Expansion of Shek Wu Hui Sewage Treatment Works

Tenth Quarterly EM&A Report

(March 08 – May 08)

June 2008

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MAEDA

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Tenth Quarterly EM&A Report (March 07 – May 08)

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Report no: EA01284 R0812 **Date:** June 2008

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Hyder Consulting

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1 Executive Summary

The expansion of Shek Wu Hui Sewage Treatment Works (SWHSTW) aims to increase the treatment capacity of the existing SWHSTW to cope with the increasing wastewater flows and loads as a result of the population growth in the catchment area of Fanling/Sheung Shui and the committed extension of sewerage system to unsewered areas. It is considered as a project constituting a material change to an exempted designated project under Schedule 2 of EIAO. Thus, the procedures under the EIAO have been followed and an Environmental Monitoring and Audit (EM&A) Programme has to be carried out. The present report documents the outcomes of the EM&A Works undertaken between March 2008 and May 2008.

Breaches of Action and Limit Levels

Noise

No non-compliance of action/limit level was recorded at all monitoring stations for noise during the reporting period.

1-hr and 24-hr TSP

Two 1-hr TSP Action Level exceedances were recorded at CAM2a on 6 and 26 March. One 24-hr TSP Limit Level exceedance was recorded at CAM2a on 18 March. At the times of these exceedances, no dust generating works related to the Project were observed in the vicinity of the monitoring stations. Furthermore, no exceedances were recorded at these stations prior to these exceedances. It is therefore not considered that these exceedances were caused by construction works of the Project, but due to local activities. It was observed that a planter is being constructed adjacent to the monitoring station. Some small open stockpiles, which were not induced by the construction works of the project, were also observed outside the site but close to monitoring stations. They are considered to be possible causes for the non-project related exceedances.

Complaints Log

During this reporting period, no environmental complaint was received.

Notifications of Any Summons and Successful Prosecutions

During the reporting period, no notification of summons or successful prosecution was recorded.

Reporting Changes

Due to a problem with damaged filter papers the March monthly air quality results did not coincide completely with the scheduled monitoring dates. Additional monitoring had been carried out to compensate for this.

The scheduled 24hr air quality monitoring was as follows;

Air Quality Monitoring	**Monitoring location**	**Monitoring dates**
TSP 24hr monitoring	San Po Street Pumping Station (CAM1a)	6 March, 12 March, 18 March, 20 March*, 26 March, 28 March**, 29 March**

	Sheung Shui Heung Floodwater Pumping Station (CAM2a)	6 March, 12 March, 18 March, 20 March*, 26 March, 28 March**, 29 March**

*Damaged filter paper
** Additional monitoring

Due to a power failure and a problem of site access, the April monthly air quality results did not coincide completely with the scheduled monitoring dates. Additional monitoring had been carried out to compensate for this.

The scheduled 1hr and 24hr air quality monitoring were as follows;

Air Quality Monitoring	**Monitoring location**	**Monitoring dates**
TSP 1hr monitoring	San Po Street Pumping Station (CAM1a)	1 April, 7 April, 12 April**, 14 April***, 18 April, 24 April, 30 April
	Sheung Shui Heung Floodwater Pumping Station (CAM2a)	1 April, 7 April*, 8 April***, 12 April**, 14 April***, 18 April, 24 April, 30 April

*Power failure
**Inaccessible station
*** Additional monitoring

Air Quality Monitoring	**Monitoring location**	**Monitoring dates**
TSP 24hr monitoring	San Po Street Pumping Station (CAM1a)	1 April, 7 April, 12 April, 18 April, 24 April, 30 April
	Sheung Shui Heung Floodwater Pumping Station (CAM2a)	1 April, 7 April*, 8 April**, 12 April, 18 April, 24 April, 30 April

*Power failure
** Additional monitoring

Due to heavy rainfalls, the May monthly noise results did not coincide completely with the scheduled monitoring dates.

The scheduled noise monitoring was as follows;

Air Quality Monitoring	**Monitoring location**	**Monitoring dates**
Noise monitoring	San Po Street Pumping Station (CAM1a)	6 May, 16 May, 22 May*, 28 May*
	Sheung Shui Heung Floodwater Pumping Station (CAM2a)	6 May, 16 May, 22 May*, 28 May*

*Heavy rainfall

Future Key Issues

The construction activities for the coming three months will include excavation and backfilling, temporary work including installation of waling and struts, pipe works, installation of cat ladders, roofing and finishing works, structural steelwork with FRP covers, roadwork, cable ducts and cable drawpits and landscaping work.

2 Introduction

2.1 Basic Information

Shek Wu Hui Sewage Treatment Works (SWHSTW) provides treatment to the wastewater generated from Fanling/Sheung Shui areas before discharge it into Mai Po Inner Deep Bay Ramsar Site through River Indus and Shenzhen River, thus helps protecting the water quality of River Indus, Shenzhen River and Mai Po Inner Deep Bay Ramsar Site. The expansion of SWHSTW aims to expand the treatment capacity of the existing SWHSTW to cope with the increasing wastewater flows and loads as a result of the population growth in the catchment area of Fanling/Sheung Shui and the committed extension of sewerage system to unsewered areas.

In accordance with Section 9(2)(g) of the Environmental Impact Assessment Ordinance (EIAO), the SWHSTW is an exempted designated project as the existing SWHSTW has been in operation before the EIAO came into effect on 1 April 1998. However, since the proposed works involve physical expansion and alternation to the existing SWHSTW (hereafter called "the Project") and may cause adverse environmental impacts if mitigation measures are not in place, it shall be considered as a project constituting a material change to an exempted designated project under Schedule 2 of EIAO. Hence the procedures under the EIAO have been followed. A Project Profile (PP) for direct application of the EP (Application No.DIR-121/2005) was approved by Environmental Protection Department (EPD) in May 2005 and an environmental permit (EP-218/2005) was obtained prior to the commencement of the expansion works.

Drainage Services Department (DSD) awarded the civil contract of the expansion of SWHSTW to Maeda Corporation (Maeda) in September 2005. Maeda appointed Hyder Consulting Limited (HCL) as the Contractor's Environmental Team (ET) during the construction period. CH2M HILL Hong Kong Limited (formerly known as CH2M-IDC Hong Kong Limited) is the independent environmental checker (IEC). The construction contract commenced in September 2005 and the total construction period is approximately 36 months. The notified commencement date of work to the Director of EPD is 14 December 2005.

2.2 Management Structure and Project Organisation

The Engineer (DSD) is responsible for overseeing the construction works and ensuring that they are undertaken by the Contractor (Maeda) in accordance with the specification and contractual requirements. The Contractor shall report to the Engineer. The ET is employed by the Contractor and is responsible for conducting the EM&A programme. The IEC shall advise the Engineer on the environmental issues related to the Project.

The key personnel contact names and telephone number are summarised in Table 2-1. The project organisation is shown in Appendix 1.

Party	Position	Name	Telephone number
Project Proponent - DSD	Project Manager	Raymond Lee	2594 7457
	Engineer's Representative	Freddie Tsang	2594 7459
Contractor - Maeda	Site Agent	George Cheung	9268 1918
ET - Hyder	ET Leader	Alexi Bhanja	2911 2916
IEC – CH2M HILL	IEC	Y.T. Tang (designated)	3105 8686

Table 2-1 Key Personnel Contact Names and Telephone Number for the Project

2.3 Construction Programme

Construction programme of the Project is attached in Appendix 2.

2.4 Works Undertaken during the Reporting Quarter

Works undertaken during the reporting period included:

- Excavation and backfilling;
- Temporary works including installation of waling and struts, and extraction of sheet piles;
- Water Tightness Test;
- RC wall construction;
- Manhole/Chamber construction;
- Pipe laying;
- Road works;
- Cable Ducts and Cable Drawpits;
- Installation of FRP covers; and
- Finishing work.

2.5 Status of Environmental Permit/ Licence

The status of the Environmental Permit/Licence for the Project is shown below.

Permit/Licence	Application Date	Date of issue	Ref. No.	Valid Until
Environmental Permit	21 May 2005	16 June 2005	EP-218/2005	End of Project
Notification was made to EPD pursuant to Section 3(1) of the Air Pollution Control	22 Sep 2005	N/A	N/A	End of Project

Permit/Licence	Application Date	Date of issue	Ref. No.	Valid Until
(Construction Dust) Regulation (Form NA was submitted)				
Registration as a chemical waste producer	26 Sep 2005	4 Nov 2005	WPN: 5213-624-M2446-06	End of Project
Effluent Discharge Licence	11 Nov 2005	20 Dec 2005	Licence No.: W5/1I287/1	19 Dec 2010
Application for Exemption Account for Disposal of Construction Waste	12 Dec 2005	Approved by EPD on 31 Dec 2005	Application No.: RN/00134	25 Sep 2008
Construction Noise Permit	15 Nov 2007	29 Nov 2007	GW-RN0507-07	31 May 2008

Table 2-2 Status of Permit/Licence for the Project

3 Environmental Status

3.1 Project and Work Area, Environmental Sensitive Receivers and Monitoring Locations

The site is located at the existing Shek Wu Hui Sewage Treatment Plant, next to Chuk Wan Street. It has been subdivided into different Works Areas/Portions as illustrated in Appendix 3. Project area, environmental sensitive receivers and monitoring locations are shown in Appendix 4.

4 Brief Summary of EM&A Requirements

4.1 Monitoring Parameters

4.1.1 Air Quality

During the construction phase impact monitoring, 1-hour and 24-hour Total Suspended Particulates (TSP) levels should be measured at the selected air monitoring locations in accordance with the EM&A Manual. These two parameters are aimed to indicate the impacts of construction dust on air quality.

4.1.2 Noise

The construction noise level should be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}) for 30 minutes. $L_{eq(30\ min)}$ is used as the monitoring parameter for the period between 0700 and 1900 hours on normal weekdays. For all other time periods, three consecutive $L_{eq(5min)}$ are employed for comparison with the Noise Control Ordinance (NCO) criteria.

Other noise parameters such as L_{10} and L_{90} should also be obtained for reference.

4.2 Action and Limit Levels

4.2.1 Air Quality

The baseline monitoring results documented in the Baseline Monitoring Report for the Project (our report ref.: EA01284R0012) form the basis for derivation of the Action and Limit Levels for air quality impact monitoring. Appendix 5 shows the derived Action and Limit Levels for the Project. If the air quality criteria are exceeded due to the Project, the Event/Action Plan summarised in Table 4-3 should be triggered immediately.

4.2.2 Noise

The Action and Limit Levels for construction noise are defined in Appendix 5. If valid non-compliance of the criteria occurs, actions in accordance with the Event and Action Plan in Table 4-4 should be implemented. If construction works are undertaken during the restricted hours, a construction noise permit under NCO shall be obtained by the Contractor.

4.3 Event and Action Plans

The Event and Action Plans for air quality and noise monitoring are shown in Tables 4-3 and 4-4, respectively.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	• Identify source, investigate the causes of exceedance and propose remedial measures; • Inform IEC and ER; • Repeat measurement to confirm finding.	• Check monitoring data submitted by ET; • Check Contractor's working method.	• Notify Contractor.	• Rectify any unacceptable practice; • Amend working methods if appropriate.
Exceedance for two or more consecutive samples	• Identify source, investigate the cause of exceedance and propose remedial measures; • Inform IEC and ER; • Advise ER on the effectiveness of the proposed remedial measures; • Repeat measurements to confirm findings;	• Check monitoring data submitted by ET; • Check Contractor's working method; • Discuss with ET and Contractor on possible remedial measures; • Advise the ET on the effectiveness of the proposed remedial measures;	• Confirm receipt of notification of exceedance in writing; • Notify Contractor; • Ensure remedial measures properly implemented.	• Submit proposals for remedial to ER within 3 working days of notification; • Implement the agreed proposals; • Amend proposal if appropriate.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	• Increase monitoring frequency to daily; • Discuss with IEC and Contractor on remedial actions required; • If exceedance continues, arrange meeting with IEC and ER; • If exceedance stops, cease additional monitoring.	• Supervise Implementation of remedial measures.		
LIMIT LEVEL				
Exceedance for one sample	• Identify source, investigate the causes of exceedance and propose remedial measures; • Inform IEC, ER, Contractor and EPD; • Repeat measurement to confirm finding; • Increase monitoring frequency to daily; • Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. • If exceedance stops, cease additional monitoring.	• Check monitoring data submitted by ET; • Check Contractor's working method; • Discuss with ET and Contractor on possible remedial measures; • Advise ER on the effectiveness of the proposed remedial measures; • Supervise implementation of remedial measures.	• Confirm receipt of notification of exceedance in writing; • Notify Contractor; • Ensure remedial measures properly implemented.	• Take immediate action to avoid further exceedance; • Submit proposals for remedial actions to IEC within 3 working days of notification; • Implement the agreed proposals; • Amend proposal if appropriate.
Exceedance for two or more consecutive samples	• Notify IEC, ER, Contractor and EPD; • Identify source, investigate the cause of exceedance and propose remedial measures; • Repeat measurement to confirm findings; • Increase monitoring frequency to daily; • Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; • Arrange meeting with IEC and ER to	• Discuss amongst ER, ET, and Contractor on the potential remedial actions; • Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly; • Supervise the implementation of remedial measures.	• Confirm receipt of notification of exceedance in writing; • Notify Contractor; • In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; • Ensure remedial measures properly implemented; • If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work	• Take immediate action to avoid further exceedance; • Submit proposals for remedial actions to IEC within 3 working days of notification; • Implement the agreed proposals; • Resubmit proposals if problem still not under control; • Stop the relevant portion of works as determined by ER until the exceedance is abated.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	discuss the remedial actions to be taken; • Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; • If exceedance stops, cease additional monitoring.		until the exceedance is abated.	

Table 4-3 Event/ Action Plan for Air Quality Monitoring

EVENT	Action			
	ET	IEC	ER	CONTRACTOR
Action Level	• Notify IEC and ER; • Carry out investigation; • Report the results of investigation to the IEC, ER and Contractors; • Discuss with the Contractor and formulate remedial measures; • Increase monitoring requrency to check mitigation effectiveness.	• Review the analysed results submitted by the ET; • Review the proposed remedial measures by the Contractor and advise the ER accordingly; • Supervise the implementation of remedial measure.	• Confirm receipt of notification of failure in writing; • Notify Contractor; • Require Contractor to propose remedial measures for the analysed noise problem; • Ensure remedial measures are properly implemented.	• Submit noise mitigation proposal to IEC; • Implement noise mitigation proposals.
Limit Level	• Identify source; • Inform IEC, ER, EPD and Contractor; • Repeat measurements to confirm findings; • Increase monitoring frequency to check mitigation effectiveness; • Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; • Inform IEC, ER and EPD the causes and actions taken for the exceedances; • Assess effectiveness of Contractor's remedial actions and	• Discuss amongst ER, ET, and Contractor on the potential remedial actions; • Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; • Supervise the implementation of remedial measures.	• Confirm receipt of notification of failure in writing; • Notify Contractor; • Require Contractor to propose remedial measures for the analysed noise problem; • Ensure remedial measures properly implemented; • If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	• Take immediate action to avoid further exceedance; • Submit proposals for remedial actions to IEC within 3 working days of notification; • Implement the agreed proposals; • Resubmit proposals if problem still not under control; • Stop the relevant portion of works as determined by th ER until the exceedance is abated.

EVENT	Action			
	ET	IEC	ER	CONTRACTOR
	keep IEC, EPD and ER informed of the results; • If exceedance stops, cease additional monitoring.			

Table 4-4 Event/ Action Plan for Noise Monitoring

4.4 Environmental Mitigation Measures and Requirements

The recommended measures for mitigating air quality, water quality, noise, waste and all other possible environmental impacts due to the construction works have been stated clearly in the EM&A Manual. The details of the measures implemented by the Contractor are shown in Appendix 6.

5 Implementation Status of Environmental Protection and Pollution Control/ Mitigation Measures

The status of the mitigation measures implemented by the Contractor is listed in Appendix 6.

6 Monitoring Results

6.1 Graphical Plots of Monitoring Parameters

Graphical plots of the monitoring results are summarized in Appendix 7.

6.2 Factors Which Might Affect the Monitoring Results

Dust from other sources such as roads with the movement of heavy vehicles in the vicinity of the monitoring stations would affect the air quality monitoring results.

7 Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions

7.1 Non-compliance of Action and Limit Levels

No non-compliance of Action or Limit Level was recorded for noise monitoring.

Two 1-hr TSP Action Level exceedances were recorded at CAM2a on 6 and 26 March 2008. One 24-hr TSP Limit Level exceedance was recorded at CAM2a on 18 March 2008.

7.2 Complaints Received

In case of an environmental complaint received, all related parties should follow the complaints response procedures specified in the EM&A Manual.

During this reporting quarter, no environmental complaint was received. Cumulative number of environmental complaint is shown in Appendix 8.

7.3 Notifications of Summons and Successful Prosecutions

No notification of summons or successful prosecution was recorded during the reporting period. The cumulative number of notifications of summons and successful prosecutions are shown in Appendix 8.

7.4 Review of the Reasons and Implications of Non-compliance, Complaints, Summons and Prosecutions

7.4.1 Non-compliance of Acton/Limit Level

Two 1-hr TSP Action Level exceedances were recorded at CAM2a on 6 and 26 March. One 24-hr TSP Limit Level exceedance was recorded at CAM2a on 18 March. At the times of these exceedances, no dust generating works related to the Project were observed in the vicinity of the monitoring stations. Furthermore, no exceedances were recorded at these stations prior to these exceedances. It is therefore not considered that these exceedances were caused by construction works of the Project, but due to local activities. It was observed that a planter is being constructed adjacent to the monitoring station. Some small open stockpiles, which were not induced by the construction works of the project, were also observed outside the site but close to monitoring stations. They are considered to be possible causes for the non-project related exceedances.

7.4.2 Complaints, Summons and Prosecutions

No complaints, summons and prosecutions were recorded during the reporting period.

7.5 Site Inspections

Weekly site inspections have been carried out during the reporting period. The findings of the site inspections and appropriate mitigation measures were recorded in the site inspection checklists. The observations raised during the site inspections,

corresponding recommendations and rectification status are summarised in Table 7-5.

Inspection Date	Deficiencies	Recommendation	Status	Note / Reminder
5 March 2008	No environmental deficiency was observed.	N.A.	N.A.	1. The contractor was reminded to provide wheel washing at site exit and to remove the muddy tracks.
12 March 2008	1.Muddy trail was observed at side exit.	1.The Contractor is requested to provide proper wheel washing to vehicles leaving the site.	1. During site inspection on 27 March, a wheel washing facility has been found (Closed).	1. Haul road at Portion 2 was observed dry and dusty, the Contractor was reminded to provide water spraying more frequently.
19 March 2008	1. General refuse was observed not cleared up at RAS/SAS pump station. 2. Stagnant water and general refuse were observed not cleared up at sludge press house. 3. Soil of stockpiles was observed without full covering at number 7 sedimentation tank and bioreactor.	1. The Contractor was requested to clear up immediately. 2. The Contractor was requested to clear up immediately. 3. The Contractor was requested to fully cover.	1. Closed 2. Closed 3. Closed	1. No provision water spraying was observed near bioreactor and sedimentation tank number 7. The Contractor was reminded to provide water spraying more frequently.
27 March 2008	No environmental deficiency was observed.	N.A.	N.A	N.A
2 April 2008	1. Muddy trail and deposit were observed at site entrance. 2. Non sorting of construction material was observed at sludge press	1. The Contractor was requested to clear up immediately. 2. The Contractor was requested to sort.	1. During site inspection on 9 April, muddy trail and deposit had been cleared up at the entrance. (Closed) 2. During site inspection on 9 April, the Contractor sorted the construction materials at	N.A.

Inspection Date	Deficiencies	Recommendation	Status	Note / Reminder
	house.		sludge press house. (Closed)	
9 April 2008	2. Oil drum was observed without drip tray and label in storage area and near final sedimentation tank. 2. Stagnant water was observed in U-channel at warehouse.	1. The Contractor is requested to provide drip tray and label immediately. 2. The Contractor was requested to clean up immediately.	1. During site inspection on 16 April, the oil drum has been removed. (Closed) 2. During site inspection on 16 April, stagnant water had been cleaned up in U-channel at warehouse. (Closed)	1. The Contractor was reminded to place sand bags in manhole near primary sedimentation tank to prevent site surface runoff washed out into the public area during rainy events.
16 April 2008	1. Oil drum was observed without drip tray and label near sedimentation tank. 2. Stockpiles of non-inert C&D waste near bioreactor were observed without proper cover. 3. General refuse was observed in U-channel at warehouse.	1. The Contractor is requested to provide drip tray and label immediately. 2. The Contractor was requested to cover the stockpiles. 3. The Contractor was requested to clear up.	i. During site inspection on 23 April, oil drum had been removed. (Closed) 2. During site inspection on 23 April, mixture of C&D waste stockpiles had been covered. (Closed) 3. During site inspection on 29 April, general refuse was still observed in U-channel at warehouse. (Oustanding)	1. The Contractor was reminded to provide water spraying more frequently to avoid dust and muddy trail.
23 April 2008	1. Muddy trail was observed at site exit. 2. Stagnant water was observed in trench and material bin in manhole near warehouse 3. Oil drum without drip tray and label was observed in storage area. 4. General refuse was observed in site area.	1. The Contractor was requested to provide water spraying to avoid dust. 2. The Contractor was requested to clear up and provide wetsep to prevent stagnant water flow. 3. The Contractor was requested to provide proper drip tray and label. 4. The Contractor was requested to clear up immediately.	1. During site inspection on 29 April 2008, muddy trail was cleared up and water spraying at site exit was provided. (Closed) 2. During site inspection on 29 April 2008, stagnant water had been cleared up in trench, material bin and manhole. (Closed) 3. During site inspection on 29 April 2008, oil drum had been removed in storage area.	N.A

Inspection Date	Deficiencies	Recommendation	Status	Note / Reminder
			(Closed) 4. During site inspection on 29 April 2008, general refuse had been cleared up in site area. (Closed)	
29 April 2008	1. Stagnant water was found in site boundary, rubbish bin and safety helmet. 2. Non-inert of C&D waste at air blower house was observed.	1. The Contractor was requested to clear up immediately. 2. The Contractor was requested to clear up.	1. During site inspection on 7 May 2008, the stagnant water had been cleared up. (Closed) 2. During site inspection on 7 May 2008, the C&D waste had been removed. (Closed)	N.A
7 May 2008	1. Site runoff was observed in manhole.	1. The Contractor is requested to provide sand bags to prevent the runoff.	1. During site inspection on 14 May 2008, sand bags were observed in manhole. (Closed)	1. The Contractor was reminded to provide water spraying in site area.
14 May 2008	1. Oil drum was observed without drip tray near the air Blower house. 2. General refuse was observed in site area. 3. Soil deposit was observed without proper cover. 4. Stagnant water was observed near air Blower house and final sedimentation tank. 5. Oil leakage was observed from excavator.	1. The Contractor is requested to provide drip tray. 2. The Contractor was requested to clear up immediately. 3. The Contractor was requested to provide cover immediately. 4. The Contractor was requested to clear up immediately. 5. The Contractor was requested to provide trip drip and keep good condition of excavator0	1. During site inspection on 22 May 2008, oil drum had been relocated in a proper place. (Closed) 2. During site inspection on 22 May 2008, general refuse had been removed. (Closed) 3. During site inspection on 22 May 2008, soil deposit has been removed. (Closed) 4. The outstanding observation will be followed up in next month inspection. 5. During site inspection on 22 May 2008, proper maintenance works has been provided to the excavator, no more oil leakage was observed during the inspection. (Closed)	N/A.

Inspection Date	Deficiencies	Recommendation	Status	Note / Reminder
22 May 2008	1. Stagnant water was observed adjacent to primary sedimentation tank and excavation trench. 2. Stockpile of soil was observed at chemical waste storage house.	1. The Contractor was requested to clear up immediately. 2. The Contractor was requested to clear up and provide wetsep to prevent stagnant water flow.	1. The outstanding observation will be followed up in next month inspection. 2. The outstanding observation will be followed up in next month inspection.	N.A
27 May 2008	N/A.	N/A.	N/A.	N.A

Table 7-5 Summaries of Site Inspections and Recommendations

There was no EPD inspection during the reporting period.

8 Waste Management Status

According to the information provided by the Contractor, Table 8-5 shows waste materials were generated during the reporting period.

Type of Waste	March 08	April 08	May 08
Inert C&D material (m^3)	495.264	144.5	160.42
General Refuse (m^3)	32.5	71.5	39.0
Chemical waste (L)	0	0	0

Table 8-6 The Quantity of Waste Generation

Inert C&D materials were disposed of at Tuen Mun Area 38 Public Fill. General refuse was collected and disposed of at NENT Landfill. No chemical waste was produced during the reporting period. Trip ticket system was implemented and disposal records were in order on site. The Waste Management Plan was followed.

9 Comments, Recommendations and Conclusions

EM&A works have been undertaken between March 2008 and May 2008 for the Project based on the requirements set in the EM&A Manual.

All monitoring equipments have been calibrated and all monitoring protocols have been carried out properly according to the EM&A Manual.

Two 1-hr TSP Action Level exceedances were recorded at CAM2a on 6 and 26 March and one 24-hr TSP Limit Level exceedance was recorded at CAM2a on 18

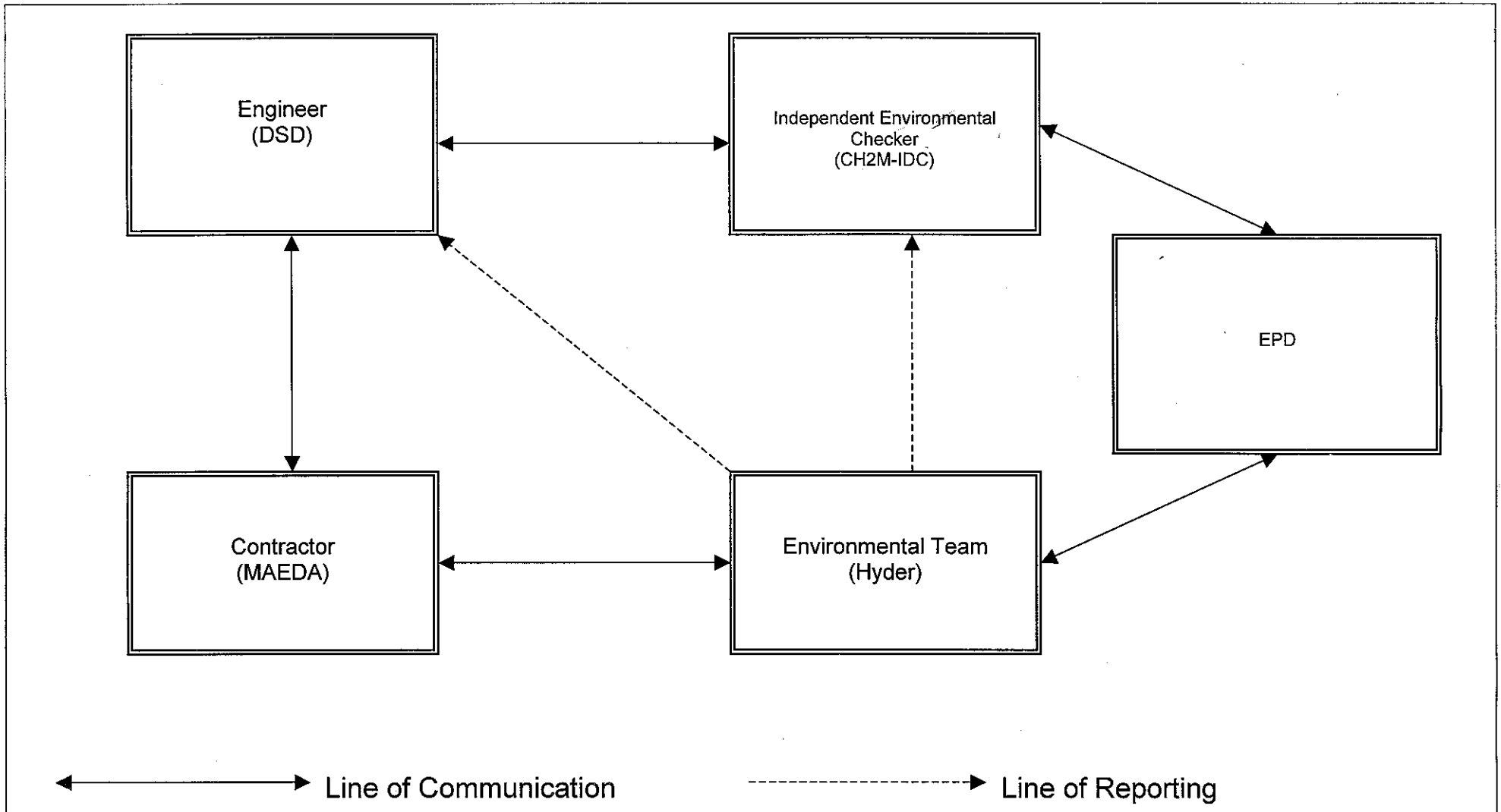
March but it is considered that the exceedances were not related to the construction works of the expansion of SWHSTW.

No compliant, notification of summons or successful prosecution was recorded during the reporting period.

The overall EM&A programme is considered efficient during the reporting period and no material and technical changes are considered necessary.

Appendix 1

Project Organization



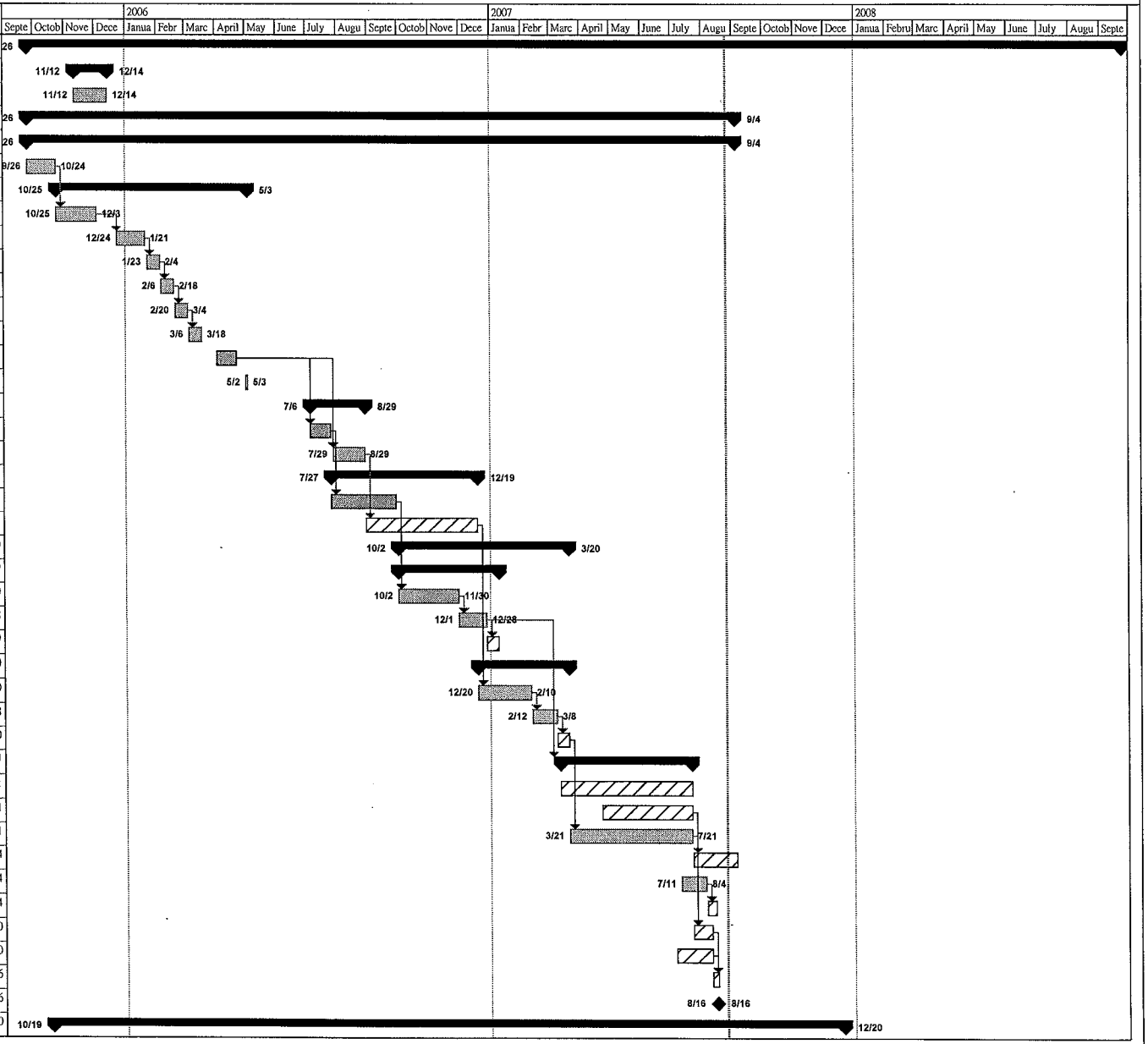
Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Project Organization	Date: Dec 2005 Figure: N.A. Scale: NTS

Appendix 2

Construction Programme

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 6A)

ID	Task Name	Duration	Start	Finish
1	Shek Wu Hui	942 days	Mon 05/9/26	Wed 08/9/24
2	Preliminary works	28 days	Sat 05/11/12	Wed 05/12/14
3	EM&A Baseline Monitoring	28 days	Sat 05/11/12	Wed 05/12/14
4	Section 1 of works	609 days	Mon 05/9/26	Tue 07/9/4
5	Air Blower House No.2	609 days	Mon 05/9/26	Tue 07/9/4
6	General Site Clearance & Fencing Construction	25 days	Mon 05/9/26	Mon 05/10/24
7	Foundation	164 days	Tue 05/10/25	Wed 06/5/3
8	GI works (pre-drilling & reporting)	35 days	Tue 05/10/25	Sat 05/12/3
9	Preliminary H-pile (1nos.)	24 days	Sat 05/12/24	Sat 06/1/21
10	Permanent H-pile (5nos.)	12 days	Mon 06/1/23	Sat 06/2/4
11	Permanent H-pile (5nos.)	12 days	Mon 06/2/6	Sat 06/2/18
12	Permanent H-pile (5nos.)	12 days	Mon 06/2/20	Sat 06/3/4
13	Permanent H-pile (6nos.)	12 days	Mon 06/3/6	Sat 06/3/18
14	Proof Load Test (1nos.)	18 days	Mon 06/4/3	Sat 06/4/22
15	Proof Drilling	2 days	Tue 06/5/2	Wed 06/5/3
16	Earthworks	47 days	Thu 06/7/6	Tue 06/8/29
17	Area 1	18 days	Thu 06/7/6	Wed 06/7/26
18	Area 2	27 days	Sat 06/7/29	Tue 06/8/29
19	Substructure	126 days	Thu 06/7/27	Tue 06/12/19
20	Area 1	56 days	Thu 06/7/27	Fri 06/9/29
21	Area 2	96 days	Thu 06/8/31	Tue 06/12/19
22	Superstructure	147 days	Mon 06/10/2	Tue 07/3/20
23	Area 1	87 days	Mon 06/10/2	Tue 07/1/9
24	Structural framing & slab at level +11.75mPD	52 days	Mon 06/10/2	Thu 06/11/30
25	Concrete Structure up to roof	25 days	Fri 06/12/1	Thu 06/12/28
26	Parapet Wall	10 days	Fri 06/12/29	Tue 07/1/9
27	Area 2	78 days	Wed 06/12/20	Tue 07/3/20
28	Structural framing & slab at level +11.75mPD	46 days	Wed 06/12/20	Sat 07/2/10
29	Concrete Structure up to roof	22 days	Mon 07/2/12	Thu 07/3/8
30	Parapet Wall	10 days	Fri 07/3/9	Tue 07/3/20
31	**Internal Finishes**	**114 days**	**Mon 07/3/12**	**Sat 07/7/21**
32	Area 1	114 days	Mon 07/3/12	Sat 07/7/21
33	Area 2	78 days	Mon 07/4/23	Sat 07/7/21
34	External Finishes	106 days	Wed 07/3/21	Sat 07/7/21
35	Miscellaneous (Plumbing, ABWF works)	38 days	Mon 07/7/23	Tue 07/9/4
36	Cable Ducts	22 days	Wed 07/7/11	Sat 07/8/4
37	Drainage	8 days	Mon 07/8/6	Tue 07/8/14
38	Pipeline 8	17 days	Mon 07/7/23	Fri 07/8/10
39	Pipeline 10	31 days	Fri 07/7/6	Fri 07/8/10
40	Pressure Test and CCTV	5 days	Sat 07/8/11	Thu 07/8/16
41	Key Date of the Section 1 Works	1 day	Thu 07/8/16	Thu 07/8/16
42	Section 2 of works	682 days	Wed 05/10/19	Thu 07/12/20



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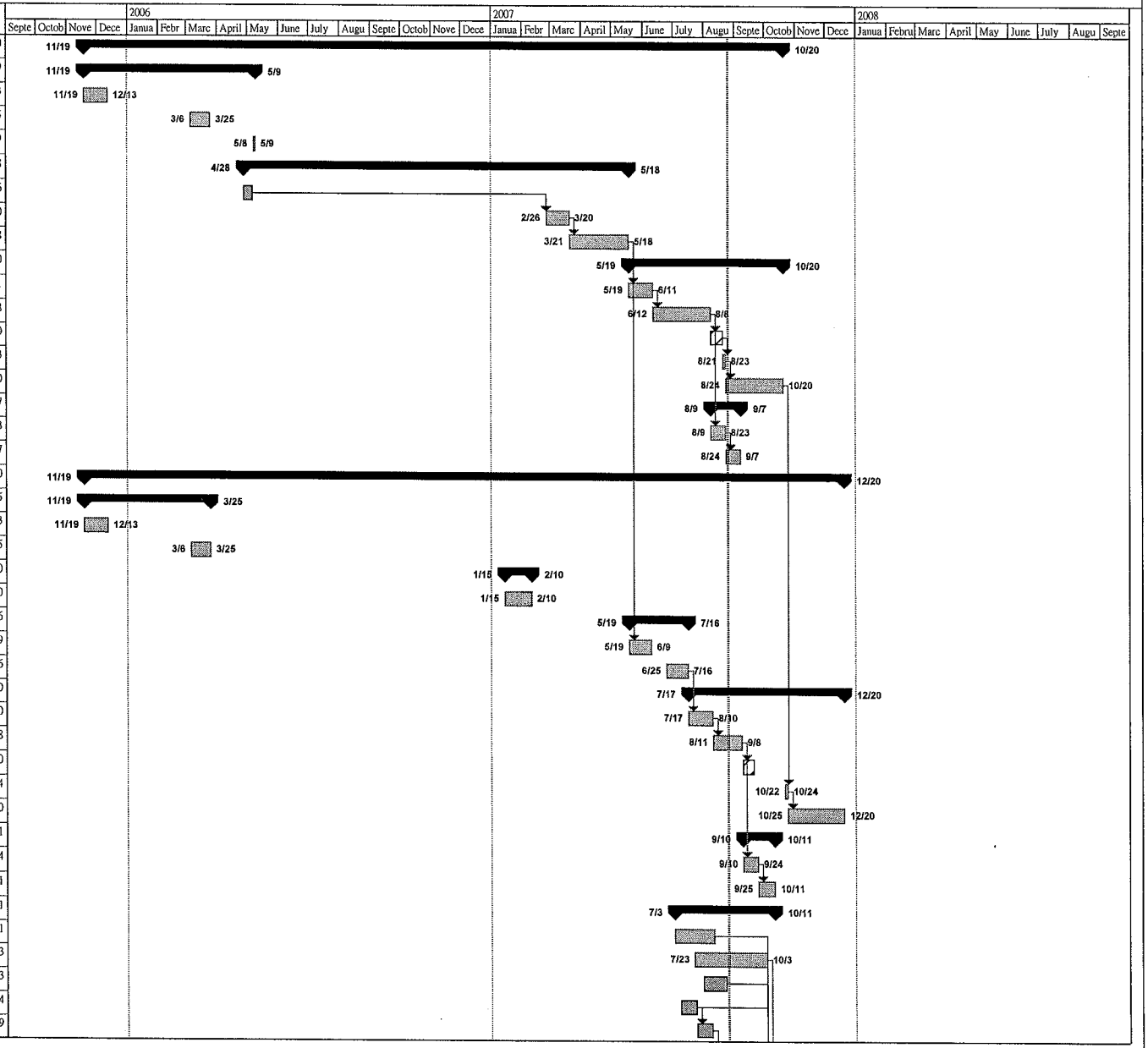
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Macda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 6A)

ID	Task Name	Duration	Start	Finish
43	Flow Division Pump Pits No.1	602 days	Sat 05/11/19	Sat 07/10/20
44	Foundation	147 days	Sat 05/11/19	Tue 06/5/9
45	GI works (pre-drilling & reporting)	20 days	Sat 05/11/19	Tue 05/12/13
46	Permanent Mini-pile (4nos.)	18 days	Mon 06/3/6	Sat 06/3/25
47	Proof Drilling	2 days	Mon 06/5/8	Tue 06/5/9
48	Earthworks	332 days	Fri 06/4/28	Fri 07/5/18
49	Approval of Temporary Works	8 days	Fri 06/4/28	Sat 06/5/6
50	Install temporary retaining wall (steel pile)	20 days	Mon 07/2/26	Tue 07/3/20
51	Excavation & temp.supporting	51 days	Wed 07/3/21	Fri 07/5/18
52	Structure	133 days	Sat 07/5/19	Sat 07/10/20
53	Pilecaps	20 days	Sat 07/5/19	Mon 07/6/11
54	Concrete work	50 days	Tue 07/6/12	Wed 07/8/8
55	Water Tightness Test	10 days	Thu 07/8/9	Mon 07/8/20
56	Temporary Suspension and Demolition of Existing Pipe	3 days	Tue 07/8/21	Thu 07/8/23
57	Pumps & Pipe installation (by others)	50 days	Fri 07/8/24	Sat 07/10/20
58	External Works	26 days	Thu 07/8/9	Fri 07/9/7
59	Backfilling, remove temp. retaining wall	13 days	Thu 07/8/9	Thu 07/8/23
60	Installation, handrail/plate/ladder	13 days	Fri 07/8/24	Fri 07/9/7
61	Flow Division Pump Pits No.2	655 days	Sat 05/11/19	Thu 07/12/20
62	Foundation	109 days	Sat 05/11/19	Sat 06/3/25
63	GI works (pre-drilling & reporting)	20 days	Sat 05/11/19	Tue 05/12/13
64	Permanent Mini-pile (4nos.)	18 days	Mon 06/3/6	Sat 06/3/25
65	Air Main Diversion	24 days	Mon 07/1/15	Sat 07/2/10
66	Compressed Air pipe (by MAEDA)	24 days	Mon 07/1/15	Sat 07/2/10
67	Earthworks	50 days	Sat 07/5/19	Mon 07/7/16
68	Install temporary retaining wall (sheetpile)	19 days	Sat 07/5/19	Sat 07/6/9
69	Excavation & temp.supporting	19 days	Mon 07/6/25	Mon 07/7/16
70	Structure	136 days	Tue 07/7/17	Thu 07/12/20
71	Pilecaps	22 days	Tue 07/7/17	Fri 07/8/10
72	Concrete work	25 days	Sat 07/8/11	Sat 07/9/8
73	Water Tightness Test	10 days	Mon 07/9/10	Thu 07/9/20
74	Temporary Suspension and Demolition of Existing Pipe	3 days	Mon 07/10/22	Wed 07/10/24
75	Pumps & Pipe installation (by others)	50 days	Thu 07/10/25	Thu 07/12/20
76	External Works	28 days	Mon 07/9/10	Thu 07/10/11
77	Backfilling, remove temp. retaining wall	13 days	Mon 07/9/10	Mon 07/9/24
78	Installation, handrail/plate/ladder	15 days	Tue 07/9/25	Thu 07/10/11
79	Pipeworks	87 days	Tue 07/7/3	Thu 07/10/11
80	Pipeline No. 1	35 days	Tue 07/7/3	Sat 07/8/11
81	Pipeline No. 2	63 days	Mon 07/7/23	Wed 07/10/3
82	Pipeline No. 3	20 days	Wed 07/8/1	Thu 07/8/23
83	Pipeline No. 4	14 days	Mon 07/7/9	Tue 07/7/24
84	Pipeline No. 5	14 days	Wed 07/7/25	Thu 07/8/9



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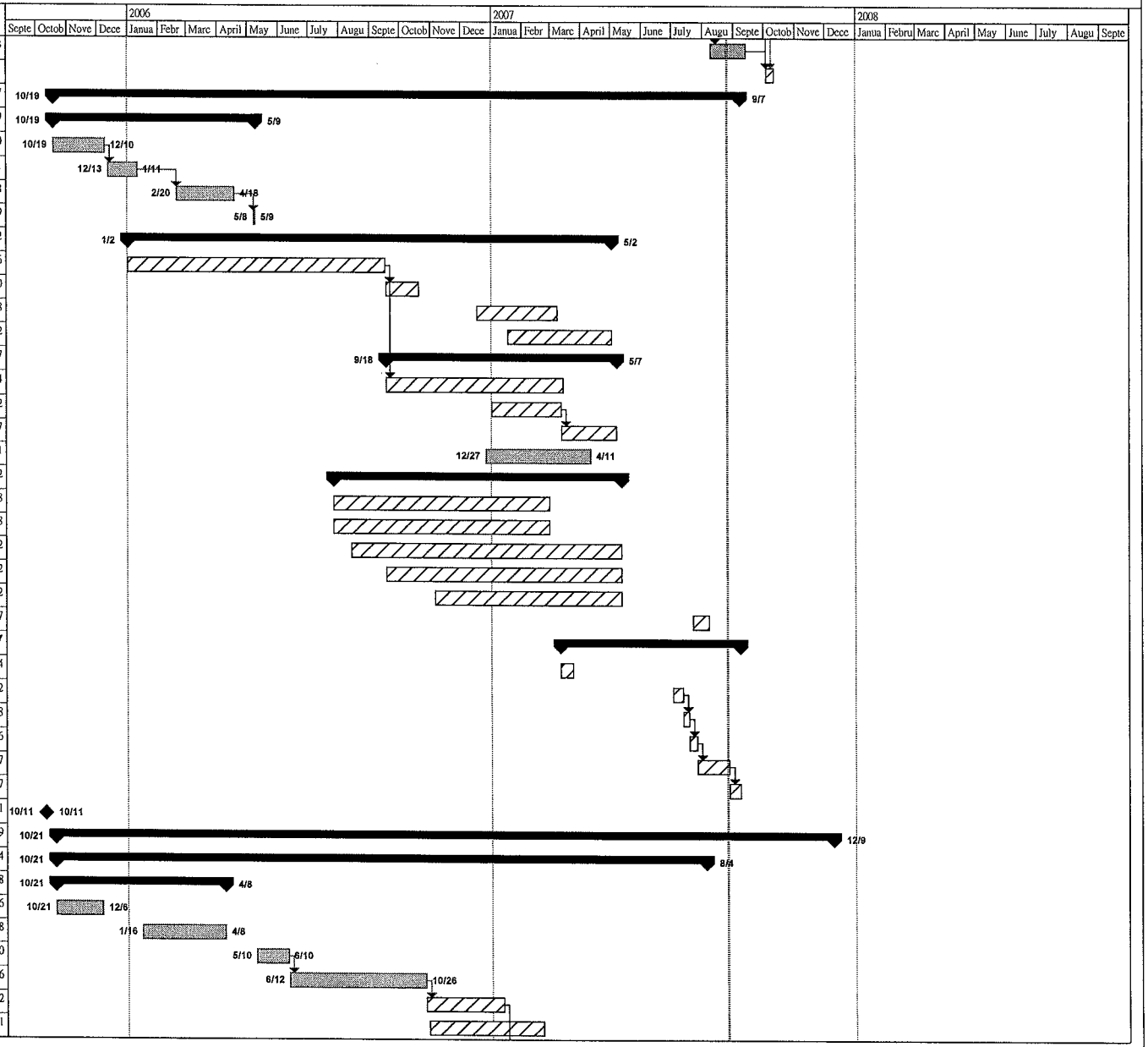
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 6A)

ID	Task Name	Duration	Start	Finish
85	Pipeline 14, 15 & 16	30 days	Fri 07/8/10	Thu 07/9/13
86	Pressure Test & CCTV	7 days	Thu 07/10/4	Thu 07/10/11
87	Bioreactor No.5	592 days	Wed 05/10/19	Fri 07/9/7
88	Foundation	174 days	Wed 05/10/19	Tue 06/5/9
89	GI works (pre-drilling & reporting)	45 days	Wed 05/10/19	Sat 05/12/10
90	Preliminary H-pile (1nos.)	26 days	Tue 05/12/13	Wed 06/1/11
91	Permanent H-pile (55nos.)	50 days	Mon 06/2/20	Tue 06/4/18
92	Proof Load Test (1nos.)	2 days	Mon 06/5/8	Tue 06/5/9
93	Temporary Works	418 days	Mon 06/1/2	Wed 07/5/2
94	Erection - Phase 1 (Portion A - C)	222 days	Mon 06/1/2	Sat 06/9/16
95	Erection - Phase 2 (Portion D - E)	29 days	Mon 06/9/18	Fri 06/10/20
96	Removal - waling and strut	70 days	Mon 06/12/18	Thu 07/3/8
97	Removal - sheet pile	90 days	Thu 07/1/18	Wed 07/5/2
98	Earthworks	200 days	Mon 06/9/18	Mon 07/5/7
99	Excavation to formation	154 days	Mon 06/9/18	Wed 07/3/14
100	Backfilling to +2.92mPD	60 days	Tue 07/1/2	Mon 07/3/12
101	Backfilling to +5.30mPD	48 days	Tue 07/3/13	Mon 07/5/7
102	Backfilling to FGL	91 days	Wed 06/12/27	Wed 07/4/11
103	Structures	250 days	Thu 06/7/27	Sat 07/5/12
104	Portion A	187 days	Thu 06/7/27	Wed 07/2/28
105	Portion B	187 days	Thu 06/7/27	Wed 07/2/28
106	Portion C	235 days	Mon 06/8/14	Sat 07/5/12
107	Portion D	205 days	Mon 06/9/18	Sat 07/5/12
108	Portion E	163 days	Mon 06/11/6	Sat 07/5/12
109	Water Tightness Test (Portions A - E)	14 days	Mon 07/7/23	Tue 07/8/7
110	**Portion F (Final Sed Tank Dist Chamber)**	**155 days**	**Mon 07/3/12**	**Fri 07/9/7**
111	Sheet Pile Installation	12 days	Mon 07/3/12	Sat 07/3/24
112	Excavation + Temp Works	9 days	Tue 07/7/3	Thu 07/7/12
113	Pile Head	5 days	Fri 07/7/13	Wed 07/7/18
114	Base Slab	7 days	Thu 07/7/19	Thu 07/7/26
115	Wall	27 days	Fri 07/7/27	Mon 07/8/27
116	Water Tightness Test	10 days	Tue 07/8/28	Fri 07/9/7
117	Key Date of the Section 2 of the Works	1 day	Tue 05/10/11	Tue 05/10/11
118	Section 3 of works	670 days	Fri 05/10/21	Sun 07/12/9
119	Final Sedimentation Tank No.9	561 days	Fri 05/10/21	Sat 07/8/4
120	Foundation	146 days	Fri 05/10/21	Sat 06/4/8
121	GI works (pre-drilling & reporting)	40 days	Fri 05/10/21	Tue 05/12/6
122	Permanent H-pile (21nos.)	72 days	Mon 06/1/16	Sat 06/4/8
123	Sheetpiling works	28 days	Wed 06/5/10	Sat 06/6/10
124	Excavation	118 days	Mon 06/6/12	Thu 06/10/26
125	Pile head (inner ground beam) (6 nos)	68 days	Fri 06/10/27	Fri 07/1/12
126	DN800 DI pipe	100 days	Mon 06/10/30	Wed 07/2/21



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Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
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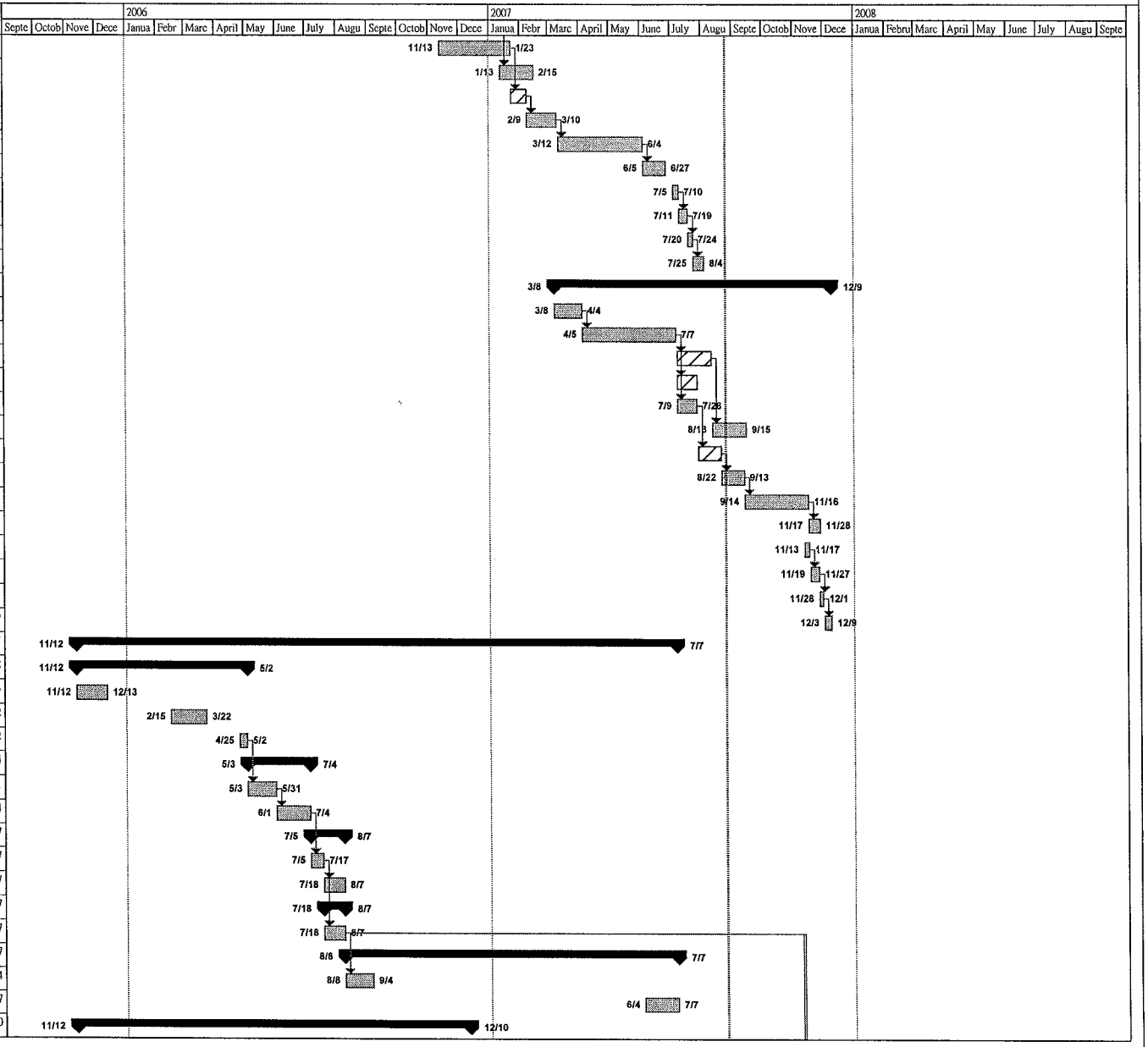
Macda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 6A)

ID	Task Name	Duration	Start	Finish
127	DN450 DI pipe	63 days	Mon 06/11/13	Tue 07/1/23
128	Pile head (outer ground beam) (15 nos)	29 days	Sat 07/1/13	Thu 07/2/15
129	Outer ground beam	14 days	Wed 07/1/24	Thu 07/2/8
130	Base slab	26 days	Fri 07/2/9	Sat 07/3/10
131	Wall (2 panels)	73 days	Mon 07/3/12	Mon 07/6/4
132	Water Tightness Test and Pressure Test of Pipeline	20 days	Tue 07/6/5	Wed 07/6/27
133	backfilling to +4.20mPD	5 days	Thu 07/7/5	Tue 07/7/10
134	Break and remove Row 1 ring beam	8 days	Wed 07/7/11	Thu 07/7/19
135	backfilling to +5.51mPD	4 days	Fri 07/7/20	Tue 07/7/24
136	Extract sheetpiles	10 days	Wed 07/7/25	Sat 07/8/4
137	FINAL SEDIMENTION TANK NO. 10	238 days	Thu 07/3/8	Sun 07/12/9
138	Sheetpiling works	24 days	Thu 07/3/8	Wed 07/4/4
139	Excavation	81 days	Thu 07/4/5	Sat 07/7/7
140	Pile head (inner ground beam) (6 nos)	30 days	Mon 07/7/9	Sat 07/8/11
141	DN800 DI pipe	18 days	Mon 07/7/9	Sat 07/7/28
142	DN450 DI pipe	18 days	Mon 07/7/9	Sat 07/7/28
143	Pile head (outer ground beam) (15 nos)	30 days	Mon 07/8/13	Sat 07/9/15
144	Outer ground beam	20 days	Mon 07/7/30	Tue 07/8/21
145	Base slab	20 days	Wed 07/8/22	Thu 07/9/13
146	Wall (2 panels)	55 days	Fri 07/9/14	Fri 07/11/16
147	Water Tightness Test and Pressure Test of Pipeline	10 days	Sat 07/11/17	Wed 07/11/28
148	backfilling to +4.20mPD	5 days	Tue 07/11/13	Sat 07/11/17
149	Break and remove Row 1 ring beam	8 days	Mon 07/11/19	Tue 07/11/27
150	backfilling to +5.51mPD	4 days	Wed 07/11/28	Sat 07/12/1
151	Extraction of sheetpiles	7 days	Mon 07/12/3	Sun 07/12/9
152	RAS/SAS Switch Room	518 days	Sat 05/11/12	Sat 07/7/7
153	Foundation	147 days	Sat 05/11/12	Tue 06/5/2
154	GI works (pre-drilling & reporting)	26 days	Sat 05/11/12	Tue 05/12/13
155	Permanent H-pile (6nos.)	31 days	Wed 06/2/15	Wed 06/3/22
156	Proof Load Test	7 days	Tue 06/4/25	Tue 06/5/2
157	Earthworks	54 days	Wed 06/5/3	Tue 06/7/4
158	Install temporary retaining wall (sheetpile)	25 days	Wed 06/5/3	Wed 06/5/31
159	Excavation	29 days	Thu 06/6/1	Tue 06/7/4
160	Substructure	29 days	Wed 06/7/5	Mon 06/8/7
161	Pilecaps/tie beams	11 days	Wed 06/7/5	Mon 06/7/17
162	Concrete structure up to 7.40mPD	18 days	Tue 06/7/18	Mon 06/8/7
163	Superstructure	18 days	Tue 06/7/18	Mon 06/8/7
164	Concrete structure up to roof	18 days	Tue 06/7/18	Mon 06/8/7
165	Others	288 days	Tue 06/8/8	Sat 07/7/7
166	Pipeworks/plumbing& opening	24 days	Tue 06/8/8	Mon 06/9/4
167	Internal/External finishing	30 days	Mon 07/6/4	Sat 07/7/7
168	RAS/SAS Main Station	338 days	Sat 05/11/12	Sun 06/12/10



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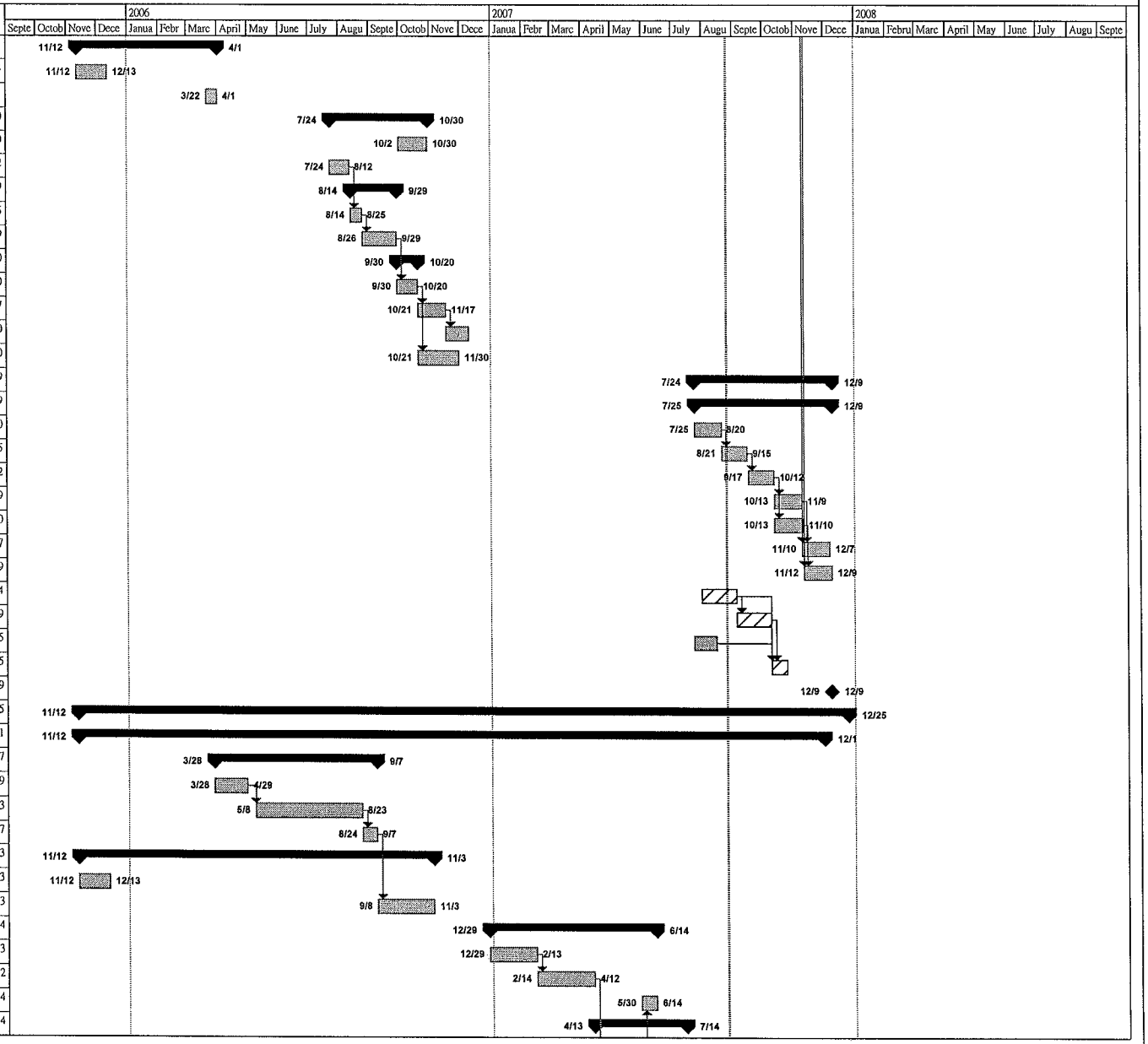
Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 6A)

ID	Task Name	Duration	Start	Finish
169	Foundation	121 days	Sat 05/11/12	Sat 06/4/1
170	GI works (pre-drilling & reporting)	26 days	Sat 05/11/12	Tue 05/12/13
171	Permanent H-pile (6nos.)	10 days	Wed 06/3/22	Sat 06/4/1
172	Earthworks	85 days	Mon 06/7/24	Mon 06/10/30
173	Install temporary retaining wall (sheetpile)	25 days	Mon 06/10/2	Mon 06/10/30
174	Excavation	18 days	Mon 06/7/24	Sat 06/8/12
175	Substructure	41 days	Mon 06/8/14	Fri 06/9/29
176	Pilecaps/tie beams	11 days	Mon 06/8/14	Fri 06/8/25
177	Concrete structure up to 7.40mPD	30 days	Sat 06/8/26	Fri 06/9/29
178	Superstructure	18 days	Sat 06/9/30	Fri 06/10/20
179	Concrete structure up to roof	18 days	Sat 06/9/30	Fri 06/10/20
180	Pipeworks/plumbing& opening	24 days	Sat 06/10/21	Fri 06/11/17
181	Water Tightness Test, Pressure Test of the Pipeline and CCTV ins	20 days	Sat 06/11/18	Sun 06/12/10
182	Internal/External finishing	35 days	Sat 06/10/21	Thu 06/11/30
183	External Works	120 days	Tue 07/7/24	Sun 07/12/9
184	External manholes/pits construction	119 days	Wed 07/7/25	Sun 07/12/9
185	E2A-E6A	23 days	Wed 07/7/25	Mon 07/8/20
186	E6A-E7	23 days	Tue 07/8/21	Sat 07/9/15
187	E7-E8	23 days	Mon 07/9/17	Fri 07/10/12
188	E8-E9	24 days	Sat 07/10/13	Fri 07/11/9
189	E8-E10	25 days	Sat 07/10/13	Sat 07/11/10
190	E9-E11	24 days	Sat 07/11/10	Fri 07/12/7
191	E10-E12	25 days	Mon 07/11/12	Sun 07/12/9
192	Pipeline 6	30 days	Wed 07/8/1	Tue 07/9/4
193	Pipeline 7	30 days	Wed 07/9/5	Tue 07/10/9
194	Pipeline 9	20 days	Tue 07/7/24	Wed 07/8/15
195	Pressure Test and CCTV Inspection	14 days	Wed 07/10/10	Thu 07/10/25
196	Key Date of the Section 3 of the Works	1 day	Sun 07/12/9	Sun 07/12/9
197	Section 4 of works	665 days	Sat 05/11/12	Tue 07/12/25
198	Sludge Press House Extension	644 days	Sat 05/11/12	Sat 07/12/1
199	Relocation of FeCl3 Tank	141 days	Tue 06/3/28	Thu 06/9/7
200	Construction of Bund Wall	29 days	Tue 06/3/28	Sat 06/4/29
201	Relocation of Tank	93 days	Mon 06/5/8	Wed 06/8/23
202	Demolish the Existing Wall	13 days	Thu 06/8/24	Thu 06/9/7
203	Foundation	306 days	Sat 05/11/12	Fri 06/11/3
204	GI works (pre-drilling & reporting)	26 days	Sat 05/11/12	Tue 05/12/13
205	Permanent Mini-pile (18 nos.)	49 days	Fri 06/9/8	Fri 06/11/3
206	Earthworks	144 days	Fri 06/12/29	Thu 07/6/14
207	Excavation	40 days	Fri 06/12/29	Tue 07/2/13
208	Pilecaps, 10nos.	50 days	Wed 07/2/14	Thu 07/4/12
209	Backfill & compaction	14 days	Wed 07/5/30	Thu 07/6/14
210	Superstructure	80 days	Fri 07/4/13	Sat 07/7/14



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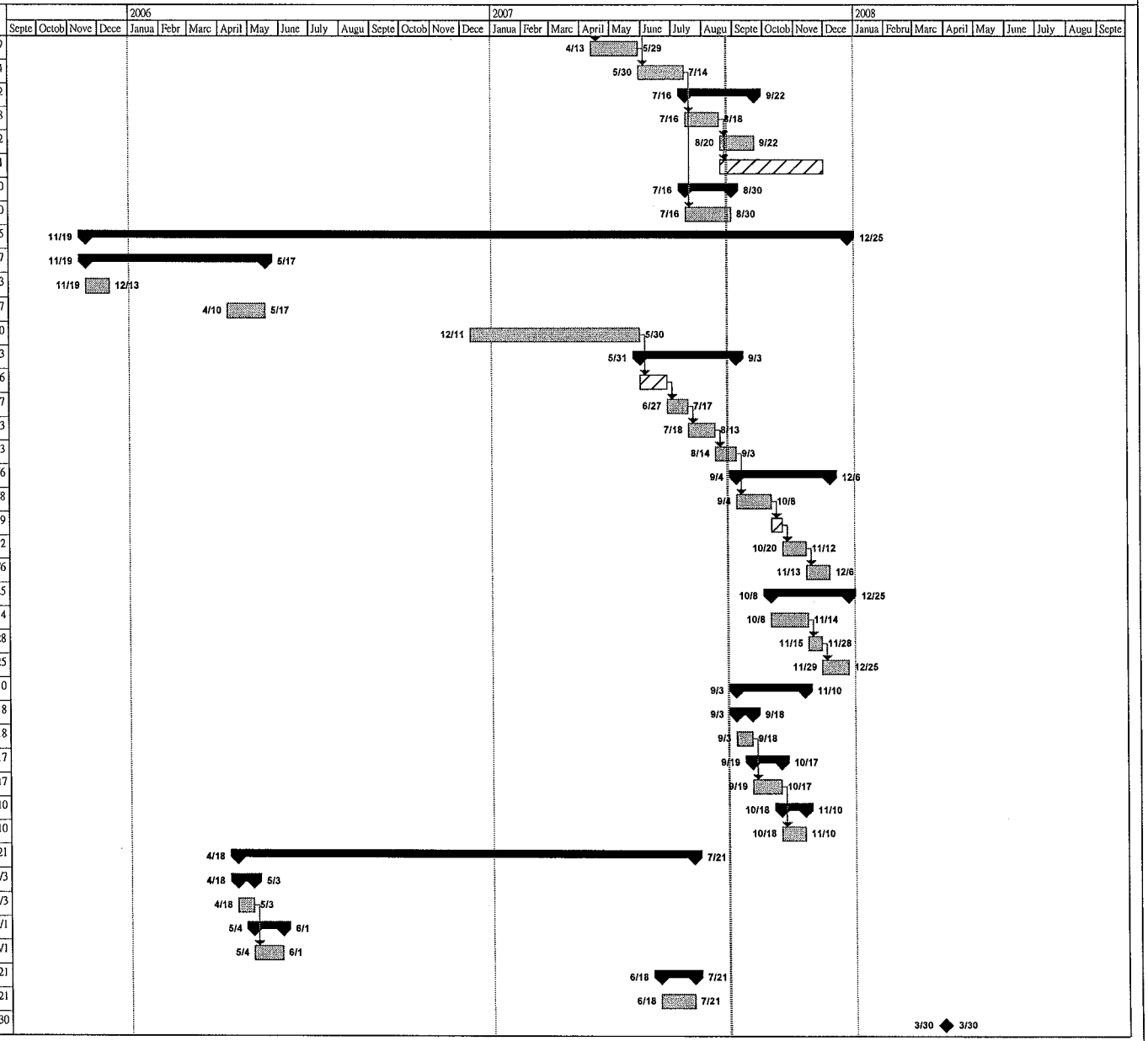
Macda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 6A)

ID	Task Name	Duration	Start	Finish
211	Structure up to 1st floor	40 days	Fri 07/4/13	Tue 07/5/29
212	Structure up to roof	40 days	Wed 07/5/30	Sat 07/7/14
213	Internal Finishes	60 days	Mon 07/7/16	Sat 07/9/22
214	Internal finishes works & opening	30 days	Mon 07/7/16	Sat 07/8/18
215	ABWF Works	30 days	Mon 07/8/20	Sat 07/9/22
216	pipeworks & ducting	90 days	Mon 07/8/20	Sat 07/12/1
217	External Finishes	40 days	Mon 07/7/16	Thu 07/8/30
218	External finishes works	40 days	Mon 07/7/16	Thu 07/8/30
219	Sludge Conditioning Tanks No.3 & No.4	659 days	Sat 05/11/19	Tue 07/12/25
220	Foundation	154 days	Sat 05/11/19	Wed 06/5/17
221	GI works (pre-drilling & reporting)	20 days	Sat 05/11/19	Tue 05/12/13
222	Permanent Mini-pile	33 days	Mon 06/4/10	Wed 06/5/17
223	Sewage Diversion Stage I of II	147 days	Mon 06/12/11	Wed 07/5/30
224	Earthworks	82 days	Thu 07/5/31	Mon 07/9/3
225	Trial Trench	23 days	Thu 07/5/31	Tue 07/6/26
226	Temporary Works (sheetpile for SCT3 & SCT4)	18 days	Wed 07/6/27	Tue 07/7/17
227	Excavation	23 days	Wed 07/7/18	Mon 07/8/13
228	Backfill & rockfill underneath pit	18 days	Tue 07/8/14	Mon 07/9/3
229	Structure	81 days	Tue 07/9/4	Thu 07/12/6
230	Concrete works	30 days	Tue 07/9/4	Mon 07/10/8
231	Water Tightness Test	10 days	Tue 07/10/9	Fri 07/10/19
232	Backfilling	20 days	Sat 07/10/20	Mon 07/11/12
233	Install handrailing/ladders/mesh etc.	21 days	Tue 07/11/13	Thu 07/12/6
234	External Works	69 days	Mon 07/10/8	Tue 07/12/25
235	Pipelaying of pipeline No.11, 12 & 13	33 days	Mon 07/10/8	Wed 07/11/14
236	Connection to existing system	12 days	Thu 07/11/15	Wed 07/11/28
237	Sump pit construction	24 days	Thu 07/11/29	Tue 07/12/25
238	Dangerous Goods (cat.5) Storeroom	60 days	Mon 07/9/3	Sat 07/11/10
239	Earthworks	14 days	Mon 07/9/3	Tue 07/9/18
240	Excavation, rockfill & Blinding	14 days	Mon 07/9/3	Tue 07/9/18
241	Superstructure	25 days	Wed 07/9/19	Wed 07/10/17
242	Structure	25 days	Wed 07/9/19	Wed 07/10/17
243	Finishing	21 days	Thu 07/10/18	Sat 07/11/10
244	Internal & external finishing	21 days	Thu 07/10/18	Sat 07/11/10
245	Chemical Waste storeroom No.1 & 2	396 days	Tue 06/4/18	Sat 07/7/21
246	Earthworks	14 days	Tue 06/4/18	Wed 06/5/3
247	Excavation, rockfill & Blinding	14 days	Tue 06/4/18	Wed 06/5/3
248	Superstructure	25 days	Thu 06/5/4	Thu 06/6/1
249	Structure	25 days	Thu 06/5/4	Thu 06/6/1
250	Finishing	30 days	Mon 07/6/18	Sat 07/7/21
251	Internal & external finishing	30 days	Mon 07/6/18	Sat 07/7/21
252	Key Date of the Section 4 of the Works	1 day	Sun 08/3/30	Sun 08/3/30



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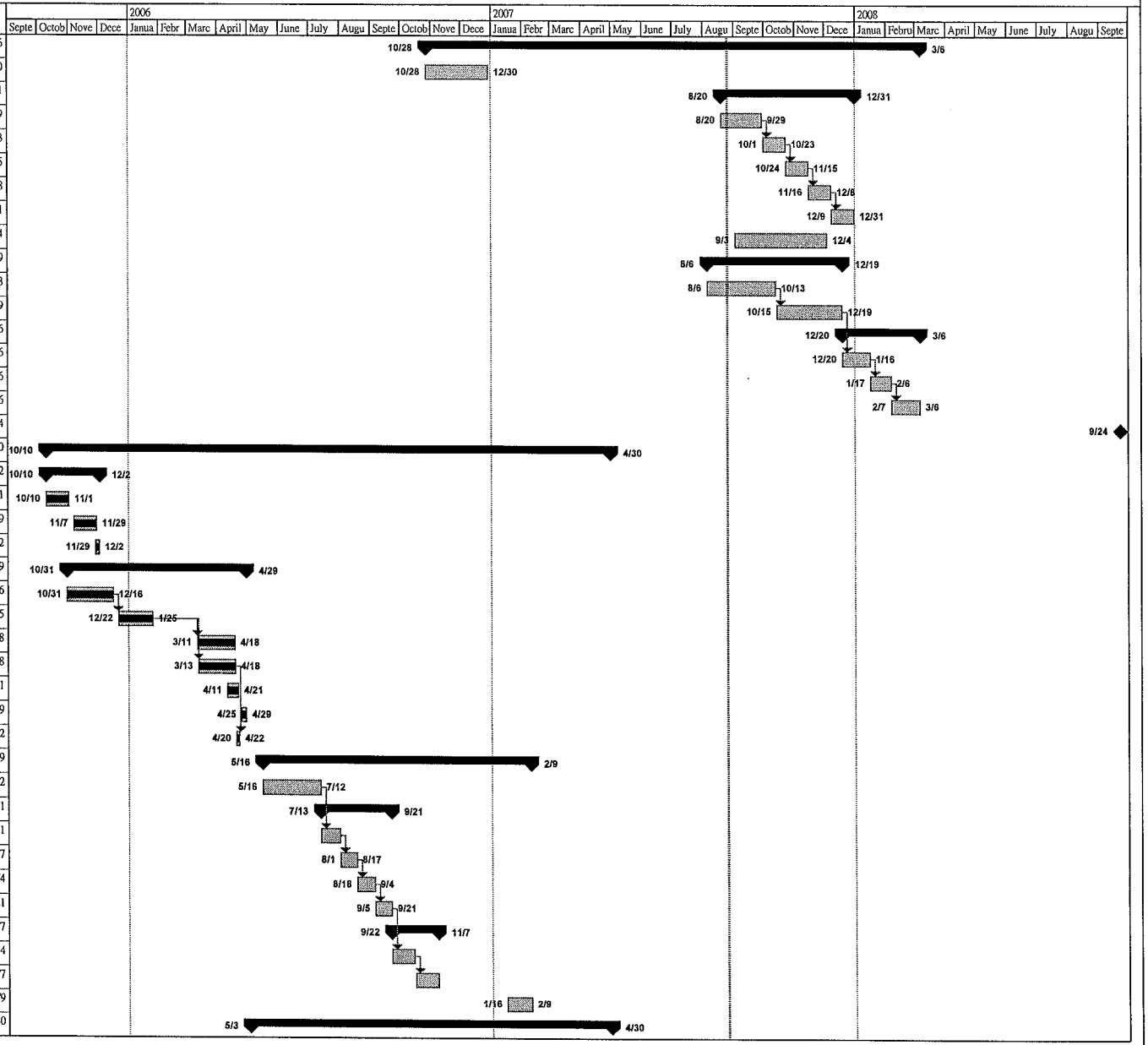
Master Programme (Rev. 6A)

ID		Task Name	Duration	Start	Finish
253		Section 5 of works	427 days	Sat 06/10/28	Thu 08/3/6
254		Covered Walkway of Air Blower House No.2	55 days	Sat 06/10/28	Sat 06/12/30
255		Cover & Shelter to Existing Structure	116 days	Mon 07/8/20	Mon 07/12/31
256		Shelter for UV channel	36 days	Mon 07/8/20	Sat 07/9/29
257		Cover for Inlet Pumping Station	20 days	Mon 07/10/1	Tue 07/10/23
258		Cover for Flume channels	20 days	Wed 07/10/24	Thu 07/11/15
259		Cover for Grit channels	20 days	Fri 07/11/16	Sat 07/12/8
260		Cover for Sedimentation tank No.1-8	20 days	Sun 07/12/9	Mon 07/12/31
261		Cover for Sludge Hoarding Tank No.1-4	80 days	Mon 07/9/3	Tue 07/12/4
262		Roadworks	118 days	Mon 07/8/6	Wed 07/12/19
263		Portion 1	60 days	Mon 07/8/6	Sat 07/10/13
264		Portion 2&3	58 days	Mon 07/10/15	Wed 07/12/19
265		Landscaping Softworks	67 days	Thu 07/12/20	Thu 08/3/6
266		Planting works (Portion 2)	24 days	Thu 07/12/20	Wed 08/1/16
267		Hydroseeding	18 days	Thu 08/1/17	Wed 08/2/6
268		General Establishment Works	25 days	Thu 08/2/7	Thu 08/3/6
269		Key Date of the Section 5 of the Works	1 day	Wed 08/9/24	Wed 08/9/24
270		Section 6 of the Works	488 days	Mon 05/10/10	Mon 07/4/30
271	✓	General Site Clearance and Setting Up	47 days	Mon 05/10/10	Fri 05/12/2
272	✓	Site Clearance (Tree Felling)	20 days	Mon 05/10/10	Tue 05/11/1
273	✓	Hoarding, Chainlink Fence & Gate Erection	20 days	Mon 05/11/7	Tue 05/11/29
274	✓	Demolition of Existing Boundary Wall (Stage 1)	4 days	Tue 05/11/29	Fri 05/12/2
275	✓	Mini Piles	156 days	Mon 05/10/31	Sat 06/4/29
276	✓	G.I. - Pre-Drilling	41 days	Mon 05/10/31	Fri 05/12/16
277	✓	Preliminary Pile	30 days	Thu 05/12/22	Wed 06/1/25
278	✓	Installation of Re-bars	32 days	Sat 06/3/11	Tue 06/4/18
279	✓	Grouting	32 days	Mon 06/3/13	Tue 06/4/18
280	✓	Post Drilling	10 days	Tue 06/4/11	Fri 06/4/21
281	✓	Loading Test	5 days	Tue 06/4/25	Sat 06/4/29
282	✓	Site Clearance	3 days	Thu 06/4/20	Sat 06/4/22
283		Transformer House	233 days	Tue 06/5/16	Fri 07/2/9
284		Diversion of Existing Sewer	50 days	Tue 06/5/16	Wed 06/7/12
285		Construction of Substructure	61 days	Thu 06/7/13	Thu 06/9/21
286		Temporary Works (Sheet Pile + Open Cut)	16 days	Thu 06/7/13	Mon 06/7/31
287		Lift 1 (from +3.95 mPD to +4.95 mPD)	15 days	Tue 06/8/1	Thu 06/8/17
288		Lift 2 (from +4.95 mPD to +5.95 mPD)	15 days	Fri 06/8/18	Mon 06/9/4
289		Lift 3 (from +5.15 mPD to +6.15 mPD)	15 days	Tue 06/9/5	Thu 06/9/21
290		Construction of Superstructure	40 days	Fri 06/9/22	Tue 06/11/7
291		Lift 4 (from +6.15 mPD to +11.20 mPD)	20 days	Fri 06/9/22	Sat 06/10/14
292		Lift 5 (from +11.20 mPD to +12.30 mPD)	20 days	Mon 06/10/16	Tue 06/11/7
293		Internal Finishes (incl. Plumbing, cat ladder, etc.)	22 days	Tue 07/1/16	Fri 07/2/9
294		Ting Kok Road Pumping Station No.5	312 days	Wed 06/5/3	Mon 07/4/30

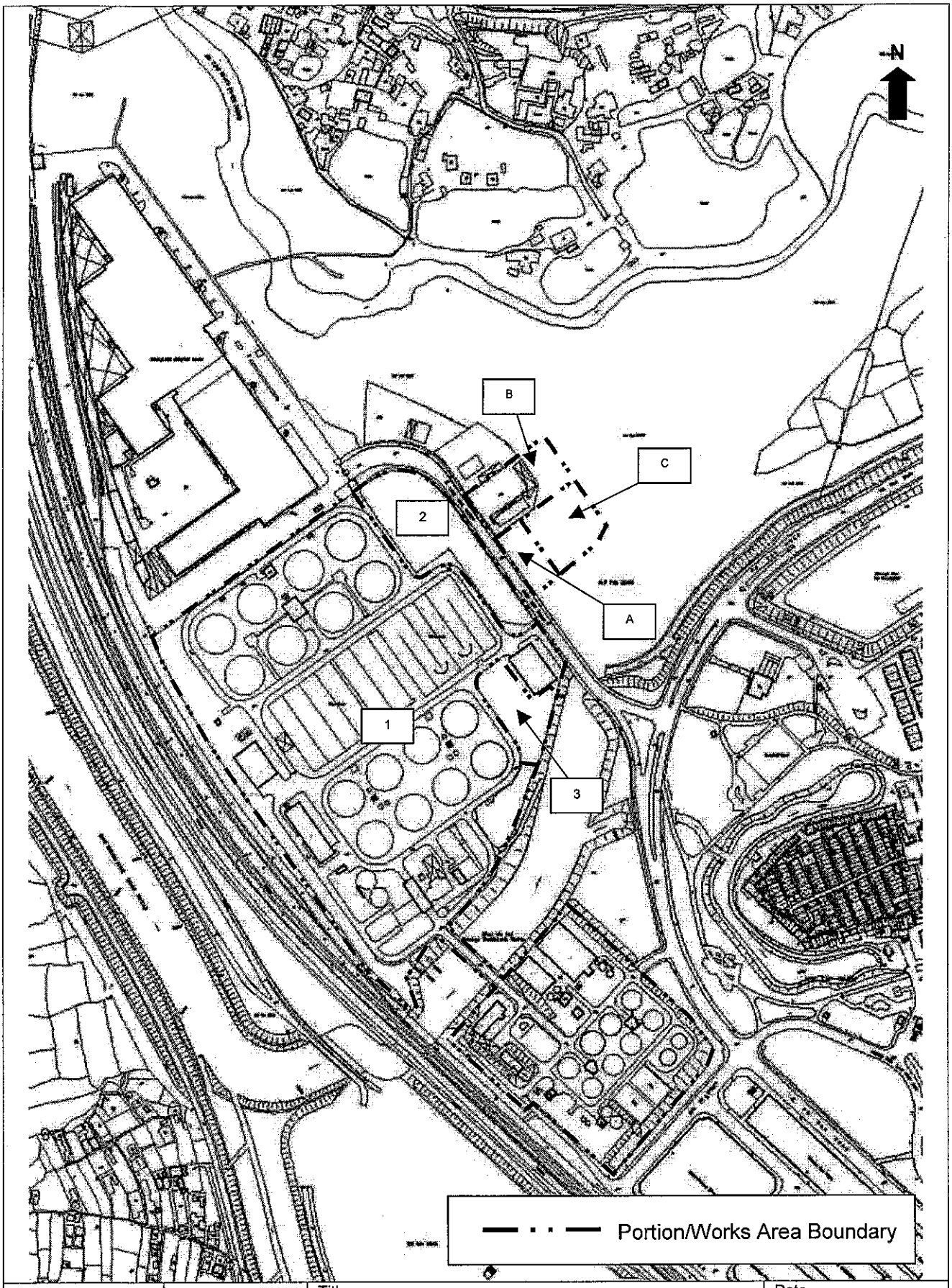


Date: Sat 07/8/25

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Appendix 3

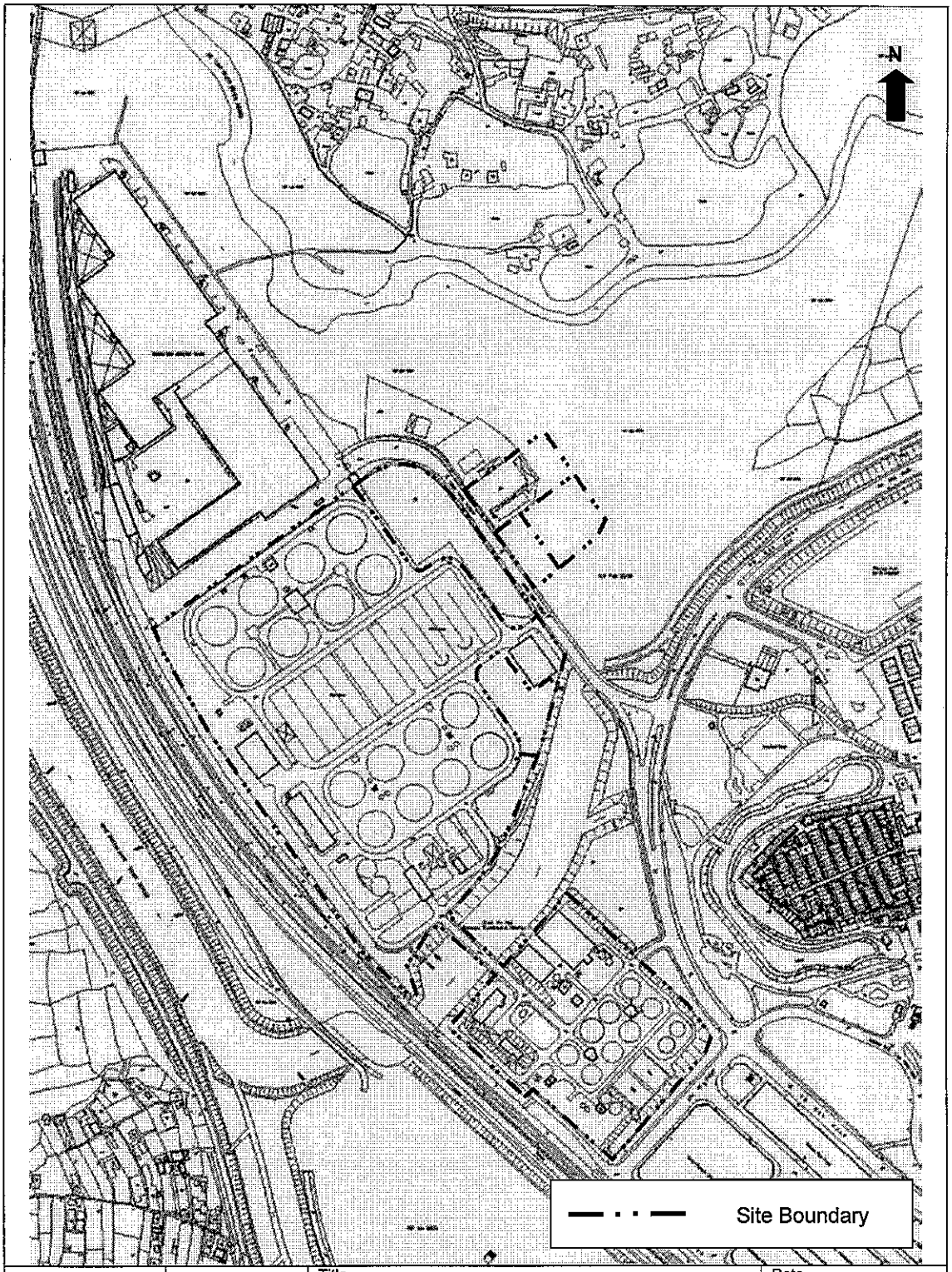
Works Area



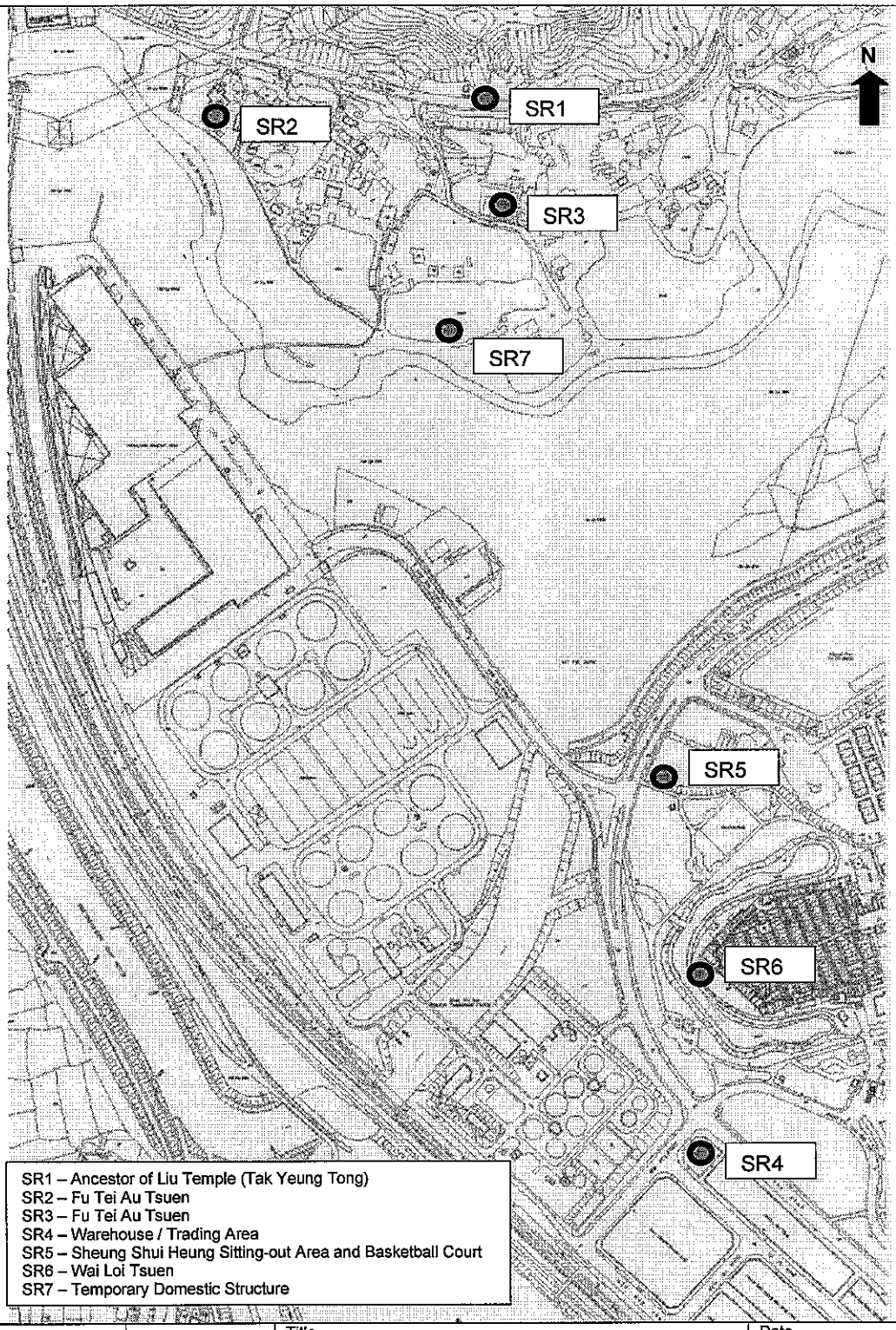
Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Location of Portion/Works Area	Date: Dec 2005 Figure: N.A. Scale: NTS

Appendix 4

Project Area, Environmental Sensitive Receiver and Monitoring Location



Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Project Area	Date: Dec 2005 Figure: N.A. Scale: NTS



Hyder Consulting

MAEDA

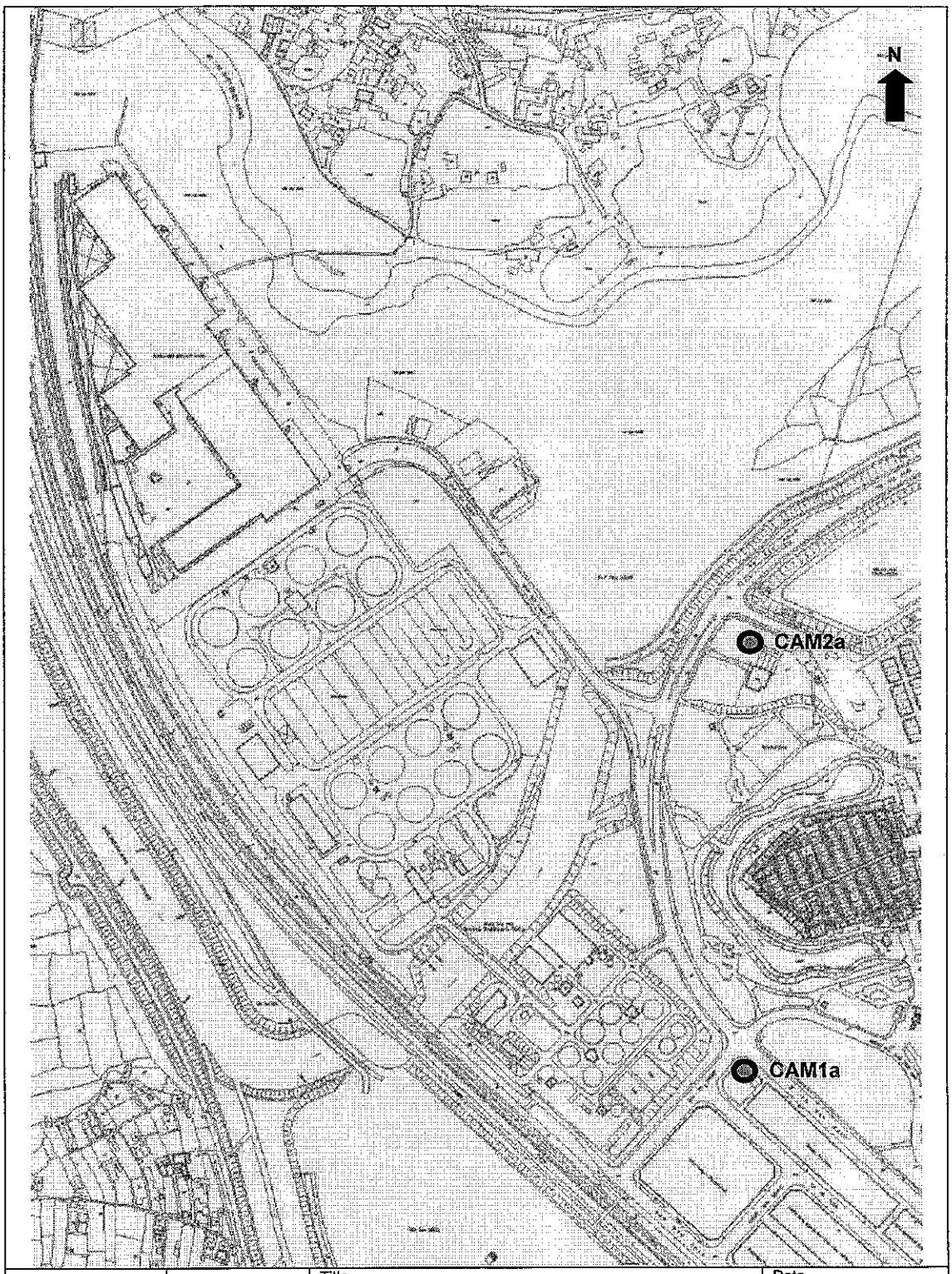
Title

Expansion of Shek Wu Hui Sewage Treatment Works – Environmental Sensitive Receiver

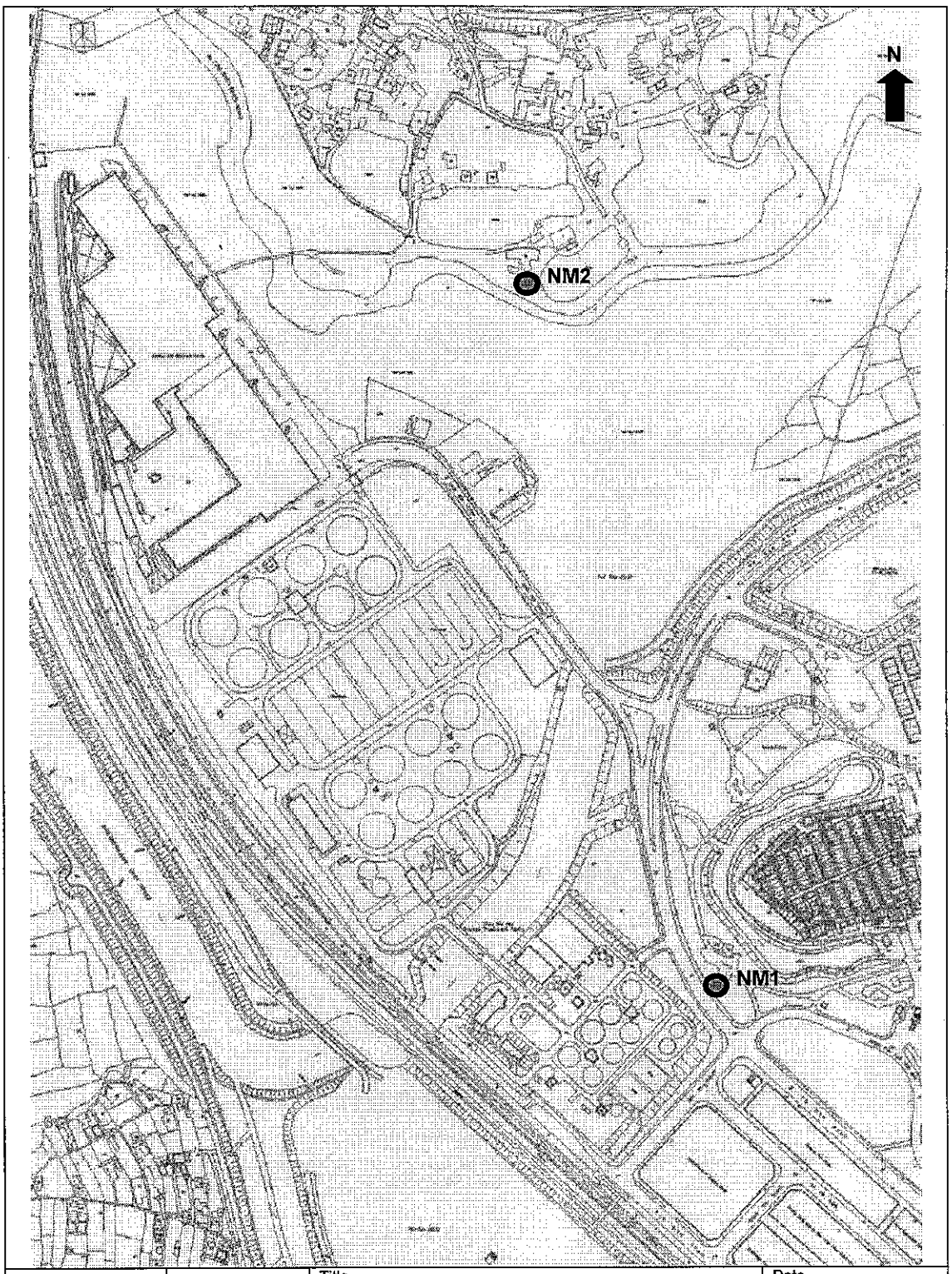
Date: Dec 2005

Figure: N.A.

Scale: NTS



Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Location of Air Quality Monitoring Station	Date: Dec 2005 Figure: N.A. Scale: NTS



Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Location of Noise Monitoring Station	Date: Dec 2005 Figure: N.A. Scale: NTS

Appendix 5

Action and Limit Levels

Monitoring Station ID	1-hour TSP Level in (μg/m³)		24-hour TSP Level in (μg/m³)	
	Action Level	Limit Level	Action Level	Limit Level
CAM1a	342. 7	500	203.3	260
CAM2a	340.2		201.6	

Action and Limit Levels for Air Quality

Time Period	Action Level	Limit Level
0700 – 1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)

Action and Limit Levels for Noise

Appendix 6

Environmental Requirements and Implementation Status

IMPLEMENTATIONS STATUS OF MITIGATION MEASURES

Implementation Status for Air Quality Control

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex I S1.7.1	Dust mitigation measures stipulated in the *Air Pollution Control (construction Dust)* Regulation shall be incorporated to control dust emission from the Site. Notice shall be given to the authority prior to commencement of works.	Works sites / during construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Implementation Status for Water Quality Control

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 2 S2.4.4	The practice outlined in Practice Note for Professional Persons on Construction Site Drainage, Professional Person Environmental Protection Department, 1994 (ProPECC PN 1/94) including the use of sediment traps, wheel washing facilities for vehicles leaving the site, adequate maintenance of drainage systems to prevent flooding and overflow, sewage collection and treatment, and comprehensive waste management (collection, handling, transportation, disposal) procedures should be adopted to minimize the potential water quality impact from construction site runoff and various construction activities.	Works sites / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 2 S2.4.4	*Construction Runoff and Drainage* • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed and internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilitates. The design of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. Sizes may vary depending upon the flow rate, but for a flow rate of $0.1m^3s^{-1}$ a sedimentation basin of $30m^3$ would be required and for a flow rate of $0.5m^3s^{-1}$ the basin would be $150m^3$. The detailed design of the sand/silt traps will be undertaken by the contractor prior to the commencement of construction. • Ideally, construction works should be programmed to minimize surface excavation works during the rainy season (April to September). All exposed earth areas should be compacted and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	Works sites / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 2 S2.4.4	*Construction Runoff and Drainage (Cont'd)* • The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all trafficked areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Measures should be taken to minimize the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than $50m^3$ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storms events, especially for areas located near steep slopes.	Works sites / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 2 S2.4.4	*Construction Runoff and Drainage* • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay should be provided at every site exits and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • On-site drainage system should be equipped with oil interceptors to separate oil/fuel from contaminated storm water.	Works site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 2 S2.4.4	*General Construction Activities* • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 100% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearly.	Works site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 2 S2.4.4	*Sewage from Construction Workforce* • Sewage from construction workforce should be handled by portable chemical toilets or sewage holding tanks with the sewage regularly collected by a reputable sewage collector for disposal at, for example, SWHSTW. Sewage from on-site toilets should be diverted to and stored within sewage holding tanks for later disposal.	Works site / During the construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Implementation Status for Waste Management

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 3 S3.5.1	*Waste Reduction Measures of Construction Stage* • Measures recommended in the ETWB TCW No. 15/2003 should be followed to require the contractor to prepare and implement an enhanced Waste Management Plan (WMP) to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction. • For the demolition works, the contractor shall submit a method statement for the works as part of the WMP. The Contractor shall include in the method statement the sequence of demolition and the work programme to facilitate effective recovery of reusable and/or recyclable portions of the C&D materials at the earliest stage, so as to minimise the need for subsequent sorting. • 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. • Separate labelled bins shall be provided to segregate aluminium cans from other general refuse generated by the work force, and to encourage collection of by individual collectors. • Any unused chemicals or those with remaining functional capacity shall be recycled. • Maximising the use of reusable steel formwork to reduce the amount of C&D material. • Prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quality of waste to be disposed of to landfill. • Proper storage and site practices to minimise the potential for damage or contamination of construction materials. • Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. • Minimize over ordering of concrete, mortars and cement grout by doing careful check before ordering.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 3 S3.5.2 – S3.5.5	*Good Site Practices* • Nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility. • Training of site personnel in proper waste management and chemical wast handling procedures; • Provision of sufficient waste disposal points and regular collection for disposal; • Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; • A Waste Management Plan should be prepare and should be submitted to the engineer for approval; and • A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed. • In order to monitor the disposal of C&D material at landfills and public filling facilities, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements to be implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. The measures recommended in ETWB TCW No. 31/2004 should be followed.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 3 S3.5.6	*General Refuse* • General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material;	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 3 S3.5.7	*Construction and Demolition Material* • The C&D material generated from the site formation and demolition works should be sorted on-site into inert C&D material (that is, public fill) and C&D waste. In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material comprising fill material should be reused on-site as backfilling material as far as practicable. 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. A suitable area should be designated within the site for temporary stockpiling of C&D material and to facilitate the sorting process.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 3 S3.5.8	*Chemical Wastes* • When chemical wastes are produced at the construction site, the Contractor would be 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 computable 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 use a license wast collector to transport and dispose of the chemical wastes in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Implementation Status for Noise Control

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 4 S4.7.1	Use of quiet PME	Work sites / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 4 S4.7.3	*Good Site Practice* • Only well-maintained plant should be operated on-site and plant should be services regularly during the construction phase; • Silencers or mufflers on construction equipment should be utilised, if found necessary, to further reduce noise, and should be properly maintained during the construction phase; • Mobile plant should be sited as far away from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, should, where possible, be orientated so that the noise is directed away from nearby NSRs; and • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Work sites / During the construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Appendix 7

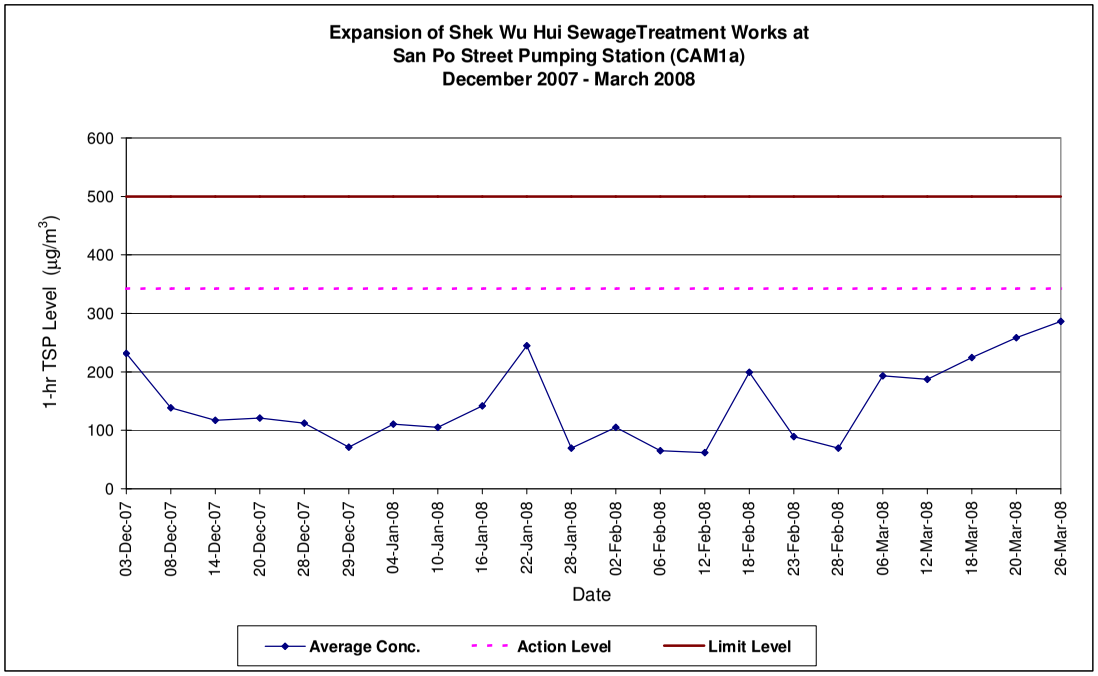
Monitoring Results and Graphical Plots

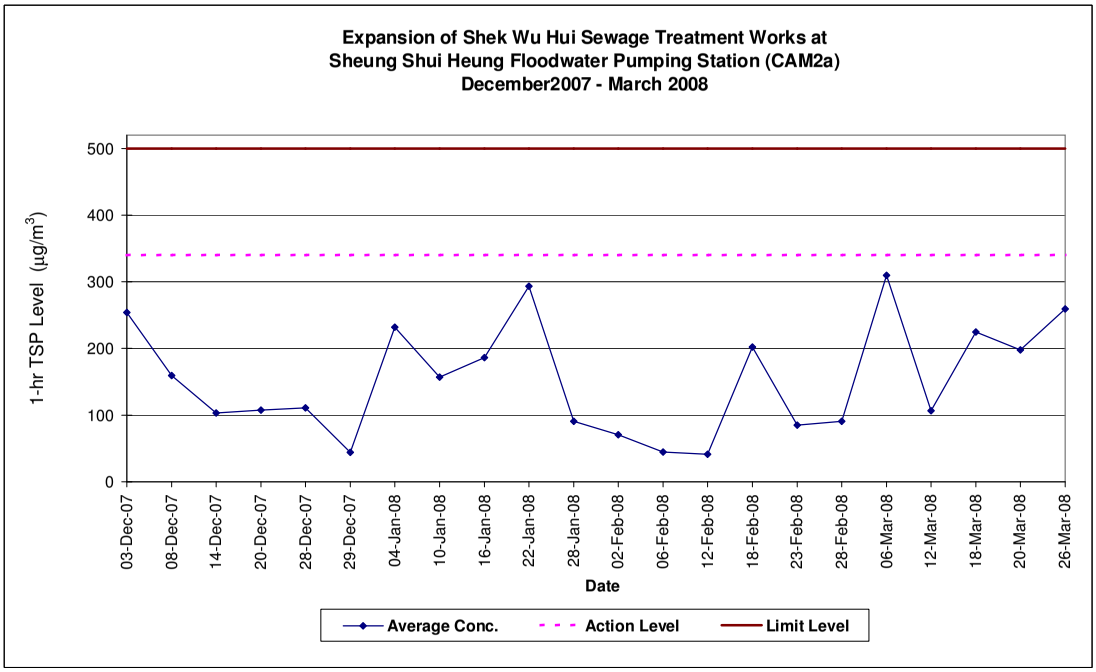
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (1-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (°C)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	1-hr TSP (ug/m^3)	Average 1-Hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	06-Mar-08	Sunny	1.1 NE	21	571283	571374	54.6	41	41	1.02	1.02	1.02	55.52	2.7939	2.8041	0.0102	183.7	193.1	342.7/500	
		Sunny	1.1 NE	21	571374	571477	61.8	39	39	0.97	0.97	0.97	59.84	2.8030	2.8160	0.0130	217.3			
		Sunny	1.1 NE	21	571477	571575	58.8	41	39	1.02	0.97	0.99	58.36	2.7978	2.8082	0.0104	178.2			
	12-Mar-08	Fine	0.9 NE	24	573970	574062	55.2	42	42	1.04	1.04	1.04	57.48	2.7613	2.7720	0.0107	186.2	187.1		
		Fine	0.9 NE	24	574062	574154	55.2	42	42	1.04	1.04	1.04	57.48	2.7978	2.8088	0.0110	191.4			
		Fine	0.9 NE	24	574154	574248	56.4	42	42	1.04	1.04	1.04	58.73	2.8111	2.8219	0.0108	183.9			
	18-Mar-08	Fine	0.7 E	20	576644	576738	56.4	42	42	1.04	1.04	1.04	58.73	2.7549	2.7707	0.0158	269.0	224.2		
		Fine	0.7 E	20	576738	576848	66.0	41	40	1.02	0.99	1.00	66.31	2.7485	2.7626	0.0141	212.6			
		Fine	0.7 E	20	576848	576941	55.8	42	42	1.04	1.04	1.04	58.10	2.7272	2.7383	0.0111	191.0			
	20-Mar-08	Sunny	1.2 E	22	579479	579569	54.0	45	45	1.11	1.11	1.11	60.18	2.7564	2.7768	0.0204	339.0	258.4		
		Sunny	1.2 E	22	579569	579673	62.4	40	40	0.99	0.99	0.99	61.94	2.7782	2.7929	0.0147	237.3			
		Sunny	1.2 E	22	579673	579774	60.6	41	40	1.02	0.99	1.00	60.89	2.8103	2.8224	0.0121	198.7			
	26-Mar-08	Rainy	0.6 N	18	593877	593993	69.6	43	43	1.07	1.07	1.07	74.17	2.8115	2.8364	0.0249	335.7	286.3		
		Rainy	0.6 N	18	593994	594086	55.2	42	41	1.04	1.02	1.03	56.81	2.7973	2.8123	0.0150	264.1			
		Rainy	0.6 N	18	594086	594182	57.6	41	40	1.02	0.99	1.00	57.87	2.8348	2.8498	0.0150	259.2			
Sheung Shui Heung Floodwater Pumping Station CAM2a	06-Mar-08	Sunny	1.1 NE	18	674918	675030	67.2	40	39	1.02	1.00	1.01	67.72	2.7812	2.7929	0.0117	172.8	309.5	340/500	
		Sunny	1.1 NE	18	675030	675130	60.0	41	39	1.03	1.00	1.02	60.90	2.7848	2.8051	0.0203	333.3			
		Sunny	1.1 NE	18	675130	675227	58.2	40	38	1.02	0.99	1.00	58.22	2.8148	2.8394	0.0246	422.5			
	12-Mar-08	Fine	0.9 NE	24	677615	677714	59.4	42	42	1.04	1.04	1.04	62.03	2.8046	2.8107	0.0061	98.3	106.5		
		Fine	0.9 NE	24	677714	677806	55.2	42	42	1.04	1.04	1.04	57.64	2.7800	2.7860	0.0060	104.1			
		Fine	0.9 NE	24	677806	677900	56.4	42	42	1.04	1.04	1.04	58.89	2.8091	2.8160	0.0069	117.2			
	18-Mar-08	Sunny	0.7 E	20	680299	680391	55.2	41	41	1.03	1.03	1.03	56.83	2.7562	2.7677	0.0115	202.3	224.7		
		Sunny	0.7 E	20	680391	680500	65.4	41	41	1.03	1.03	1.03	67.34	2.7612	2.7786	0.0174	258.4			
		Sunny	0.7 E	20	680500	680595	57.0	42	42	1.04	1.04	1.04	59.52	2.7242	2.7369	0.0127	213.4			
	20-Mar-08	Sunny	1.2 E	22	683127	683215	52.8	40	40	1.02	1.02	1.02	53.59	2.7681	2.7843	0.0162	302.3	197.9		
		Sunny	1.2 E	22	683215	683322	64.2	42	42	1.04	1.04	1.04	67.04	2.7939	2.8055	0.0116	173.0			
		Sunny	1.2 E	22	683322	683430	64.8	42	40	1.04	1.02	1.03	66.72	2.7991	2.8070	0.0079	118.4			
	26-Mar-08	Rainy	0.6 N	18	697534	697635	60.6	40	40	1.02	1.02	1.02	61.51	2.8043	2.8290	0.0247	401.6	259.3		
		Rainy	0.6 N	18	697635	697736	60.6	42	42	1.04	1.04	1.04	63.28	2.8112	2.8250	0.0138	218.1			
		Rainy	0.6 N	18	697736	697839	61.8	41	40	1.03	1.02	1.02	63.18	2.7791	2.7891	0.0100	158.3			

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui SewageTreatment Works at
San Po Street Pumping Station (CAM1a)
December 2007 - March 2008
1-hr TSP Level (µg/m3)
600
500
400
300
200
100
0
03-Dec-07
08-Dec-07
14-Dec-07
20-Dec-07
28-Dec-07
29-Dec-07
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
28-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
Date
Average Conc.
Action Level
Limit Level


Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
December2007 - March 2008
1-hr TSP Level (µg/m3)
500
400
300
200
100
0
03-Dec-07
08-Dec-07
14-Dec-07
20-Dec-07
28-Dec-07
29-Dec-07
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
28-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
Date
Average Conc.
Action Level
Limit Level

Expansion of Shek Wu Hui Sewage Treatment Works

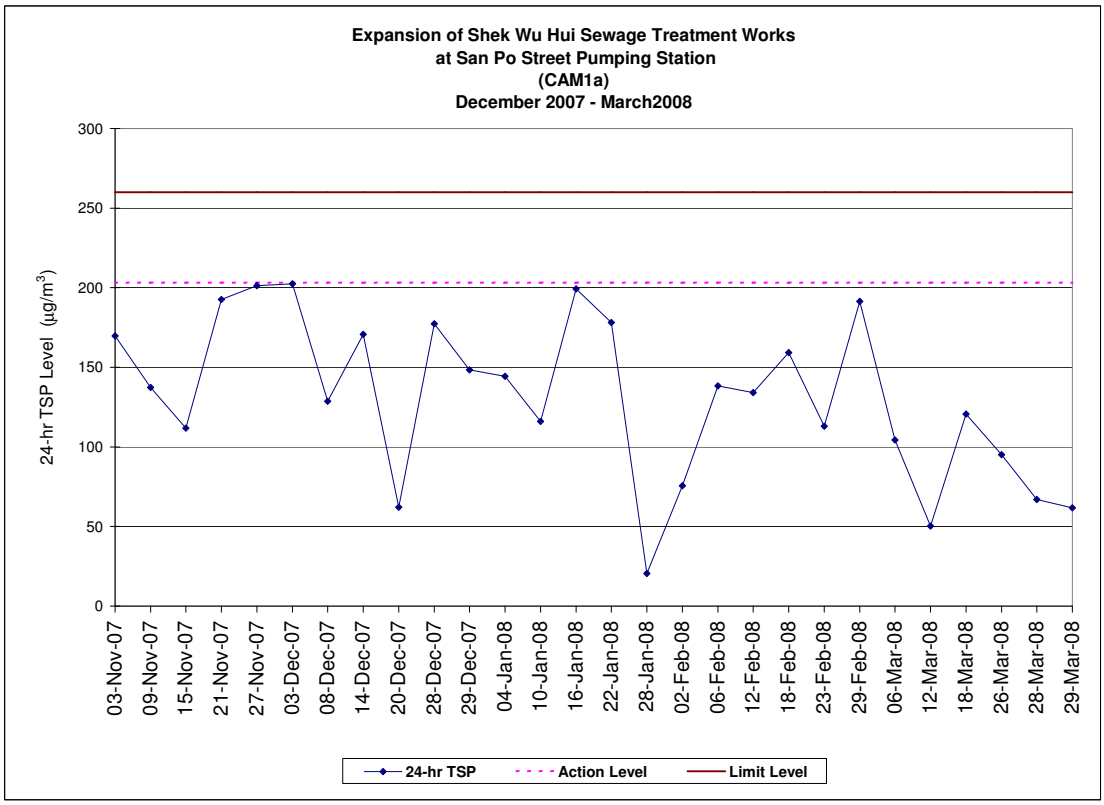
Air Quality Impact Monitoring Results (24-Hour TSP)

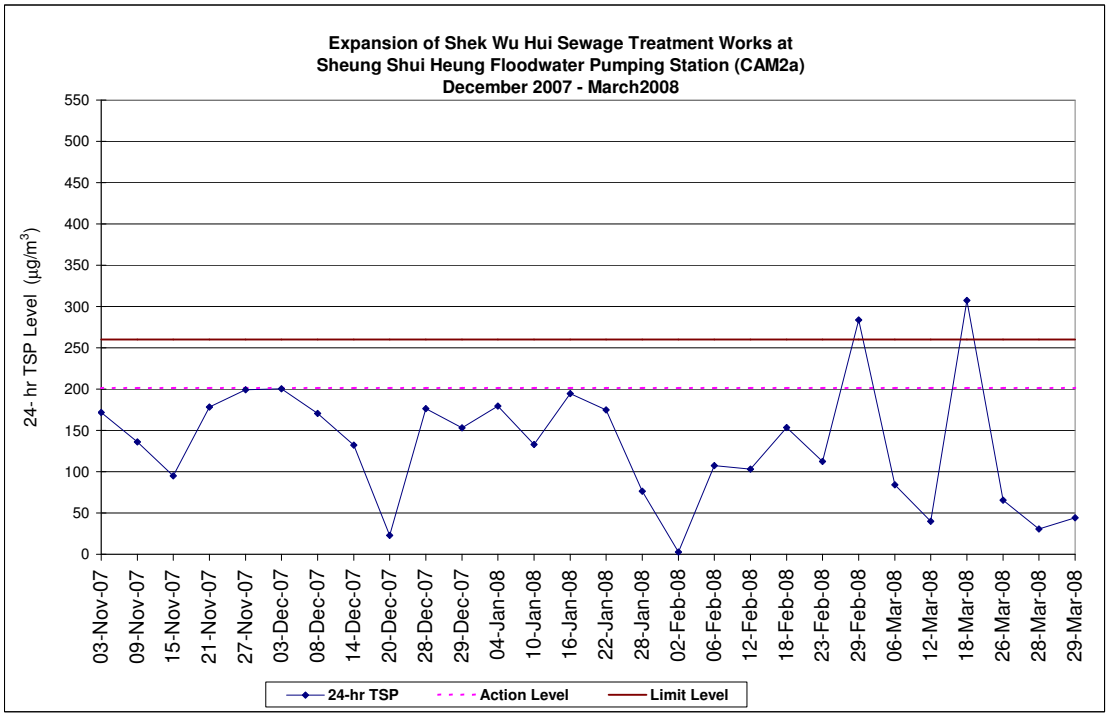
06-Mar-08 SR4 Qstd: 0.7514 Flow: 41.056

SR5 Qstd: 29.525 Flow: 68.497

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (°C)	Pressure (mmHg)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	24-hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	06-Mar-08	Sunny	0.5	21	766.3	571575	573969	2394	40	39	0.99	0.97	0.98	2347.08	2.8005	3.0454	0.2449	104.3	203/260	
	12-Mar-08	Fine	0.7	24	758.2	574248	576644	2396	42	42	1.04	1.04	1.04	2494.94	2.8093	2.9348	0.1255	50.3		
	18-Mar-08	Sunny	0.9	20	758.8	576941	579379	2438	43	43	1.07	1.07	1.07	2598.06	2.7524	3.0659	0.3135	120.7		
	20-Mar-08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		No results due to a damaged filter paper.
	26-Mar-08	Rainy	0.8	18	760.6	594182	596567	2385	42	42	1.04	1.04	1.04	2483.49	2.8100	3.0463	0.2363	95.1		
	28-Mar-08	Rainy	0.9	19	758.7	596740	599116	2376	42	41	1.04	1.02	1.03	2445.18	2.7860	2.9495	0.1635	66.9		Additional monitoring
	29-Mar-08	Sunny	0.8	24	758.7	599116	601411	2295	42	42	1.04	1.04	1.04	2389.77	2.7456	2.8932	0.1476	61.8		
Sheung Shui Heung Floodwater Pumping Station CAM2a	06-Mar-08	Sunny	0.5	21	766.3	675272	677615	2343	41	39	1.03	1.00	1.02	2378.16	2.8218	3.0220	0.2002	84.2	201/260	
	12-Mar-08	Fine	0.7	24	758.2	677900	680299	2399	42	42	1.04	1.04	1.04	2498.07	2.8012	2.9005	0.0993	39.8		
	18-Mar-08	Sunny	0.9	20	758.8	680595	683010	2415	42	42	1.04	1.04	1.04	2521.76	2.7394	3.5147	0.7753	**307.4**		
	20-Mar-08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		No results due to a damaged filter paper.
	26-Mar-08	Rainy	0.8	18	760.6	697839	700215	2376	41	40	1.03	1.02	1.02	2429.00	2.7670	2.9261	0.1591	65.5		
	28-Mar-08	Rainy	0.9	19	758.7	700389	702758	2369	42	42	1.04	1.04	1.04	2473.72	2.7557	2.8313	0.0756	30.6		Additional monitoring
	29-Mar-08	Sunny	0.9	24	758.7	702758	705052	2294	42	42	1.04	1.04	1.04	2395.41	2.7649	2.8708	0.1059	44.2		

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui Sewage Treatment Works
at San Po Street Pumping Station
(CAM1a)
December 2007 - March2008
24-hr TSP Level (µg/m3)
300
250
200
150
100
50
0
03-Nov-07
09-Nov-07
15-Nov-07
21-Nov-07
27-Nov-07
03-Dec-07
08-Dec-07
14-Dec-07
20-Dec-07
28-Dec-07
29-Dec-07
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
26-Mar-08
28-Mar-08
29-Mar-08
24-hr TSP
Action Level
Limit Level

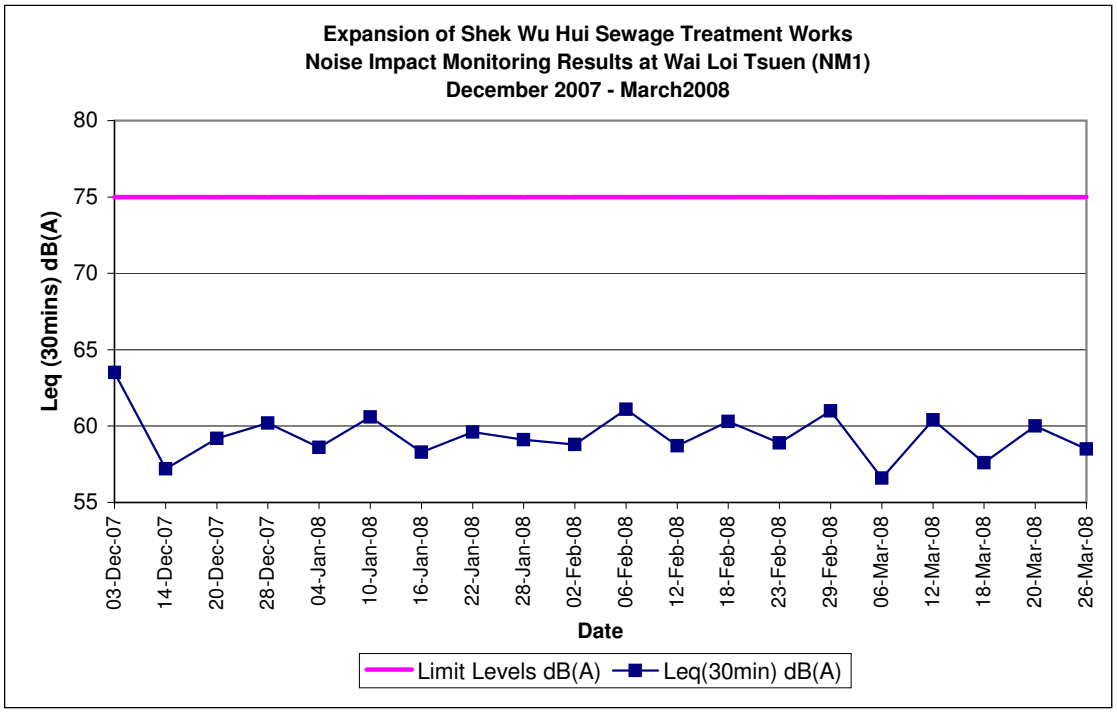

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
December 2007 - March2008
24- hr TSP Level (µg/m3)
550
500
450
400
350
300
250
200
150
100
50
0
03-Nov-07
09-Nov-07
15-Nov-07
21-Nov-07
27-Nov-07
03-Dec-07
08-Dec-07
14-Dec-07
20-Dec-07
28-Dec-07
29-Dec-07
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
26-Mar-08
28-Mar-08
29-Mar-08
24-hr TSP
Action Level
Limit Level

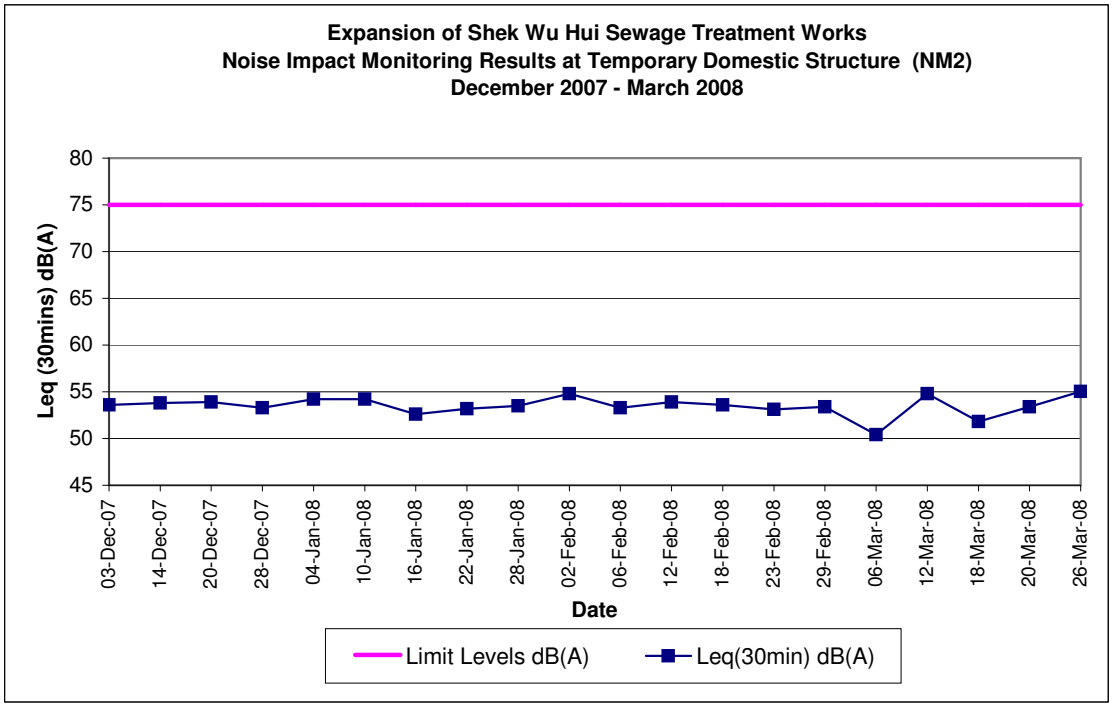
Expansion of Shek Wu Hui Sewage Treatment Works

Noise Impact Monitoring Results

Monitoring Locations	Date	Weather Conditions	Temperature (°C)	Wind Speed (m/s)	Wind Direction	Start Time	End Time	Limit Levels dB(A)	$L_{eq(30min)}$ dB(A)	$L_{10(30min)}$ dB(A)	$L_{90(30min)}$ dB(A)	Remark
Wai Loi Tsuen NM1	06-Mar-08	Sunny	21	0.9	N	10:32	11:02	75	56.6	58.1	51.7	
	12-Mar-08	Fine	24	1.2	N	13:25	13:55	75	60.4	63.0	57.0	Brid, Human Noise
	18-Mar-08	Sunny	20	1.1	N	10:15	10:45	75	57.6	64.1	50.4	
	20-Mar-08	Sunny	21	1.4	N	09:50	10:20	75	60.0	65.2	53.5	
	26-Mar-08	Rainy	18	2	N	10:27	10:57	75	58.5	61.1	54.5	
Temporary Domestic Structure NM2	06-Mar-08	Sunny	21	0.7	N	11:29	11:59	75	50.4	52.2	46.2	
	12-Mar-08	Fine	24	1.4	N	14:28	14:58	75	54.8	56.7	52.3	Air Traffic Noise
	18-Mar-08	Sunny	20	1	N	13:30	14:00	75	51.8	53.9	47.5	
	20-Mar-08	Sunny	21	0.5	N	11:00	11:30	75	53.4	55.5	48.4	
	26-Mar-08	Rainy	18	1.6	N	11:30	12:00	75	55.1	56.7	50.3	Dog Barking

A façade correction of 3 dB(A) was applied to each measurement result. "Shading" indicates an Limit Level exceedance.


Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Wai Loi Tsuen (NM1)
December 2007 - March2008
Leq (30mins) dB(A)
80
75
70
65
60
55
03-Dec-07
14-Dec-07
20-Dec-07
28-Dec-07
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
Date
Limit Levels dB(A)
Leq(30min) dB(A)

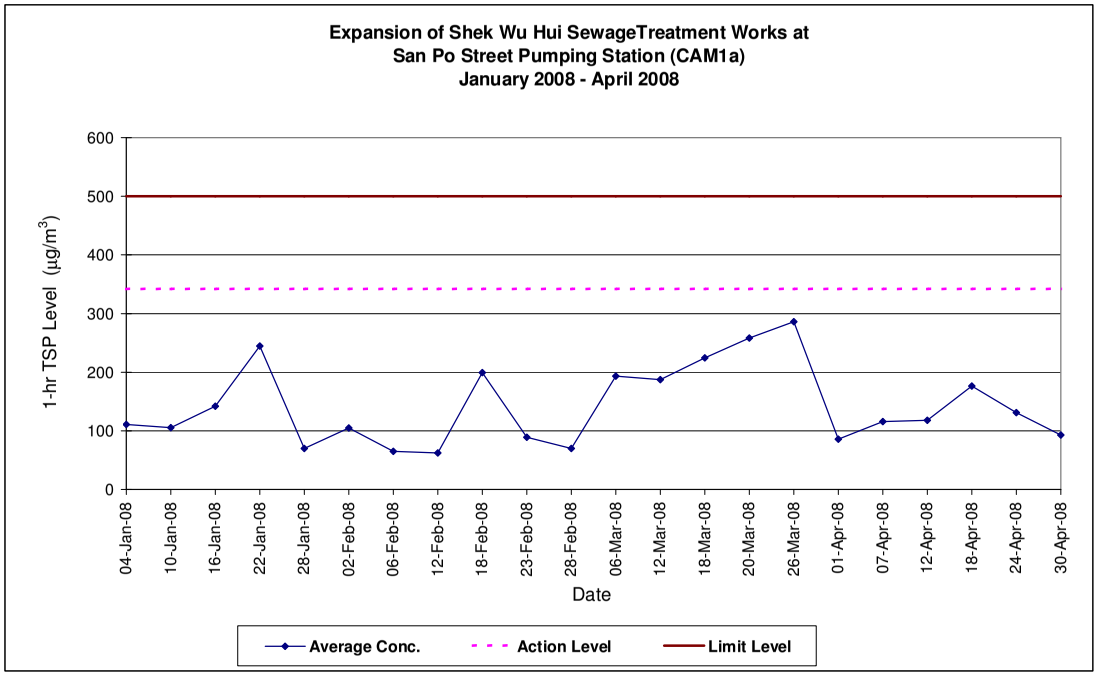

Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Temporary Domestic Structure (NM2)
December 2007 - March 2008
Leq (30mins) dB(A)
80
75
70
65
60
55
50
45
03-Dec-07
14-Dec-07
20-Dec-07
28-Dec-07
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
Date
Limit Levels dB(A)
Leq(30min) dB(A)

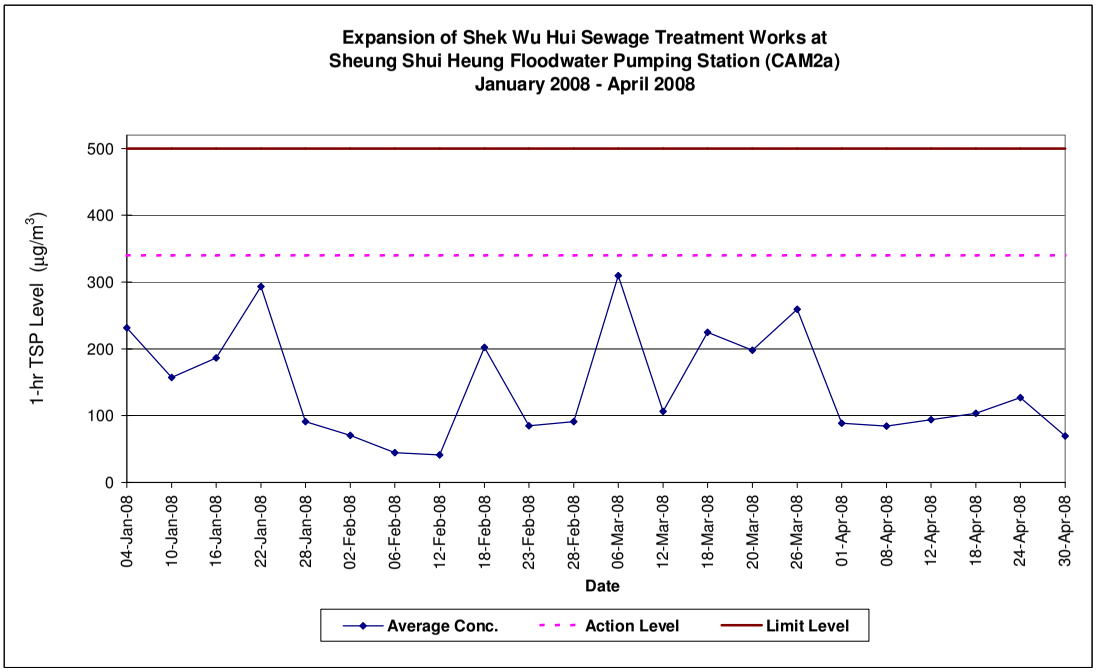
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (1-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (°C)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	1-hr TSP (ug/m^3)	Average 1-Hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	01-Apr-08	Rainy	0.6N	17	601411	601505	56.4	41	41	1.02	1.02	1.02	57.36	2.7426	2.7464	0.0038	66.3	85.9	342.7/500	
		Rainy	0.6N	18	601505	601597	55.2	39	39	0.97	0.97	0.97	53.45	2.7539	2.7582	0.0043	80.5			
		Rainy	0.6N	19	601597	601700	61.8	41	39	1.02	0.97	0.99	61.34	2.7656	2.7724	0.0068	110.9			
	07-Apr-08	Sunny	0.6N.E	21	604086	604186	60.0	41	41	1.02	1.02	1.02	61.02	2.8049	2.8141	0.0092	150.8	116.0		
		Sunny	0.6N.E	21	604186	604287	60.6	41	41	1.02	1.02	1.02	61.63	2.7887	2.7952	0.0065	105.5			
		Sunny	0.6N.E	21	604287	604387	60.0	41	41	1.02	1.02	1.02	61.02	2.8141	2.8197	0.0056	91.8			
	12-Apr-08	Fine	1.4E	25	606760	606852	55.2	43	43	1.07	1.07	1.07	58.82	2.7317	2.7396	0.0079	134.3	118.0		The 3rd TSP monitoring cpuld not be carried out on 12/4, due to inaccessible of pumping station, re-monitoring made on 14/4
		Fine	1.4E	25	606852	606944	55.2	43	43	1.07	1.07	1.07	58.82	2.7939	2.8016	0.0077	130.9			
	14-Apr-08	Fine	1.4E	25	609329	609426	58.2	43	43	1.07	1.07	1.07	62.02	2.7806	2.7861	0.0055	88.7			
	18-Apr-08	Cloudy	2.1N.E	25	609426	609520	56.4	41	41	1.02	1.02	1.02	57.36	2.7605	2.7691	0.0086	149.9	176.3		
		Cloudy	2.1N.E	25	609520	609614	56.4	41	40	1.02	0.99	1.00	56.67	2.7815	2.7929	0.0114	201.2			
		Cloudy	2.1N.E	25	609614	609708	56.4	41	41	1.02	1.02	1.02	57.36	2.7987	2.8089	0.0102	177.8			
	24-Apr-08	Fine	2.3 S.E	23	612100	612200	60.0	41	41	1.02	1.02	1.02	61.02	2.7483	2.7578	0.0095	155.7	132.4		
		Fine	2.3 S.E	23	612200	612295	57.0	41	41	1.02	1.02	1.02	57.97	2.7930	2.7978	0.0048	82.8			
		Fine	2.3 S.E	23	612295	612390	57.0	41	41	1.02	1.02	1.02	57.97	2.8045	2.8137	0.0092	158.7			
	30-Apr-08	Fine	1.2E	26	614742	614834	55.2	41	41	1.02	1.02	1.02	56.13	2.7968	2.8035	0.0067	119.4	92.7		
		Fine	1.2E	26	614834	614927	55.8	41	41	1.02	1.02	1.02	56.75	2.8071	2.8119	0.0048	84.6			
		Fine	1.2E	26	614924	615019	57.0	41	41	1.02	1.02	1.02	57.97	2.7746	2.7789	0.0043	74.2			
Sheung Shui Heung Floodwater Pumping Station CAM2a	01-Apr-08	Rainy	0.6N	17	705052	705143	54.6	41	41	1.03	1.03	1.03	56.22	2.7701	2.7757	0.0056	99.6	86.8	340/500	
		Rainy	0.6N	18	705143	705235	55.2	41	41	1.03	1.03	1.03	56.83	2.7502	2.7534	0.0032	56.3			
		Rainy	0.6N	19	705235	705328	55.8	41	41	1.03	1.03	1.03	57.45	2.7290	2.7350	0.0060	104.4			
	08-Apr-08	Sunny	0.6N.E	24	707756	707848	55.2	41	41	1.03	1.03	1.03	56.83	2.8055	2.8082	0.0027	47.5	84.5		
		Sunny	0.6N.E	24	707848	707940	55.2	41	41	1.03	1.03	1.03	56.83	2.7727	2.7790	0.0063	110.8			
		Sunny	0.6N.E	24	707940	708032	55.2	41	41	1.03	1.03	1.03	56.83	2.7867	2.7921	0.0054	95.0			CAM2a is power failure on 7 April 08
	12-Apr-08	Fine	1.4E	25	710352	710452	60.0	43	43	1.06	1.06	1.06	63.53	2.7610	2.7666	0.0056	88.1	94.1		The 3rd TSP monitoring cpuld not be carried out on 12/4, due to inaccessible of pumping station, re-monitoring made on 14/4
		Fine	1.4E	25	710452	710544	55.2	43	43	1.06	1.06	1.06	58.45	2.7992	2.8042	0.0050	85.5			
	14-Apr-08	Fine	1.4E	25	712926	713023	58.2	43	43	1.06	1.06	1.06	61.62	2.7885	2.7952	0.0067	108.7			
	18-Apr-08	Cloudy	2.1N.E	25	713023	713118	57.0	38	39	0.99	1.00	0.99	56.61	2.7921	2.7983	0.0062	109.5	103.4		
		Cloudy	2.1N.E	25	713118	713213	57.0	39	40	1.00	1.02	1.01	57.44	2.8064	2.8137	0.0073	127.1			
		Cloudy	2.1N.E	25	713213	713311	58.8	40	40	1.02	1.02	1.02	59.68	2.7881	2.7925	0.0044	73.7			
	24-Apr-08	Fine	2.3 S.E	23	715697	715795	58.8	41	41	1.03	1.03	1.03	60.54	2.7931	2.8001	0.0070	115.6	126.9		
		Fine	2.3 S.E	23	715795	715891	57.6	41	41	1.03	1.03	1.03	59.31	2.8001	2.8083	0.0082	138.3			
		Fine	2.3 S.E	23	715888	715980	55.2	41	41	1.03	1.03	1.03	56.83	2.7800	2.7872	0.0072	126.7			
	30-Apr-08	Fine	0.9S.E.	26	718344	718444	60.0	40	40	1.02	1.02	1.02	60.90	2.8192	2.8236	0.0044	72.2	69.5		
		Fine	0.9S.E.	26	718438	718534	57.6	40	40	1.02	1.02	1.02	58.46	2.7930	2.7969	0.0039	66.7			
		Fine	0.9S.E.	26	718534	718626	55.2	40	40	1.02	1.02	1.02	56.03	2.7684	2.7723	0.0039	69.6			

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui SewageTreatment Works at
San Po Street Pumping Station (CAM1a)
January 2008 - April 2008
1-hr TSP Level (µg/m3)
600
500
400
300
200
100
0
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
28-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
07-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
Date
Average Conc.
Action Level
Limit Level

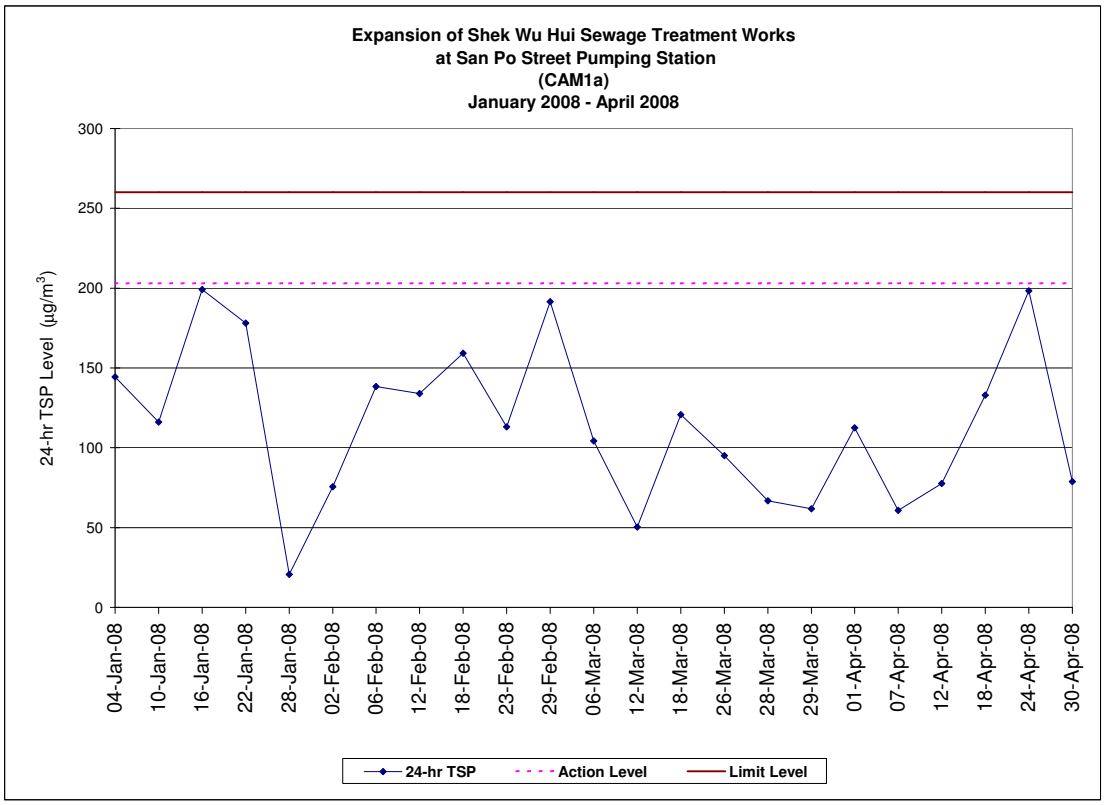

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
January 2008 - April 2008
1-hr TSP Level (µg/m3)
500
400
300
200
100
0
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
28-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
08-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
Date
Average Conc.
Action Level
Limit Level

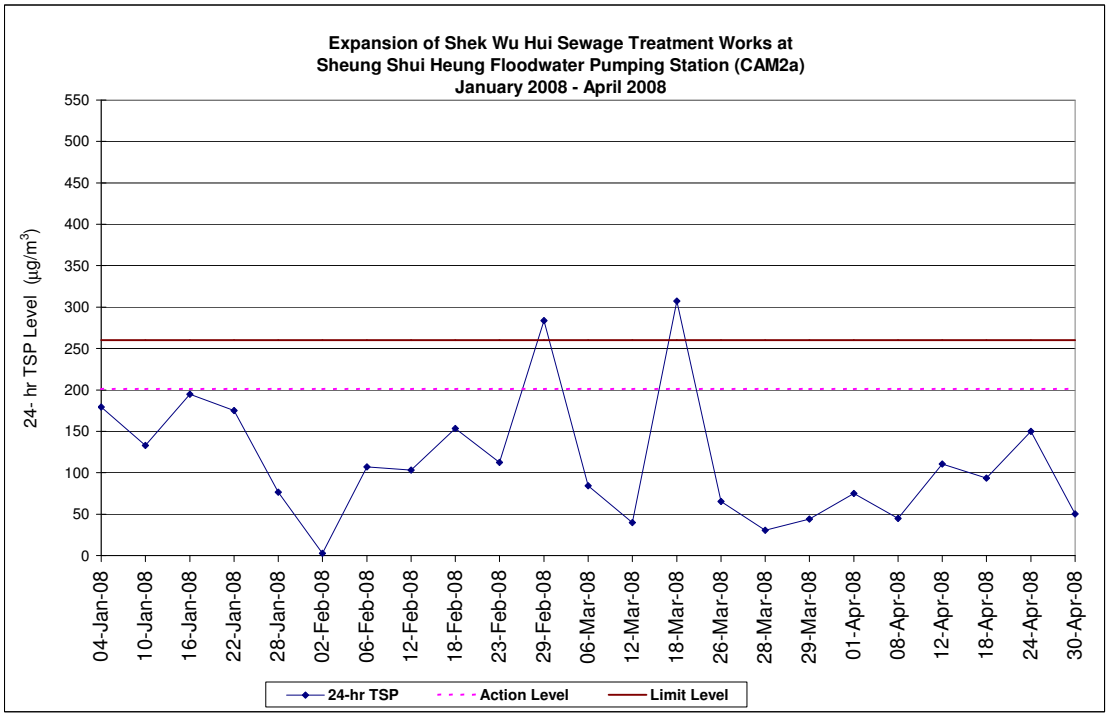
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (24-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (°C)	Pressure (mmHg)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	24-hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	01-Apr-08	Rainy	0.5N	17	766.3	601700	604086	1431.6	40	39	0.99	0.97	0.98	1403.54	2.7749	2.9329	0.1580	112.6	203/260	
	07-Apr-08	Sunny	0.6N.E.	21	760.0	604387	606760	1423.8	41	41	1.02	1.02	1.02	1447.92	2.7855	2.8736	0.0881	60.8		
	12-Apr-08	Fine	1.4E	25	760.1	606944	609329	1431	43	43	1.07	1.07	1.07	1524.95	2.7993	2.9178	0.1185	77.7		
	18-Apr-08	Cloudy	2.1N.E.	24	759.3	609708	612100	1435.2	41	41	1.02	1.02	1.02	1459.51	2.7704	2.9644	0.194	132.9		
	24-Apr-08	Fine	2.3S.E.	23	759.6	612390	614742	1411.2	41	41	1.02	1.02	1.02	1435.10	2.7827	3.0674	0.2847	198.4		
	30-Apr-08	Fine	1.1E	26	759.4	615019	617413	1436.4	41	41	1.02	1.02	1.02	1460.73	2.7910	2.9061	0.1151	78.8		
Sheung Shui Heung Floodwater Pumping Station CAM2a	01-Apr-08	Rainy	0.5N	17	766.3	705328	707754	1455.6	39	39	1.00	1.00	1.00	1456.20	2.7861	2.8955	0.1094	75.1	201/260	
	08-Apr-08	Sunny	0.6N.E.	24	760.0	708032	710452	1452	41	41	1.03	1.03	1.03	1494.99	2.7907	2.8612	0.0705	47.2		Power failure on 7 April at CAM2a, additional monitoring
	12-Apr-08	Fine	1.4E	25	760.1	710544	712926	1429.2	43	43	1.06	1.06	1.06	1513.24	2.7719	2.9394	0.1675	110.7		
	18-Apr-08	Cloudy	2.1N.E.	24	759.3	713311	715697	1431.6	41	41	1.03	1.03	1.03	1473.99	2.8047	2.9423	0.1376	93.4		
	24-Apr-08	Fine	2.3S.E.	23	759.6	715980	718344	1418.4	41	41	1.03	1.03	1.03	1460.39	2.8014	3.0203	0.2189	149.9		
	30-Apr-08	Fine	0.4E	26	759.4	718626	730660	7220.4	40	40	1.02	1.02	1.02	7328.76	2.7586	3.1270	0.3684	50.3		The time measurement was over 24 hours, which explained the high value of Volume (timer failure)

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui Sewage Treatment Works
at San Po Street Pumping Station
(CAM1a)
January 2008 - April 2008
24-hr TSP Level (µg/m3)
300
250
200
150
100
50
0
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
26-Mar-08
28-Mar-08
29-Mar-08
01-Apr-08
07-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
24-hr TSP
Action Level
Limit Level

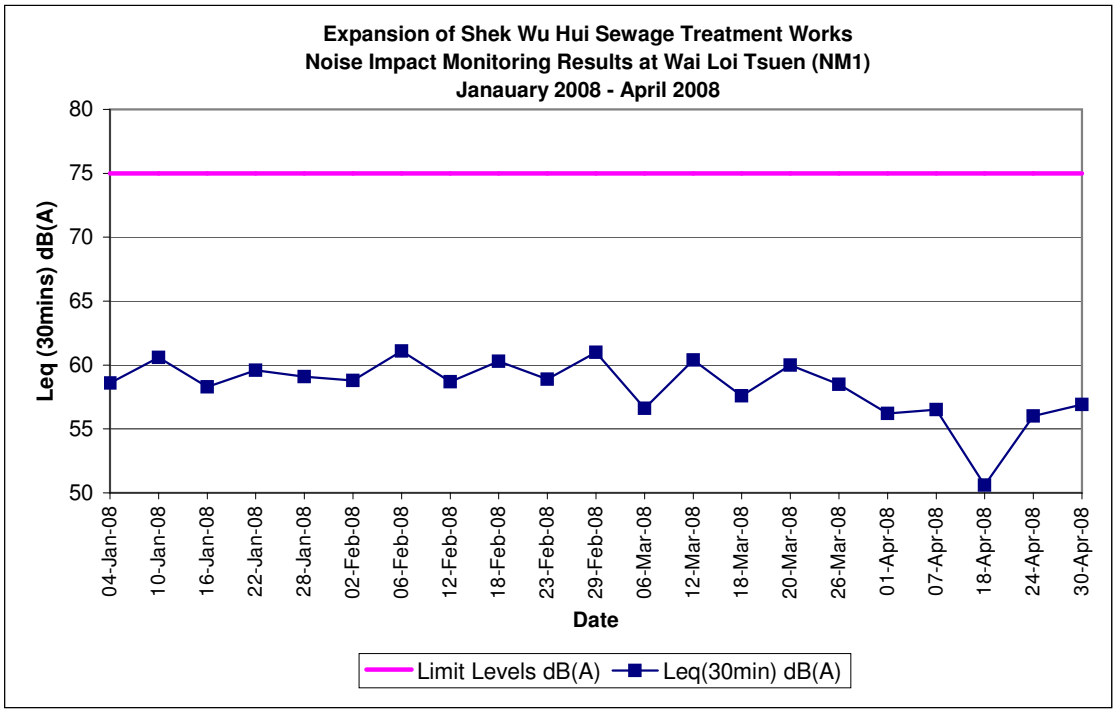

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
January 2008 - April 2008
24- hr TSP Level (µg/m3)
550
500
450
400
350
300
250
200
150
100
50
0
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
26-Mar-08
28-Mar-08
29-Mar-08
01-Apr-08
08-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
24-hr TSP
Action Level
Limit Level

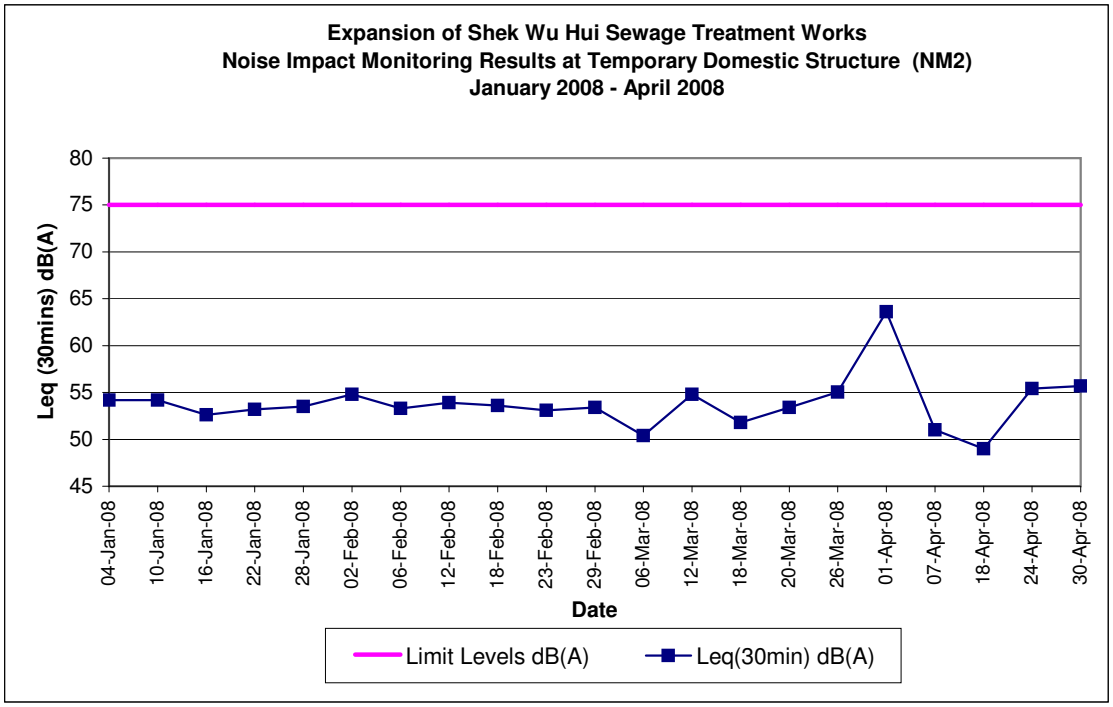
Expansion of Shek Wu Hui Sewage Treatment Works

Noise Impact Monitoring Results

Monitoring Locations	Date	Weather Conditions	Temperature (°C)	Wind Speed (m/s)	Wind Direction	Start Time	End Time	Limit Levels dB(A)	$L_{eq(30min)}$ dB(A)	$L_{10(30min)}$ dB(A)	$L_{90(30min)}$ dB(A)	Remark
Wai Loi Tsuen NM1	01-Apr-08	Rainy	17	0.6	N	10:25	10:55	75	56.2	58.3	52.4	Road traffic Noise
	07-Apr-08	Sunny	24	0.6	N	11:30	12:00	75	56.5	57.6	55.7	Road traffic Noise
	18-Apr-08	Cloudy	25	2.4	N.E.	11:15	11:45	75	54.1	56.3	50.6	Road traffic Noise
	24-Apr-08	Fine	23	0.8	N.E.	12:00	12:30	75	56.0	57.8	51.8	Road traffic Noise
	30-Apr-08	Fine	24	0.7	S.E.	11:00	11:30	75	56.9	58.7	52.7	Road traffic Noise
Temporary Domestic Structure NM2	01-Apr-08	Rainy	17	0.5	N	11:25	11:55	75	63.6	67.2	59.2	Backhoe, road traffic noise
	07-Apr-08	Sunny	24	0.6	N	13:15	13:45	75	51.0	52.3	48.3	Backhoe, road traffic noise
	18-Apr-08	Cloudy	25	2.4	N.E.	10:00	10:30	75	51.7	53.5	49.0	Backhoe, road traffic noise
	24-Apr-08	Fine	23	0.8	N.E.	11:00	11:30	75	55.4	57.0	50.6	Road traffic noise
	30-Apr-08	Fine	24	0.7	S.E.	12:30	13:00	75	55.7	57.7	51.0	Road traffic noise

A façade correction of 3 dB(A) was applied to each measurement result. "Shading" indicates an Limit Level exceedance.


Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Wai Loi Tsuen (NM1)
Janauary 2008 - April 2008
Leq (30mins) dB(A)
80
75
70
65
60
55
50
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
07-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
Date
Limit Levels dB(A)
Leq(30min) dB(A)

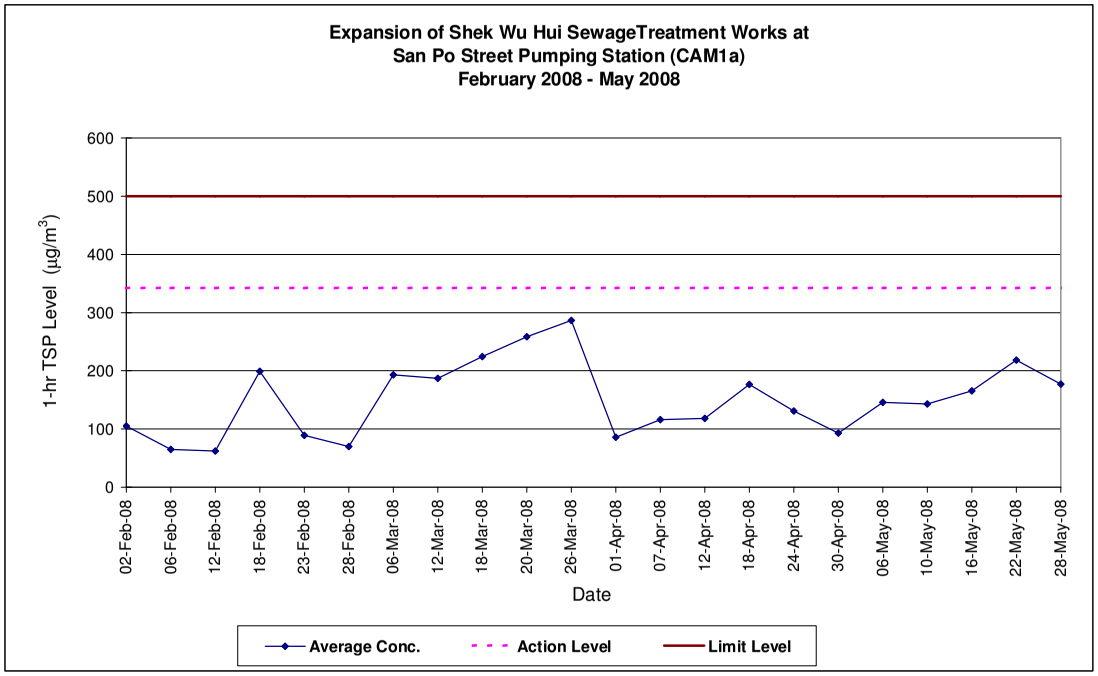

Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Temporary Domestic Structure (NM2)
January 2008 - April 2008
Leq (30mins) dB(A)
80
75
70
65
60
55
50
45
04-Jan-08
10-Jan-08
16-Jan-08
22-Jan-08
28-Jan-08
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
07-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
Date
Limit Levels dB(A)
Leq(30min) dB(A)

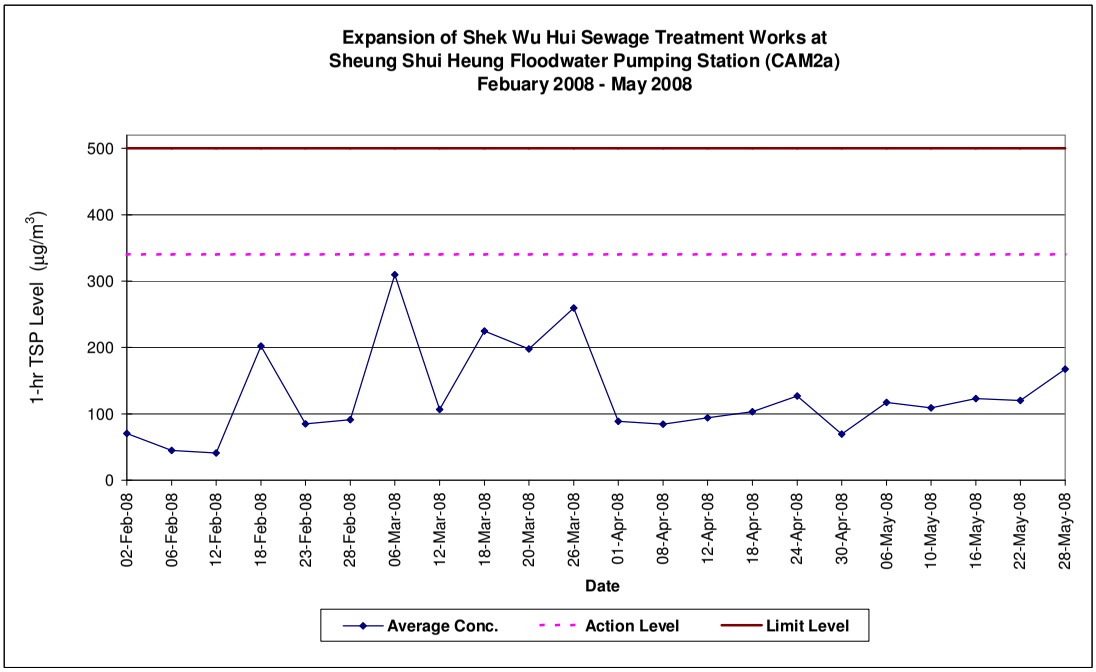
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (1-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (°C)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	1-hr TSP (ug/m^3)	Average 1-Hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	06-May-08	Fine	0.9 SE	26	617413	617521	64.8	42	42	1.04	1.04	1.04	67.48	2.7932	2.8040	0.0108	160.1	145.7	342.7/500	
		Fine	0.9 SE	26	617521	617621	60.0	42	42	1.04	1.04	1.04	62.48	2.7592	2.7683	0.0091	145.7			
		Fine	0.9 SE	26	617621	617721	60.0	42	42	1.04	1.04	1.04	62.48	2.7776	2.7858	0.0082	131.2			
	10-May-08	Sunny	0.7 SE	26	620083	620180	58.2	41	41	1.02	1.02	1.02	59.19	2.7529	2.7632	0.0103	174.0	142.9		
		Sunny	0.7 SE	26	620180	620277	58.2	41	41	1.02	1.02	1.02	59.19	2.7435	2.7515	0.0080	135.2			
		Sunny	0.7 SE	26	620277	620377	60.0	41	41	1.02	1.02	1.02	61.02	2.7478	2.7551	0.0073	119.6			
	16-May-08	Fine	0.4 SE	28	622769	622861	55.2	42	42	1.04	1.04	1.04	57.48	2.7852	2.7918	0.0066	114.8	165.8		
		Fine	0.4 SE	28	622861	622958	58.2	41	41	1.02	1.02	1.02	59.19	2.7512	2.7632	0.0120	202.8			
		Fine	0.4 SE	28	622958	623050	55.2	41	41	1.02	1.02	1.02	56.13	2.7459	2.7560	0.0101	179.9			
	22-May-08	Rainy	0.6 SE	25	625439	625539	60.0	39	39	0.97	0.97	0.97	58.09	2.8181	2.8332	0.0151	259.9	218.5		
		Rainy	0.6 SE	25	625539	625640	60.6	40	40	0.99	0.99	0.99	60.15	2.7778	2.7939	0.0161	267.7			
		Rainy	0.6 SE	25	625640	625741	60.6	40	40	0.99	0.99	0.99	60.15	2.7893	2.7970	0.0077	128.0			
	28-May-08	Rainy	0.9 SE	24	628152	628254	61.2	40	40	0.99	0.99	0.99	60.75	2.8112	2.8220	0.0108	177.8	177.0		
		Rainy	0.9 SE	24	628254	628356	61.2	40	40	0.99	0.99	0.99	60.75	2.7975	2.8082	0.0107	176.1			
		Rainy	0.9 SE	24	628356	628460	62.4	39	39	0.97	0.97	0.97	60.42	2.7994	2.8101	0.0107	177.1			
Sheung Shui Heung Floodwater Pumping Station CAM2a	06-May-08	Fine	1.5 SE	26	730660	730760	60.0	41	41	1.03	1.03	1.03	61.78	2.7920	2.8001	0.0081	131.1	117.0	340/500	
		Fine	1.5 SE	26	730760	730872	67.2	41	41	1.03	1.03	1.03	69.19	2.7879	2.7965	0.0086	124.3			
		Fine	1.5 SE	26	730872	730972	60.0	41	41	1.03	1.03	1.03	61.78	2.7716	2.7775	0.0059	95.5			
	10-May-08	Sunny	1.2 SE	26	733324	733421	58.2	41	41	1.03	1.03	1.03	59.92	2.7569	2.7648	0.0079	131.8	109.0		
		Sunny	1.2 SE	26	733421	733520	59.4	41	41	1.03	1.03	1.03	61.16	2.7510	2.7567	0.0057	93.2			
		Sunny	1.2 SE	26	733520	733620	60.0	41	41	1.03	1.03	1.03	61.78	2.7739	2.7802	0.0063	102.0			
	16-May-08	Fine	0.6 SE	28	736011	736103	55.2	41	41	1.03	1.03	1.03	56.83	2.7860	2.7916	0.0056	98.5	123.0		
		Fine	0.6 SE	28	736103	736203	60.0	41	41	1.03	1.03	1.03	61.78	2.7429	2.7520	0.0091	147.3			
		Fine	0.6 SE	28	736203	736295	55.2	41	41	1.03	1.03	1.03	56.83	2.7419	2.7489	0.0070	123.2			
	22-May-08	Rainy	1.0 SE	25	738684	738786	61.2	40	40	1.02	1.02	1.02	62.12	2.7928	2.7994	0.0066	106.2	120.0		
		Rainy	1.0 SE	25	738786	738890	62.4	40	40	1.02	1.02	1.02	63.34	2.7748	2.7840	0.0092	145.3			
		Rainy	1.0 SE	25	738890	738993	61.8	40	40	1.02	1.02	1.02	62.73	2.7567	2.7635	0.0068	108.4			
	28-May-08	Rainy	1.5 SE	24	741393	741495	61.2	40	39	1.02	1.00	1.01	61.67	2.8032	2.8174	0.0142	230.3	167.4		
		Rainy	1.5 SE	24	741495	741600	63.0	39	39	1.00	1.00	1.00	63.03	2.8042	2.8158	0.0116	184.1			
		Rainy	1.5 SE	24	741600	741705	63.0	38	39	0.99	1.00	0.99	62.57	2.8032	2.8087	0.0055	87.9			

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui SewageTreatment Works at
San Po Street Pumping Station (CAM1a)
February 2008 - May 2008
1-hr TSP Level (µg/m3)
600
500
400
300
200
100
0
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
28-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
07-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
06-May-08
10-May-08
16-May-08
22-May-08
28-May-08
Date
Average Conc.
Action Level
Limit Level

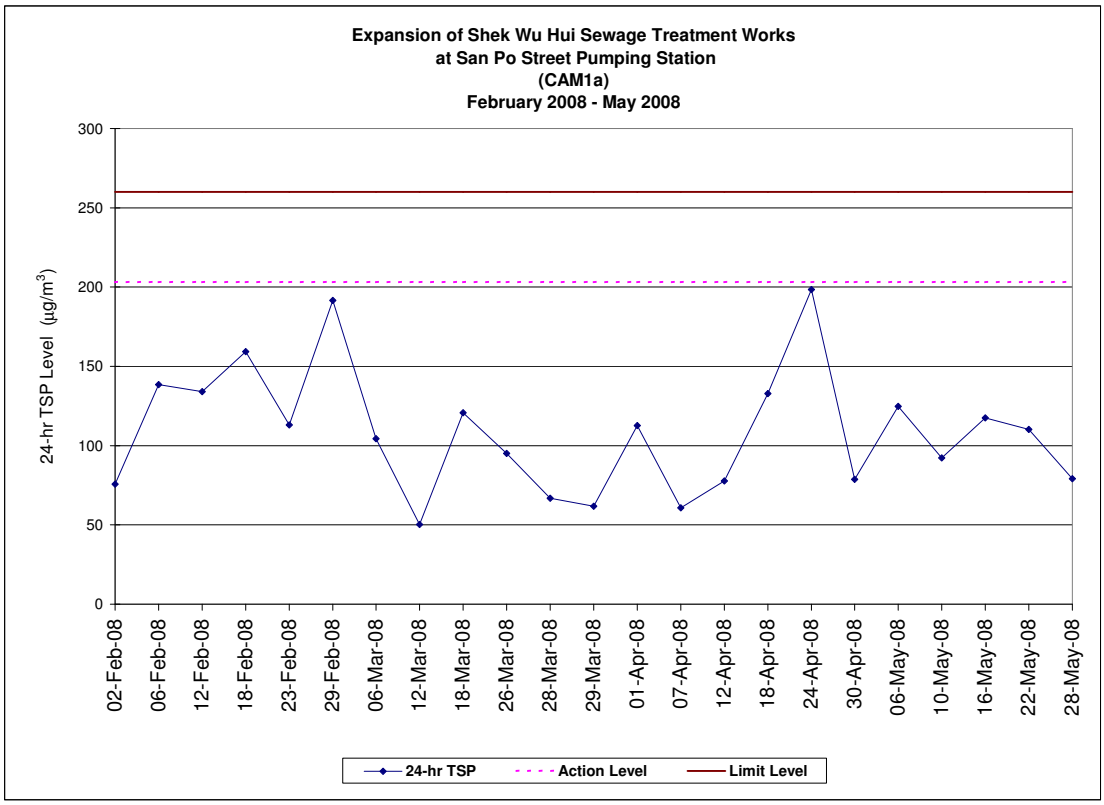

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
Febuary 2008 - May 2008
1-hr TSP Level (µg/m3)
500
400
300
200
100
0
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
28-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
08-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
06-May-08
10-May-08
16-May-08
22-May-08
28-May-08
Date
Average Conc.
Action Level
Limit Level

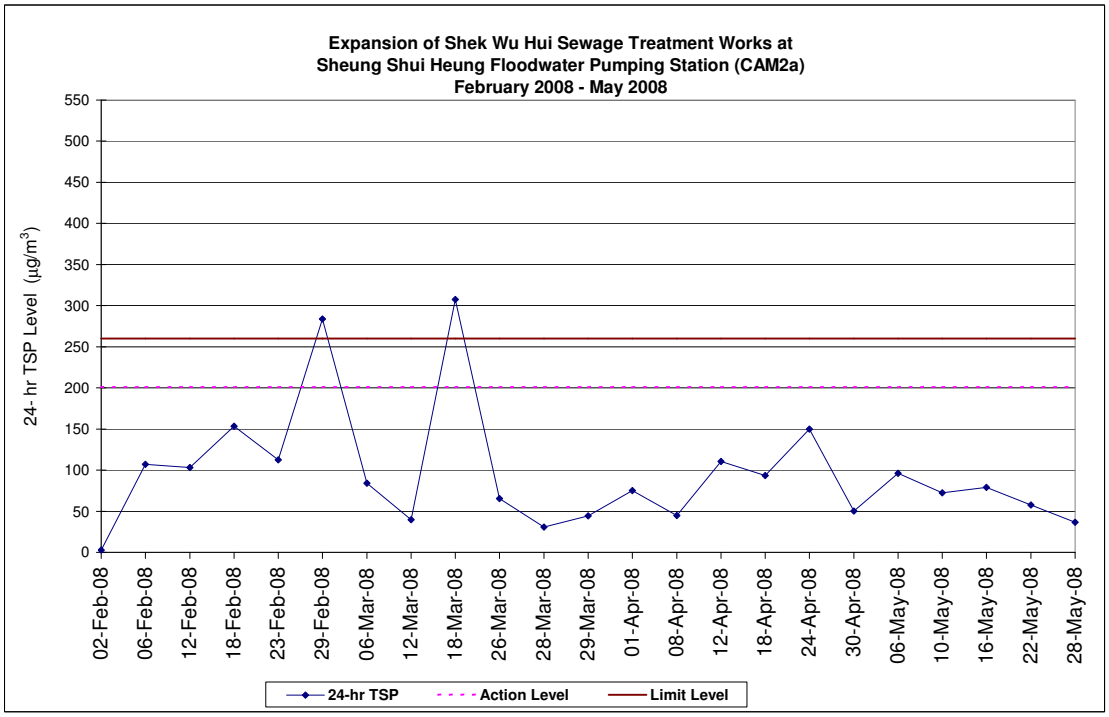
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (24-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (°C)	Pressure (mmHg)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	24-hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	06-May-08	Fine	0.9 SE	26	1010.1	617721	620089	1420.8	42	42	1.04	1.04	1.04	1479.47	2.7659	2.9506	0.1847	124.8	203/260	
	10-May-08	Sunny	0.7 SE	26	1008.2	620377	622760	1429.8	41	41	1.02	1.02	1.02	1454.02	2.7282	2.8622	0.1340	92.2		
	16-May-08	Fine	0.4 SE	28	1010.0	623050	625439	1433.4	41	41	1.02	1.02	1.02	1457.68	2.7566	2.9279	0.1713	117.5		
	22-May-08	Rainy	0.6 SE	25	1008.8	625741	628152	1446.6	40	40	0.99	0.99	0.99	1435.87	2.8082	2.9666	0.1584	110.3		
	28-May-08	Rainy	0.9 SE	24	1003.6	628460	630865	1443	40	39	0.99	0.97	0.98	1414.72	2.7813	2.8932	0.1119	79.1		
Sheung Shui Heung Floodwater Pumping Station CAM2a	06-May-08	Fine	1.5 SE	26	1010.1	730972	733324	1411.2	42	42	1.04	1.04	1.04	1473.58	2.7630	2.9049	0.1419	96.3	201/260	
	10-May-08	Sunny	1.2 SE	26	1008.2	733620	736020	1440	41	41	1.03	1.03	1.03	1482.63	2.7834	2.8909	0.1075	72.5		
	16-May-08	Fine	0.6 SE	28	1010.0	736295	738684	1433.4	41	41	1.03	1.03	1.03	1475.84	2.7509	2.8673	0.1164	78.9		
	22-May-08	Rainy	1.0 SE	25	1008.8	738993	741393	1440	40	39	1.02	1.00	1.01	1451.10	2.7710	2.8547	0.0837	57.7		
	28-May-08	Rainy	1.5 SE	24	1003.6	741705	744117	1447.2	40	41	1.02	1.03	1.02	1479.48	2.8034	2.8572	0.0538	36.4		

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui Sewage Treatment Works
at San Po Street Pumping Station
(CAM1a)
February 2008 - May 2008
24-hr TSP Level (µg/m3)
300
250
200
150
100
50
0
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
26-Mar-08
28-Mar-08
29-Mar-08
01-Apr-08
07-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
06-May-08
10-May-08
16-May-08
22-May-08
28-May-08
24-hr TSP
Action Level
Limit Level

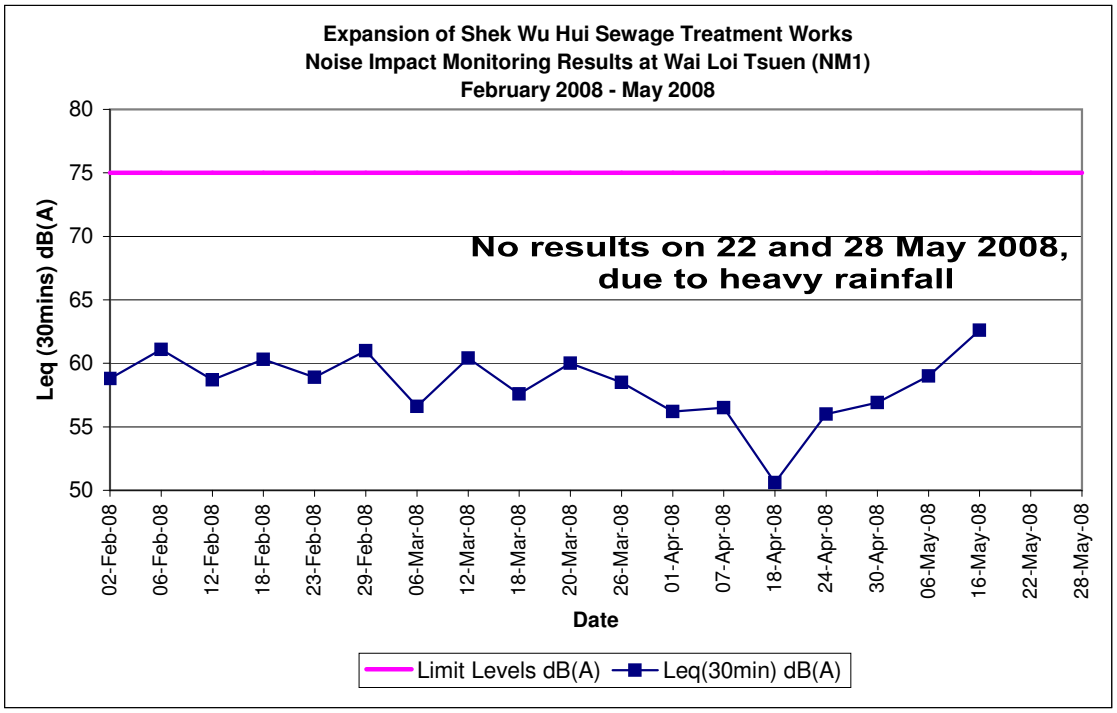

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
February 2008 - May 2008
24- hr TSP Level (µg/m3)
550
500
450
400
350
300
250
200
150
100
50
0
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
26-Mar-08
28-Mar-08
29-Mar-08
01-Apr-08
08-Apr-08
12-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
06-May-08
10-May-08
16-May-08
22-May-08
28-May-08
24-hr TSP
Action Level
Limit Level

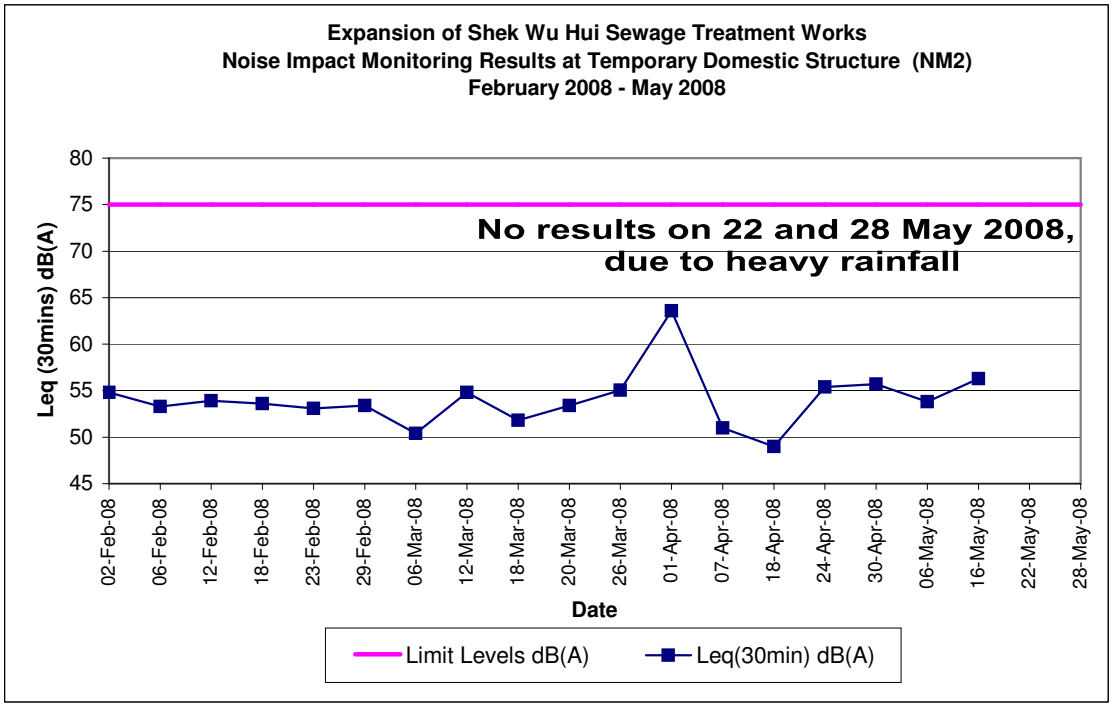
Expansion of Shek Wu Hui Sewage Treatment Works

Noise Impact Monitoring Results

Monitoring Locations	Date	Weather Conditions	Temperature (°C)	Wind Speed (m/s)	Wind Direction	Start Time	End Time	Limit Levels dB(A)	$L_{eq(30min)}$ dB(A)	$L_{10(30min)}$ dB(A)	$L_{90(30min)}$ dB(A)	Remark
Wai Loi Tsuen NM1	06-May-08	Fine	26	0.9	SE	10:32	11:02	75	59.0	60.3	55.0	Road Traffic Noise, Free Field
	16-May-08	Fine	28	0.4	SE	13:00	13:30	75	62.6	65.4	60.1	Road Traffic Noise, Free Field
	22-May-08	-	-	-	-	-	-	75	-	-	-	Heavy Rainfall
	28-May-08	-	-	-	-	-	-	75	-	-	-	Heavy Rainfall
Temporary Domestic Structure NM2	06-May-08	Fine	26	1.5	SE	11:15	11:45	75	53.8	55.1	56.1	Road Traffic Noise, Free Field
	16-May-08	Fine	28	0.6	SE	14:00	14:30	75	56.3	58.6	51.9	Road Traffic Noise, Free Field
	22-May-08	-	-	-	-	-	-	75	-	-	-	Heavy Rainfall
	28-May-08	-	-	-	-	-	-	75	-	-	-	Heavy Rainfall

A façade correction of 3 dB(A) was applied to each measurement result. "Shading" indicates an Limit Level exceedance.


Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Wai Loi Tsuen (NM1)
February 2008 - May 2008
No results on 22 and 28 May 2008, due to heavy rainfall
Leq (30mins) dB(A)
80
75
70
65
60
55
50
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
07-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
06-May-08
16-May-08
22-May-08
28-May-08
Date
Limit Levels dB(A)
Leq(30min) dB(A)


Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Temporary Domestic Structure (NM2)
February 2008 - May 2008
No results on 22 and 28 May 2008, due to heavy rainfall
Leq (30mins) dB(A)
80
75
70
65
60
55
50
45
02-Feb-08
06-Feb-08
12-Feb-08
18-Feb-08
23-Feb-08
29-Feb-08
06-Mar-08
12-Mar-08
18-Mar-08
20-Mar-08
26-Mar-08
01-Apr-08
07-Apr-08
18-Apr-08
24-Apr-08
30-Apr-08
06-May-08
16-May-08
22-May-08
28-May-08
Date
Limit Levels dB(A)
Leq(30min) dB(A)

Appendix 8

Cumulative Statistics of Complaint, Notification of Summons and Successful Prosecution

Reporting Month	Number Received in the Reporting Month				Cumulative Number			
	Complaint	Notification of Summon	Successful Prosecution	EPD Site Inspection Record	Complaint	Notification of Summon	Successful Prosecution	EPD Site Inspection Record
March 08 – May 08	0	0	0	0	0	0	0	0 (Last in Feb08)

Cumulative Number of Environmental Complaint