% | | | 14-Nov-24 | 05-Dec-24 | 27-Nov-24 | 18-Dec-24 | 20-Aug-24 | 24-Sep-24 | 11 | |
| DC.S3.5390 | Architectural Works (internal) | 21 | 1 | 0% | 0% | | | 06-Dec-24 | 03-Jan-25 | 19-Dec-24 | 16-Jan-25 | 25-Sep-24 | 31-Oct-24 | 11 | |
| DC.S3.5400a | E&M installation and testing | 45 | 2 | 0% | 0% | | | 04-Jan-25 | 03-Mar-25 | 17-Jan-25 | 15-Mar-25 | 01-Nov-24 | 03-Feb-25 | 11 | |
| DC.S3.5400b | DG inspection by FSD | 28 | 0 | 0% | 0% | | | 30-Mar-25 | 26-Apr-25 | 16-Apr-25 | 13-May-25 | 29-Apr-25 | 28-Mar-25 | 17 | |
| **Roadworks & Underground Utilities (Permanent pipeworks, Sewerage System, Road Drainage System)** | | | | 0% | | | | 26-Feb-24 | 12-May-25 | 08-May-24 | 13-May-25 | 31-Oct-23 | 18-Mar-25 | 1 | |
| DC.S3.5410 | Main access between MBR & PTF | 72 | 2 | 0% | 0% | | | 26-Feb-24 | 29-May-24 | 08-May-24 | 22-Aug-24 | 31-Oct-23 | 25-Mar-24 | 54 | |
| DC.S3.5420 | Main access between PTF, Effluent Reuse Building, FS Pump room and Pumproom | 55 | 5 | 0% | 0% | | | 15-Oct-24 | 23-Dec-24 | 09-Nov-24 | 21-Jan-25 | 10-Sep-24 | 21-Nov-24 | 22 | |
| DC.S3.5430 | Main access between Administration Building & Inlet Chamber | 58 | 2 | 0% | 0% | | | 04-Sep-24 | 15-Nov-24 | 22-Feb-25 | 27-May-25 | 17-Jun-24 | 28-Aug-24 | 138 | |
| DC.S3.5440 | Main access between Sludge Centrifuge Building & Sludge Digestor Building | 58 | 2 | 0% | 0% | | | 04-Sep-24 | 15-Nov-24 | 22-Feb-25 | 27-May-25 | 17-Jun-24 | 28-Aug-24 | 138 | |
| DC.S3.5450 | Permanent Flow Diversion | 4 | 1 | 0% | 0% | | | 07-May-25 | 12-May-25 | 09-May-25 | 13-May-25 | 14-Mar-25 | 19-Mar-25 | 1 | |
| DC.S3.5470 | Construction of EVA and Signage | 58 | 2 | 0% | 0% | | | 04-Feb-25 | 04-Apr-25 | 01-Mar-25 | 29-Apr-25 | 29-Dec-24 | 26-Feb-25 | 25 | |
| **Sludge Dewatering House** | | | | 23.08% | | 15-Aug-22 | | 15-Aug-22 A | 02-Feb-25 | 11-Jun-22 | 13-May-25 | 31-Jul-22 | 02-Oct-25 | 100 | |
| DC.S3.5480 | A&A works of Sludge Dewatering House | 158 | 12 | 0% | 0% | | | 05-Aug-23 | 14-Mar-24 | 08-Aug-23 | 14-Mar-24 | 20-Jan-23 | 28-Aug-23 | 0 | |
| DC.S3.5480a | Equipment Submission and Approval | 387 | 0 | 40.62% | 0% | 15-Aug-22 | | 15-Aug-22 A | 15-Sep-23 | 11-Jun-22 | 27-Dec-22 | | | -202 | |
| DC.S3.5470a | Procurement | 1 | 0 | 100% | 100% | 28-Dec-22 | 28-Dec-22 | 28-Dec-22 A | 28-Dec-22 A | | | 31-Jul-22 | 3*-Jun-23 | | |
| DC.S3.5470b | Fabrication | 380 | 0 | 7.78% | 0% | 31-Jun-23 | | 31-Jun-23 A | 25-Jan-24 | 08-Jun-23 | 24-May-24 | 01-Feb-23 | 31-Dec-24 | 100 | |
| DC.S3.5470c1 | Delivery | 50 | 0 | 0% | 0% | | | 26-Jun-24 | 24-Mar-24 | 05-May-24 | 22-Jul-24 | 01-Jun-25 | 0*-Mar-25 | 100 | |
| DC.S3.5470c2 | Installation of E&M, MCC & BS Equipment | 270 | 0 | 0% | 0% | | | 25-Mar-24 | 19-Dec-24 | 03-Jul-24 | 29-Mar-25 | 19-Oct-23 | 18-Aug-25 | 100 | |
| DC.S3.5480e1 | Testing and commissioning | 30 | 0 | 0% | 0% | | | 20-Dec-24 | 18-Jan-25 | 30-Mar-25 | 28-Apr-25 | 19-Aug-25 | 17-Sep-25 | 100 | |
| DC.S3.5480e2 | Decommissioning of Existing E&M Equipment and MCC | 7 | 0 | 0% | 0% | | | 18-Jan-25 | 25-Jan-25 | 29-Apr-25 | 05-May-25 | 18-Sep-25 | 24-Sep-25 | 100 | |
| DC.S3.5480e3 | Installation of MCC for FS pumping station and Cabling Works | 6 | 0 | 0% | 0% | | | 26-Jan-25 | 02-Feb-25 | 06-May-25 | 13-May-25 | 25-Sep-25 | 02-Oct-25 | 100 | |
| **Administration Building** | | | | 17.48% | | 30-Sep-22 | | 30-Sep-22 A | 10-Feb-25 | 23-Jun-23 | 13-May-25 | 30-Sep-22 | 04-Oct-24 | 92 | |
| DC.S3.5490 | A&A works of Administration Building | 224 | 16 | 0% | 0% | | | 28-Oct-23 | 19-Aug-24 | 31-Jun-24 | 21-Nov-24 | 27-Jun-23 | 17-Apr-24 | 78 | |
| DC.S3.5500a | Procurement of EL Equipment | 213 | 0 | 70.89% | 50% | 30-Sep-22 | | 30-Sep-22 A | 30-Apr-23 | 03-Jun-23 | 03-Aug-23 | 30-Sep-22 | 26-Dec-22 | 93 | |
| DC.S3.5500b | Fabrication of EL Equipment | 150 | 0 | 0% | 0% | | | 01-May-23 | 27-Oct-23 | 04-Aug-23 | 30-Jan-24 | 29-Dec-22 | 28-Jun-23 | 93 | |
| DC.S3.5500c | Delivery of EL Equipment | 120 | 0 | 0% | 0% | | | 28-Oct-23 | 24-Feb-24 | 31-Jan-24 | 29-May-24 | 27-Jun-23 | 24-Oct-23 | 93 | |
| DC.S3.5500d | Procurement of Sanitary Fitments | 30 | 0 | 0% | 0% | | | 20-Aug-24 | 18-Sep-24 | 22-Nov-24 | 21-Dec-24 | 18-Apr-24 | 17-May-24 | 84 | |
| DC.S3.5500e | Fabrication of Sanitary Fitments | 50 | 0 | 0% | 0% | | | 19-Sep-24 | 07-Nov-24 | 22-Dec-24 | 28-Feb-25 | 18-May-24 | 06-Jul-24 | 84 | |
| DC.S3.5500f | Delivery of Sanitary Fitments | 10 | 0 | 0% | 0% | | | 08-Nov-24 | 17-Nov-24 | 10-Feb-25 | 19-Feb-25 | 07-Jul-24 | 16-Jul-24 | 84 | |
| DC.S3.5500g1 | BS Installation | 25 | 2 | 0% | 0% | | | 18-Nov-24 | 21-Dec-24 | 20-Feb-25 | 26-Mar-25 | 17-Jul-24 | 22-Aug-24 | 73 | |
| DC.S3.5500g2 | Electrical Installation | 25 | 2 | 0% | 0% | | | 18-Nov-24 | 21-Dec-24 | 20-Feb-25 | 26-Mar-25 | 17-Jul-24 | 22-Aug-24 | 73 | |
| DC.S3.5500g3 | Control and SCADA Installation | 25 | 2 | 0% | 0% | | | 18-Nov-24 | 21-Dec-24 | 20-Feb-25 | 26-Mar-25 | 17-Jul-24 | 22-Aug-24 | 73 | |
| DC.S3.5500h | Completion of all the works in the new control room | 0 | 0 | 0% | 0% | | | | 21-Dec-24 | | 26-Mar-25 | | 22-Aug-24 | 93 | |
| DC.S3.5510a | Relocation of existing SCADA equipment from existing control room to new control room | 7 | 0 | 0% | 0% | | | 23-Dec-24* | 02-Jan-25 | 27-Mar-25 | 03-Apr-25 | 21-Aug-24 | 28-Aug-24 | 73 | |
| DC.S3.5510b | Vacating the existing control room and A&A Works | 30 | 0 | 0% | 0% | | | 03-Jan-25 | 10-Feb-25 | 04-Apr-25 | 13-May-25 | 29-Aug-24 | 04-Oct-24 | 73 | |
| **A&A of existing outfall pumping station and header tank** | | | | 0% | | | | 04-Sep-24 | 01-Nov-25 | 17-Sep-24 | 13-May-25 | 17-Jun-24 | 27-Feb-25 | 12 | |
| DC.S3.5520 | A&A works of existing outfall pumping station and header tank | 60 | 2 | 0% | 0% | | | 04-Sep-24 | 18-Nov-24 | 17-Sep-24 | 30-Nov-24 | 17-Jun-24 | 15-Sep-24 | 11 | |
| DC.S3.5530a | Procurement | 22 | 0 | 0% | 0% | | | 19-Nov-24 | 08-Dec-24 | 01-Dec-24 | 20-Dec-24 | 17-Sep-24 | 06-Oct-24 | 12 | |
| DC.S3.5530b | Fabrication | 64 | 0 | 0% | 0% | | | 09-Dec-24 | 10-Feb-25 | 21-Dec-24 | 22-Feb-25 | 07-Oct-24 | 09-Dec-24 | 12 | |
| DC.S3.5530c | Delivery and Installation | 22 | 0 | 0% | 0% | | | 11-Feb-25 | 02-Mar-25 | 23-Feb-25 | 14-Mar-25 | 10-Dec-24 | 29-Dec-24 | 12 | |
| DC.S3.5540 | Testing and commissioning | 60 | 0 | 0% | 0% | | | 03-Mar-25 | 01-May-25 | 15-Mar-25 | 13-May-25 | 30-Dec-24 | 27-Feb-25 | 12 | |
| **Modification of Emergency overflow chamber** | | | | 0% | | | | 24-Aug-24 | 20-Apr-25 | 16-Sep-24 | 13-May-25 | 15-May-24 | 10-Mar-25 | 23 | |
| DC.S3.5550a | Procurement of E&M Equipment | 30 | 0 | 0% | 0% | | | 24-Aug-24 | 22-Sep-24 | 16-Sep-24 | 15-Oct-24 | 15-May-24 | 13-Jun-24 | 23 | |
| DC.S3.5550b | Fabrication of E&M Equipment | 120 | 0 | 0% | 0% | | | 23-Sep-24 | 20-Jan-25 | 16-Oct-24 | 12-Feb-25 | 14-Jun-24 | 10-Dec-24 | 23 | |
| DC.S3.5550c | Delivery and Installation of E&M Equipment | 30 | 0 | 0% | 0% | | | 21-Jan-25 | 19-Feb-25 | 13-Feb-25 | 14-Mar-25 | 11-Dec-24 | 09-Jan-25 | 23 | |
| DC.S3.5550d | Testing and Commissioning | 30 | 0 | 0% | 0% | | | 22-Mar-25 | 20-Apr-25 | 14-Apr-25 | 13-May-25 | 09-Feb-25 | 10-Mar-25 | 23 | |
| **E&M Submission and inspection for permanent water supply, power supply and fire services works** | | | | 38.68% | | 14-Oct-21 | | 14-Oct-21 A | 26-Apr-25 | 28-Feb-23 | 13-May-25 | 14-Oct-21 | 28-Mar-25 | 17 | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 11 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

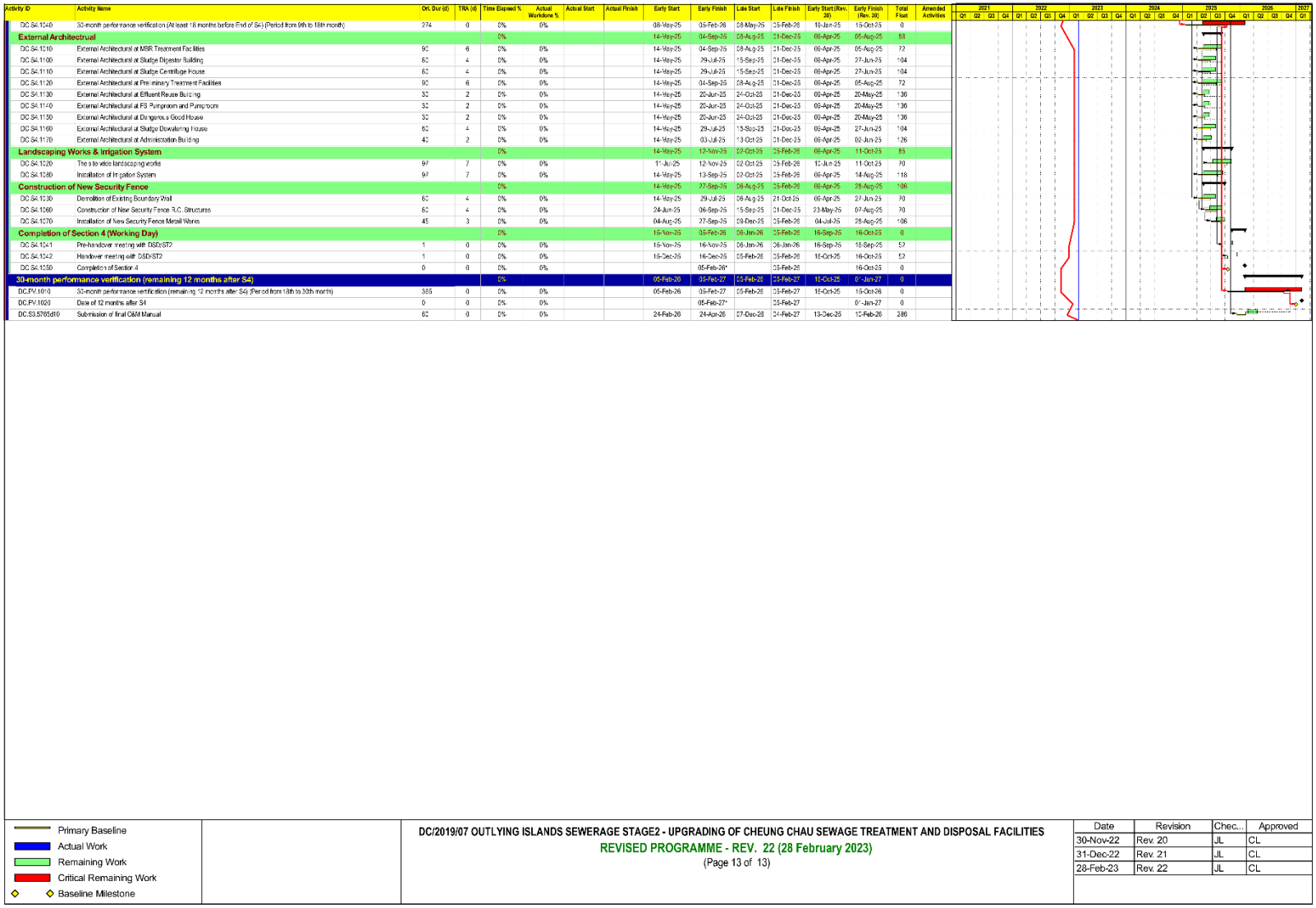


| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workforce % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 20) | Early Finish (Rev. 20) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S3.5560 | Preparation and approval of WWO 542 submission (FS system) | 265 | 0 | 100% | 100% | 07-Jan-22 | 28-Sep-22 | 07-Jan-22 A | 28-Sep-22 A | | | 07-Jan-22 | 28-Sep-22 | | |
| DC.S3.5570 | Preparation and approval of WWO 542 submission (Plumbing system) | 279 | 0 | 100% | 100% | 14-Oct-21 | 20-Jul-22 | 14-Oct-21 A | 20-Jul-22 A | | | 14-Oct-21 | 20-Jul-22 | | |
| DC.S3.5580 | Preparation and approval of WWO 46 submission (FS system) | 244 | 0 | 62.3% | 30% | 29-Sep-22 | | 29-Sep-22 A | 30-May-23 | 28-May-23 | 27-Aug-23 | 29-Sep-22 | 26-Jan-23 | 68 | |
| DC.S3.5590 | Preparation and approval of WWO 46 submission (Plumbing system) | 273 | 0 | 66.3% | 30% | 31-Aug-22 | | 31-Aug-22 A | 30-May-23 | 28-May-23 | 27-Aug-23 | 31-Aug-22 | 28-Dec-22 | 68 | |
| DC.S3.5600 | WSD Inspection (FS system) | 10 | 0 | 0% | 0% | | | 28-Jan-25* | 06-Feb-25 | 19-Feb-25 | 26-Feb-25 | 28-Jan-25 | 06-Feb-25 | 22 | |
| DC.S3.5610 | WSD Inspection (Plumbing system) | 10 | 0 | 0% | 0% | | | 20-Feb-25 | 01-Mar-25 | 06-Apr-25 | 15-Apr-25 | 07-Feb-25 | 16-Feb-25 | 45 | |
| DC.S3.5630 | Preparation and approval of GBP submission for CCSTW | 449 | 0 | 99.55% | 90% | 06-Dec-21 | | 06-Dec-21 A | 01-Mar-23 | 28-Feb-23 | 01-Mar-23 | 06-Dec-21 | 28-Oct-22 | 0 | |
| DC.S3.5640 | Preparation and approval of DG submission (Upon GBP submission) | 183 | 0 | 15.3% | 0% | 31-Jan-23 | | 31-Jan-23 A | 01-Aug-23 | 26-Mar-23 | 27-Aug-23 | 29-Oct-22 | 25-Feb-23 | 28 | |
| DC.S3.5650 | Preparation and approval of FSI314 for VAC (Upon GBP submission) | 183 | 0 | 15.3% | 0% | 31-Jan-23 | | 31-Jan-23 A | 01-Aug-23 | 26-Mar-23 | 27-Aug-23 | 29-Oct-22 | 25-Feb-23 | 28 | |
| DC.S3.5660 | Submission of Form 314, 501 and 501a for CCSTW | 80 | 0 | 0% | 0% | | | 08-Jan-25* | 07-Apr-25 | 30-Jan-25 | 29-Apr-25 | 08-Feb-25 | 09-Mar-25 | 22 | |
| DC.S3.5692 | FSD inspection of CCSTW (Final Inspection) | 14 | 0 | 0% | 0% | | | 08-Apr-25 | 21-Apr-25 | 30-Apr-25 | 13-May-25 | 12-Mar-25 | 25-Mar-25 | 22 | |
| DC.S3.5700 | DG inspection by FSD | 10 | 0 | 0% | 0% | | | 17-Apr-25 | 25-Apr-25 | 04-May-25 | 13-May-25 | 22-Mar-25 | 29-Mar-25 | 17 | |
| **SCADA System** | | | | 36.39% | | 15-Dec-21 | | 15-Dec-21 A | 06-Apr-25 | 22-Mar-23 | 13-May-25 | 15-Dec-21 | 19-Feb-25 | 37 | |
| DC.S3.5705 | SCADA Equipment Submission and Approval | 349 | 0 | 100% | 100% | 15-Dec-21 | 28-Nov-22 | 15-Dec-21 A | 28-Nov-22 A | | | 15-Dec-21 | 28-Nov-22 | | |
| DC.S3.5710 | Procurement | 90 | 0 | 100% | 100% | 31-Aug-22 | 28-Nov-22 | 31-Aug-22 A | 28-Nov-22 A | | | 31-Aug-22 | 28-Nov-22 | | |
| DC.S3.5720 | Fabrication | 416 | 0 | 39.9% | 39% | 15-Sep-22 | | 15-Sep-22 A | 04-Nov-23 | 22-Mar-23 | 26-Nov-23 | 15-Sep-22 | 18-Jan-23 | 22 | |
| DC.S3.5730 | Delivery | 30 | 0 | 0% | 0% | | | 05-Nov-23 | 04-Dec-23 | 15-Jun-24 | 14-Jul-24 | 19-Jan-25 | 17-Feb-23 | 223 | |
| DC.S3.5770 | Preparation and cable installation works by communication company | 540 | 0 | 64.05% | 60% | 04-Jun-22 | | 04-Jun-22 A | 28-Jul-23 | 20-Jun-23 | 17-Nov-23 | 04-Jun-22 | 03-Feb-23 | 112 | |
| DC.S3.5775c1 | SCADA equipment installation (Phase 1 Sludge Digestor Building Construction) | 30 | 0 | 0% | 0% | | | 16-Aug-23 | 08-Sep-23 | 19-Sep-23 | 18-Oct-23 | 25-Jul-23 | 24-Aug-23 | 42 | |
| DC.S3.5775c2 | SCADA equipment installation (Phase 3 PTF Construction) | 30 | 0 | 0% | 0% | | | 26-Mar-24 | 24-Apr-24 | 04-May-24 | 02-Jun-24 | 14-Dec-23 | 12-Jan-24 | 58 | |
| DC.S3.5775c3 | SCADA equipment installation (Phase 1 MBR Construction) | 30 | 0 | 0% | 0% | | | 15-Mar-24 | 13-Apr-24 | 15-Mar-24 | 13-Apr-24 | 31-Oct-23 | 29-Nov-23 | 0 | |
| DC.S3.5775c4 | SCADA equipment installation (Phase 5 Effluent Reuse Construction) | 30 | 0 | 0% | 0% | | | 08-Dec-24 | 06-Jan-25 | 07-Feb-25 | 08-Mar-25 | 23-Sep-24 | 28-Oct-24 | 6* | |
| DC.S3.5775c5 | SCADA equipment installation (Phase 5 Sludge Centrifuge Construction) | 30 | 0 | 0% | 0% | | | 24-Dec-24 | 22-Jan-25 | 04-Jun-25 | 02-Feb-25 | 22-Nov-24 | 21-Dec-24 | 1* | |
| DC.S3.5775c6 | SCADA equipment installation (Phase 5 Sludge Dewatering System) | 30 | 0 | 0% | 0% | | | 21-Sep-24 | 21-Oct-24 | 04-Jun-25 | 02-Feb-25 | 13-Oct-24 | 11-Nov-24 | 155 | |
| DC.S3.5775c7 | SCADA equipment installation (Section 2 at PSSPS) | 30 | 0 | 0% | 0% | | | 15-Mar-24 | 13-Apr-24 | 29-Mar-25 | 27-Apr-25 | 18-Feb-25 | 19-Mar-25 | 379 | |
| DC.S3.5775c* | SCADA System Site Acceptance Test (Phase 1 Sludge Digestor Building Construction) | 30 | 0 | 0% | 0% | | | 09-Sep-23 | 08-Oct-23 | 19-Oct-23 | 17-Nov-23 | 25-Aug-23 | 23-Sep-23 | 42 | |
| DC.S3.5775d2 | Disconnecting data link of removed existing equipment from the existing SCADA system (Phase 2 Site Clearance at PTF Area) | 7 | 0 | 100% | 100% | 31-Jan-23 | 06-Feb-23 | 31-Jan-23 A | 06-Feb-23 A | | | 19-Jan-25 | 25-Jan-23 | | |
| DC.S3.5775d3 | SCADA System Site Acceptance Test (Phase 3 PTF Construction) | 30 | 0 | 0% | 0% | | | 14-May-24 | 12-Jun-24 | 04-Jun-24 | 03-Jul-24 | 22-Jan-24 | 20-Feb-24 | 2* | |
| DC.S3.5775d4 | SCADA System Site Acceptance Test (Phase 1 MBR Construction) | 30 | 0 | 0% | 0% | | | 14-Apr-24 | 13-May-24 | 14-Apr-24 | 13-May-24 | 30-Nov-23 | 29-Dec-23 | 0 | |
| DC.S3.5775d5 | Disconnecting data link of removed existing equipment from the existing SCADA system (Phase 4 Demolition of existing PTF) | 7 | 0 | 0% | 0% | | | 26-Sep-24 | 26-Sep-24 | 03-Nov-24 | 09-Nov-24 | 03-Jul-24 | 09-Jul-24 | 44 | |
| DC.S3.5775d6 | SCADA System Site Acceptance Test (Phase 5 Effluent Reuse Construction) | 30 | 0 | 0% | 0% | | | 07-Jan-25 | 05-Feb-25 | 09-Mar-25 | 07-Apr-25 | 29-Oct-24 | 27-Nov-24 | 6* | |
| DC.S3.5775d7 | SCADA System Site Acceptance Test (Phase 5 Sludge Centrifuge Construction) | 30 | 0 | 0% | 0% | | | 23-Jan-25 | 21-Feb-25 | 03-Feb-25 | 04-Mar-25 | 22-Dec-24 | 20-Jan-25 | 1* | |
| DC.S3.5775d8 | SCADA System Site Acceptance Test (Phase 5 Sludge Dewatering System) | 30 | 0 | 0% | 0% | | | 21-Oct-24 | 19-Nov-24 | 03-Feb-25 | 04-Mar-25 | 12-Nov-24 | 11-Dec-24 | 155 | |
| DC.S3.5775d9 | SCADA System Site Acceptance Test (Section 2 at PSSPS) | 30 | 0 | 0% | 0% | | | 31-Mar-24 | 29-Apr-24 | 14-Apr-25 | 13-May-25 | 08-Mar-25 | 04-Apr-23 | 379 | |
| DC.S3.5776d* | SCADA System Commissioning Test (Phase 1 Sludge Digestor Building Construction) | 30 | 0 | 0% | 0% | | | 09-Oct-23 | 07-Nov-23 | 18-Nov-23 | 17-Dec-23 | 24-Sep-23 | 23-Oct-23 | 42 | |
| DC.S3.5776d2 | SCADA System Commissioning Test (Phase 3 PTF Construction) | 30 | 0 | 0% | 0% | | | 15-Jun-24 | 12-Jul-24 | 04-Jul-24 | 02-Aug-24 | 21-Feb-24 | 21-Mar-24 | 2* | |
| DC.S3.5776d3 | SCADA System Commissioning Test (Phase 1 MBR Construction) | 30 | 0 | 0% | 0% | | | 14-May-24 | 12-Jun-24 | 14-May-24 | 12-Jun-24 | 30-Dec-23 | 28-Jan-24 | 0 | |
| DC.S3.5776d4 | SCADA System Commissioning Test (Phase 5 Effluent Reuse Construction) | 30 | 0 | 0% | 0% | | | 08-Mar-25 | 06-Apr-25 | 08-Apr-25 | 07-May-25 | 27-Dec-24 | 25-Jan-25 | 3* | |
| DC.S3.5776d5 | SCADA System Commissioning Test (Phase 5 Sludge Centrifuge Construction) | 30 | 0 | 0% | 0% | | | 22-Feb-25 | 23-Mar-25 | 05-Mar-25 | 03-Apr-25 | 21-Jan-25 | 19-Feb-25 | 1* | |
| DC.S3.5776d8 | SCADA System Commissioning Test (Phase 5 Sludge Dewatering System) | 30 | 0 | 0% | 0% | | | 20-Nov-24 | 19-Dec-24 | 05-Mar-25 | 03-Apr-25 | 12-Dec-24 | 10-Jan-25 | 155 | |
| DC.S3.5776d9 | SCADA System Commissioning Test (Section 2 at PSSPS) | 30 | 0 | 0% | 0% | | | 31-Mar-24 | 29-Apr-24 | 14-Apr-25 | 13-May-25 | 08-Mar-25 | 04-Apr-23 | 379 | |
| DC.S3.5780 | SCADA equipment installation at SHWSTW | 30 | 0 | 0% | 0% | | | 21-Sep-24 | 21-Oct-24 | 04-Jun-25 | 02-Feb-25 | 13-Oct-24 | 11-Nov-24 | 155 | |
| **ELV System (CCTV, ACS, Intercom, Radio)** | | | | 0% | | | | 07-Aug-24 | 04-Mar-25 | 06-Sep-24 | 03-Apr-25 | 25-May-24 | 20-Dec-24 | 82 | |
| DC.S3.5735 | Equipment Submission and Approval | 30 | 0 | 0% | 0% | | | 07-Aug-24* | 05-Sep-24 | 06-Sep-24 | 05-Oct-24 | 25-May-24 | 23-Jun-24 | 82 | |
| DC.S3.5740 | Procurement | 90 | 0 | 0% | 0% | | | 06-Sep-24 | 04-Dec-24 | 06-Oct-24 | 03-Jan-25 | 24-Jun-24 | 21-Sep-24 | 82 | |
| DC.S3.5750 | Fabrication | 15 | 0 | 0% | 0% | | | 05-Dec-24 | 19-Dec-24 | 04-Jan-25 | 18-Jan-25 | 22-Sep-24 | 06-Oct-24 | 82 | |
| DC.S3.5760 | Delivery | 15 | 0 | 0% | 0% | | | 20-Dec-24 | 03-Jan-25 | 19-Jan-25 | 02-Feb-25 | 07-Oct-24 | 21-Oct-24 | 82 | |
| DC.S3.5790 | E&M Installation Works | 60 | 0 | 0% | 0% | | | 04-Jan-25 | 04-Mar-25 | 03-Feb-25 | 03-Apr-25 | 22-Oct-24 | 20-Dec-24 | 82 | |
| **O & M Manual & Training** | | | | 0% | | | | 01-Nov-24 | 04-May-25 | 08-Jan-25 | 12-May-25 | 01-Aug-24 | 12-Dec-24 | 8 | |
| DC.S3.5765a | Submission of draft O&M Manual | 60 | 0 | 0% | 0% | | | 01-Nov-24* | 30-Dec-24 | 08-Jan-25 | 08-Mar-25 | 01-Aug-24 | 29-Sep-24 | 68 | |
| DC.S3.5765b | Training to Client's Staffs | 14 | 0 | 0% | 0% | | | 21-Apr-25 | 04-May-25 | 29-Apr-25 | 12-May-25 | 30-Sep-24 | 13-Oct-24 | 8 | |
| DC.S3.5765c | Submission of Interim O&M Manual | 60 | 0 | 0% | 0% | | | 31-Dec-24 | 28-Feb-25* | 09-Mar-25 | 07-May-25 | 14-Oct-24 | 12-Dec-24 | 68 | |
| **OTHER WORKS DUE TO CEs** | | | | 87.94% | | 18-Jan-22 | | 18-Jan-22 A | 25-Apr-23 | 08-Mar-23 | 20-May-23 | 18-Jan-22 | 15-Apr-23 | 17 | |
| DC.S3.6010 | CE-015, Abandonment Works for Existing 900mm Diameter Pipe Connection to Manhole SHM7003182 and CCH7000000 | 8 | 1 | 100% | 100% | 13-May-22 | 20-May-22 | 13-May-22 A | 20-May-22 A | | | 13-May-22 | 20-May-22 | | |
| DC.S3.6020 | CE-024, Prior Trial Leak Detection for Existing Manholes in Cheung Chau | 162 | 4 | 100% | 100% | 17-Mar-22 | 08-Oct-22 | 17-Mar-22 A | 08-Oct-22 A | | | 17-Mar-22 | 08-Oct-22 | | |
| DC.S3.6030 | CE-033, Repair Works of Existing Sludge Ramp | 316 | 2 | 90.57% | 90% | 18-Jan-22 | | 18-Jan-22 A | 03-Apr-23* | 08-Mar-23 | 15-Apr-23 | 18-Jan-22 | 16-Jan-23 | 7 | |
| DC.S3.6040 | CE-044, Point Cloud Survey at Cheung Chau | 72 | 3 | 100% | 100% | 15-Mar-22 | 17-Jun-22 | 15-Mar-22 A | 17-Jun-22 A | | | 15-Mar-22 | 17-Jun-22 | | |
| DC.S3.6050 | CE-050, Underground Utilities Survey and Water Intrusion Identification in Cheung Chau | 183 | 2 | 100% | 100% | 16-May-22 | 17-Nov-22 | 16-May-22 A | 17-Nov-22 A | | | 16-May-22 | 17-Nov-22 | | |
| DC.S3.6060 | CE-060, Additional Drillholes for Preliminary Treatment Facilities in CCSTW (Batch 1) (Total 7 nos.) | 25 | 0 | 100% | 100% | 31-Jul-22 | 30-Aug-22 | 31-Jul-22 A | 30-Aug-22 A | | | 01-Aug-22 | 31-Oct-22 | | |
| DC.S3.6070 | CE-060, Additional Drillholes for Preliminary Treatment Facilities in CCSTW (Batch 2) (Total 8 nos.) | 30 | 0 | 100% | 100% | 26-Jul-22 | 30-Aug-22 | 26-Jul-22 A | 30-Aug-22 A | | | 02-Sep-22 | 12-Dec-22 | | |
| DC.S3.6100 | CE-095, Inspection Pit Works for Water Intrusion Identification in Cheung Chau (Batch 1) | 65 | 0 | 100% | 100% | 20-May-22 | 26-Aug-22 | 20-May-22 A | 06-Aug-22 A | | | 02-Sep-22 | 17-Dec-22 | | |
| DC.S3.6110 | CE-095, Inspection Pit Works for Water Intrusion Identification in Cheung Chau (Batch 2) | 171 | 0 | 71.35% | 33% | 30-Sep-22 | | 30-Sep-22 A | 29-Apr-23* | 20-Mar-23 | 20-May-23 | 02-Sep-22 | 30-Mar-23 | 17 | |
| DC.S3.6120 | CE-095, Inspection Pit Works for Water Intrusion Identification in Cheung Chau (Batch 3) | 109 | 0 | 65.05% | 0% | 15-Dec-22 | | 15-Dec-22 A | 29-Apr-23* | 20-Mar-23 | 20-May-23 | 15-Dec-22 | 19-Apr-23 | 17 | |
| **COMPLETION OF SECTION 3** | | | | 0% | | | | 13-Apr-23 | 13-May-25 | 13-Apr-25 | 13-May-25 | 22-Dec-24 | 08-Apr-25 | 0 | |
| DC.S3.6070 | Pre-handover meeting with DSD/ST2 | 1 | 0 | 0% | 0% | | | 13-Apr-25 | 13-Apr-25 | 13-Apr-25 | 13-Apr-25 | 22-Dec-24 | 20-Dec-24 | 0 | |
| DC.S3.6080 | Handover meeting with DSD/ST2 | 1 | 0 | 0% | 0% | | | 13-May-25 | 13-May-26 | 13-May-25 | 13-May-25 | 19-Jan-25 | 19-Jan-25 | 0 | |
| DC.S3.6090 | Completion of Section 3 (Working Days) | 0 | 0 | 0% | 0% | | | | 13-May-26 | | 13-May-25 | | 08-Apr-25 | 0 | |
| **SECTION 4** | | | | 0% | | | | 08-May-25 | 05-Feb-26 | 08-May-25 | 05-Feb-26 | 19-Jan-25 | 15-Oct-25 | 0 | |
| **30-month Performance Verification (At least 18 months End of S4)** | | | | 0% | | | | 08-May-25 | 05-Feb-26 | 08-May-25 | 05-Feb-26 | 19-Jan-25 | 15-Oct-25 | 0 | |

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES
REVISED PROGRAMME - REV. 22 (28 February 2023)
(Page 12 of 13)

| Date | Revision | Chec.. | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |



| Activity ID | Activity Name | Orl. Dur (d) | TRA (d) | Time Elapsed % | Actual Workdone % | Actual Start | Actual Finish | Early Start | Early Finish | Late Start | Late Finish | Early Start (Rev. 26) | Early Finish (Rev. 26) | Total Float | Amended Activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC.S4.1040 | 30-month performance verification (At least 18 months before End of S4) (Period from 9th to 18th month) | 274 | 0 | 0% | 0% | | | 08-May-25 | 05-Feb-26 | 08-May-25 | 05-Feb-26 | 18-Jun-25 | 15-Oct-25 | 0 | |
| **External Architectrual** | | | | 0% | | | | 14-May-25 | 04-Sep-25 | 08-Aug-25 | 31-Dec-25 | 08-Apr-25 | 05-Aug-25 | 88 | |
| DC.S4.1010 | External Architectural at MBR Treatment Facilities | 90 | 6 | 0% | 0% | | | 14-May-25 | 04-Sep-25 | 08-Aug-25 | 31-Dec-25 | 08-Apr-25 | 05-Aug-25 | 72 | |
| DC.S4.1100 | External Architectural at Sludge Digestor Building | 60 | 4 | 0% | 0% | | | 14-May-25 | 29-Jul-25 | 15-Sep-25 | 31-Dec-25 | 08-Apr-25 | 27-Jun-25 | 104 | |
| DC.S4.1110 | External Architectural at Sludge Centrifuge House | 60 | 4 | 0% | 0% | | | 14-May-25 | 29-Jul-25 | 15-Sep-25 | 31-Dec-25 | 08-Apr-25 | 27-Jun-25 | 104 | |
| DC.S4.1120 | External Architectural at Preliminary Treatment Facilities | 90 | 6 | 0% | 0% | | | 14-May-25 | 04-Sep-25 | 08-Aug-25 | 31-Dec-25 | 08-Apr-25 | 05-Aug-25 | 72 | |
| DC.S4.1130 | External Architectural at Effluent Reuse Building | 32 | 2 | 0% | 0% | | | 14-May-25 | 25-Jun-25 | 24-Oct-25 | 31-Dec-25 | 08-Apr-25 | 20-May-25 | 136 | |
| DC.S4.1140 | External Architectural at FS Pumproom and Pumproom | 32 | 2 | 0% | 0% | | | 14-May-25 | 25-Jun-25 | 24-Oct-25 | 31-Dec-25 | 08-Apr-25 | 20-May-25 | 136 | |
| DC.S4.1150 | External Architectural at Dangerous Good House | 32 | 2 | 0% | 0% | | | 14-May-25 | 25-Jun-25 | 24-Oct-25 | 31-Dec-25 | 08-Apr-25 | 20-May-25 | 136 | |
| DC.S4.1160 | External Architectural at Sludge Dewatering House | 60 | 4 | 0% | 0% | | | 14-May-25 | 29-Jul-25 | 15-Sep-25 | 31-Dec-25 | 08-Apr-25 | 27-Jun-25 | 104 | |
| DC.S4.1170 | External Architectural at Administration Building | 40 | 2 | 0% | 0% | | | 14-May-25 | 03-Jul-25 | 13-Oct-25 | 31-Dec-25 | 08-Apr-25 | 02-Jun-25 | 126 | |
| **Landscaping Works & Irrigation System** | | | | 0% | | | | 14-May-25 | 12-Nov-25 | 02-Oct-25 | 25-Feb-26 | 08-Apr-25 | 11-Oct-25 | 85 | |
| DC.S4.1020 | The site-wide landscaping works | 97 | 7 | 0% | 0% | | | 1*-Jul-25 | 12-Nov-25 | 02-Oct-25 | 25-Feb-26 | 10-Jun-25 | 11-Oct-25 | 70 | |
| DC.S4.1080 | Installation of Irrigation System | 97 | 7 | 0% | 0% | | | 14-May-25 | 13-Sep-25 | 02-Oct-25 | 25-Feb-26 | 08-Apr-25 | 14-Aug-25 | 118 | |
| **Construction of New Security Fence** | | | | 0% | | | | 14-May-25 | 27-Sep-25 | 09-Aug-25 | 25-Feb-26 | 08-Apr-25 | 28-Aug-25 | 106 | |
| DC.S4.1030 | Demolition of Existing Boundary Wall | 60 | 4 | 0% | 0% | | | 14-May-25 | 29-Jul-25 | 09-Aug-25 | 21-Oct-25 | 08-Apr-25 | 27-Jun-25 | 70 | |
| DC.S4.1060 | Construction of New Security Fence R.C. Structures | 60 | 4 | 0% | 0% | | | 24-Jun-25 | 06-Sep-25 | 15-Sep-25 | 31-Dec-25 | 23-May-25 | 07-Aug-25 | 70 | |
| DC.S4.1070 | Installation of New Security Fence Metal Works | 45 | 3 | 0% | 0% | | | 04-Aug-25 | 27-Sep-25 | 09-Dec-25 | 25-Feb-26 | 04-Jul-25 | 28-Aug-25 | 106 | |
| **Completion of Section 4 (Working Day)** | | | | 0% | | | | 15-Nov-25 | 05-Feb-26 | 06-Jan-26 | 25-Feb-26 | 16-Sep-25 | 16-Oct-25 | 0 | |
| DC.S4.1041 | Pre-handover meeting with DSD/ST2 | 1 | 0 | 0% | 0% | | | 15-Nov-25 | 16-Nov-25 | 06-Jan-26 | 06-Jan-26 | 16-Sep-25 | 18-Sep-25 | 52 | |
| DC.S4.1042 | Handover meeting with DSD/ST2 | 1 | 0 | 0% | 0% | | | 15-Dec-25 | 16-Dec-25 | 05-Feb-26 | 25-Feb-26 | 16-Oct-25 | 16-Oct-25 | 52 | |
| DC.S4.1050 | Completion of Section 4 | 0 | 0 | 0% | 0% | | | | 05-Feb-26* | | 25-Feb-26 | | 16-Oct-25 | 0 | |
| **30-month performance verification (remaining 12 months after S4)** | | | | 0% | | | | 05-Feb-26 | 05-Feb-27 | 25-Feb-26 | 25-Feb-27 | 16-Oct-25 | 0*-Jan-27 | 0 | |
| DC.PV.1010 | 30-month performance verification (remaining 12 months after S4) (Period from 18th to 30th month) | 365 | 0 | 0% | 0% | | | 05-Feb-26 | 05-Feb-27 | 25-Feb-26 | 25-Feb-27 | 16-Oct-25 | 15-Oct-26 | 0 | |
| DC.PV.1020 | Date of 12 months after S4 | 0 | 0 | 0% | 0% | | | | 05-Feb-27* | | 25-Feb-27 | | 0*-Jan-27 | 0 | |
| DC.S3.5765d10 | Submission of final O&M Manual | 60 | 0 | 0% | 0% | | | 24-Feb-26 | 24-Apr-26 | 07-Dec-26 | 24-Feb-27 | 13-Dec-25 | 10-Feb-26 | 280 | |



Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone

**DC/2019/07 OUTLYING ISLANDS SEWERAGE STAGE2 - UPGRADING OF CHEUNG CHAU SEWAGE TREATMENT AND DISPOSAL FACILITIES**
**REVISED PROGRAMME - REV. 22 (28 February 2023)**
(Page 13 of 13)

| Date | Revision | Chec... | Approved |
|---|---|---|---|
| 30-Nov-22 | Rev. 20 | JL | CL |
| 31-Dec-22 | Rev. 21 | JL | CL |
| 28-Feb-23 | Rev. 22 | JL | CL |

# APPENDIX C
# Calibration Certificates
# (Air Monitoring)

TISCH Environmental

| RECALIBRATION DUE DATE: |
|---|
| January 15, 2025 |

# Certificate of Calibration

| Calibration Certification Information | | | | |
|---|---|---|---|---|
| Cal. Date: | January 15, 2024 | Rootsmeter S/N: 438320 | Ta: 294 | °K |
| Operator: | Jim Tisch | | Pa: 755.9 | mm Hg |
| Calibration Model #: | TE-5025A | Calibrator S/N: 3465 | | |

| Run | Vol. Init (m3) | Vol. Final (m3) | ΔVol. (m3) | ΔTime (min) | ΔP (mm Hg) | ΔH (in H2O) |
|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 1 | 1.4350 | 3.3 | 2.00 |
| 2 | 3 | 4 | 1 | 1.0180 | 6.4 | 4.00 |
| 3 | 5 | 6 | 1 | 0.9090 | 8.0 | 5.00 |
| 4 | 7 | 8 | 1 | 0.8670 | 8.9 | 5.50 |
| 5 | 9 | 10 | 1 | 0.7150 | 12.9 | 8.00 |

**Data Tabulation**

| Vstd (m3) | Qstd (x-axis) | $\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis) | Va | Qa (x-axis) | $\sqrt{\Delta H(Ta/Pa)}$ (y-axis) |
|---|---|---|---|---|---|
| 1.0037 | 0.6995 | 1.4200 | 0.9956 | 0.6938 | 0.8820 |
| 0.9996 | 0.9819 | 2.0081 | 0.9915 | 0.9740 | 1.2473 |
| 0.9975 | 1.0973 | 2.2452 | 0.9894 | 1.0885 | 1.3945 |
| 0.9963 | 1.1491 | 2.3547 | 0.9882 | 1.1398 | 1.4626 |
| 0.9909 | 1.3859 | 2.8399 | 0.9829 | 1.3747 | 1.7639 |
| QSTD | m= | 2.06920 | QA | m= | 1.29570 |
| | b= | -0.02547 | | b= | -0.01582 |
| | r= | 0.99999 | | r= | 0.99999 |

**Calculations**

| | | | |
|---|---|---|---|
| Vstd= | ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta) | Va= | ΔVol((Pa-ΔP)/Pa) |
| Qstd= | Vstd/ΔTime | Qa= | Va/ΔTime |

**For subsequent flow rate calculations:**

| | |
|---|---|
| $Qstd= 1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$ | $Qa= 1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$ |

| Standard Conditions | |
|---|---|
| Tstd: | 298.15 °K |
| Pstd: | 760 mm Hg |

| Key |
|---|
| ΔH: calibrator manometer reading (in H2O) |
| ΔP: rootsmeter manometer reading (mm Hg) |
| Ta: actual absolute temperature (°K) |
| Pa: actual barometric pressure (mm Hg) |
| b: intercept |
| m: slope |

**RECALIBRATION**

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

ACUITY sustainability
Member of the Aurecon Group

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## HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

### Site Information

| | | | | | |
|---|---|---|---|---|---|
| Location: | The admin building inside the construction site | Site ID: | A1a | Date: | 05-Feb-2024 |
| Serial No: | 1048 | Model: | TE-5170X | Operator: | Andy Li |

### Ambient Condition

| | | | |
|---|---|---|---|
| Actual Pressure during Calibration ($P_a$) (mm Hg): | 764.2 | Actual Temperature during Calibration ($T_a$) (deg K): | 293.6 |

### Calibration Orifice

| | | | |
|---|---|---|---|
| Model: | TE-5025A | Slope ($m_c$): | 2.06920 |
| Serial No.: | 3465 | Intercept ($b_c$): | -0.02547 |
| Calibration Due Date: | 15-Jan-25 | Corr. Coeff: | 0.99999 |

### Calibration Data

| Plate or Test # | $\Delta H_2O$ (in) | Qa, X-Axis ($m^3$/min) | I, CFM (chart) | IC, Y-Axis (corrected) |
|---|---|---|---|---|
| 18 | 11.20 | 1.646 | 64.0 | 64.66 |
| 13 | 8.80 | 1.461 | 60.0 | 60.62 |
| 10 | 6.80 | 1.286 | 53.0 | 53.55 |
| 7 | 4.60 | 1.060 | 46.0 | 46.47 |
| 5 | 2.80 | 0.829 | 40.0 | 40.41 |

**Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)**

m= 30.7352 b= 14.5299 Corr. Coeff= 0.9969

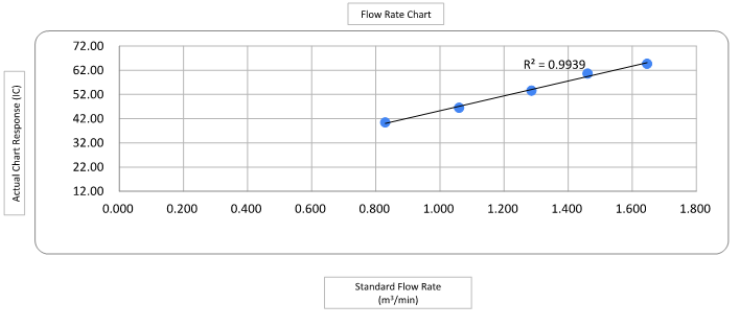
### Calculations

$Qa = 1/m_c * [Sqrt (\Delta H_2O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$

$IC = I * (Sqrt (P_a/P_{Std}) * (T_{Std}/T_a))$

Qa = actual flow rate
IC = corrected chart response
I = actual chart response
$m_c$ = calibrator slope
$b_c$ = calibrator intercept

m = sampler slope
b = sampler intercept
$T_{Std}$ = 298 deg K
$P_{Std}$ = 760 mm Hg
$T_a$ = actual temperature during calibration (deg K)
$P_a$ = actual pressure during calibration (mm Hg)




Checked by: Tandy Tse
Senior Consultant, Environmental

Date: 05-Feb-2024

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# HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

## Site Information

| | | | | | |
|---|---|---|---|---|---|
| Location: | The existing outfall pumping station inside the construction site | Site ID: | A2a | Date: | 05-Feb-2024 |
| Serial No: | 1085 | Model: | TE-5170X | Operator: | Andy Li |

## Ambient Condition

| | | | |
|---|---|---|---|
| Actual Pressure during Calibration ($P_a$) (mm Hg): | 764.2 | Actual Temperature during Calibration ($T_a$) (deg K): | 293.6 |

## Calibration Orifice

| | | | |
|---|---|---|---|
| Model: | TE-5025A | Slope ($m_c$): | 2.06920 |
| Serial No.: | 3465 | Intercept ($b_c$): | -0.02547 |
| Calibration Due Date: | 15-Jan-25 | Corr. Coeff: | 0.99999 |

## Calibration Data

| Plate or Test # | $\Delta H_2O$ (in) | Qa, X-Axis ($m^3$/min) | I, CFM (chart) | IC, Y-Axis (corrected) |
|---|---|---|---|---|
| 18 | 10.00 | 1.556 | 60.0 | 60.62 |
| 13 | 8.00 | 1.393 | 58.0 | 58.60 |
| 10 | 6.80 | 1.286 | 54.0 | 54.56 |
| 7 | 4.00 | 0.989 | 46.0 | 46.47 |
| 5 | 2.40 | 0.769 | 40.0 | 40.41 |

**Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)**

m= 26.6769 b= 20.1584 Corr. Coeff= 0.9951

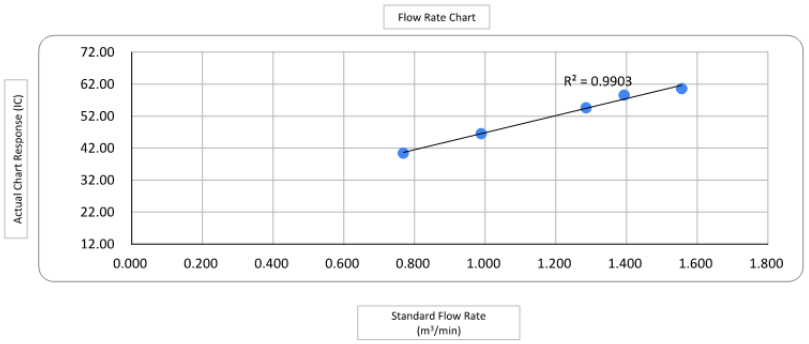
## Calculations

$Qa = 1/m_c * [Sqrt (\Delta H_2O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$

$IC = I * (Sqrt (P_a/P_{Std}) * (T_{Std}/T_a))$

Qa = actual flow rate
IC = corrected chart response
I = actual chart response
$m_c$ = calibrator slope
$b_c$ = calibrator intercept

m = sampler slope
b = sampler intercept
$T_{Std}$ = 298 deg K
$P_{Std}$ = 760 mm Hg
$T_a$ = actual temperature during calibration (deg K)
$P_a$ = actual pressure during calibration (mm Hg)




Checked by: Tandy Tse
Senior Consultant, Environmental

Date: 05-Feb-2024

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Member of the Aurecon Group

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# HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

## Site Information

| | | | | | |
|---|---|---|---|---|---|
| Location: | The admin buliding inside the construction site | Site ID: | A1a | Date: | 05-Apr-2024 |
| Serial No: | 1048 | Model: | TE-5170X | Operator: | Andy Li |

## Ambient Condition

| | | | |
|---|---|---|---|
| Actual Pressure during Calibration ($P_a$) (mm Hg): | 758.9 | Actual Temperature during Calibration ($T_a$) (deg K): | 302.4 |

## Calibration Orifice

| | | | |
|---|---|---|---|
| Model: | TE-5025A | Slope ($m_c$): | 2.06920 |
| Serial No.: | 3465 | Intercept ($b_c$): | -0.02547 |
| Calibration Due Date: | 15-Jan-25 | Corr. Coeff: | 0.99999 |

## Calibration Data

| Plate or Test # | $\Delta H_2O$ (in) | Qa, X-Axis ($m^3$/min) | I, CFM (chart) | IC, Y-Axis (corrected) |
|---|---|---|---|---|
| 1 | 10.00 | 1.528 | 60.0 | 59.52 |
| 2 | 9.00 | 1.451 | 58.0 | 57.53 |
| 3 | 4.80 | 1.063 | 51.0 | 50.59 |
| 4 | 2.80 | 0.815 | 43.0 | 42.66 |
| 5 | 2.00 | 0.690 | 40.0 | 39.68 |

**Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)**

m= 23.3927 b= 24.0474 Corr. Coeff= 0.9942

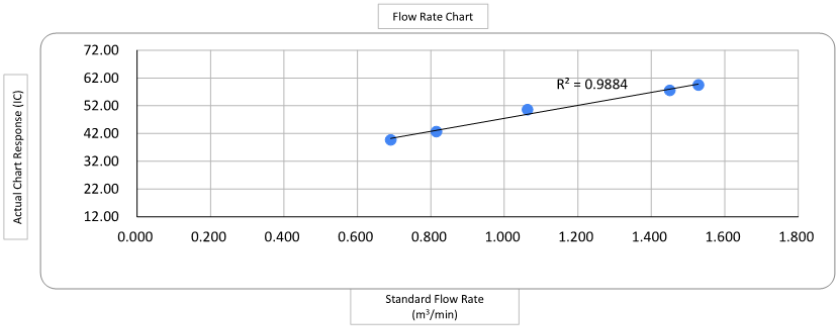
## Calculations

$Qa = 1/m_c * [Sqrt (\Delta H_2O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$

$IC = I * (Sqrt (P_a/P_{Std}) * (T_{Std}/T_a))$

Qa = actual flow rate
IC = corrected chart response
I = actual chart response
$m_c$ = calibrator slope
$b_c$ = calibrator intercept

m = sampler slope
b = sampler intercept
$T_{Std}$ = 298 deg K
$P_{Std}$ = 760 mm Hg
$T_a$ = actual temperature during calibration (deg K)
$P_a$ = actual pressure during calibration (mm Hg)




Checked by F.C Tsang
Environemntal Team Leader

Date: 05-Apr-2024

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# HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

## Site Information

| | | | | | |
|---|---|---|---|---|---|
| Location: | The existing ourtfall pumping station inside the construction site | Site ID: | A2a | Date: | 05-Apr-2024 |
| Serial No: | 1085 | Model: | TE-5170X | Operator: | Andy Li |

## Ambient Condition

| | | | |
|---|---|---|---|
| Actual Pressure during Calibration ($P_a$) (mm Hg): | 758.9 | Actual Temperature during Calibration ($T_a$) (deg K): | 302.4 |

## Calibration Orifice

| | | | |
|---|---|---|---|
| Model: | TE-5025A | Slope ($m_c$): | 2.06920 |
| Serial No.: | 3465 | Intercept ($b_c$): | -0.02547 |
| Calibration Due Date: | 15-Jan-25 | Corr. Coeff: | 0.99999 |

## Calibration Data

| Plate or Test # | $\Delta H_2O$ (in) | Qa, X-Axis ($m^3$/min) | I, CFM (chart) | IC, Y-Axis (corrected) |
|---|---|---|---|---|
| 1 | 10.00 | 1.528 | 62.0 | 61.50 |
| 2 | 8.00 | 1.368 | 60.0 | 59.52 |
| 3 | 6.40 | 1.225 | 54.0 | 53.57 |
| 4 | 3.90 | 0.959 | 46.0 | 45.63 |
| 5 | 2.40 | 0.755 | 40.0 | 39.68 |

**Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)**

m= 29.5246 b= 17.5202 Corr. Coeff= 0.9942

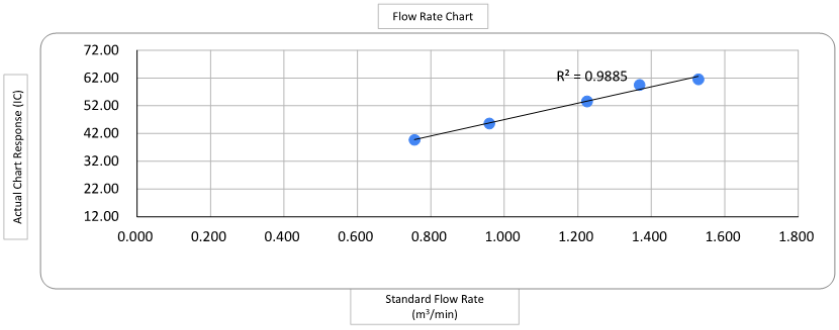
## Calculations

$Qa = 1/m_c * [Sqrt (\Delta H_2O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$

$IC = I * (Sqrt (P_a/P_{Std}) * (T_{Std}/T_a))$

Qa = actual flow rate
IC = corrected chart response
I = actual chart response
$m_c$ = calibrator slope
$b_c$ = calibrator intercept

m = sampler slope
b = sampler intercept
$T_{Std}$ = 298 deg K
$P_{Std}$ = 760 mm Hg
$T_a$ = actual temperature during calibration (deg K)
$P_a$ = actual pressure during calibration (mm Hg)




Checked by F.C Tsang
Environemntal Team Leader

Date: 05-Apr-2024

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## Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

### Information of Calibrated Equipement

| | | | | | |
|---|---|---|---|---|---|
| Verification Test Date: | **19-Mar-24** | to | **24-Mar-24** | Next Verification Test Date: | **24-Mar-25** |
| Unit-under-Test- Model No.: | Sibata LD-5R | | | | |
| Unit-under-Test Serial No.: | 2Y6549 | | | | |
| Our Report Refrence No.: | PRT-24-HVS-0024 | | | | |
| Calibration Location: | Emax | | | | |

### Standard Equipment Information

| | | |
|---|---|---|
| Verification Equipment Type: | Tisch TSP HVS | Tisch HVS Calibrator |
| Standard Equipment Model No.: | TE-5170X | TE-5025A |
| Equipment serial no.: | 1085 | 3465 |
| Last Calibration Date: | 19-Mar-24 | 15-Jan-24 |
| Next Calibration Date: | 2-Apr-24 | 14-Jan-25 |

### Equipement Vertification Result

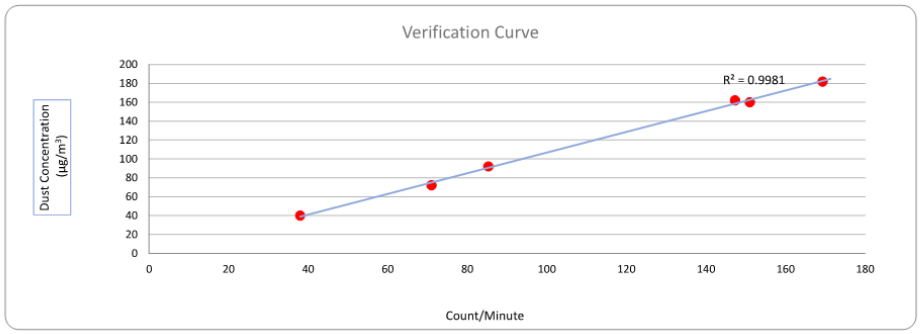
| Verification Test No. | Date | Duration | | | Results from Calibrated Equipement | | Results from Standard Equipment |
|---|---|---|---|---|---|---|---|
| | | Start-time | End-time | Elapsed Time (in min) | Total Counts | Counts/ Minute x-axis | Dust Concentration (μg/m³) y-axis |
| 1 | 19/3/2024 | 7339.85 | 7342.85 | 180.00 | 26514 | 147 | 162 |
| 2 | 19/3/2024 | 7342.85 | 7345.85 | 180.00 | 27180 | 151 | 160 |
| 3 | 19/3/2024 | 7345.85 | 7348.85 | 180.00 | 30474 | 169 | 182 |
| 4 | 24/3/2024 | 7349.74 | 7352.74 | 180.00 | 6840 | 38 | 40 |
| 5 | 24/3/2024 | 7352.76 | 7355.76 | 180.00 | 15354 | 85 | 92 |
| 6 | 24/3/2024 | 7355.77 | 7358.77 | 180.00 | 12780 | 71 | 72 |

### Linear Regression of y on x

Slope, K factor: **33.1857** Intercept: **11.2093** *Correlation Coefficient,R: **0.9991**

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.




Operated By: Andy Li, Project Technician, Environmental Date: 29-03-2024

Checked By: Tandy Tse, Senior Consultant, Environmental Date: 29-03-2024

ACUITY sustainability
Member of the Aurecon Group

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## Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

### Information of Calibrated Equipement

| | | | | | |
|---|---|---|---|---|---|
| Verification Test Date: | 19-Mar-24 | to | 24-Mar-24 | Next Verification Test Date: | 24-Mar-25 |
| Unit-under-Test- Model No.: | Sibata LD-5R | | | | |
| Unit-under-Test Serial No.: | 2Y6550 | | | | |
| Our Report Refrence No.: | RPT-24-HVS-0028 | | | | |
| Calibration Location: | Emax | | | | |

### Standard Equipment Information

| | | |
|---|---|---|
| Verification Equipment Type: | Tisch TSP HVS | Tisch HVS Calibrator |
| Standard Equipment Model No.: | TE-5170X | TE-5025A |
| Equipment serial no.: | 1049 | 3465 |
| Last Calibration Date: | 19-Mar-24 | 15-Jan-24 |
| Next Calibration Date: | 2-Apr-24 | 14-Jan-25 |

### Equipement Vertification Result

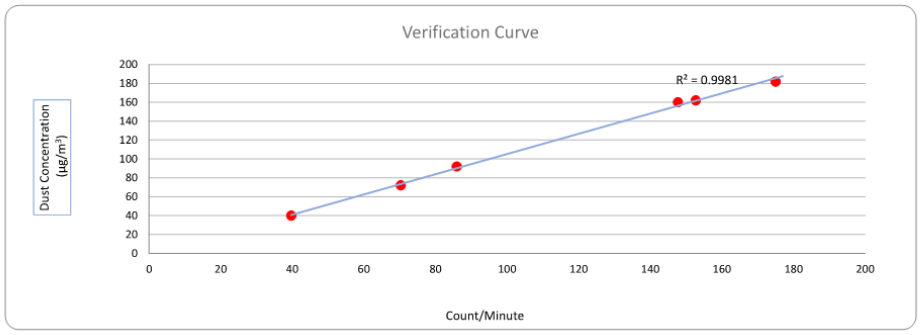
| Verification Test No. | Date | Duration | | | Results from Calibrated Equipement | | Results from Standard Equipment |
|---|---|---|---|---|---|---|---|
| | | Start-time | End-time | Elapsed Time (in min) | Total Counts | Counts/ Minute x-axis | Dust Concentration (μg/m³) y-axis |
| 1 | 19/3/2024 | 7339.85 | 7342.85 | 180.00 | 27486 | 153 | 162 |
| 2 | 19/3/2024 | 7342.85 | 7345.85 | 180.00 | 26586 | 148 | 160 |
| 3 | 19/3/2024 | 7345.85 | 7348.85 | 180.00 | 31500 | 175 | 182 |
| 4 | 24/3/2024 | 7349.74 | 7352.74 | 180.00 | 7146 | 40 | 40 |
| 5 | 24/3/2024 | 7352.76 | 7355.76 | 180.00 | 15480 | 86 | 92 |
| 6 | 24/3/2024 | 7355.77 | 7358.77 | 180.00 | 12654 | 70 | 72 |

### Linear Regression of y on x

Slope, K factor: **33.1857** Intercept: **11.2093** *Correlation Coefficient,R: **0.9990**

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.




Operated By: Andy Li, Project Technician, Environmental Date: 29-03-2024

Checked By: Tandy Tse, Senior Consultant, Environmental Date: 29-03-2024

# APPENDIX D
# Monitoring Data (Air)

Location: A1a

Monitoring Period: April 2024

Parameter: TSP 1-hour

Major Dust Source: Construction activities and daily operation of the sewerage treatment plant

Other Factors: NA

| **Date** | **Weather** | **Start Time** | **1st Hour (µg/m³)** | **2nd Hour (µg/m³)** | **3rd Hour (µg/m³)** |
|---|---|---|---|---|---|
| 2/4/2024 | Sunny | 13:55 | 70 | 69 | 67 |
| 8/4/2024 | Cloudy | 14:07 | 63 | 64 | 61 |
| 15/4/2024 | Sunny | 14:01 | 72 | 68 | 63 |
| 22/4/2024 | Cloudy | 14:37 | 62 | 60 | 64 |
| 29/4/2024 | Fine | 13:44 | 65 | 66 | 62 |
| | | **Average** | 65 | | |
| | | **Range** | 60 – 72 | | |

Location: A2a

Monitoring Period: April 2024

Parameter: TSP 1-hour

Major Dust Source: Construction activities and daily operation of the sewerage treatment plant

Other Factors: NA

| **Date** | **Weather** | **Start Time** | **1st Hour (μg/m³)** | **2nd Hour (μg/m³)** | **3rd Hour (μg/m³)** |
|---|---|---|---|---|---|
| 2/4/2024 | Sunny | 13:39 | 85 | 68 | 74 |
| 8/4/2024 | Cloudy | 13:52 | 81 | 75 | 79 |
| 15/4/2024 | Sunny | 13:46 | 68 | 73 | 70 |
| 22/4/2024 | Cloudy | 13:47 | 67 | 76 | 69 |
| 29/4/2024 | Fine | 13:31 | 63 | 66 | 75 |
| | | **Average** | 73 | | |
| | | **Range** | 63 - 85 | | |

Figure D.1 Measured 1-Hour TSP at the admin building inside the construction site (A1a)

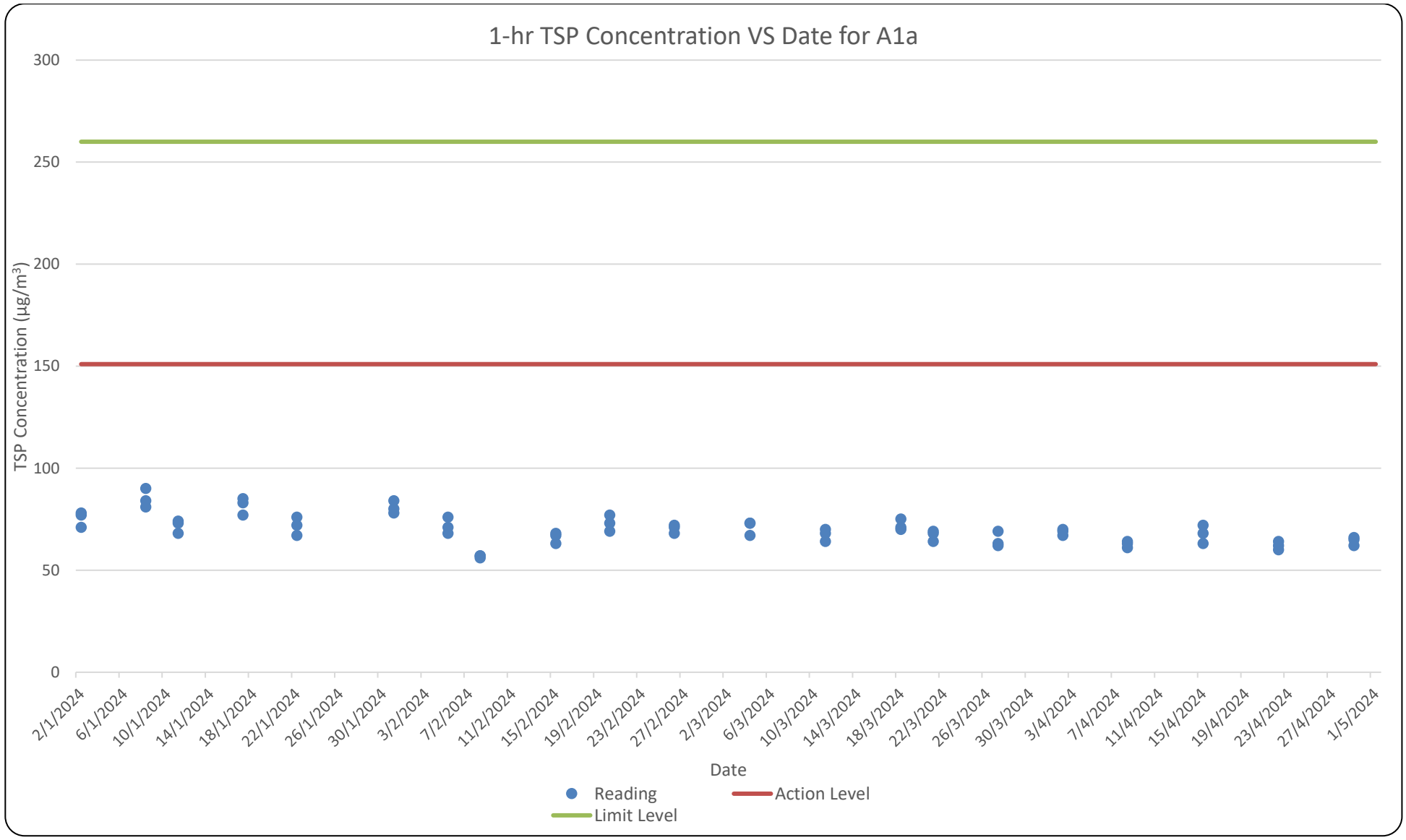
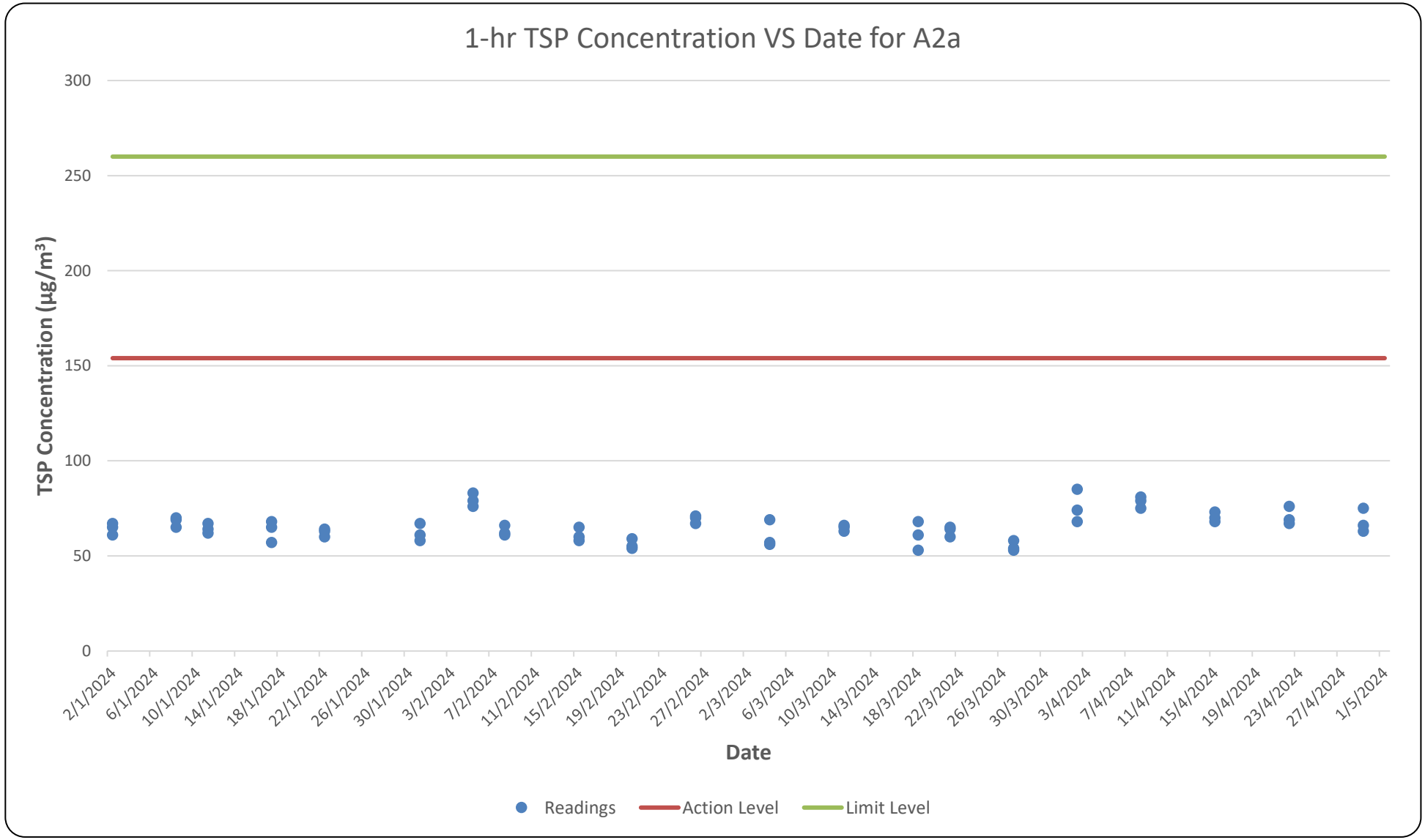


Figure D.2 Measured 1-Hour TSP at the existing outfall pumping station inside the construction site (A2a)



Location: A1a

Parameter: TSP 24-hour

Major dust source: Construction activities and daily operation of the sewerage treatment plant

Major dust source: Routine operation of the Sewage Treatment Plant

Other Factors: NA

| Start Date | Avg Air Temp | Avg Atmospheric Pressure | Weather Condition | Elapse Time | | Sampling Time | Flow Rate | Standard Air Volume | Filter Weight (g) | | Particulate weight | Conc. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (°C) | (mm Hg) | | Initial (min) | Final (min) | Actual (min) | ($m^3$/min) | ($m^3$) | Initial | Final | (g) | (µg/$m^3$) |
| 2/4/2024 | 27.2 | 1009.7 | Sunny | 327867.0 | 329403.0 | 1536.0 | 0.98 | 1507 | 2.6842 | 2.7802 | 0.0960 | 64 |
| 8/4/2024 | 24.0 | 1014.1 | Cloudy | 329403.0 | 330903.0 | 1500.0 | 0.9 | 1351 | 2.6738 | 2.8907 | 0.2169 | 161 |
| 15/4/2024 | 27.8 | 1012.1 | Sunny | 330903.0 | 332387.0 | 1484.0 | 0.88 | 1313 | 2.6668 | 2.7497 | 0.0829 | 63 |
| 22/4/2024 | 25.3 | 1008.4 | Cloudy | 332387.0 | 333854.0 | 1467.0 | 0.84 | 1237 | 2.6866 | 2.7306 | 0.0440 | 36 |
| 29/4/2024 | 28.2 | 1006.8 | Fine | 333854.0 | 335319.0 | 1465.0 | 0.58 | 846 | 2.6997 | 2.7394 | 0.0397 | 47 |
| | | | | | | | | | | | Average | 74 |
| | | | | | | | | | | | Range | 36 - 161 |

| | |
|---|---|
| Location: | A2a |
| Parameter: | TSP 24-hour |
| Major Site Activities | Construction activities and daily operation of the sewerage treatment plant |
| Major dust source | Routine operation of the Sewage Treatment Plant |
| Other Factors | NA |

| Start Date | Avg Air Temp | Avg Atmospheric Pressure | Weather Condition | Elapse Time | | Sampling Time | Flow Rate | Standard Air Volume | Filter Weight (g) | | Particulate weight | Conc. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ($^oC$) | (mm Hg) | | Initial (min) | Final (min) | Actual (min) | ($m^3$/min) | ($m^3$) | Initial | Final | (g) | (µg/$m^3$) |
| 2/4/2024 | 27.2 | 1009.7 | Sunny | 546414.0 | 547921.0 | 1507.0 | 0.92 | 1385 | 2.6729 | 2.7229 | 0.0500 | 36 |
| 8/4/2024 | 24.0 | 1014.1 | Cloudy | 547921.0 | 549421.0 | 1500.0 | 0.94 | 1402 | 2.6730 | 2.7642 | 0.0912 | 65 |
| 15/4/2024 | 27.8 | 1012.1 | Sunny | 549421.0 | 550911.0 | 1490.0 | 0.92 | 1374 | 2.6683 | 2.7669 | 0.0986 | 72 |
| 22/4/2024 | 25.3 | 1008.4 | Cloudy | 550911.0 | 552411.0 | 1500.0 | 0.89 | 1333 | 2.6849 | 2.7619 | 0.0770 | 58 |
| 29/4/2024 | 28.2 | 1006.8 | Fine | 552411.0 | 553911.0 | 1500.0 | 0.75 | 1118 | 2.7003 | 2.7712 | 0.0709 | 63 |
| | | | | | | | | | | | Average | 59 |
| | | | | | | | | | | | Range | 36 - 72 |

Figure D.3 Measured 24-Hour TSP at the admin building inside the construction site (A1a)

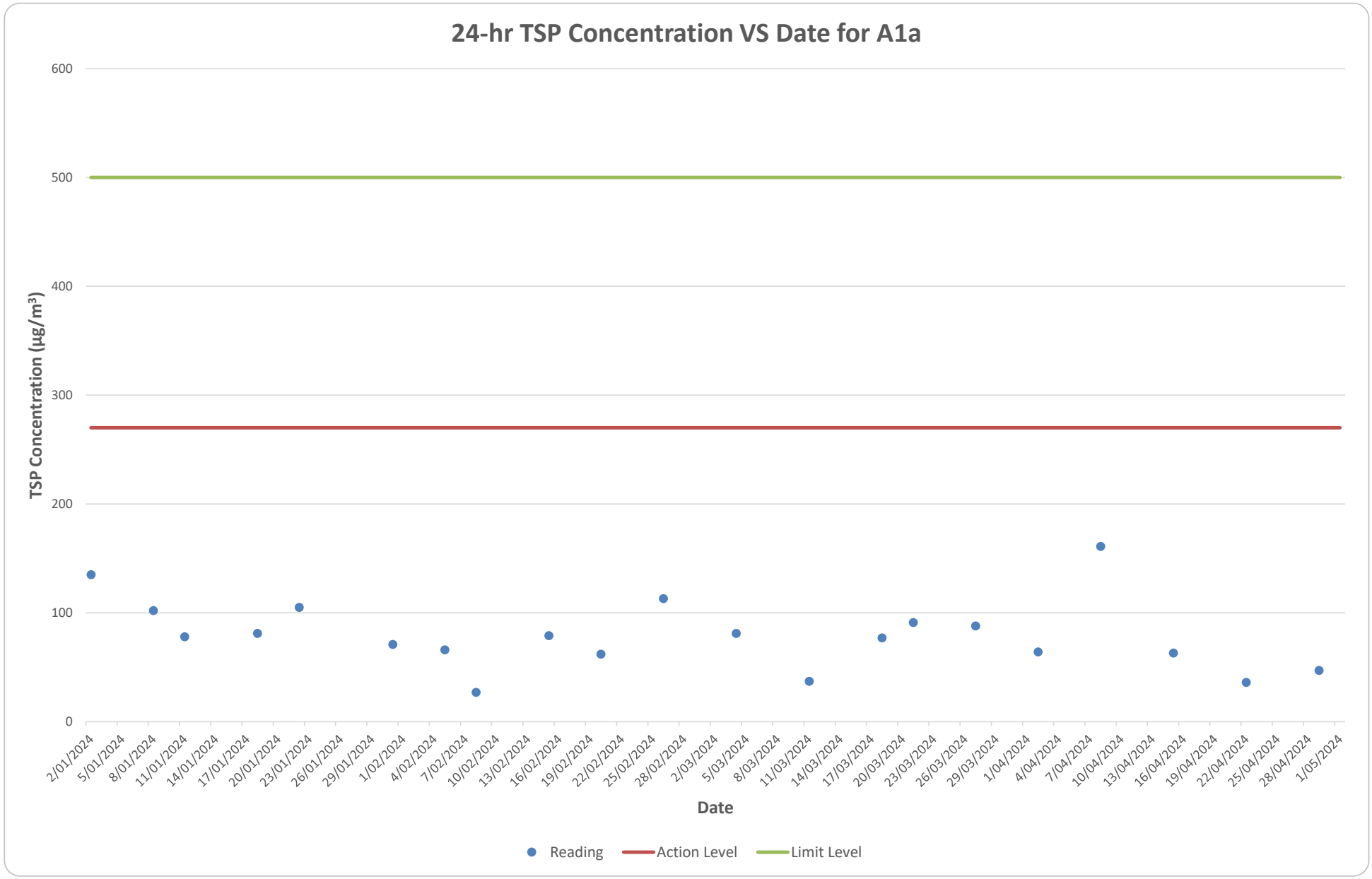
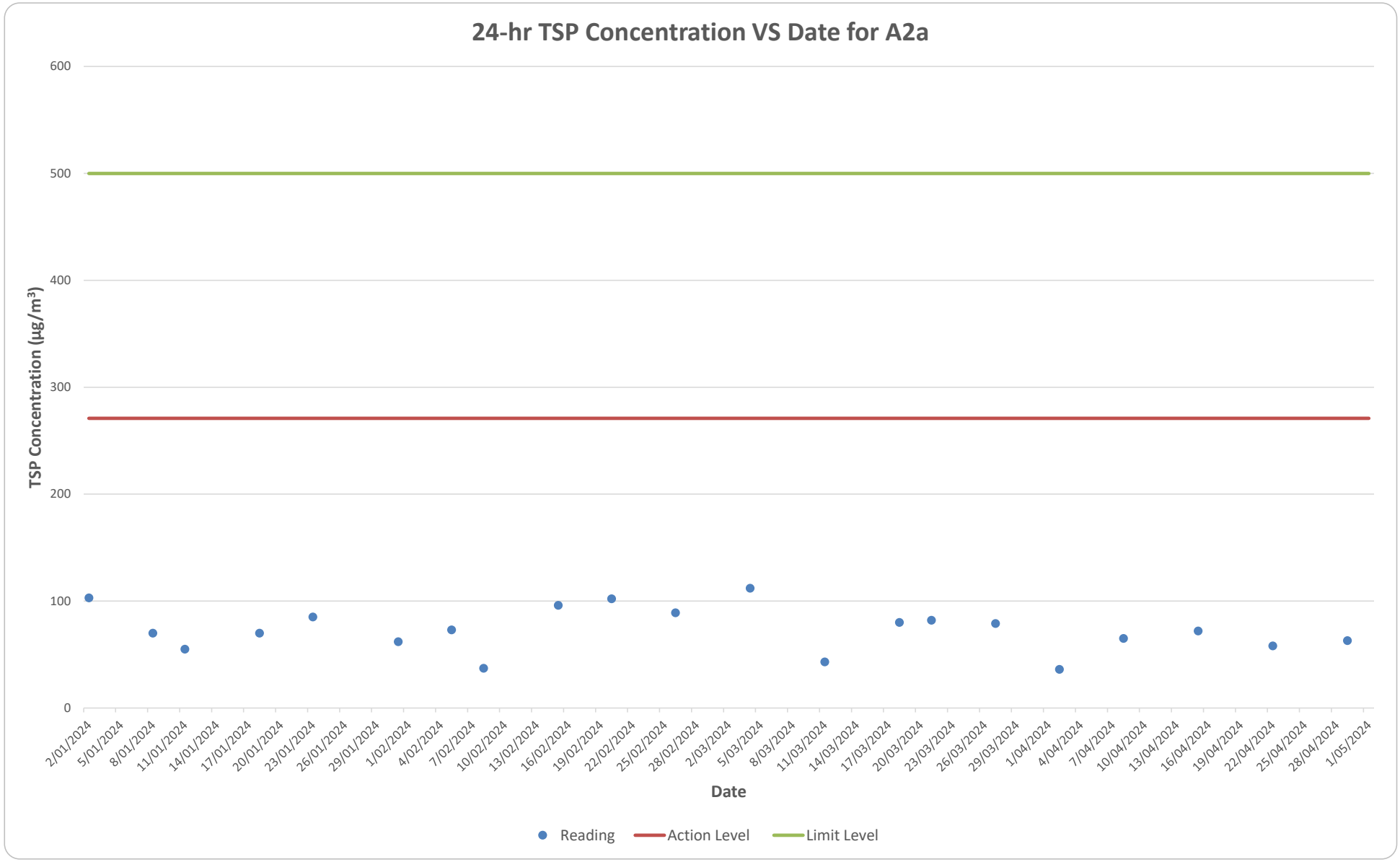


Figure D.4 Measured 24-Hour TSP at the existing outfall pumping station inside the construction site (A2a)



# APPENDIX E
# Calibration Certificates (Noise)

(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

# *Certificate of Calibration*

*for*

| | |
|---|---|
| ***Description:*** | ***Sound Level Calibrator*** |
| ***Manufacturer:*** | ***RION*** |
| ***Type No.:*** | ***NC-75*** |
| ***Serial No.:*** | ***34724243*** |

***Submitted by:***

| | |
|---|---|
| *Customer:* | *Acuity Sustainability Consulting Limited* |
| *Address:* | *Unit E, 12/F, Ford Glory Plaza,* |
| | *Nos. 37-39 Wing Hong Street,* |
| | *Cheung Sha Wan, Kowloon,* |
| | *Hong Kong* |

**Upon receipt for calibration, the instrument was found to be:**

☑ **Within**
☐ **Outside**

**the allowable tolerance.**

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

**Date of receipt: 27 July 2023**

**Date of calibration: 3 August 2023**

**Date of NEXT calibration: 2 August 2024**

*Calibrated by:* _____ *Calibration Technician*

*Certified by:* _____ *Mr. Ng Yan Wa*
*Laboratory Manager*

*Date of issue:* **3 August 2023**

*Certificate No.: AP.I23-049-CC005*

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Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
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Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. *Calibration Specifications:*

Calibration check

## 3. *Calibration Conditions:*

| | |
|---|---|
| **Air Temperature:** | 22.6 °C |
| **Air Pressure:** | 1006 **hPa** |
| **Relative Humidity:** | 52.9 **%** |

## 4. *Calibration Equipment:*

| Test Equipment | Type | Serial No. | Calibration Report Number | Traceable to |
|---|---|---|---|---|
| **Multifunction Calibrator** | B&K 4226 | 2288467 | AV220061 | HOKLAS |
| **Sound Level Meter** | RION NA-28 | 30721812 | AV220120 | HOKLAS |

## 5. *Calibration Results*

5.1 Sound Pressure Level

| Nominal value dB | Accept lower level dB | Accept upper level dB | Measured value dB |
|---|---|---|---|
| 94.0 | 93.6 | 94.4 | 94.0 |

Note:
The values given in this certification only related to the values measured at the time of the calibration.

*Certificate No.: APJ23-049-CC005*

ACOUSTIC AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Page 2 of 2

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(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

# *Certificate of Calibration*

*for*

| | |
|---|---|
| *Description:* | *Sound Level Meter* |
| *Manufacturer:* | *SVANTEK* |
| *Type No.:* | *971 (Serial No.: 96063)* |
| *Microphone:* | *ACO 7052E (Serial No.:79778)* |
| *Preamplifier:* | *SVANTEK SV 18 (Serial No.:97276)* |

***Submitted by:***

| | |
|---|---|
| *Customer:* | *Acuity Sustainability Consulting Limited* |
| *Address:* | *Unit E, 12/F., Ford Glory Plaza,* |
| | *Nos. 37-39 Wing Hong Street,* |
| | *Cheung Sha Wan, Kowloon, Hong Kong* |

**Upon receipt for calibration, the instrument was found to be:**

☑ **Within (31.5Hz – 8kHz)**
☐ **Outside**

**the allowable tolerance.**

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

**Date of receipt: 27 July 2023**

**Date of calibration: 3 August 2023**

**Date of NEXT calibration: 2 August 2024**

*Calibrated by:* _____
*Calibration Technician*

*Certified by:* _____
*Mr. Ng Yan Wa*
*Laboratory Manager*

*Date of issue:* **3 August 2023**

*Certificate No.: APJ23-049-CC002*

*Page 1 of 4*

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(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. *Calibration Conditions:*

| | |
|---|---|
| **Air Temperature:** | 22.6 °C |
| **Air Pressure:** | 1006 hPa |
| **Relative Humidity:** | 52.9 % |

## 3. *Calibration Equipment:*

| | Type | Serial No. | Calibration Report Number | Traceable to |
|---|---|---|---|---|
| **Multifunction Calibrator** | B&K 4226 | 2288467 | AV220061 | HOKLAS |

## 4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

| Setting of Unit-under-test (UUT) | | | Applied value | | UUT Reading, | IEC 61672 Class 1 |
|---|---|---|---|---|---|---|
| Range, dB | Freq. Weighting | Time Weighting | Level, dB | Frequency, Hz | dB | Specification, dB |
| 25.0-124.2 | dBA SPL | Fast | 94 | 1000 | 93.7 | ±0.4 |

Linearity

| Setting of Unit-under-test (UUT) | | | Applied value | | UUT Reading, | IEC 61672 Class 1 |
|---|---|---|---|---|---|---|
| Range, dB | Freq. Weighting | Time Weighting | Level, dB | Frequency, Hz | dB | Specification, dB |
| 25.0-124.2 | dBA SPL | Fast | 94 | 1000 | 93.7 | Ref |
| | | | 104 | | 103.7 | +0.3 |
| | | | 114 | | 113.7 | ±0.3 |

Time Weighting

| Setting of Unit-under-test (UUT) | | | Applied value | | UUT Reading, | IEC 61672 Class 1 |
|---|---|---|---|---|---|---|
| Range, dB | Freq. Weighting | Time Weighting | Level, dB | Frequency, Hz | dB | Specification, dB |
| 25.0-124.2 | dBA SPL | Fast | 94 | 1000 | 93.7 | Ref |
| | | Slow | | | 93.7 | +0.3 |



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Frequency Response

Linear Response

| Setting of Unit-under-test (UUT) | | | Applied value | | UUT Reading, | IEC 61672 Class 1 |
|---|---|---|---|---|---|---|
| Range, dB | Freq. Weighting | Time Weighting | Level, dB | Frequency, Hz | dB | Specification, dB |
| 25.0-124.2 | dB SPL | Fast | 94 | 31.5 | 94.3 | ±2.0 |
| | | | | 63 | 94.2 | ±1.5 |
| | | | | 125 | 94.1 | ±1.5 |
| | | | | 250 | 94.1 | +1.4 |
| | | | | 500 | 94.0 | +1.4 |
| | | | | 1000 | 93.7 | Ref |
| | | | | 2000 | 93.7 | ±1.6 |
| | | | | 4000 | 95.1 | ±1.6 |
| | | | | 8000 | 91.4 | +2.1; -3.1 |

A-weighting

| Setting of Unit-under-test (UUT) | | | Applied value | | UUT Reading, | IEC 61672 Class 1 |
|---|---|---|---|---|---|---|
| Range, dB | Freq. Weighting | Time Weighting | Level, dB | Frequency, Hz | dB | Specification, dB |
| 25.0-124.2 | dBA SPL | Fast | 94 | 31.5 | 55.0 | -39.4 ±2.0 |
| | | | | 63 | 68.1 | -26.2 ±1.5 |
| | | | | 125 | 78.1 | -16.1 ±1.5 |
| | | | | 250 | 85.4 | -8.6 ±1.4 |
| | | | | 500 | 90.7 | -3.2 ±1.4 |
| | | | | 1000 | 93.7 | Ref |
| | | | | 2000 | 94.9 | +1.2 ±1.6 |
| | | | | 4000 | 96.2 | −1.0 +1.6 |
| | | | | 8000 | 90.5 | -1.1+2.1; -3.1 |

C-weighting

| Setting of Unit-under-test (UUT) | | | Applied value | | UUT Reading, | IEC 61672 Class 1 |
|---|---|---|---|---|---|---|
| Range, dB | Freq. Weighting | Time Weighting | Level, dB | Frequency, Hz | dB | Specification, dB |
| 25.0-124.2 | dBC SPL | Fast | 94 | 31.5 | 91.3 | -3.0 +2.0 |
| | | | | 63 | 93.4 | -0.8 ±1.5 |
| | | | | 125 | 94.0 | -0.2 ±1.5 |
| | | | | 250 | 94.8 | -0.0 ±1.4 |
| | | | | 500 | 94.0 | -0.0 ±1.4 |
| | | | | 1000 | 93.7 | Ref |
| | | | | 2000 | 93.5 | -0.2 ±1.6 |
| | | | | 4000 | 94.4 | -0.8 ±1.6 |
| | | | | 8000 | 88.6 | −3.0 +2.1; −3.1 |



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## 5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

| | | |
|---|---|---|
| 94 dB | 31.5 Hz | ± 0.10 |
| | 63 Hz | ± 0.05 |
| | 125 Hz | ± 0.05 |
| | 250 Hz | ± 0.10 |
| | 500 Hz | ± 0.05 |
| | 1000 Hz | ± 0.05 |
| | 2000 Hz | ± 0.05 |
| | 4000 Hz | ± 0.05 |
| | 8000 Hz | ± 0.10 |
| 104 dB | 1000 Hz | ± 0.05 |
| 114 dB | 1000 Hz | ± 0.05 |

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



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# APPENDIX F
# Monitoring Data (Noise)

Location: N2a

Monitoring Period: April 2024

Parameter: Noise

Major Noise Source: Construction activities and daily operation of the sewerage treatment plant

Other Factors NA

| Date | Weather | Start Time | $L_{eq}$ | $L_{10}$ | $L_{90}$ |
|---|---|---|---|---|---|
| 3/4/2024 | Sunny | 15:35 | 70.6 | 72.1 | 67.5 |
| 9/4/2024 | Cloudy | 15:10 | 70.6 | 73.3 | 67.0 |
| 16/4/2024 | Sunny | 14:50 | 70.0 | 72.1 | 66.0 |
| 23/4/2024 | Cloudy | 15:20 | 70.0 | 72.3 | 66.2 |
| 30/4/2024 | Fine | 14:45 | 69.0 | 71.0 | 65.5 |
| | | **Average** | 70.1 | | |
| | | **Range** | 69.0 – 70.6 | | |

| | |
|---|---|
| Location: | N3a |
| Monitoring Period: | April 2024 |
| Parameter: | Noise |
| Major Noise Source: | Construction activities and daily operation of the sewerage treatment plant |
| Other Factors | Many noisy vehicles passed by during monitoring |

| **Date** | **Weather** | **Start Time** | **$L_{eq}$** | **$L_{10}$** | **$L_{90}$** |
|---|---|---|---|---|---|
| 3/4/2024 | Sunny | 14:13 | 70.3 | 72.5 | 57.1 |
| 9/4/2024 | Cloudy | 13:50 | 71.7 | 74.4 | 58.0 |
| 16/4/2024 | Sunny | 13:15 | 73.5 | 75.7 | 58.1 |
| 23/4/2024 | Cloudy | 13:11 | 70.9 | 72.5 | 63.6 |
| 30/4/2024 | Fine | 13:05 | 74.5 | 77.6 | 57.1 |
| | | **Average** | 72.5 | | |
| | | **Range** | 70.3 – 74.5 | | |

Remarks: +3 dB(A) free-field corrections have been made to N3a.

Figure F.1 Measured daytime (0700-1900) noise level at the admin building inside the construction site (N2a)

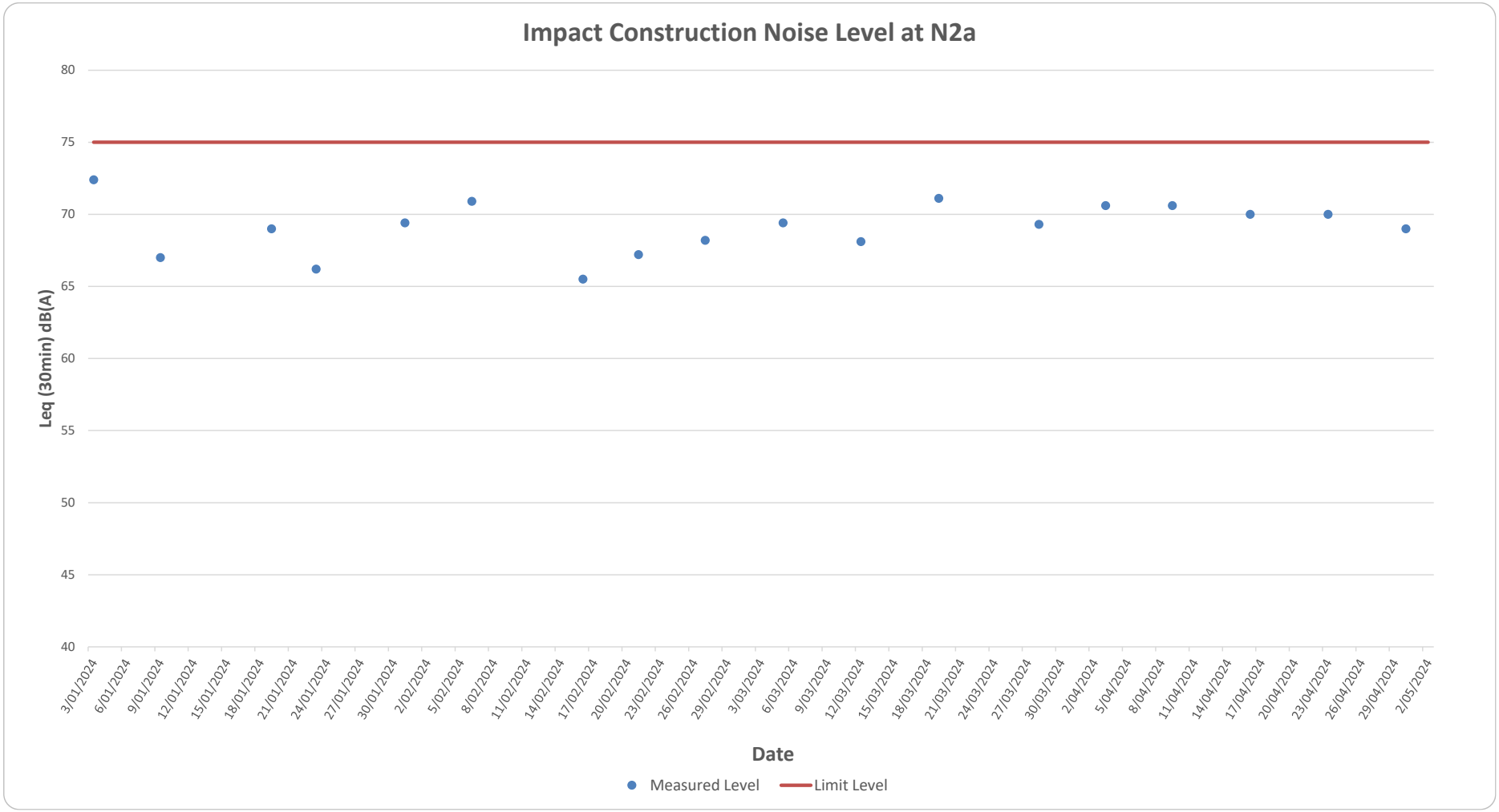
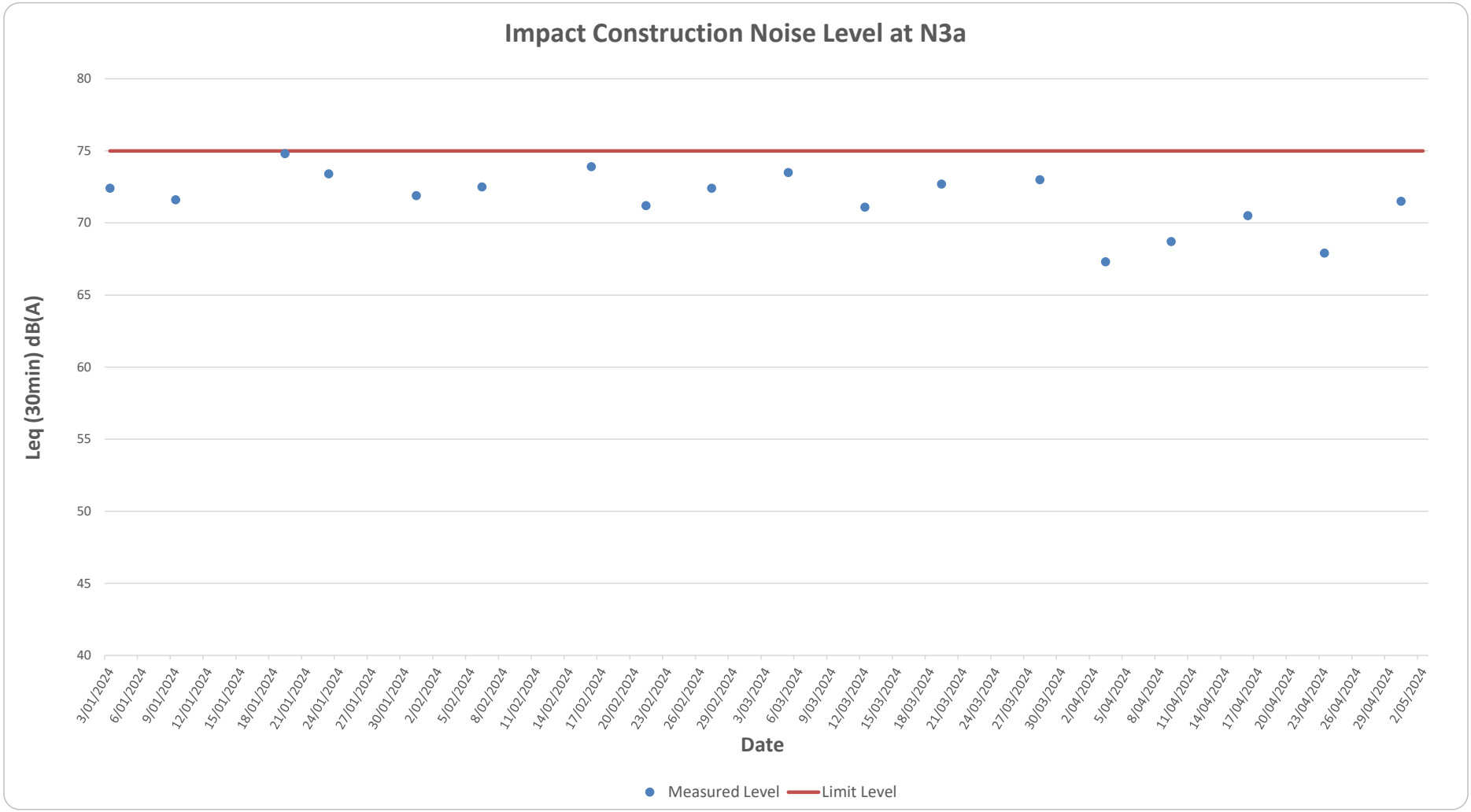


Figure F.2 Measured daytime (0700-1900) noise level at Cheung Chau Fire Station (N3a)




s: +3 dB(A) free-field corrections have been made to the data in the graph.

# APPENDIX G
# Implementation Schedule

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | | | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|---|---|
| | | | | D | C | O | |
| **Construction Phase (Upgrading Works of Cheung Chau STW and Pak She SPS (DP Component))** | | | | | | | |
| S.3.5.5 | Appropriate dust control measures should be implemented during the construction stage in accordance with the requirements in the Air Pollution Control (Construction Dust) Regulation. Dust control techniques should be considered to control dust to a level not exceeding the AQOs as well as the 1-hour TSP guideline level of 500 µg/m³. These measures include, but are not limited to, the following:<br>• Adoption of good site practices;<br>• Avoid practices likely to raise dust level;<br>• Frequent cleaning and damping down of stockpiles and dusty areas of the site;<br>• Covering the exposed areas with tarpaulin;<br>• Reducing drop height during material handling;<br>• Provision of wheel-washing facilities for site vehicles leaving the site;<br>• Regular plant maintenance to minimize exhaust emission; and<br>• Sweep up dust and debris at the end of each shift. | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | All the dust control measures as recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, should be implemented. Typical dust control measures include: | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.3.10.1 | Watering every 1.5 hours on active works areas and paved haul roads to reduce dust emissions by 90.9% (e.g. watering intensity at 0.5 litres/$m^2$. Actual application shall depend on the site condition and weather conditions). | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | EIA, Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Watering every hour on unpaved areas and stockpiles of dusty materials (if no tarpaulin is provided) to reduce dust emissions by 90% (e.g. watering intensity at 1.5 litre/$m^2$ during the first hour, subsequent application at 0.2 litre/$m^2$. Actual application shall depend on the site condition and weather conditions). | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | EIA, Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Use of frequent watering for particularly dusty construction areas and areas close to ASRs | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Vehicle washing facilities should be provided at every vehicle exit point | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.3.10.1 | Where a site boundary adjoins a road, streets or other areas accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Stockpiles of imported material kept on site shall be contained within hoarding, dampened and/or covered during dry and windy weather | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Material stockpiled alongside trenches should be covered with tarpaulins | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.3.10.1 | Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or spayed with water to maintain the entire surface wet during the non-working hours | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | All dusty materials shall be sprayed with water prior to any loading, unloading or transfer operation so as to keep the dusty materials wet | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | Water sprays shall be used during the delivery and handling of sands aggregates and the like | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |
| S.3.10.1 | All demolished items that may emit dust particles should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | | | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|---|---|
| | | | | D | C | O | |
| S.3.10.1 | <u>Good site practices for concrete batching plant</u><br>Every stock of more than 20 bags of cement or dry pulverized fuel ash(PFA) should be cover entirely by impervious sheeting or placed in an area sheltered on the top and the sides.<br>Cement or dry PFA delivered in bulk should stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed.<br>Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with effective fabric filter or equivalent air pollution control system (Maximum TSP emission factor of Silos and Mising Tower: 50mg/$m^3$) | Air Quality (fugitive dust) Control during Construction Phase | Contractors | | √ | | Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation<br>Best Practical Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) |

| EIA Ref. | Recommended Environmental Protection Measures / Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|
| **Construction Phase (Upgrading Works of Cheung Chau STW and Pak She SPS (DP Component))** | | | | | |
| S.4.4.12 | Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction works. | Noise control during construction | Contractors | At all construction areas of the site during the entire construction period | EIA, Contractual requirements |
| S.4.4.12 | Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. | Noise control during construction | Contractors | At all construction areas of the site during the entire construction period | EIA, Contractual requirements |
| S.4.4.12 | Plant known to emit noise strongly in one direction should, where possible, be orientated to direct noise away from the NSRs. | Noise control during construction | Contractors | At all construction areas of the site during the entire construction period | EIA, Contractual requirements |
| S.4.4.12 | Mobile plant should be sited as far away from NSRs as possible. | Noise control during construction | Contractors | At all construction areas of the site during the entire construction period | EIA, Contractual requirements |
| S.4.4.12 | Material stockpiles and other structures should be effectively utilized, where practicable, to screen noise from on-site construction activities. | Noise control during construction | Contractors | At all construction areas of the site during the entire construction period | EIA, Contractual requirements |

| EIA Ref. | Recommended Environmental Protection Measures / Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|
| S.4.4.13 | Use of quiet plant (PME):<br>• Generator<br>• Poker, vibratory, hand-held<br>• Breaker, excavator mounted (hydraulic)<br>• Excavator<br>• Tracked Mobile Crane<br>• Vibratory Compactor<br>• Dumper<br>• Air compressor<br>• Concrete Pump<br>• Pilling Rig | Noise control during construction | Contractors | At all construction areas of the site during the entire construction period | EIA, Contractual requirements |
| S.4.4.14 | Temporary site hoardings of 2.4 m high are recommended for the works at the Pak She SPS. The hoardings will be erected along the works boundary facing the NSRs. The PME involved in the works would be screened by the erected site hoardings. Without direct line of sight from the affected NSRs, a noise reduction of 10 dB(A) could be achieved provided that the hoardings have no openings or gaps and have a surface mass of at least 7 kg/$m^2$. Nonetheless, a -5 dB(A) screening correction for site hoardings has been applied as a more conservative approach. | Noise control during construction | Contractors | At Pak She SPS during the entire construction period | EIA |
| S.4.4.23 | For NSRs which would be affected by more than one Works Types, good scheduling works is recommended to minimize the cumulative construction noise impacts due to different Works Types. | Noise control during construction | Contractors | Construction areas near the specified locations during the construction period | EIA, Contractual requirements |

| EIA Ref. | Recommended Environmental Protection Measures / Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | Location / Timing of implementation of Measures | What requirements or standards for the measures to achieve? |
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| S.4.4.29 | In order to prevent potential cumulative construction noise impacts to NSRs, the works at Tai Kwai Wan San Tsuen are recommended to be scheduled to avoid concurrent works at the areas near Tai Kwai Wan of the Improvement of Fresh Water Supply to Cheung Chau project. | Noise control during construction | DSD and Contractors | Construction areas near the specified locations during the construction period | EIA, Contractual requirements |
| S.4.4.30 | The contractor shall liaise with "Replacement and Rehabilitation of Water Mains Stage 4, Mains on Hong Kong and Islands – Investigation, Design and Construction"" contractors so as to avoid undertaking works concurrently with the works when they are in the close proximity as far as practicable. | Noise control during construction | DSD and Contractors | Construction areas near the specified locations during the construction period | EIA, Contractual requirements |
| S.4.4.31 | The contractor shall liaise with Improvement to Existing Roads and Drains in Cheung Chau Old Town, Remaining Engineering Works Stage 3 works contractors so as to avoid undertaking works concurrently with the works when they are in the close proximity as far as practicable. | Noise control during construction | DSD and Contractors | Construction areas near the specified locations during the construction period | EIA, Contractual requirements |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| **Construction Phase (Upgrading Works of Cheung Chau STW and Pak She SPS (DP Component) and Sewers Works (non-DP Component))** | | | | | | | |
| S.5.7.1 | Practices outlined in ProPECC PN 1/94 Construction Site Drainage are recommended, as highlighted below:<br>• Perimeter channels are to be installed in works areas to intercept runoff at the site boundary prior to the commencement of any earthworks. Surface runoff should be discharged into storm drains via sand/ silt removal facilities with an adequate capacity;<br>• Works programme should be designed to minimize works areas to reduce soil exposure and site runoff;<br>• Silt removal facilities, channels and manholes should be maintained and cleaned regularly to ensure their proper functions;<br>• Works programme should be carefully planned to minimize the scale of soil excavation during the rainy season;<br>• Earthworks surfaces should be well compacted and subsequent permanent works or surface protection measures should be carried out immediately;<br>• All vehicles should be washed before they leave the construction site to avoid earth, mud, and debris being carried off from the site. Wash-water should be treated to remove sand and silt at least on a weekly basis to ensure the continued efficiency of the washing facility; | Water Quality Control | Contractors | | √ | | • WPCO;<br>• TM –Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| (cont…) | • Open stockpiles of construction materials on site should be covered with tarpaulin or similar fabric materials during storms;<br>• For sections of pipes that need to be laid underneath water courses with the open cut method, site works should be carried out during the dry season with a temporary drainage diversion; and;<br>• Any construction works along Hak Pai Road immediately by the Kwun Yam beach and Cheung Chau Tung Wan beach should be avoided during the swimming season. | Water Quality Control | Contractors | | √ | | • WPCO;<br>• TM –Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water |
| S.5.7.2 and S.5.7.3 | Mitigations Measures for General Construction Activities:<br>• Good site practices should be adopted to regularly clean the construction sites to avoid rubbish, debris and litter from entering to nearby water bodies; and<br>• Good construction and site management practices should be implemented to ensure that litter, fuels, and solvents would not enter the public drainage systems. | Water Quality Control | Contractors | | √ | | • WPCO;<br>• TM –Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.5.7.4 | Domestic sewage generated by workforce would be collected and discharged to the STW for proper treatment. Portable toilets should be provided by the Contractor, where necessary, to handle sewage from the workforce. The Contractor should also be responsible for waste disposal. | Water Quality Control | Contractors | | √ | | • WPCO;<br>• TM –Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water |
| S.5.7.5 and S.5.7.6 | Mitigations Measures for Spillage of Chemicals:<br>• Registration to EPD as a Chemical Waste Producer if chemical wastes are generated and need to be disposed of;<br>• Illegal disposal of chemicals should be strictly prohibited; and<br>• Oils and fuels should only be used and stored in the designated area which has polluting prevention facilities. | Water Quality Control | Contractors | | √ | | • WPCO;<br>• TM –Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|---|---|
| | | | | D | C | O | |
| **Construction Phase (Upgrading Works of Cheung Chau STW and Pak She SPS (DP Component) and Sewers Works (non-DP Component))** | | | | | | | |
| S.6.6.1 | The Contractor shall prepare a Waste Management Plan in accordance with the requirements set out in the ETWB TCW No. 19/2005, Waste Management on Construction Site, for the ER's approval. The WMP shall include monthly and yearly Waste Flow Tables that indicate the amounts of waste generated, recycled and disposed of (including final disposal site). | Waste management during construction | Contractors | | √ | | ETWB TCW No. 19/2005, Waste Management on Construction Sites |
| S.6.6.1 | The Contractor's waste management practices and effectiveness shall be audited by the Engineer's Representative on regular basis. | Waste management during construction | DSD | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | The Contractor shall provide training for site staff concept of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | Sufficient waste disposal points and regular collection of waste shall be provided. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | Trucks with covering for the open-box bed and enclosed container shall be used to minimise windblown litter and dust during transportation of waste. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | Regular cleaning and maintenance programme for drainage systems, pumps and oil interceptors. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.6.6.1 | Separation of chemical wastes for special handling and appropriate treatment at a Chemical Waste Treatment Facility (CWTF). | Waste management during construction | Contractors | | √ | | Waste Disposal (Chemical Waste) (General) Regulation |
| S.6.6.1 | Encourage collection of aluminium cans, paper and plastic bottles by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the workforce. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | A recording system for the amount of wastes generated, recycled and disposed (including disposal sites) should be proposed. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.1 | Plan and stock construction materials to minimise amount of waste generated and avoid unnecessary generation of waste. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.2 | Alternatives C&D materials such as steel frameworks and plastic fencing can be considered to increase the chances for reuse. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.3 | In order to minimise the potential environmental impacts resulting from collection and transportation of C&D materials for off-site disposal, the excavated materials comprising fill materials should be reused on-site as backfilling materials as far as practicable. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.6.6.4 | C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed of to landfill sites. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process. In order to monitor the disposal of C&D materials at the designated public fill reception facility and landfill and to control fly-tipping, a trip ticket system should be included. Reference can be made to Development Bureau Technical Circular (Works) (TC(W)) No. 6/2010 for details. | Waste management during construction | Contractors | | √ | | Development Bureau Technical Circular (Works) (TC(W)) No. 6/2010,<br>Waste Disposal Ordinance |
| S.6.6.5 | The C&D materials to be disposed of at public filling reception facilities shall be only materials consist of brick, concrete, cement plaster, soil and inert building debris. The materials shall be free from plastics, chemical waste, industrial metals and other materials that are considered unsuitable at the facility. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |
| S.6.6.6 | General refuse should be stored in enclosed bins or compaction units separate from C&D materials. A reputable waste collector should be employed by the contractor to remove general refuse from the site regularly, separately from C&D materials. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials. In addition, a sufficient number of enclosed bins shall be provided on site for containment of general refuse to prevent visual impacts and nuisance to the sensitive surrounding. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| S.6.6.7 | For the disposal of chemical wastes produced at the construction site, the Contractor is required to register with the EPD as a Chemical Waste Producer and to follow the requirements stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used. Appropriate labels should be securely attached on each chemical waste container indicating the chemical characteristics of the chemical waste, such as explosives, flammable oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall also use a licensed waste collector engaged to transport and dispose of the chemical wastes in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. | Waste management during construction | Contractors | | √ | | Waste Disposal (Chemical Waste) (General) Regulation |
| S.6.6.8 | Chemical toilets to be provided on-site shall be regularly cleaned and the night-soil collected and transported by a licensed contractor to a Government Sewage Treatment Works facility for disposal. | Waste management during construction | Contractors | | √ | | Waste Disposal Ordinance |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|---|---|
| | | | | D | C | O | |
| **Construction Phase (Upgrading Works of Cheung Chau STW (DP Component))** | | | | | | | |
| Table 11.8 | Visual Screen/Hoarding<br>Decorative hoarding or boundary fence for construction sites shall be considered, and designed to be compatible to the surroundings. | To minimise the potential visual impacts | Contractors | | √ | | N/A |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|---|---|
| | | | | D | C | O | |
| Table 11.8 | Protection to Existing Trees within Works Areas<br><br>All existing trees which are not in direct conflict with the proposed works will be retained. The existing trees proposed to be retained shall be properly maintained and protected by means of fencing to prevent vehicular or pedestrian intrusion that may potentially damage tree canopies, trunks and root zones. Detailed tree protection specifications shall be allowed and included in the Contract Specification, which specifying the tree protection requirement, submission and approval system, and tree monitoring system. For trees with high preservation value, individual tree assessments and continuous tree monitoring reports shall be provided by a certified Arborist, Landscape Architect or related professional during construction. All retained trees shall be recorded photographically at the commencement of contract.<br><br>Root pruning to the retained trees should be prohibited. Retained trees should be well-preserved by setting up a tree protection zone throughout the construction period for protecting the retained trees from damages.<br><br>To maximize protection to existing trees and ground vegetation, construction contracts may designate "No-intrusion Zone" to various areas within the site boundary with rigid and durable fencing for each individual no-intrusion zone. The contractor should close monitor and restrict the site working staff not to enter the "no-intrusion zone", even for non-direct construction activities and storage of equipment. | Landscape mitigation measures | DSD and Contractors | √ | √ | | EIA, Annex 10 and Annex 18 of EIAO-TM |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
|---|---|---|---|---|---|---|---|
| | | | | D | C | O | |
| Table 11.8 | Tree Transplanting<br>Existing trees to be affected shall be directly transplanted to the proposed tree receiving sites, or to temporary tree nurseries alternatively. Temporary tree nurseries may be set up for the transplanted tree and proposed trees at an early stage to allow small trees to grow during the construction stage. By the time when planting area becomes available, trees have been mature and required minimal pruning and suffer much less damage during transplanting. The construction programme should also allow sufficient time for root pruning and root ball preparation prior to transplanting, if necessary, and transplanting operations to be carried out in planting season.<br>Tree pruning such as topping, lion tailing would be prohibited as far as possible. Also, frequent keep watering would be necessary for transplanting trees. The proposed tree preservation measures during construction would be carried out and approved by the competent persons. | Landscape mitigation measures | DSD and Contractors | √ | √ | | EIA, Annex 10 and Annex 18 of EIAO-TM |
| Table 11.8 | Construction Light<br>Security floodlight for construction areas shall be controlled, such as equipped with adjustable shield, frosted diffusers and reflective covers, at night to avoid excessive glare to the nearby areas and residents. Other security measures shall also be considered to minimize the visual impacts by construction light. | To reduce the night-time glare effect to the surrounding environs. | Contractors | | √ | | EIA, Annex 10 and Annex 18 of EIAO-TM |

| EIA Ref. | Recommended Environmental Protection Measures/ Mitigation Measures | Objectives of the recommended measures & main concerns to address | Who to implement the measures? | When to implement the measures? | | | What requirements or standards for the measures to achieve? |
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| | | | | D | C | O | |
| Table 11.8 | Dust and Erosion Control for Exposed Soil<br>Excavation works and demolition of existing building blocks shall be well planned with precautions to suppress dust. Exposed soil shall be covered or watered often. Areas that are expected to be left with bare soul for a long period of time after excavation shall be properly covered with suitable protective fabric. Suitable drainage shall be provided around construction sites to avoid discharge of contaminants and sediments into sensitive water-based habitats. | To minimise the disturbance to existing landscape resources and minimise the impacts on the visual amenity of the area | Contractors | | √ | | EIA, Annex 10 and Annex 18 of EIAO-TM |
| Table 11.8 | Reinstatement of Works Areas<br>The affected works areas shall be properly reinstated to the satisfaction of relevant government departments. | Landscape mitigation measures | Contractors | | √ | | EIA, Annex 10 and Annex 18 of EIAO-TM |

# APPENDIX H
# Summary of All Complaints Received, Notification of Summons and Successful Prosecutions

Statistical Summary of Environmental Complaints

| Reporting Period | Environmental Complaints Statistics | | |
|---|---|---|---|
| | Frequency | Nature | Follow-up Actions |
| 1 April 2024 - 30 April 2024 | 0 | N/A | N/A |
| Cumulative | 1* | Water | N/A |

*Follow-up action is mentioned in Complaint Investigation Report of the Complaint Log No. C-001 submitted on 21 Dec 2023.

Statistical Summary of Environmental Summons

| Reporting Period | Environmental Summons Statistics | | |
|---|---|---|---|
| | Frequency | Nature | Follow-up Actions |
| 1 April 2024 - 30 April 2024 | 0 | N/A | N/A |
| Cumulative | 0 | N/A | N/A |

Statistical Summary of Environmental Prosecution

| Reporting Period | Environmental Prosecution Statistics | | |
|---|---|---|---|
| | Frequency | Nature | Follow-up Actions |
| 1 April 2024 - 30 April 2024 | 0 | N/A | N/A |
| Cumulative | 0 | N/A | N/A |

# APPENDIX I
# EM&A Monitoring Schedules in the Reporting Period and the Next Reporting Period (Tentative)

| Impact Monitoring Schedule for Upgrading of Cheung Chau Sewage Collection, Treatment and Disposal Facilities | | | | | | |
|---|---|---|---|---|---|---|
| Apr-24 | | | | | | |
| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| 31 | 1 | 2 | 3 | 4 | 5 | 6 |
| | | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |
| 28 | 29 | 30 | | | | |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |

Remarks:
1. Daytime Noise Monitoring (07:00-1900)

**Impact Monitoring Schedule for Upgrading of Cheung Chau Sewage Collection, Treatment and Disposal Facilities**

**May-24**

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
| 31 | | | 1 | 2 | 3 | 4 |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | | | | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| | 24-hour TSP monitoring for A1a & A2a<br>1-hour TSP monitoring for A1a & A2a | Daytime Noise monitoring for N2a & N3a | | | | |

Remarks:
1. Daytime Noise Monitoring (07:00-1900)