Monthly Environmental Audit Report No. 05 – December 2013 Ref: 322036/ENL/02/05/A

> January 2013 Drainage Services Department





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January 2013

Drainage Services Department

44/F, Revenue Tower 5 Gloucester Road Wan Chai Hong Kong



Pursuant to Condition 2.2 of Environmental Permit No. EP-435/ 2011, this Monthly Environmental Audit Report has been reviewed and certified by the Independent Checker (IC)

Certified by:

Terence Kong

Independent Checker

Mott MacDonald Hong Kong Limited

Date

6 January 2013



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## **Executive Summary**

On 3 May 2013, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by the Drainage Services Department (DSD) under Agreement No. SP 05/2012 to undertake the Independent Checker (IC) services for the Sewerage Works at Pik Shui Sun Tsuen (The Project).

The Environmental Permit (EP) No. EP- 435/2011 for the "Sewerage Works at Pik Shui Sun Tsuen" was granted by the Environmental Protection Department (EPD) on 20 December 2011. The construction works was carried out Welcome Construction Co Ltd. (the Contractor), commenced on 26 August 2013.

In accordance with Section 5.1 and 5.3 of the Brief for the Project and Condition 2.2 of the EP, a Monthly Environmental Audit Report shall be prepared and submitted at monthly intervals to confirm in writing the full implementation of the mitigation measures recommended in the Project Profile (PP) (Register No. PP-454/2011) during and upon completion of the construction works. This is the 5<sup>th</sup> Monthly Environmental Audit Report covering the period from 1 December 2013 and 31 December 2013 (the reporting month).

Recycled Paper



## Environmental Status during the reporting month

#### 1.1 Construction Programme

No construction work was conducted during this reporting month. The liaison work with the local residents is in progress.

The construction works programme of the Project is provided in <u>Appendix A.</u> A layout plan of the Project is provided in <u>Figure 1.1.</u>

#### 1.2 Key Issues for the reporting month

No construction work was conducted during this reporting month.

#### 1.3 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix B**.

#### 1.4 Environmental Mitigation Measures - Implementation Status

Since the liaison work with the local residents is in progress, no construction work was conducted during this reporting month. Therefore, no environmental site audit was conducted during this reporting month. The implementation status of environmental protection and pollution control/ mitigation measures recommended in the PP would be audited in next reporting month. The checklist of implementation status of the environmental mitigation measures is provided in <a href="#Appendix C.">Appendix C.</a>



## Environmental Site Inspection

#### 2.1 Site Inspection

Since the liaison work with the local residents is in progress, no construction work was conducted during this reporting month. Therefore, no environmental site audit was conducted during this reporting month.

#### 2.2 Advice on the Solid and Liquid Waste Management Status

The Contractor has been applied for a bill account for disposal. No waste was disposed of in this reporting month

The waste flow table is present in **Appendix D.** 

#### 2.3 Status of Environmental Licenses and Permits

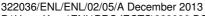
The environmental permits, licenses, and/or notifications on environmental protection for this Project which were valid during the period is summarised in **Table 2-1**.

Table 2-1: Status of Environmental Submissions, Licenses and Permits

Statutory Reference	Description	Permit /Reference No.	Status
EIAO	Environmental Permit	EP- 435/2011	Valid
APCO	Notification of Construction Work under APCO	355015	Valid
WPCO	Discharge License	WT00016437-2013	Valid
	Discharge License	WT00016957-2013	Valid
WDO	Bill Account for disposal	7016760	Valid

Legend: EIAO - Environmental Impact Assessment Ordinance

APCO – Air Pollution Control Ordinance WPCO – Water Pollution Control Ordinance WDO – Waste Disposal Ordinance





## Report on Complaints, Notifications of Summons and Successful Prosecutions

#### 3.1 Record on Environmental Complaints Received

No environmental complaint was received this month. The cumulative statistics on complaints were provided in **Appendix E**.

#### 3.2 Record on Notifications of Summons and Successful Prosecution

No notifications of summons or successful prosecution were received this month. The cumulative statistics on notifications of summons and successful prosecutions were provided in **Appendix E**.

## 3.3 Review of Reasons for and Implications of Non-compliance, Complaints, Summons and Prosecutions

Not applicable.

#### 3.4 Follow-up Actions Taken

Not applicable.



## Future Key Issues

#### 4.1 Major Site Works for the Coming Month(s)

The major site works scheduled to be commissioned in the coming month include:

Site preparation for sewerage works at Pik Shui Sun Tsuen

#### 4.2 Key Issues for the Coming Month

- Generation of dust from construction works;
- Noise impact from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Sorting, recycling, storage and disposal of general refuse and construction waste; and
- Display of EP at all vehicular site entrances.



### Conclusions and Recommendations

#### 5.1 Conclusions

Since the liaison work with the local resident is in progress, no construction activity was conducted during the reporting month.

#### 5.2 Recommendations

With considerations on the construction activities in the next reporting month, recommendations on mitigation measures for impacts on air quality, noise, water quality and waste were provided.



## **Figures**

Figure 1.1. Project Layout Plan

Figure 2.1. Locations of Representative Noise and Air Sensitive Receivers

Figure 2.2. Locations of Visually Sensitive Receivers





Sources: Black & Veatch Hong Kong Limited. (2011). Project Profile for Sewerage Works at Pik Shui Sun Tsuen [Online]. Available: http://www.epd.gov.hk/eia/register/profile/latest/dir218/dir218.pdf



Sources: Black & Veatch Hong Kong Limited. (2011). Project Profile for Sewerage Works at Pik Shui Sun Tsuen [Online]. Available: http://www.epd.gov.hk/eia/register/profile/latest/dir218/dir218.pdf



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# Appendix A. Tentative Construction Programme



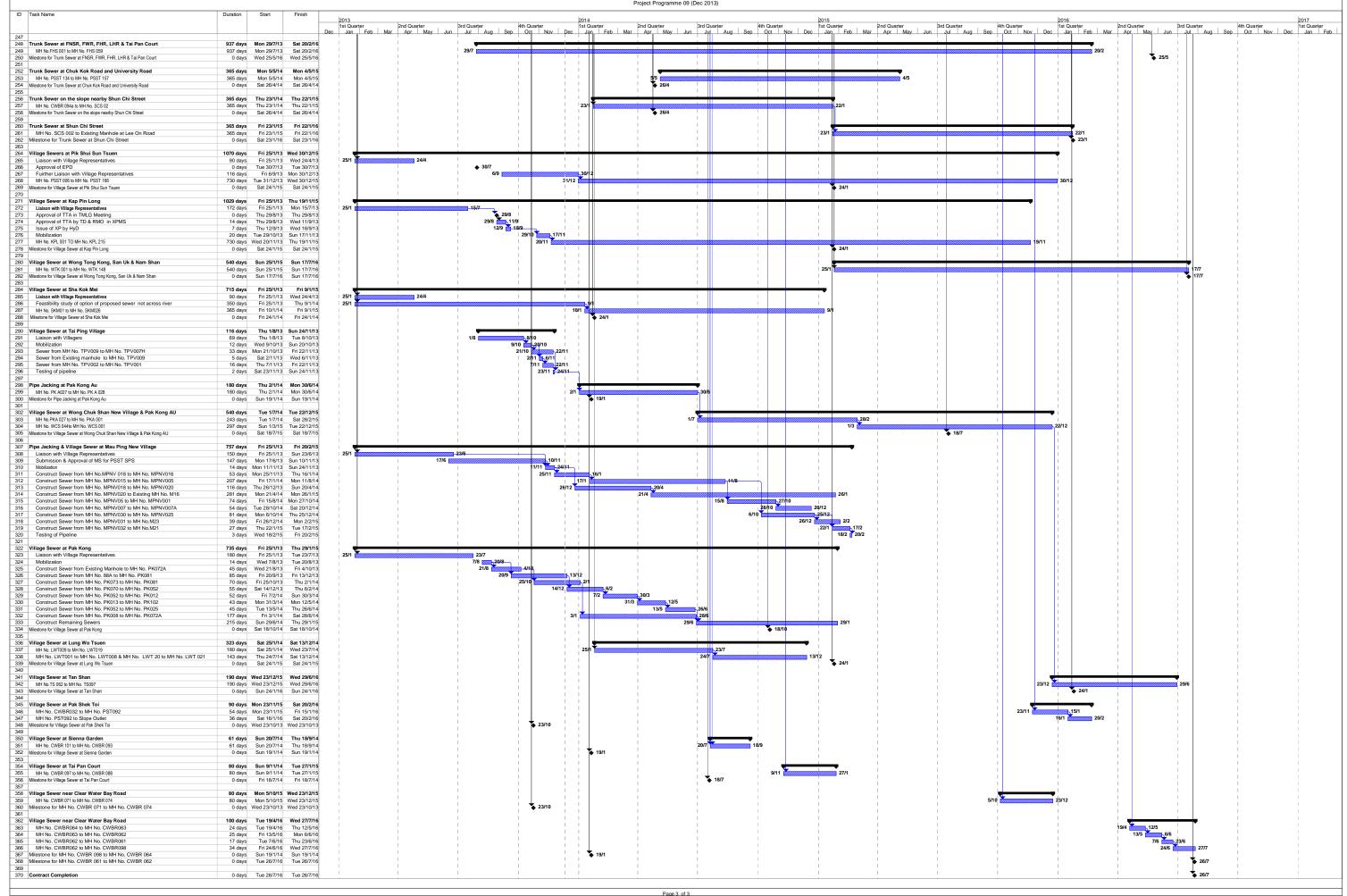
Welcome Constuction Co Ltd.
Contract No. DC/2012/06
Sewerage at Clear Water Bay Road, Pik Shui Sun Tsuen and West of Sai Kung Town
Project Programme 09 (Dec 2013)

le			Project Programme 09 (Dec 2013)	
Task Name	Duration Start	Finish	2013 2014 2015 2016 Ist Quarter 2nd Quarter 3rd Quarter 4th Quarter 4th Quarter 5rd Quarter 4th Quarter 5rd Quarte	2017 or 3rd Quarter 4th Quarter 1st Qua
Acceptance of Tender Commencement of Contract	0 days Fri 18/1 0 days Fri 25/1	1/13 Fri 18/1/13 1/13 Fri 25/1/13	ist Quarter 2nd Quarter 3nd Quarter 3nd Quarter 4th Quarter ist Quarter 5nd Qu	May Jun Jul Aug Sep Oct Nov Dec Jan
Preliminary provision Possession of Works Area W1 & W2	306 days Thu 31/1 0 days Thu 31/1	1/13 Thu 31/1/13	31/1	
Submission of details of Site Office & Works Area layout Site clearance & Formation of Works Area W1 & W2	0 days Fri 1/3 24 days Thu 31/1	1/13 Sat 23/2/13	31/10 23/2	
Drainage Works of Works Area W1 & W2  Approval of Connect of drains to extg manholes at Works Area W1 & W2	142 days Sun 24/2 0 days Fri 24/5		24/2	
Connection of drains to existing manholes at Works Area W1 & W2 Erection of Site Office at Works Area W1 & W2	14 days Fri 24/5 80 days Fri 15/3		24/5 6/6 6/6	
Approval of Design of Hoarding with greening Works at Works area W1 & W2 Erection of Hoarding around Works Area W1 & W2 except those adj sewer coonection	0 days Mon 3/6 107 days Mon 27/5	6/13 Mon 3/6/13	27/5	
Erection of Project Signboard in Work Area W1 & W2	6 days Thu 5/9	9/13 Tue 10/9/13	5/9 (109)   19/11 (3), 25/11	
Connection of sewer from Work Area W1 & W2 to the nearby existing manhole Erection of Remaining Hoarding upon completion of sewer coonection at Works Area W1 & W2	7 days Tue 19/11 7 days Tue 26/11		19/11 (8/20/11) 26/11 (2/12)	
Pik Shui Sun Tsuen Pumping Station & Associated Works	1313 days Sat 1/6	6/13 Tue 3/1/17		
Preparation & Submission of MS for PSST SPS Approval of Submission of MS for PSST SPS		6/13 Mon 15/7/13	1/6   1/6	
Approval of EPD Liaison with Villagers	1 day Wed 31/7	7/13 Wed 31/7/13 3/13 Mon 30/12/13	33/7 33/7	
Mobilization	14 days Tue 31/12	2/13 Mon 13/1/14	31/12	
Tree survey Site Clearance	7 days Tue 14/1	1/14 Mon 20/1/14 1/14 Mon 20/1/14	14/1 12/20/1	
Pruning & Protection of existing trees UU Detection & Trial Pits to locate UU	10 days Tue 21/1 10 days Tue 21/1	1/14 Thu 30/1/14		
Erection of Temporary Hoarding, Fencing & Gate Structure of PSST SPS	20 days Fri 31/1 325 days Thu 20/2	1/14 Wed 19/2/14 2/14 Sat 10/1/15		
Shoring & Excavation Construction of Base Slab (B/F)	28 days Thu 20/2 28 days Thu 20/3	2/14 Wed 19/3/14 3/14 Wed 16/4/14	2012 19/3	
Construction of Walls (B/F to G/F) Construction of Slab (G/F)	36 days Thu 17/4 34 days Fri 23/5	4/14 Thu 22/5/14	17/4 22/5 23/5 25/6	
Construction of Valve Chamber Base Slab  Construction of Valve Chamber Walls & Slab over Compacted Fill (B/F to G/F)	15 days Thu 26/6	6/14 Thu 10/7/14	26/6 1077	
Dismantle Shoring & Backfill Excavation	30 days Sun 10/8	B/14 Mon 8/9/14	10/8 20/9	
Laying Concrete Benching.at Inlet Chamber (between B/F & G/F)  Laying Concrete Plinth for Deodourizing Unit (G/F)	3 days Tue 9/9 3 days Wed 10/9	9/14 Fri 12/9/14		
Construction of Concrete Columns, Walls & Canopy (G/F to 1/F) Construction of Roof Slab & Beams (R/F)	60 days Sat 13/9 40 days Wed 12/11	1/14 Sun 21/12/14	13/9 13/9 13/1/1	
Construction of Parapet Walls (R/F)  Metal Works, Plumibing & Irrigation Works in PSST SPS	20 days Mon 22/12 145 days Sun 11/1	1/15 Thu 4/6/15	22/12	
Installation of Ladder, Basket Screen, Chequer Plates, Muti-span Covers & e Installation of Irrigation System (G/F to R/F) & Plumbing System (G//F)		1/15 Fri 6/3/15	2012 19/3 19/2 2013 19/3 16/4 22/5 25/6 10/7 11/7 10/8 19/9 10/9 12/9 13/9 13/9 13/9 13/9 13/9 13/9 13/9 13	
Installation of Metal Works & Glass Panels (G/F)  E & M Works in PSST SPS	50 days Thu 16/4 365 days Fri 5/6	4/15 Thu 4/6/15	16/4	<u> </u>
Handover to Other Cotractors for E & M Works	1 day Fri 5/6	6/15 Fri 5/6/15	S/S (S/S	
E & M Works carried out by other Contractors Finishes Works, Landscaping Works & External Works	365 days Fri 5/6 214 days Sat 4/6	6/16 Tue 3/1/17		3/6
Formation of External Ground Area Drainage & Sewerage Works in External Area	5 days Sat 4/6 30 days Thu 9/6			9/6
Erection of Permanent Fence & Gate Installation of Irrigation System in External Area	40 days Sat 9/7 30 days Thu 18/8			9/7 18/8 18/8
Formation of Planting Area in External Area Planting of Trees & Shrubs in External Area	20 days Sat 17/9			17/9 6/10
Construction of Paving in External Area Installation of External Steel Staircase	20 days Thu 10/11	1/16 Tue 29/11/16		10/11 29/11
Laying Concrete Benching (B/F)	30 days Wed 30/11 7 days Sat 4/6	6/16 Fri 10/6/16		4/6 10/6
Internal Finishes Works Fixing of Signboard on External Walls	64 days Sat 11/6 45 days Sun 14/8	3/16 Tue 27/9/16		14/8 27/9
External Finishes Works Timber Decking on Roof	93 days Wed 28/9 50 days Sat 11/6	5/16 Sat 30/7/16		28/9 29/12
Laying of Waterproof System & Roof Finishes Works (R/F) Formation of Planting Area & Fixing of Hanging Planter Boxes (R/F)	50 days Sun 31/7 22 days Mon 19/9	9/16 Mon 10/10/16		18/9 19/9
Installation of Irrigation System (R/F) Planting Works on Roof	30 days Tue 11/10 50 days Thu 10/11	0/16 Wed 9/11/16		11/10 9/11
Clear Up Site Rising Mains	5 days Fri 30/12 365 days Tue 3/12			30/12 📓 3/1
Laying of Rising Mains	365 days Tue 3/12		3/12	
aspection Pits along Clear Water Bay Road Application of RA to RMO	179 days Mon 10/6 7 days Mon 10/6		106 67,166	
Inspection Pit No. 3 Inspection Pit No.9	7 days Mon 17/6		10/6 = 18/6 17/6 = 23/6	
Inspection Pit No.1	7 days Mon 24/6	5/13 Sun 30/6/13	246 5.306	
Inspection Pit No.7 No road closure allowed on CW due to public holiday	7 days Mon 24/6 1 day Mon 1/7	7/13 Mon 1/7/13	-   10 T T T T T T T T T T T T T T T T T T	
Inspection Pit No.6 Inspection Pit No. 12 & 13	7 days Tue 2/7 7 days Tue 2/7	7/13 Mon 8/7/13	27 to 87	
nspection Pit No.8 nspection Pit No.15	7 days Tue 9/7 7 days Tue 9/7		9/7 \$ 15/7	
nspection Pit No.5 nspection Pit No.14	7 days Tue 16/7		167 to 227	
spection Pit No.4 spection Pit No.11		7/13 Mon 29/7/13		
nspection Pit No. 10 nspection Pit No. 10	7 days Tue 30/7 7 days Tue 30/7 7 days Tue 30/7	7/13 Mon 5/8/13		
Inspection Pit No. 10 Inspection Pit No. 21 Inspection Pit No. 19	8 days Tue 6/8	3/13 Tue 13/8/13		
nspection Pit No.16	8 days Wed 14/8	3/13 Wed 21/8/13		
nspection Pit No.20 nspection Pit No.17	8 days Sat 24/8		198	
spection Pit No.18 o works allowed in C/W from 1/9 to 8/9 due to Sundays & a week just after	8 days Tue 27/8 7 days Fri 6/9	3/13 Tue 3/9/13 9/13 Thu 12/9/13		
pening of school year respection Pit No.18	2 days Fri 13/9	9/13 Sat 14/9/13	13/9 14/9	
Approval of TTA for Inspection Pit No.22 & 23 upon TMLG Meeting on 9/10/2013 Approval of extension of program of TTA for inspection pit No. 23 on TMLG	1 day Wed 9/10	0/13 Wed 9/10/13 1/13 Tue 12/11/13	9/10   9/10   1/2/11	
Application to RMO for RA for Inspection Pit No. 22 & 23	9 days Wed 13/11		13/11 22/1/11	
spection Pit No. 23 spection Pit No. 22		1/13 Thu 28/11/13	29/1 5/5/2	
ermains and Rising Mains along CWBR & FNSR	1256 days Tue 6/8			
atermains and Rising Mains along Clear Water Bay Road Front A	1236 days Tue 6/8	B/13 Fri 23/12/16		
CWBR (CH 751 to CH 761)  No works allowed in C/W from 1/9 to 8/9 due to Sundays & a week just after	26 days Tue 6/8 5 days Sun 1/9		6/8 (1/9 (5/9)	
opening of school year CWBR (CH 761 to CH793)		9/13 Tue 22/10/13	6/9 22/10	
CWBR (CH793 to CH828) CWBR(CH790) Crossing at WB	28 days Wed 23/10 18 days Wed 20/11	0/13 Tue 19/11/13	23/10 20/11 1 1 7 1/12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
CWBR(CH828 to CH1091) CWBR(CH1091 t to CH1131)	241 days Wed 20/11 46 days Sat 2/8	1/13 Fri 18/7/14	20/11	
CWBR(CH1096) Crossing at EB	20 days Sun 7/9	9/14 Fri 26/9/14		
CWBR(CH1096) Crossing at WB CWBR (CH1131 to CH1214)	81 days Sat 27/9	9/14 Thu 16/10/14 9/14 Tue 16/12/14	27/9 16/10 27/9 16/12	
CWBR(CH1212) Crossing at EB CWBR(CH1212) Crossing at WB	20 days Sun 7/12 20 days Sat 27/12	2/14 Thu 15/1/15	7/12 28/12 27/12 15/1	
CWBR (CH1214 to CH1298)	102 days Sat 27/12 20 days Sun 29/3		295 174	
CWBR(CH1284) Crossing at EB			18/4 7/5	
CWBR(CH1284) Crossing at WB	20 days Sat 18/4 252 days Sat 18/4			
	252 days Sat 18/4 20 days Wed 16/12	4/15 Fri 25/12/15	16/12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Welcome Constuction Co Ltd.
Contract No. DC/2012/06
Sewerage at Clear Water Bay Road, Pik Shuli Sun Tsuen and West of Sai Kung Town
Project Programme 09 (Dec 2013)

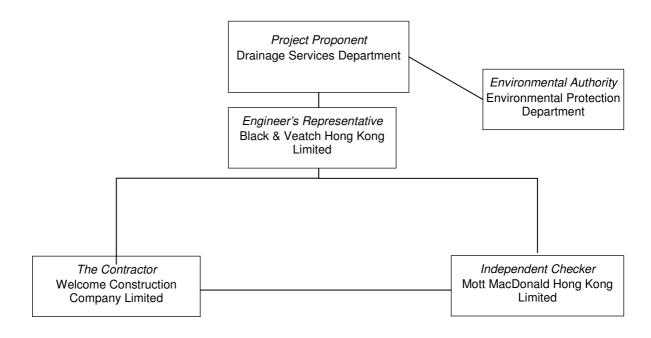
Task Name	Duration Start	Finish	2		ne 09 (Dec 2013)		hava		have
	20.1	Dec Ja	3 Quarter 2nd Quarter 3rd Quarter 4th Quarte an Feb Mar Apr May Jun Jul Aug Sep Oct		2015 3rd Quarter 4th Quarter 1st Quarte Jun Jul Aug Sep Oct Nov Dec Jan		2016 4th Quarter 1st Quarter Sep Oct Nov Dec Jan Feb Mar	2nd Quarter 3rd Quarter Apr May Jun Jul A	4th Quarter 1st Quarter ug Sep Oct Nov Dec Jan
3 CWBR(CH1572) Crossing at EB 4 CWBR( CH1614 to CH1817) 5	20 days Sat 2/4/16 246 days Fri 22/4/16	Thu 21/4/16 Fri 23/12/16						22/4	23/12
6 Watermains and Rising Mains along Clear Water Bay Road Front B 7 CWBR (CH 1817 to CH1860)	554 days Fri 29/11/13 44 days Fri 29/11/13	3 Sat 11/1/14		29/11					
8 CWBR(CH1818) Crossing at EB 9 CWBR(CH1818) Crossing at WB	20 days Thu 2/1/14 20 days Wed 22/1/14	Mon 10/2/14		2/1 22/1 10/2	26/5				
CWBR (CH11860 to CH1981) CWBR(CH1962) Crossing at EB CWBR(CH1962) Crossing at WB	125 days Wed 22/1/14 20 days Sat 17/5/14 20 days Fri 6/6/14			17/5	5/6				
CWBR(CH1982) Clossing at WB CWBR(CH1981 to CH2265) CWBR(CH2241 to CH2248) Crossing at EB	315 days Fri 6/6/14 20 days Fri 17/4/15	Thu 16/4/15			66	16/4			
CWBR(CH2248 to CH2265) Crossing at EB	30 days Thu 7/5/15					17/4 6/5 5/6			
Watermains and Rising Mains along Clear Water Bay Road Front C CWBR(CH029 to CH059)	872 days Mon 25/8/14 26 days Mon 25/8/14				25/8		<del>-                                     </del>		-
CWBR (CH015 to CH029) crossing EB CWBR (CH000 to CH029) crossing WB	29 days Wed 10/9/14 29 days Thu 9/10/14	Wed 8/10/14			9/10 8/10				
CWBR(CH059 to CH111) CWBR(CH111) Crossing at EB	57 days Thu 9/10/14 25 days Tue 25/11/14	Thu 4/12/14			9/10 4/12 25/11 19/12	i l i l			
CWBR(CH111) Crossing at WB CWBR(CH111 to CH546)	25 days Sat 20/12/14 505 days Sat 20/12/14	Tue 13/1/15			20/12 13/1	i i	i i	7/5	
CWBR(CH532) Crossing at EB CWBR(CH532) Crossing at WB	20 days Thu 28/4/16 20 days Wed 18/5/16							17/5 18/5 6/6	
CWBR(CH546 to CH751)	240 days Wed 18/5/16							18/5	12/
Watermains and Rising Mains along FNSR FNSR (CH000 to CH360)	567 days Thu 6/11/14 530 days Thu 6/11/14	Mon 18/4/16			6/11	1	1	18/4	
Milestone for Watermains and Rising Mains along Clear Water Bay Road	0 days Wed 25/5/16					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		25/5	I I
Trunk Sewer and Rising Mains along CWBR -Work Front A MH No. CWBR051 to MH No. CWBR050 (west section)	26 days Tue 6/8/13	Sun 22/1/17 Sat 31/8/13	6/8 31/8 1/9 3/9						
No works allowed in C/W from 1/9 to 8/9 due to Sundays & a week just after opening of school year  MH No. CWBR051 to MH No. CWBR050 (east section)	8 days Sun 1/9/13 84 days Mon 9/9/13		1/9 8/9	1/12					
MH No. CWBR051 to MH No. CWBR050 (east section) MH No. CWBR050 to MH No. CWBR049 MHNo. CWBR049 to MH No. TS097 (pipe jacking)		Sun 29/12/13	ara	2/12 29/12					
Rising Main from MH No. CWBR049 (249m)  Crossing Rising Main from MH No. CWBR049 (26pe jacking) (28m)	190 days Mon 30/12/13 25 days Tue 8/7/14	8 Mon 7/7/14		30/12 7/2 30/12	877				
MH No. CWBR 043 to MH No. CWBR 045 (pipe jacking)	47 days Sat 2/8/14 46 days Sat 2/8/14	Wed 17/9/14			2/8 1/9 2/8 16/9				
MH No. CWBR043 to MH No. CWBR041 MH No. CWBR 045 to MH No. TLS210 MH No. CWBR 043 to MH No. TLS192	35 days Sat 2/8/14 20 days Sat 6/9/14	Fri 5/9/14			2/8 5/9 25/9				
MH No. CWBR041 to MH No. CWBR040 MH No. CWBR040 to MH No. CWBR039		Sat 25/10/14			27/9 25/10 25/10 16/12				
MH No. TLS 017 to MH No. CWBR 039 MH No. CWBR039 to MH No. CWBR038	15 days Sat 27/12/14 36 days Sat 27/12/14	Sat 10/1/15			27/12 10/1	31 <i>n</i>			
MH No. CWBR038 to MH No. CWBR037 MH No. CWBR 037 to MH No. TLS 202 (pipe jacking)	31 days Sun 1/2/15 36 days Wed 4/3/15				1/2 1	31/1 3/3 8/4 4/3 8/4 5/5 6/5 10/6 30/6 177 12/7 13/7			
MH No. CWBR037 to MH No. CWBR036 MH No. CWBR036 to MH No. CWBR099	35 days Wed 4/3/15 18 days Sat 18/4/15					4/3 7/4 18/4 5/5			
MH No. CWBR099 to MH No. CWBR034 MH No. CWBR034 to MH No. CWBR033	35 days Wed 6/5/15 21 days Wed 10/6/15	Tue 30/6/15				6/5 9/6 10/6 30/6			
MH No. CWBR034 to MH No. TLS383 Rising Main from MH No. CWBR033 (136m)	12 days Wed 1/7/15 98 days Mon 13/7/15	Sun 18/10/15				1/7 12/7 13/7	18/10		
Rising Main Crossing from MH No. CWBR033 (20m) MH No. CWBR030 to MH No. CWBR032 (pipe jacking)	35 days Mon 19/10/15 43 days Mon 23/11/15	Mon 4/1/16					23/11 23/11		
MH No. CWBR030 to MH No. CWBR 029 MH No. PSW 066 to MH No. CWBR 029		Wed 10/2/16					19/10 23/11 3/1/1 5/1 2 3/1/1 1/2 3/		
MH No. CWBR029 to MH No. CWBR 028 MH No. CWBR028 to MH No. CWBR 027 MH No. CWBR027 to MH No. CWBR 024	42 days Tue 1/3/16						1/3	11/4	
MH No. CWBR027 to MH No. CWBR 024  MH No. CWBR027 to MH No. PSW073  MH No.CWBR027 to MH No. PSW022	24 days Fri 22/4/16 20 days Mon 16/5/16 10 days Sun 5/6/16	Sat 4/6/16				i i		16/5 4/6	
6 MH No. CWBR024 to MH No. CWBR 023 7 MH No. CWBR023 to MH No. CWBR 022	23 days Mon 16/5/16 15 days Wed 8/6/16	Tue 7/6/16						16/5 7/6	
MH No. CWBR022 to MH No. CWBR 021 MH No. CWBR021 to MH No. CWBR 020	27 days Thu 23/6/16 27 days Wed 20/7/16	Tue 19/7/16						23/6 19/7	 
0 MH No. CWBR 020 to MH No. PSW010 1 MH No. PSW010 to MH No. PSW009	20 days Tue 16/8/16							16/8	5/9 14/9
MH No. CWBR020 to MH No. CWBR 018 MH No. CWBR018 to MH No. CWBR 017	35 days Tue 16/8/16 37 days Tue 20/9/16	Mon 19/9/16 Wed 26/10/16						16/8	19/9
4 MH No. CWBR017 to MH No. CWBR 016 5 MH No. CWBR016 to MH No. CWBR 015	25 days Thu 27/10/16 26 days Mon 21/11/16	Fri 16/12/16							27/10 20/11 20/11
5 Testing of Pipeline 7 Permanent Reinstatement of Carriageway	26 days Sat 17/12/16 11 days Thu 12/1/17	Wed 11/1/17 Sun 22/1/17							17/12
3   0   Trunk Sewer and Rising Mains along CWBR-Work Front B   0   MiH No.CWBR 015 to MiH No. CWBR 013	473 days Fri 29/11/13			29/11		<b>─</b>			
0) MH No.CWBR 015 to MH No. CWBR 013 1 MH No. CWBR013 to MH No. CWBR 012 2 MH No. CWBR012 to MH No. CWBR 011	44 days Fri 29/11/13 44 days Wed 22/1/14			22/1 6/3					
MH No. CWBR011 to MH No. CWBR 010 MH No. CWBR011 to MH No. CWBR 000 MH No. CWBR010 to MH No. CWBR 008	38 days Sat 19/4/14	Mon 26/5/14		19/4	265   16 15/7   15/7   28/8				
MH No. CWBR008 to MH No. CWBR 007 MH No. CWBR007 to MH No. CWBR 006	40 days Fri 6/6/14 44 days Wed 16/7/14 21 days Fri 29/8/14	Thu 28/8/14			16/7 28/8 28/8				
MH No. CWBR006 to MH No. CWBR 005 MH No. CWBR005 to MH No. CWBR 004		Wed 15/10/14			15/7 29/8 19/9 15/10 20/11 21/12 22/12 22/12 26/1				
MH No. CWBR004 to MH No. CWBR 003 MH No. CWBR003 to MH No. CWBR 002	31 days Fri 21/11/14 35 days Mon 22/12/14	Sun 21/12/14 Sun 25/1/15			21/11 21/12 22/12 22/12	25/1			
MH No. CWBR002 to MH No. CWBR 001 MH No. CWBR 001 to MH No. PUA014 (pipejacking)	44 days Mon 26/1/15 50 days Mon 26/1/15	Tue 10/3/15			26/1 26/1	10/3			
Trunk Sewer and Rising Mains along CWBR -Work Front C	1119 days Tue 31/12/13								
Completion of Cross Road Ducts Works of Contract CV/2007/03 MH No.FHS 051 to MH No. CWBR096 (pipe jacking)	0 days Tue 31/12/13 45 days Tue 31/12/13	Thu 13/2/14		31/12					
MH No.FHS051 to MH No. 050 MH No. CWBR096 to MH No. CWBR 095		Wed 12/3/14		14/2					
MH No. CWBR095 to MH No. CWBR 094 MH No.CWBR 094 to MH No. CWBR094A (pipe jacking)	60 days Fri 18/4/14	Thu 17/4/14 Mon 16/6/14		1911 14/2 13/3 13/3 13/3 18/4 18/4	19/7 24/8 7/10 8/11 19/7 20/12 20/12 20/12 20/12 11/1				
MH No. CWBR094 to MH No. CWBR 093 MH No. CWBR093 to MH No. CWBR 092 MH No. CWBR093 to MH No. CWBR 092	44 days Fri 18/4/14 33 days Tue 17/6/14	Sat 19/7/14		18/4	17/6 19/7				i i
MH No. CWBR92 to MH No. CWBR090 MH No. CWBR09 to MH No. CWBR089 MH No. CWBR089 to MH No. CWBR088	36 days Sun 20/7/14 44 days Mon 25/8/14 31 days Thu 9/10/14	Tue 7/10/14			25/8				
MH No. CWBR88 to MH No. CWBR084 MH No. CWBR88 to MH No. CWBR084 MH No. CWBR84 to MH No. CWBR083		Thu 18/12/14			9/11 18/12				I I
MH No. CWBR083 to MH No. CWBR076 MH No. CWBR076 to MH No. CWBR074	231 days Sun 11/1/15 36 days Sun 30/8/15	Sat 29/8/15			11/1	308	9/8		
MH No. CWBR074 to MH No. CWBR070 MH No. CWBR070 to MH No. CWBR065	30 days Mon 5/10/15 150 days Wed 4/11/15	Tue 3/11/15				3070	3/8 4/10 5/10 4/11	1/4	I I
MH No. CWBR065 to MH No. LWT019 (pipe jacking) MH No. CWBR065 to MH No. CWBR059	36 days Sat 2/4/16 36 days Sat 2/4/16	Sat 7/5/16					2 2	1/4 7/5 1/4 7/5 1/4 18/5 15/6 15/7 15/7 15/7	I I
MH No. CWBR065 to MH No. CWBR059 MH No. CWBR055 to MH No. CWBR064 MH No. CWBR59 to MH No. CWBR058	17 days Sat 2/4/16 28 days Wed 18/5/16	Mon 18/4/16						18/4	
MH No. CWBR58 to MH No. CWBR057 MH No. CWBR057 to MH No. LWT008 (pipe jacking)	30 days Wed 15/6/16							15/6 15/7	28/8
MH No. CWBR057 to MH No. LWT008 (pipe jacking) MH No. CWBR057 to MH No. CWBR051 Testing of Pipeline		Sun 11/12/16						15/7	12/12
Permanent Reinstatement of Carriageway Milestone for Watermains and Rising Mains along Clear Water Bay Road	12 days Wed 11/1/17 0 days Wed 25/5/16	Sun 22/1/17 Wed 25/5/16						25/5	11/1
wilestone for watermains and Rising Mains along Clear water bay Road		Mon 23/1/17		1 1 1					*
Milestone for Sewer and Rising Main Road Crossing (Group 2) at Clear Water Bay Road  Model of the Company of th	o dayo mon za ii ii								
Milestone for Sewer and Rising Main Road Crossing (Group 2) at Clear Water Bay	500 days Mon 6/1/14 500 days Mon 6/1/14			61		20/5			

Welcome Constuction Co Ltd.
Contract No. DC/2012/06
Sewerage at Clear Water Bay Road, Pik Shui Sun Tsuen and West of Sai Kung Town
Project Programme 09 (Dec 2013)





## Appendix B. Project Organization



Company / Department	Position	Name	Telephone / Mobile
Drainage Services Department	Project Proponent	Mr Chow Sui Ping	2594 7453
Black & Veatch Hong Kong Limited	Engineer's Representative	Mr Eugene Chan	6075 8606
Mott MacDonald Hong Kong Ltd.	Independent Checker	Mr Terence Kong	2828 5919
Welcome Construction Company Limited	Project Director	Mr Sunny Ngan	6109 5569
Welcome Construction Company Limited	Site Agent	Mr Frankie Lui	6021 7973
Welcome Construction Company Limited	Assistant Environmental Officer	Mr Sze Ming Fung	6018 6936





## Appendix C. Environmental Mitigation Measures-Implementation Status

Table C1:	Construction Noise – Recommended Mitigation Measures	
* PP / ^ EP ref:	Recommended measures	Implementation Status
*5.2.6	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	N/A
	<ul> <li>Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> </ul>	N/A
	<ul> <li>Plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from nearby NSRs.</li> </ul>	N/A
	• Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction works.	N/A
	Mobile plant should be sited as far away from NSRs as possible.	N/A
*5.2.2, 5.2.6	Use of temporary noise barrier, mobile barrier	N/A
*5.2.6	Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities	N/A
*5.2.6	Noisy construction activities such as road breaking, should be scheduled to less sensitive hours during the day	N/A
*5.2.6	Liaise with the affected noise sensitive receivers on the anticipated construction activities, possible impacts, expected duration and communication channel with the project office.	N/A
*5.2.1,*Table 6.1	Adoption of quiet powered mechanical equipment (QPME) during construction	N/A
*5.2.4, ^2.3	• For the sewer works located less than 15 m away from Cheng Chek Chee Secondary School, construction works can only be conducted after school hours or during school breaks. For the sewer works located between 15 m – 30 m away from the School, the contractor should liaise with the school and/or the Examination Authority to ascertain the exact dates and times of all examination periods and to avoid noisy construction activities during these periods.	N/A

Table C2: Air Quality - Recommended Mitigation Measures

* PP / ^ EP ref:	Recommended measures	Implementation Status
*5.2.8, ^1.2	Comply with the control measures in the Air Pollution Control (Construction dust) Ordinance.	N/A
*5.2.8	<ul> <li>Excavated dusty materials should be covered by impervious sheeting or sprayed with water to keep the entire surface wet.</li> </ul>	N/A
*5.2.8	<ul> <li>Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.</li> </ul>	N/A



Table C3: Water Quality – Recommended Mitigation Measures

* PP / ^ EP ref:	Recommended measures	Implementation Status	
*5.2.10, * Table 6.1	<ul> <li>Follow the guidelines in ProPECC PN 1/94 "Construction Site Drainage".</li> </ul>	N/A	
	• Silt removal facilities should be provided according to the guidelines stipulated in EPD's ProPECC PN 1/94.	N/A	
	<ul> <li>Cover open stockpiles of construction materials with tarpaulin or similar fabric during rainstorms.</li> </ul>	N/A	

Table C4: Waste Management – Recommended Mitigation Measures

* PP / ^ EP ref:	Recommended measures	Implementation Status
*5.2.12, *Table 6.1	<ul> <li>Sort all C&amp;D materials and waste into different categories for reuse on site, recycling and disposal at designated public fill reception facilities or landfills.</li> </ul>	N/A
	<ul> <li>C&amp;D material and excavated materials should be reused on-site as fill material as far as possible.</li> </ul>	N/A
	• Disposal of C&D materials should be managed through the trip ticket system for disposal of C&D materials.	N/A
*5.2.12	<ul> <li>All Chemical waste should be handled, stored and disposed of in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</li> </ul>	N/A

Table C5: Landscape and Visual Impact – Recommended Mitigation Measures

* PP / ^ EP ref:	Recommended measures	Implementation Status
*5.2.14, *Table 6.2	Retain and protect existing trees near works site.	N/A
	<ul> <li>Erect site hoarding compatible with the surrounding environment for the pumping station works area</li> </ul>	N/A
	<ul> <li>Maintain site cleanliness and tidiness in accordance with the requirements stipulated in DEVB TCW No. 8/2010.</li> </ul>	N/A
	Properly manage construction waste in the works area.	N/A
	Minimize the number and size of temporary works area.	N/A
	<ul> <li>Promptly reinstate each section of the trench upon completion of the sewer works.</li> </ul>	N/A
	Control of night-time security lightning to minimize night-time glare to nearby village.	N/A



#### Table C6: Others

* PP / ^ EP ref:	Recommended measures	Implementation Status
^1.5	A copy of the valid Environmental Permit shall be displayed conspicuously on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public information at all times. The most updated information about the Permit, including any amended Permit, shall be displayed at such locations. If the Permit Holder surrenders a part or whole of the Permit, the notice he send to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s).	N/A
n/a	• The required licenses should be obtained by the Contractor (including CNP (if any), WPCO license, etc.)	<b>√</b>

#### Legend:

✓	Implemented
×	Not implemented
Р	Partially implemented
N/A	Not applicable
N/O	Not observed





## Appendix D. Waste Flow Table

Contract No.: DC/ 2012/06

## **Monthly Summary Waste Flow Table for December 2013**

	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly					
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Yr 2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sept	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dec	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000



# Appendix E. Cumulative statistics on complaints, notifications of summons and successful prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works (i.e. 26 August 2013) to the end of the reporting month and are summarized in the **Table F1** below.

Table F1: Statistics for complaints, notifications of summons and successful prosecutions

Reporting Period	Cumulative Statistics					
	Complaints	Notifications of summons	Successful prosecutions			
This reporting month	0	0	0			
From 26 August 2013 to end of the reporting month	0	0	0			

