

**Contract No. : DC/2007/06**  
**River Improvement Works in Upper Lam Tsuen,  
She Shan River and Upper Tai Po River**

ENVIRONMENTAL MONITORING AND AUDIT

**MONTHLY EM&A REPORT of**

**UPPER TAI PO RIVER**

**for June 2011**

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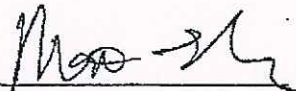
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**Executive summary**

This is the thirty-fourth monthly Environmental Monitoring and Audit (EM&A) Report for the river improvement works at Upper Tai Po River under Drainage Services Department Contract No. DC/2007/06 entitled “River Improvement Works in Upper Lam Tsuen River, She Shan River and Upper Tai Po River”. This report concludes the impact monitoring for the activities undertaken during the period from 1<sup>st</sup> June 2011 to 30<sup>th</sup> June 2011. Provision of temporary protection measures for wet season was the major site activity being carried out in this reporting period.

The Environmental Team (ET) is responsible for the EM&A works required in the EM&A manual. Site inspections were carried out on weekly basis to investigate and audit the equipment and work methodologies with respect to pollution control and environmental mitigation. The weekly inspections records and photos taken were kept.

The next ecological impact monitoring was arranged on 21<sup>st</sup> and 22<sup>nd</sup> July 2011. The summary of ecological site inspection findings and implementation status of environmental protection and mitigation for ecology, prepared by the Ecologist, are provided in table 6.2 and Appendix G respectively.

Environmental Team had carried out construction noise monitoring on weekly basis and no exceedance was found. Noise monitoring records for the reporting month and the data is presented in Section 4. The location plan and the graphical plots presenting the data are provided in Appendix D.

Piling works has been omitted. Therefore, no vibration monitoring was conducted by ET during the reporting month.

There was no non-compliance events recorded in this reporting month.

There was no formal complaint in relation to environmental issue received in the reporting month.

There was no breach of action and limit levels for this reporting month.

There was no reporting change for this month.

In accordance with the contractual requirements, no excavation works in river is allowed to be carried out during wet season. No major construction activity will be carried out in the upcoming month.

ET has reminded the contractor to provide environmental pollution control measures wherever necessary and to keep a good environmental management at site practice.

## 1.0 Introduction

This is the thirty-fourth monthly Environmental Monitoring and Audit (EM&A) Report for the river improvement works at Upper Tai Po River under Drainage Services Department Contract No. DC/2007/06 entitled “River Improvement Works in Upper Lam Tsuen River, She Shan River and Upper Tai Po River”. The site layout plan is shown in Figure 2.1. The Environmental Team, Environmental Pioneers & Solutions Limited appointed by Chiu Hing Construction and Transportation Company Limited, prepares the report. The report is to be submitted to the Contractor, the Engineer and the IEC.

This report presents the results of the environmental monitoring of the project activities for Upper Tai Po River conducted during the month of June 2011. This included regular site inspections once per week for verification of implementation of the mitigation measures as recommended in the Environmental Permit (EP-223/2005/A) (EP), EM&A Manual and the Contractor’s Environmental Management Plan (EMP).

## 2.0 Environmental status

### 2.1 Project area

The location of the project site – Upper Tai Po River starting from Ta Tit Yan of Yai Mo Shan, the Upper Tai Po River flows from southeast to northeast alongside Wilson Trail, turning northward before joining the Lam Tsuen River and then runs towards Tai Po Market. To the east of the river, there are active and abandoned cultivated lands. While the village settlements are mainly located on the west and northeast side of the river bank, where the San Uk Ka and Lai Chi Shan establishment also lie. The Project site is indicated in **Figure 2.1**.

### 2.2 Construction programme

Approximately 0.6km of Upper Tai Po River will be improved to enhance the hydraulic performance of the river. The improvement works comprise the following:

- (1) Re-profiling and realignment of the Channel;
- (2) Inclusion of gabions and retaining wall for bank protection whilst providing a natural channel bed; and
- (3) Re-provisioning of footbridges and footpaths along the channel

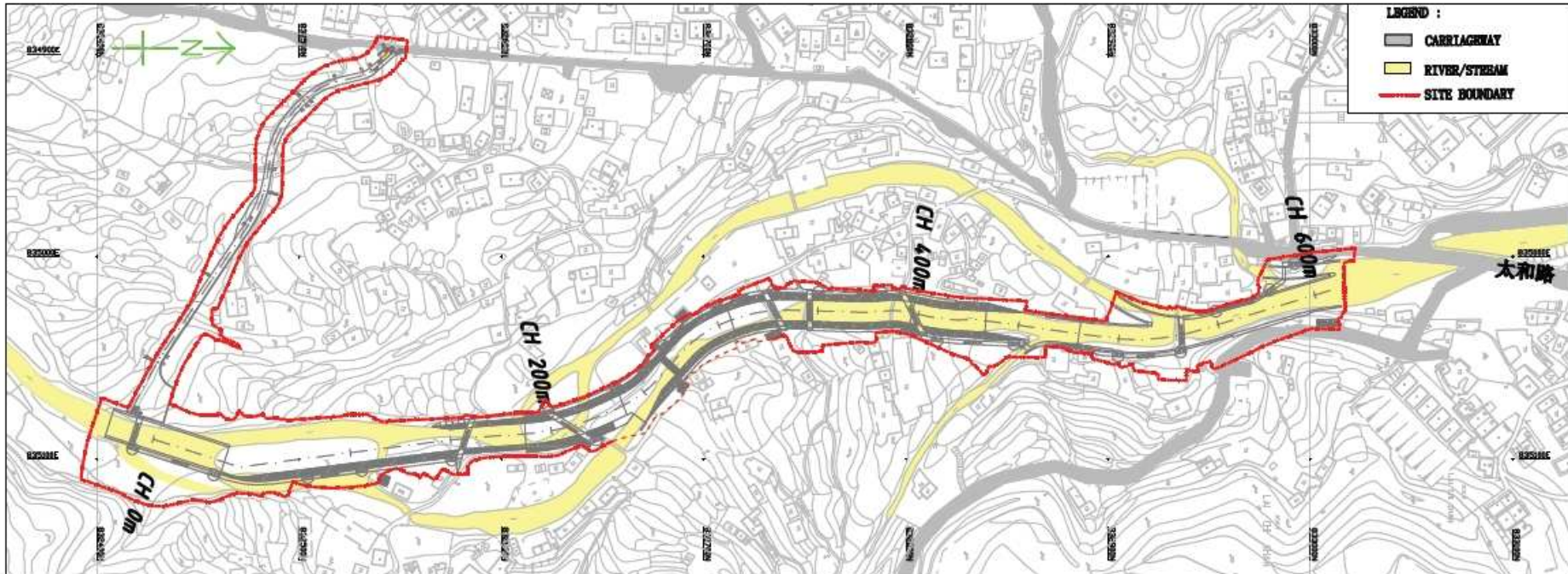
The construction of the proposed improvement works for Upper Tai Po River has been commenced on September 15<sup>th</sup> 2008 and anticipated to complete in April 2012.

### **2.3 Proposed construction sequences**

The proposed construction sequence is shown in the following sequences:

- (1) Site clearance and preparation works
- (2) Construction of the maintenance access which involves the construction of retaining walls
- (3) River channel construction and excavation, involving the excavation works, construction of retaining walls and gabion walls
- (4) Re-provisioning of footbridges
- (5) Construction of footpaths
- (6) Landscaping works

Fig 2.1 Layout of construction area



Upper Tai Po River



#### **2.4 Construction activities for the reporting period**

Major construction activity carried out by the contractor during this reporting period includes:

- 1.) Provision of temporary protection measures for wet season

#### **2.5 Construction activities for the next reporting period**

- 1.) No major construction activity will be carried out except provision of temporary protection measure for wet season

#### **2.6 Exceedance with the environmental performance limits**

There was no exceedance with the environmental performance limits for this reporting month. The event and action plan for Ecology is shown in Appendix A. The action and limit level for Noise is shown in Appendix B. The reference standards for vibration are shown in Appendix C.

#### **2.7 Summary of complaints**

No formal complaint in relation to environmental issues was received in the reporting month. Totally seventeen complaints had been received since the commencement of the contract. The cumulative complaint log is shown in Appendix F.

### 3.0 Ecological monitoring results

No ecological survey was carried out in this reporting period. The next ecological impact monitoring was arranged on 21st and 22<sup>nd</sup> July 2011.

### 4.0 Noise monitoring results

In accordance with the EM&A Manual, monitoring locations were established at 11 N.S.R. locations. The descriptions of all 11 N.S.R. are shown in Table 4.1.

**TABLE 4.1 Description of Noise Sensitive Receivers**

| <b>Sensitive Receiver No.</b> | <b>Location and Description</b>             |
|-------------------------------|---|
| UTP1                          | 54B, Sheung Wun Yiu                         |
| UTP2                          | Village House in Lai Chi Shan               |
| UTP3                          | Village House near Upper Tai Po River       |
| UTP4                          | Village House near Upper Tai Po River       |
| UTP5                          | Village House near Upper Tai Po River       |
| UTP6                          | Village House near Upper Tai Po River       |
| UTP7                          | Village House near Upper Tai Po River       |
| UTP8                          | Village House near Upper Tai Po River       |
| UTP9                          | 49A, Pun Shan Chau                          |
| UTP10                         | Village House near the proposed access road |
| UTP11                         | 49G, San Uk Ka                              |

Noise monitoring was carried out by the Environmental Team on weekly basis for this reporting month on 3<sup>rd</sup>, 10<sup>th</sup>, 17<sup>th</sup> and 24<sup>th</sup> June 2011. Measured  $L_{eq(30min)}$  results ranged from 45.9dB(A) to 69.8dB(A). And therefore, no exceedance was recorded on within the reporting period.

For further details of the monitoring results, graphical plots and the location plan, please refer to the Appendix D.

## 5.0 Vibration monitoring results

There was no vibration monitoring results for this reporting month. Vibration monitoring will be started once the piling works start in Upper Tai Po River.

## 6.0 Environmental issues and actions

### 6.1 Site inspections and key environmental issues

Site inspections were undertaken routinely to inspect the construction activities in Upper Tai Po River to ensure that appropriate environmental protection and pollution control mitigation measures are properly implemented. Implementation status of environmental protection and mitigation measures is shown in Appendix G.

Within this reporting month, site inspections were conducted on 1<sup>st</sup>, 8<sup>th</sup>, 15<sup>th</sup>, 22<sup>th</sup>, and 29<sup>th</sup> June 2011. A detailed checklist of each site inspection together with comments and relevant photos have been filed and kept. The findings from inspection were summarized in Table 6.1.

Ecological inspections by the Ecologist Dr. Mark Shea were carried out on 1<sup>st</sup>, 6<sup>th</sup>, 13<sup>th</sup>, 20<sup>th</sup>, 27<sup>th</sup> and 30<sup>th</sup> June 2011. Details of findings were summarized in Table 6.2.

Table 6.1 Summary results of site inspections findings

| Date   | Findings   | Identification | Advice from ET  | Action taken  | Closing date | Remarks |
|--|--|----------------|---|---|--------------|---------|
| 09, 16, 23 & 30 Mar 11                         | Tree without identification at ch.300 was observed to be damaged by operation of backhoe | Observation    | Contractor was advised to check the status of the tree and implement necessary protective measures for preserved trees before commencement of works | Follow up action was taken as reported by Contractor                              | 1 June 2011  | --      |
| 6, 13, 20 & 27 Apr 11;<br>4, 11, 18, 25 May 11 | The sandbags barrier at temporary crossing at ch.600 were observed to be damaged         | Observation    | Contractor was advised to replace the sandbags as soon as possible.   | The sandbags were removed and the temporary crossing was not in use in wet season | 1 June 2011  | --      |

| Date       | Findings   | Identification | Advice from ET  | Action taken  | Closing date | Remarks |
|------------|--|----------------|---|---|--------------|---------|
| 4 May 11   | Muddy surface runoff was observed discharging directly into the river without any proper treatment at approximate ch.100   | Non-compliance | Contractor was seriously recommended to rectify the mitigation measures for surface runoff and divert the muddy site water for treatment properly prior to discharging into the river     | The surface run-off at approximate ch.100 of UTPR was not muddy during site inspections carried out on 11 <sup>th</sup> , 18 <sup>th</sup> and 25 <sup>th</sup> May 2011, the run-off was still observed to be discharged directly into the river without any treatment. To be followed during the next reporting period. | Ongoing      | --      |
| 25 May 11  | River banks at approximate ch.200 of UTPR were exposed without mitigation measure for prevention of surface run-off.   | Observation    | Contractor was recommended to provide tarpaulin cover or other mitigation measures as appropriate to protect the river banks from erosion and contaminating the river by surface run-off. | Follow up action was taken as reported by Contractor  | 1 June 11    | --      |
| 25 May 11  | Construction materials and general wastes were observed at approximate ch.300  | Observation    | Contractor was recommend to remove it and perform a good housekeeping practices   | Follow up action was taken as reported by Contractor  | 1 June 11    | --      |
| 1 June 11  | Wheelbarrows were not in used at approximate ch.450 of UTPR  | Observation    | Contractor was advised to turn over the wheelbarrows to prevent accumulation of water.  | The wheelbarrows were removed by contractor.  | 15 June11    | --      |
| 1 June 11  | The wheel washing bay at ch.600 of UTPR had reached its maximum capacity and overflow of turbid water was observed discharging into the river at ch.600 of UTPR. | Observation    | Contractor was advised to drain away excessive water in the wheel washing bay or to provide silt curtain to prevent the turbid run-off from entering the river.                           | As maintenance was provided to the wheel washing bay at ch.600 of UTPR, overflow of muddy water was not observed  | 8 June 11    | --      |
| 15 June11  | The concrete lorry mixer filling the concrete funnel was very close to the river at Upper Tai Po River near  | Observation    | Contractor was advised to relocate the process away from the river to prevent spilling of concrete to the river and river contamination.  | To be followed during the next reporting period.  | Ongoing      | --      |
| 22 June 11 | Stockpiles of earthy materials leading to muddy generation were observed at ch.600 of UTPR   | Observation    | Contractor was advised to remove it and to provide mitigation measures to prevent river contamination.  | To be followed during the next reporting period.  | Ongoing      | --      |
| 22 June 11 | No proper fencing for the tree B274D was observed at ch.0 of UTPR.   | Observation    | Contractor was reminded to rectify the discrepancy as soon as possible.   | To be followed during the next reporting period.  | Ongoing      | --      |
| 29 June 11 | Water was accumulated inside the construction holes at ch.400 of UTPR and mosquito breeding was observed.  | Observation    | Contractor was advised to remove the stagnant water and fill the concaved area of the cover with sand to prevent the accumulation of stagnant water.                                      | To be followed during the next reporting period.  | Ongoing      | --      |

The summary of ecological inspection prepared by the Ecologist, Dr. Mark Shea is shown in Table 6.2.

| <b>Table 6.2 Summary results of ecological site inspection findings</b> |                                       |                       |                                   |              |
|---|---------------------------------------|-----------------------|-----------------------------------|--------------|
| Date  | Observations                          | Advice from Ecologist | Action Taken                      | Closing Date |
| 01 June 2011  | No Major findings for this inspection | No Advice is required | No Action is required to be taken | N/A          |
| 06 June 2011  | No Major findings for this inspection | No Advice is required | No Action is required to be taken | N/A          |
| 13 June 2011  | No Major findings for this inspection | No Advice is required | No Action is required to be taken | N/A          |
| 20 June 2011  | No Major findings for this inspection | No Advice is required | No Action is required to be taken | N/A          |
| 27 June 2011  | No Major findings for this inspection | No Advice is required | No Action is required to be taken | N/A          |
| 30 June 2011  | No Major findings for this inspection | No Advice is required | No Action is required to be taken | N/A          |

## 6.2 Non-compliance

There was no non-compliance events recorded in this reporting month.

## 6.3 Recommendations

Contractor was recommended to implement necessary measures in mitigating water quality impact arisen from construction activities. Riverbanks and earth bunds should be covered with geo-textile coverings to prevent erosion.

Sufficient and effective site water treatment facilities should be provided on site. Any wastewater, surface run-off and muddy effluent within site area should be diverted for treatment before discharge.

Also, Contractor was reminded to implement good housekeeping practice. Contractor shall assign proper waste collection area for segregation and storage before disposal. All waste generated should be properly collected, stored, and disposed as soon as possible to improve housekeeping performance of the construction site.

#### **6.4 Implementation status and effectiveness of the mitigation measures**

Refer to the table 6.1 and Section 6.2, contractor was seriously recommended to implement necessary mitigation measures to address environmental problem arisen from site activities, especially issue of site water control and protection of bared earth surfaces.

## 7.0 Waste management status

It is the contractor's responsibility to ensure that all wastes produced during construction phase for the drainage improvement works are handled, stored and disposed of in accordance with good waste management practices and EPD's regulation and requirement. Waste materials generated during construction activities such as construction and demolition(C&D) material, chemical wastes and general refuse, are recommended to be audited at regular intervals to ensure that proper storage, transportation and disposal practices are being implemented. **Table 7.1** is the Waste Disposal recorded by the Contractor in this month.

From the report of Contractor, C&D materials generated, were all reused and therefore no inert waste was disposed from the project.

The following table showed amount of waste generation, reused and disposed from this project site in this reporting month.

Table 7.1 Summary of Waste generated and disposed in June 2011

| Type of waste   | Amount generated | Amount reused    | Amount disposed |
|-----------------|------------------|------------------|-----------------|
| Inert waste     | 3 m <sup>3</sup> | 3 m <sup>3</sup> | 0               |
| Non-inert waste | 1 kg             | 0                | 1 kg            |
| Chemical waste  | 0                | N/A              | 0               |

The cumulative waste flow table is shown in Appendix H.

## 8.0 Status of environmental licensing and permit

This project requires different permits and licenses to be run legally. **Table 8.1** is the summary of permits/ licenses for this project.

**Table 8.1 Summary of Environmental Licensing and Permit Status**

| Description  | License / Permit No. | Date of Issue              | Date of Expiry             | Remarks    |
|--|----------------------|----------------------------|----------------------------|------------|
| Environmental Permit                               | EP-223/2005          | 31 <sup>st</sup> Aug, 2005 | N/A                        | Superseded |
| Amended Environmental Permit                       | EP-223/2005/A        | 18 <sup>th</sup> Nov, 2008 | N/A                        | Issued     |
| Construction Noise Permit                          | N/A                  | N/A                        | N/A                        | N/A        |
| Effluent Discharge License                         | 3678                 | 14 <sup>th</sup> Mar, 2008 | 31 <sup>st</sup> Mar, 2013 | Issued     |
| Registration as a Chemical Waste Producer          | 5213-724-C3251-03    | 19 <sup>th</sup> Dec, 2007 | Not applicable             | Issued     |
| Billing Account for Disposal of Construction Waste | 7006101              | N/A                        | N/A                        | N/A        |



## **9.0 Future key issues**

According to the contractual requirements, no excavation works in rivers is allowed in wet season. No major construction activity will be carried out in the upcoming month.

To minimize water quality impact arising from construction activities within river channel, water quality mitigation measures should be implemented as far as practicable. Any muddy water, underground water or wastewater generated from construction activities should be diverted to proper treatment facility prior to discharge.

Contractor was reminded to provide regular water spraying to dusty static area for dust suppression. Excessive storage of stockpile and exposed of earth surfaces should be prevented to minimize air quality impact arisen by wind erosion.

Contractor is advised to assign a site area for temporary waste storage and segregation. Wastes accumulation should be prevented on site; licensed waste collection and disposal should be implemented regularly for hygiene issues.

## **10.0 Conclusion**

Provision of temporary protection measures for wet season was the major site activity carried out by the Contractor in this reporting period.

Regular site meetings and inspection audits led by the seniors for discussing environmental issues were held among project proponent, Contractor and the Environmental Team on weekly basis.

Environmental Team had carried out construction noise monitoring on weekly basis. All results obtained were within limit and therefore no exceedance was recorded in this reporting month.

Piling works has been omitted. Therefore, no vibration monitoring was conducted during the reporting month.

From the summary of ecological site inspection findings and implementation status of environmental protection and mitigation for ecology, prepared by the Ecologist Dr. Mark Shea, there is no abnormal finding observed in the reporting month. The ecologist has no further advice and no action suggested to the contractor.

There was no non-compliance events recorded in this reporting month.

There was no formal complaint in relation to environmental issue received in the reporting month.

The ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirement.

## **Appendix A: Event and action plan for ecology**

**Event and action plan for ecology**

In the event of non-compliance, the Event / Action plan prepared by the ecologist shall be followed. Detailed Event/ Action plan was shown in **Appendix Table 1** for reference.

It is not proposed to set population size of the three species (i.e. Three-lined Chinese Stream Catfish, Predaceous and the Hong Kong Newt) or other faunal species for the Action Level and Limit Level in the revised EM&A manual in considering the following reasons:

- I. The schedule capture surveys would let to decrease in the populations of the target species; and
- II. The planned drainage works would also temporally de-fauna the stream habitat.

It is considered logical and appropriate to audit non-compliance events in relation with ecological mitigation measures, which were specified in the EP and the PS of the project.

**APPENDIX TABLE 1** Event / Action plan table for Ecology

| Event                                 | Action   |  |  |   |
|---------------------------------------|--|--|--|---|
|                                       | ET   | ER   | IEC  | Contractor  |
| <b>Non-conformity on one occasion</b> | 1. Identify Source<br>2. Inform the IEC and the ER<br>3. Discuss remedial actions with the IEC, the ER and the Contractor<br>4. Monitor remedial actions until rectification has been completed  | 1. Check report<br>2. Check the Contractor's working method<br>3. Discuss with the ET and the Contractor on possible remedial measures,<br>4. Advise the Contractor on effectiveness of proposed remedial measures<br>5. Check implementation of remedial measures           | 1. Ensure Remedial measures are properly implemented | 1. Amend working methods<br>2. Rectify damage and undertake any necessary replacement |
| <b>Repeated Non conformity</b>        | 1. Identify Source<br>2. Inform the IEC and the ER<br>3. Increase monitoring frequency<br>4. Discuss remedial actions with the IEC, the ER and the Contractor<br>5. Monitor remedial actions until rectification has been completed<br>6. If exceedance stops, cease additional monitoring | 1. Check monitoring report<br>2. Check the Contractor's working method<br>3. Discuss with the ET and the Contractor on possible remedial measures<br>4. Advise the Contractor on effectiveness of proposed remedial measures<br>5. Check implementation of remedial measures | 1. Ensure Remedial measures are properly implemented | 1. Amend working methods<br>2. Rectify damage and undertake any necessary replacement |

**Appendix B: Action and limit level for construction noise**

The Action and Limit levels for construction noise are defined in **Appendix Table 2**

**Appendix Table 2:** Action and Limit Levels for Construction Noise

| Time Period   | Action                                    | Limit   |
|---|---|---|
| 0700 – 1900 hrs on normal weekdays                                | When one documented complaint is received | 75 dB(A)*   |
| 0700 – 2300hrs on holidays; and 1900 – 2300 hrs on all other days |   | Subject to the control of Noise Control Ordinance |
| 2300 – 0700 hrs of next day                                       |   | Subject to the control of Noise Control Ordinance |

\*Limit level set in accordance with Particular Specification Section 26

## **Appendix C: Reference standards for vibration**



Guidance regarding vibration limits is provided by the following British Standards (or their equivalent ISO standards):

BS 7385 - Measurement and evaluation of vibration in buildings. Part 2: Guide to damage levels from ground borne vibration.

BS 7385 suggests vibration levels, below which damage is unlikely to occur in 95% of buildings. For cosmetic damage, the level is 15 mm/s at 4 Hz, increasing to 20 mm/s at 15 Hz, increasing to 50 mm/s at 40 Hz and above. Minor structural damage is possible at vibration levels twice those given above, major damage at four times the levels given.

**Appendix Table 3:** Transient vibration guide values for cosmetic building damage (BS7385:Part 2 1993)

|   | Type of Building                         | Peak component particle velocity (mm/s) in frequency range of predominant pulse   |
|---|--|---|
| 1 | Reinforced or framed structures          | 50 at 4 Hz and above  |
| 2 | Un-reinforced or light framed structures | 15 at 4 Hz,<br>increasing to 20 at 15 Hz,<br>increasing to 50 at 40 Hz and above. |

The vibration magnitudes and frequencies refer to Peak Particle Velocities (PPV) occurring in any single direction, measured on the ground level of the building concerned.

**Appendix D: Noise monitoring results, graphical plots and location plan**

| Location | Leq 30min | L <sub>10</sub> 30min | L <sub>90</sub> 30min | Date     | Time Duration | Major Construction Noise | Other Noise source               | Weather | Location description |
|----------|-----------|-----------------------|-----------------------|----------|---------------|--------------------------|----------------------------------|---------|----------------------|
| UTP 1    | 65.1      | 67.1                  | 52.6                  | 3-Jun-11 | 13:00-13:30   | N/A                      | Traffic noise & Background noise | Sunny   | Façade               |
| UTP 2    | 58.8      | 59.9                  | 48.3                  | 3-Jun-11 | 13:32-14:02   | N/A                      | Traffic noise & Background noise | Sunny   | Façade               |
| UTP 3    | 53.9      | 54.4                  | 49.6                  | 3-Jun-11 | 11:10-11:40   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 4    | 55.8      | 58.2                  | 49.1                  | 3-Jun-11 | 10:30-11:00   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 5    | 56.6      | 61.6                  | 46.4                  | 3-Jun-11 | 10:00-10:30   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 6    | 55.5      | 56.6                  | 48.3                  | 3-Jun-11 | 14:15-14:45   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 7    | 67.7      | 70.9                  | 60.0                  | 3-Jun-11 | 9:19-9:49     | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 8    | 63.0      | 65.9                  | 57.2                  | 3-Jun-11 | 14:50-15:20   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 9    | 54.9      | 57.5                  | 51.6                  | 3-Jun-11 | 15:25-15:55   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 10   | 45.9      | 47.8                  | 41.1                  | 3-Jun-11 | 16:40-17:20   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 11   | 56.8      | 59.3                  | 45.2                  | 3-Jun-11 | 16:10-16:40   | N/A                      | Background noise                 | Sunny   | <b>*Free field</b>   |

Note\* An Additional of 3dB(A) had been added to the measurement result due to Free Field Correction

| Location | Leq 30min | L <sub>10</sub> 30min | L <sub>90</sub> 30min | Date      | Time Duration | Major Construction Noise | Other Noise source               | Weather | Location description |
|----------|-----------|-----------------------|-----------------------|-----------|---------------|--------------------------|----------------------------------|---------|----------------------|
| UTP 1    | 63.1      | 66.1                  | 49.8                  | 10-Jun-11 | 15:03-15:33   | N/A                      | Traffic noise & Background noise | Sunny   | Façade               |
| UTP 2    | 59.7      | 61.0                  | 50.3                  | 10-Jun-11 | 11:47-12:17   | N/A                      | Traffic noise & Background noise | Sunny   | Façade               |
| UTP 3    | 57.4      | 55.6                  | 50.7                  | 10-Jun-11 | 11:10-11:40   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 4    | 56.0      | 58.1                  | 49.4                  | 10-Jun-11 | 10:04-10:34   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 5    | 50.8      | 52.5                  | 47.1                  | 10-Jun-11 | 10:35-11:05   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 6    | 56.3      | 60.0                  | 50.9                  | 10-Jun-11 | 9:32-10:02    | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 7    | 66.5      | 69.2                  | 61.4                  | 10-Jun-11 | 9:00-9:30     | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 8    | 60.6      | 62.8                  | 56.5                  | 10-Jun-11 | 13:38-14:08   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 9    | 57.1      | 59.8                  | 52.0                  | 10-Jun-11 | 14:09-14:39   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 10   | 51.0      | 52.5                  | 45.2                  | 10-Jun-11 | 15:35-16:05   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 11   | 55.6      | 56.0                  | 43.7                  | 10-Jun-11 | 13:00-13:30   | N/A                      | Background noise                 | Sunny   | <b>*Free field</b>   |

Note\* An Additional of 3dB(A) had been added to the measurement result due to Free Field Correction

| Location | Leq 30min | L <sub>10</sub> 30min | L <sub>90</sub> 30min | Date      | Time Duration | Major Construction Noise | Other Noise source               | Weather | Location description |
|----------|-----------|-----------------------|-----------------------|-----------|---------------|--------------------------|----------------------------------|---------|----------------------|
| UTP 1    | 66.5      | 69.8                  | 59.4                  | 17-Jun-11 | 14:40-15:10   | N/A                      | Traffic noise & Background noise | Rain    | Façade               |
| UTP 2    | 60.2      | 63.1                  | 51.8                  | 17-Jun-11 | 15:15-15:45   | N/A                      | Traffic noise & Background noise | Rain    | Façade               |
| UTP 3    | 55.1      | 57.2                  | 50.0                  | 17-Jun-11 | 14:05-14:35   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 4    | 60.3      | 61.2                  | 53.8                  | 17-Jun-11 | 13:32-14:02   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 5    | 65.8      | 70.1                  | 60.3                  | 17-Jun-11 | 13:01-13:31   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 6    | 60.7      | 61.8                  | 53.2                  | 17-Jun-11 | 9:33-10:03    | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 7    | 65.4      | 69.5                  | 57.3                  | 17-Jun-11 | 10:04-10:34   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 8    | 69.8      | 72.0                  | 63.4                  | 17-Jun-11 | 10:36-11:06   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 9    | 63.2      | 68.5                  | 55.8                  | 17-Jun-11 | 11:07-11:37   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 10   | 51.5      | 57.6                  | 47.2                  | 17-Jun-11 | 15:50-16:20   | N/A                      | Background noise                 | Rain    | Façade               |
| UTP 11   | 62.3      | 58.3                  | 48.3                  | 17-Jun-11 | 9:01-9:31     | N/A                      | Background noise                 | Rain    | <b>*Free field</b>   |

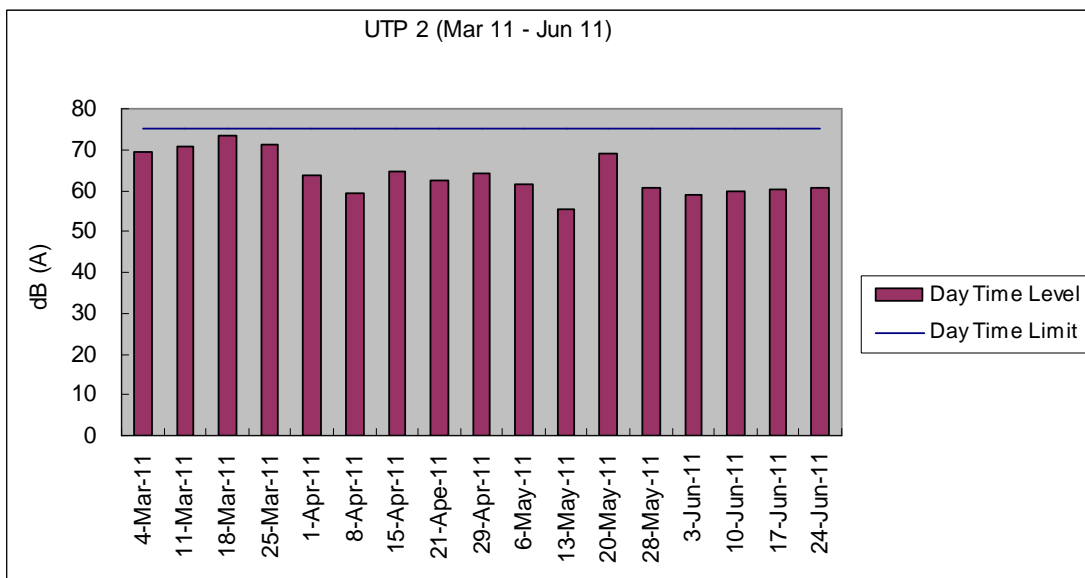
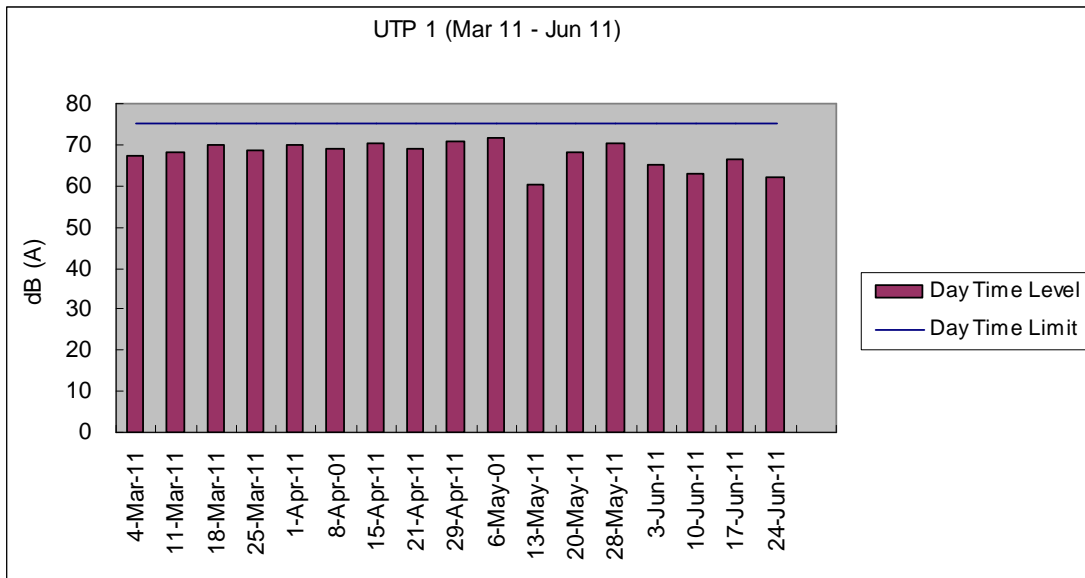
Note\* An Additional of 3dB(A) had been added to the measurement result due to Free Field Correction

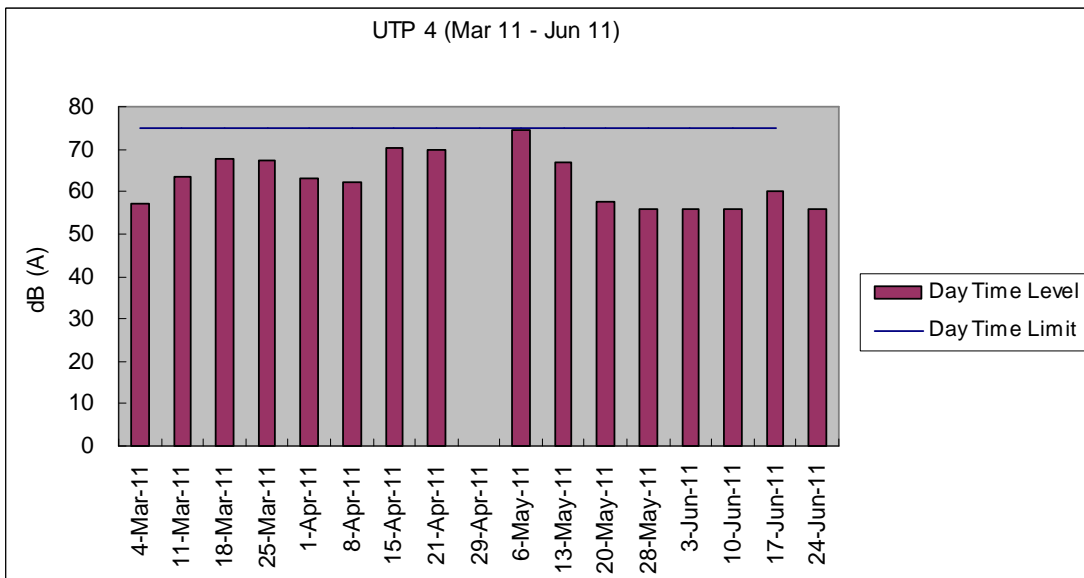
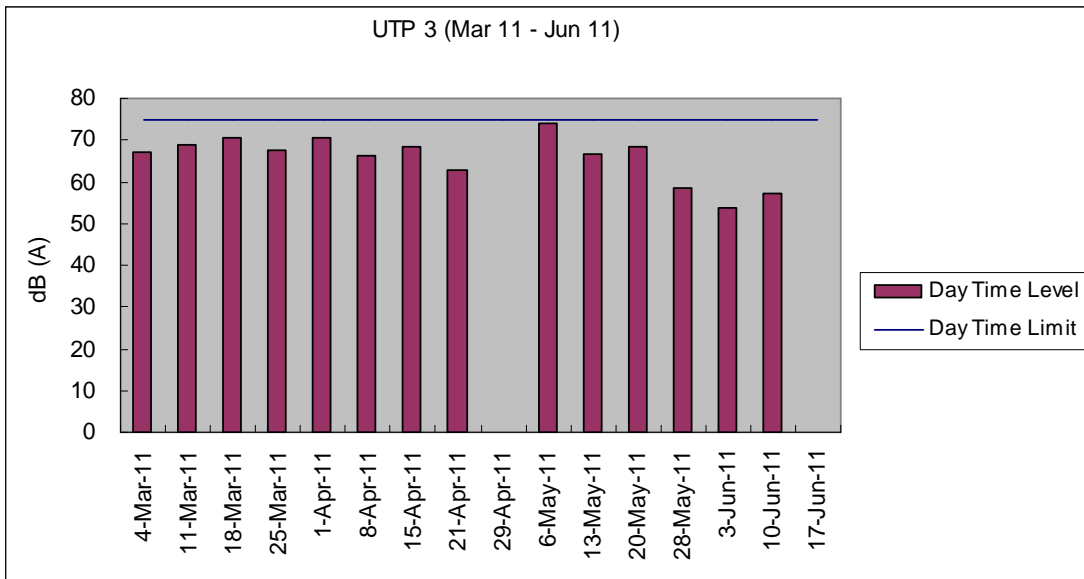
| Location | Leq 30min | L <sub>10</sub> 30min | L <sub>90</sub> 30min | Date      | Time Duration | Major Construction Noise | Other Noise source               | Weather | Location description |
|----------|-----------|-----------------------|-----------------------|-----------|---------------|--------------------------|----------------------------------|---------|----------------------|
| UTP 1    | 61.9      | 64.9                  | 51.5                  | 24-Jun-11 | 15:30-16:00   | N/A                      | Traffic noise & Background noise | Sunny   | Façade               |
| UTP 2    | 60.8      | 62.3                  | 50.2                  | 24-Jun-11 | 14:55-15:25   | N/A                      | Traffic noise & Background noise | Sunny   | Façade               |
| UTP 3    | 62.5      | 63.9                  | 60.2                  | 24-Jun-11 | 14:05-14:35   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 4    | 52.3      | 53.0                  | 47.2                  | 24-Jun-11 | 13:31-14:01   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 5    | 55.8      | 55.9                  | 49.0                  | 24-Jun-11 | 13:00-13:30   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 6    | 50.9      | 52.0                  | 43.3                  | 24-Jun-11 | 9:40-10:10    | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 7    | 57.3      | 60.2                  | 49.8                  | 24-Jun-11 | 10:12-10:42   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 8    | 59.8      | 62.1                  | 56.3                  | 24-Jun-11 | 10:50-11:20   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 9    | 55.6      | 56.9                  | 53.3                  | 24-Jun-11 | 11:21-11:51   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 10   | 52.6      | 53.7                  | 47.8                  | 24-Jun-11 | 16:05-16:35   | N/A                      | Background noise                 | Sunny   | Façade               |
| UTP 11   | 59.2      | 58.8                  | 48.5                  | 24-Jun-11 | 9:05-9:35     | N/A                      | Background noise                 | Sunny   | <b>*Free field</b>   |

Note\* An Additional of 3dB(A) had been added to the measurement result due to Free Field Correction

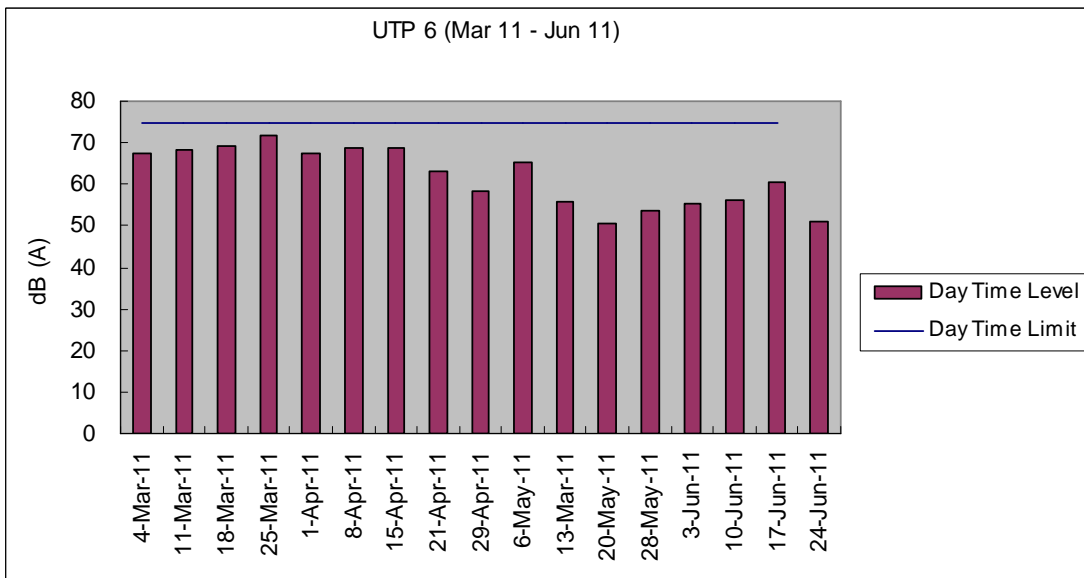
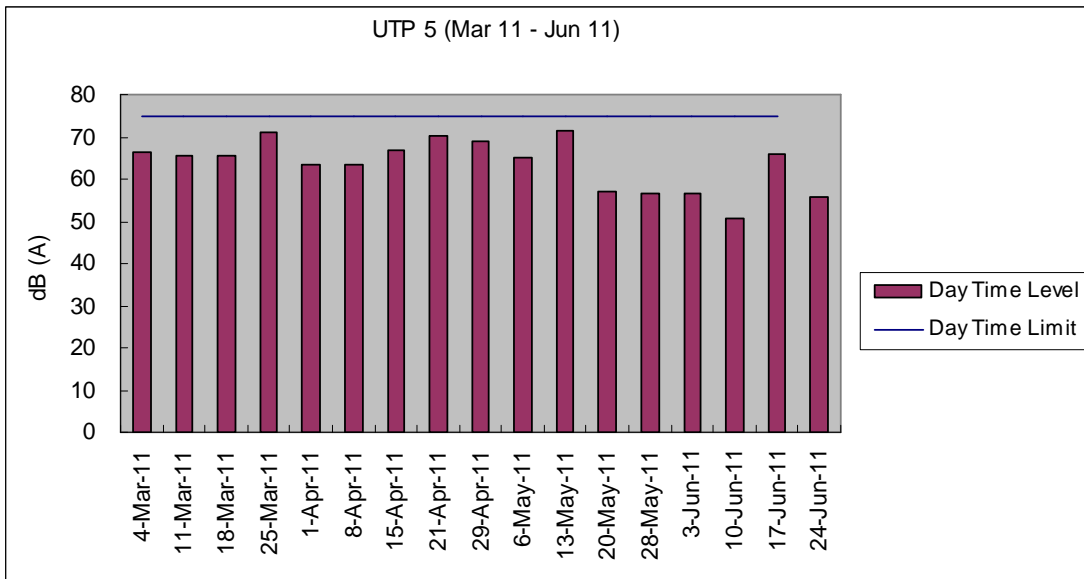
**Graphical plot for noise measurements**

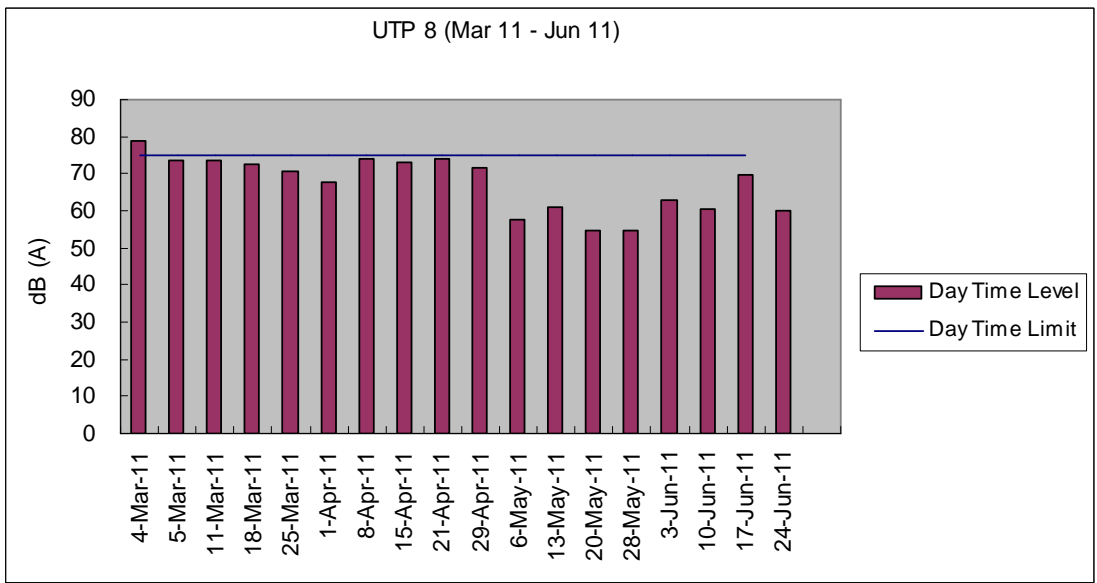
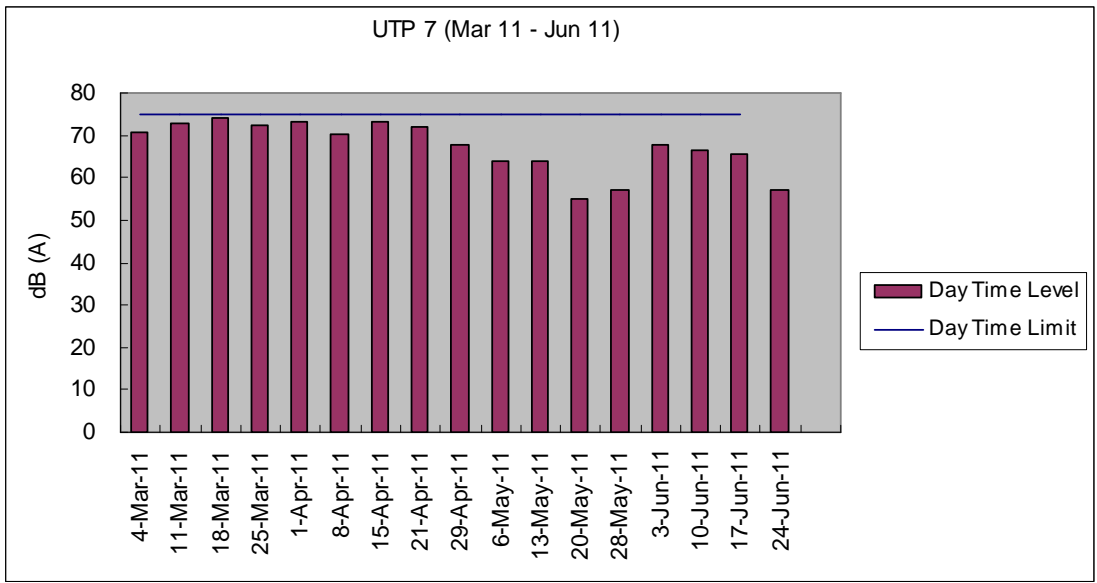
The followings were the graphical plots for the 11 monitoring locations. Each plot showed the date of measurement taken, day time limit of 75 dB(A) as well as the measured daytime level for each location. The graphs contain the data recorded from March 2011 to June 2011.

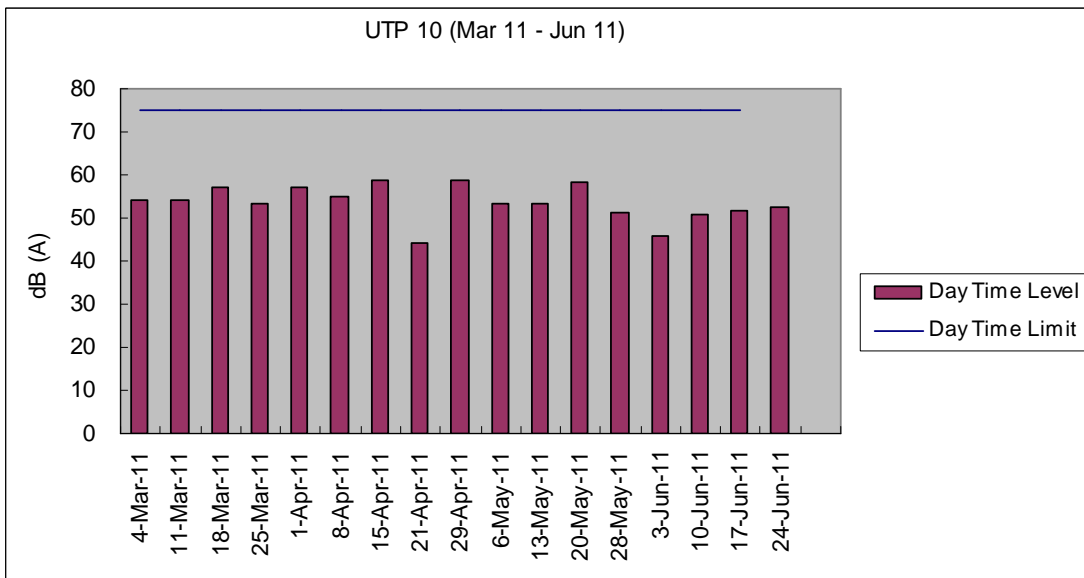
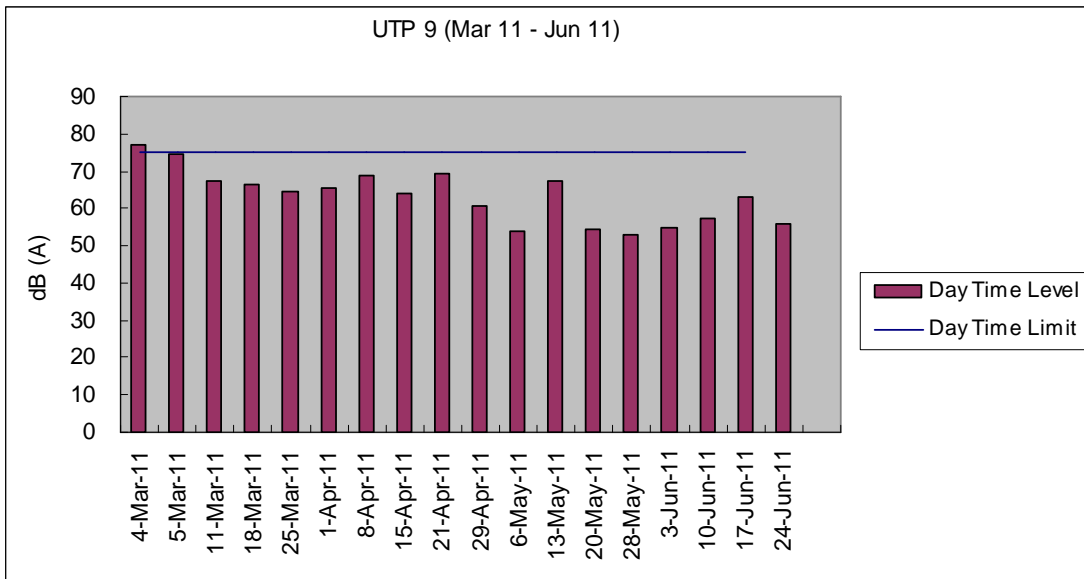


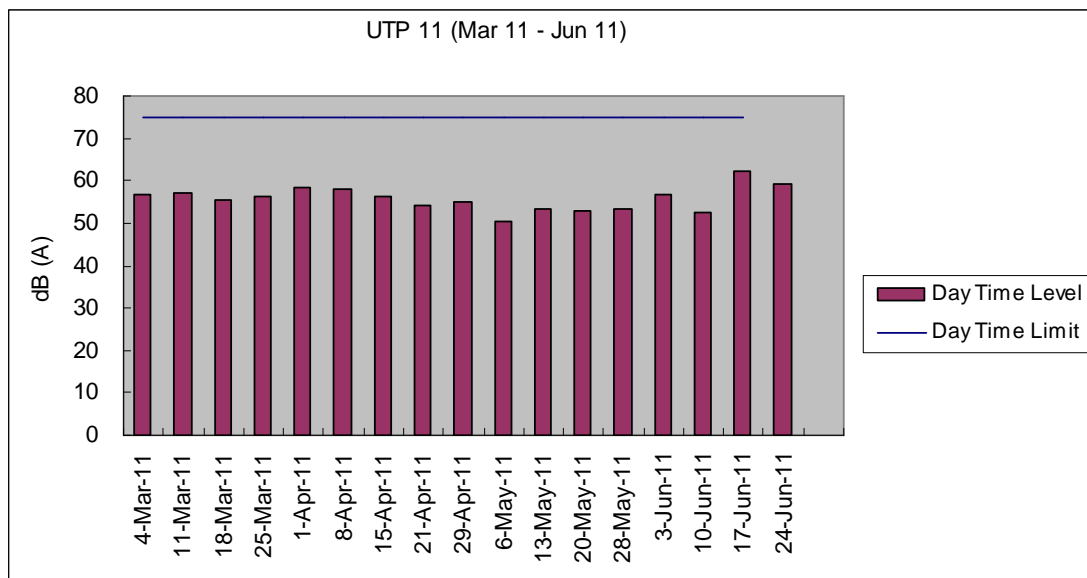


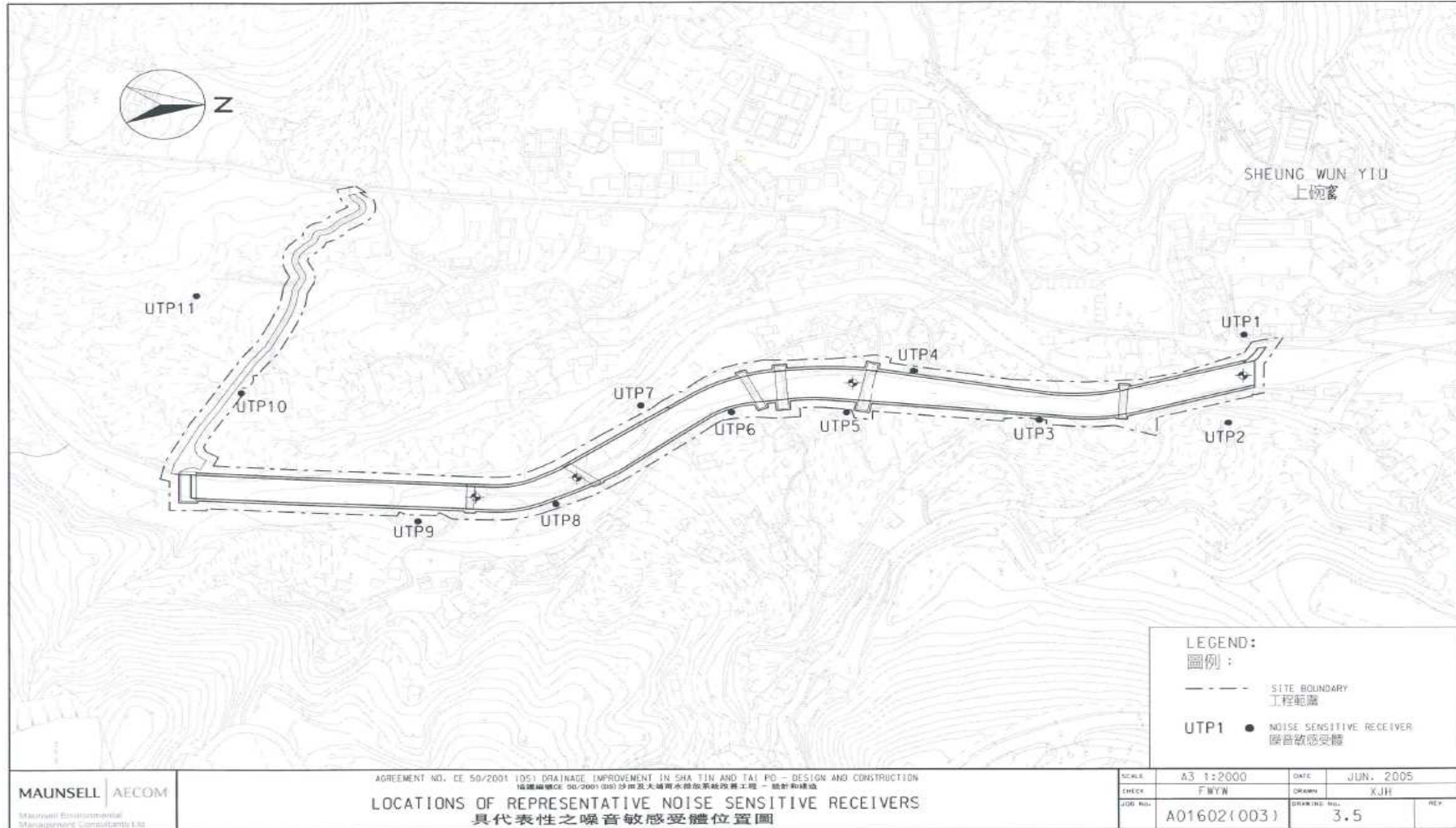












**MAUNSELL | AECOM**  
 Maunsell Environmental  
 Management Consultants Ltd

AGREEMENT NO. CE 50/2001 (05) DRAINAGE IMPROVEMENT IN SHA TIN AND TAI PO - DESIGN AND CONSTRUCTION  
 協議編號 CE 50/2001 (05) 沙田及大埔雨水排放系統改善工程 - 設計和建造  
**LOCATIONS OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS**  
 具代表性之噪音敏感受體位置圖

|         |             |             |           |
|---------|-------------|-------------|-----------|
| SCALE   | A3 1:2000   | DATE        | JUN. 2005 |
| CHECK   | F.W.Y.W.    | DRAWN       | X.J.H.    |
| JOB NO. | A01602(003) | DRAWING NO. | 3.5       |
|         |             | REV         |           |

**Appendix E: Monitoring schedule for the present and next reporting period**

**Master Schedule of EM&A works in June 2011**

| Sunday | Monday                     | Tuesday | Wednesday   | Thursday                   | Friday           | Saturday |
|--------|----------------------------|---------|---|----------------------------|------------------|----------|
|        |                            |         | 01/06   | 02/06                      | 03/06            | 04/06    |
|        |                            |         | Ecological site inspection and Site inspection at afternoon |                            | Noise monitoring |          |
| 05/06  | 06/06                      | 07/06   | 08/06   | 09/06                      | 10/06            | 11/06    |
|        | Ecological site inspection |         | Site inspection at afternoon                                |                            | Noise monitoring |          |
| 12/06  | 13/06                      | 14/06   | 15/06   | 16/06                      | 17/06            | 18/06    |
|        | Ecological site inspection |         | Site inspection at afternoon                                |                            | Noise monitoring |          |
| 19/06  | 20/06                      | 21/06   | 22/06   | 23/06                      | 24/06            | 25/06    |
|        | Ecological site inspection |         | Site inspection and SSEMC at afternoon                      |                            | Noise monitoring |          |
| 26/06  | 27/06                      | 28/06   | 29/06   | 30/06                      |                  |          |
|        | Ecological site inspection |         | Site inspection at afternoon and Noise Monitoring           | Ecological site inspection |                  |          |

**Master Schedule of EM&A works in July 2011**

| Sunday                     | Monday                     | Tuesday | Wednesday                        | Thursday   | Friday  | Saturday |
|----------------------------|----------------------------|---------|----------------------------------|--|---|----------|
|                            |                            |         |                                  |  | 01/07   | 02/07    |
|                            |                            |         |                                  |  |   |          |
| 03/07                      | 04/07                      | 05/07   | 06/07                            | 07/07  | 08/07   | 09/07    |
|                            | Ecological site inspection |         | Site inspection at afternoon     |  | Noise Monitoring  |          |
| 10/07                      | 11/07                      | 12/07   | 13/07                            | 14/07  | 15/07   | 16/07    |
|                            | Ecological site inspection |         | Site inspection and at afternoon |  | Noise Monitoring  |          |
| 17/07                      | 18/07                      | 19/07   | 20/07                            | 21/07  | 22/07   | 23/07    |
|                            | Ecological site inspection |         |                                  | Ecological Impact Monitoring for She Shan River and Upper Tai Po River, Site inspection and SSEMC at afternoon | Ecological Impact Monitoring for Upper Lam Tsuen River and Noise Monitoring |          |
| 24/07                      | 25/07                      | 26/07   | 27/07                            | 28/07  | 29/07   | 30/07    |
|                            | Ecological site inspection |         | Site inspection at afternoon     |  | Noise Monitoring  |          |
| 31/07                      |                            |         |                                  |  |   |          |
| Ecological site inspection |                            |         |                                  |  |   |          |



**Appendix F: Cumulative complaint log**

| <b>Environmental Parameters</b> | <b>Cumulative no. Brought forward</b> | <b>No. of complaint June 2011</b> | <b>Overall Total</b> |
|---------------------------------|---------------------------------------|-----------------------------------|----------------------|
| Air/Dust                        | 3                                     | 0                                 | 3                    |
| Noise                           | 5                                     | 0                                 | 5                    |
| Water                           | 9                                     | 0                                 | 9                    |
| House Keeping<br>Hygiene        | 0                                     | 0                                 | 0                    |
| Chemical waste                  | 0                                     | 0                                 | 0                    |
| Total                           | 17                                    | 0                                 | 17                   |

**Appendix G: Implementation status of environmental protection and mitigation measures**

Implementation status of environmental protection and mitigation

| Environmental Aspect   | Protection / Mitigation Measures  | Implementation status     | Follow-up action |
|------------------------|---|---------------------------|------------------|
| Construction Noise     | No percussive piling shall be carried out   | Implemented               | Not required     |
|                        | -Use well maintained construction plant   | Implemented               | Not required     |
|                        | -Shut down plants between work periods  | Implemented               | Not required     |
|                        | -Install silencers on construction equipment  | Implemented               | Not required     |
|                        | -Locate mobile plant far away from NSRs   | Implemented               | Not required     |
|                        | -Quiet plants should be used  | Implemented               | Not required     |
|                        | -2m high temporary noise barriers, as stipulated in EP condition 2.9, shall be installed  | Implemented               | Not required     |
| Fugitive Dust Emission | -Implement regular watering and vehicle washing facilities  | Implemented               | Not required     |
|                        | -Cover excavated or stockpile of dusty material by impervious sheeting or sprayed with water  | Implemented               | Not required     |
|                        | -Use tarpaulin to cover dusty materials on vehicles   | Implemented               | Not required     |
| Water Quality          | Excavation works within the Tai Po River within the Project shall be carried out in stages and excavation area for each stage shall be limited to section of half width of the channel and less than 100m long at any one time in order to maintain water flow within the river during construction stage | Implemented               | Not required     |
|                        | Land-based plant shall be employed and site run-off shall be directed towards regularly cleaned and maintained silt traps and oil / grease separators to minimize leakage and loss of sediments during excavation   | Implemented               | Not required     |
|                        | Large boulders removed from the Tai Po River within the Project during excavation shall be re-instated upon completion of works A section of 150m long natural riverbank on the western side of the river channel (Ch0 –Ch150) shall be retained  | Implemented               | Not required     |
|                        | The excavation area shall be enclosed with bunds or barriers and dewatered prior to excavation to minimize the impacts upon the downstream of the Tai Po River  | Non-compliance identified | Ongoing          |

|                  |  |                              |              |
|------------------|--|------------------------------|--------------|
|                  | Provide silt trap and oil interceptor to remove the oil, lubricants, grease, silt, grit and debris from the wastewater before pumped to the public storm water drainage system   | Non-compliance identified    | Ongoing      |
|                  | Provide site toilet facilities   | Implemented                  | Not required |
| Waste Management | Reuse excavated material as far as possible  | Implemented                  | Not required |
|                  | Recycle scrap metals or abandoned equipment  | Implemented                  | Not required |
|                  | Adopt a trip ticket system for the disposal of C&D materials   | Implemented                  | Not required |
|                  | All general refuse should be segregated and stored in enclosed bins or compaction units  | Implemented                  | Not required |
| Vibration        | Percussive piling is to be replaced by bore-hole piling to minimize vibration impacts to the two identified Declared monuments   | Not applicable at this stage | Not required |
|                  | Carrying out of vibration monitoring to ensure that vibration associated with the construction phase do not exceed the threshold limit otherwise contractor have to review the work method and construction activities have to be slow down or rescheduled to reduce the impacts                                   | Not applicable at this stage | Not required |
|                  | Close monitoring and measurement on the cracks of the external wall of Fan Sin Temple during construction works will be carried out. Any changes on the cracks will be recorded for the contractor to slow down the construction activities accordingly; and to review the work methods and equipments immediately | Not Applicable at this stage | Not required |

Implementation status of environmental protection and mitigation for ecology,  
 prepared by the Ecologist, Dr. Mark Shea.

| Environmental Aspect | Protection / Mitigation Measures  | Implementation status   | Follow-up action |
|----------------------|---|---|------------------|
| Ecology              | Large boulders will be returned to the riverbed following the excavation works.   | Not applicable  | Not required     |
|                      | Construction works from Ch. 0.0m – Ch. 150m would be along one side of the river only   | Not applicable  | Not required     |
|                      | Approximately 150m of the existing natural riverbank on the western side of the river would be retained.  | Implemented   | Not required     |
|                      | Excavation works within the river channel should be restricted to an enclosed dewater section of the river, and would be limited to sections 50-100m long at any one time.  | Implemented   | Not required     |
|                      | Flows to the area downstream shall be maintained at all times during the construction phase   | Implemented   | Not required     |
|                      | Capture survey shall be conducted within the Tai Po River before commencement of works. The captured target species shall be relocated to areas of the watercourse upstream of the watercourse upstream of the Tai Po River | Capture surveys had been conducted at the beginning of the Contract, during the wet season July/August 2008 and 4 <sup>th</sup> November 2008 | Not required     |
|                      | Temporary noise barriers should be constructed to control noise impacts to habitats and associated wildlife within and adjacent to the proposed works area  | Implemented   | Not required     |
|                      | Excavation works shall be carried out by land based plant within enclosed dry section of river channel.   | Implemented   | Not required     |
|                      | Compensatory planting of trees and other vegetation along the banks of the newly improved drainage channel should be provided to compensate for the loss of riparian vegetation.  | Not applicable  | Not required     |
|                      | Operation phase activities in the improved drainage channel would be limited to periodic channel maintenance such as de-silting.  | Not applicable  | Not required     |

**Appendix H: Cumulative waste flow table**

Cumulative waste flow table showing amount of wastes generated, reused and disposed since 15<sup>th</sup> September 2008

| Type of waste     | Inert Waste                |                          |                          | Non-Inert Waste     |               |                     | Chemical Waste   |                  |
|-------------------|----------------------------|--------------------------|--------------------------|---------------------|---------------|---------------------|------------------|------------------|
|                   | Amount generated           | Amount reused            | Amount disposed          | Amount generated    | Amount reused | Amount disposed     | Amount generated | Amount disposed* |
| Year 2008 to 2009 | 36.9m <sup>3</sup>         | 0                        | 36.9m <sup>3</sup>       | 2.000 tonnes        | 0             | 2.000 tonnes        | 20kg             | 20kg             |
| Year 2010         | 1955m <sup>3</sup>         | 1955m <sup>3</sup>       | 0                        | 0.192 tonnes        | 0             | 0.192 tonnes        | 0                | 0                |
| January 2011      | 117m <sup>3</sup>          | 117m <sup>3</sup>        | 0                        | 0.040 tonnes        | 0             | 0.040 tonnes        | 0                | 0                |
| February 2011     | 581m <sup>3</sup>          | 581m <sup>3</sup>        | 0                        | 0.045 tonnes        | 0             | 0.045 tonnes        | 0                | 0                |
| March 2011        | 927m <sup>3</sup>          | 927m <sup>3</sup>        | 0                        | 0.047 tonnes        | 0             | 0.047 tonnes        | 0                | 0                |
| April 2011        | 467m <sup>3</sup>          | 467m <sup>3</sup>        | 0                        | 0.050 tonnes        | 0             | 0.050 tonnes        | 0                | 0                |
| May 2011          | 835 m <sup>3</sup>         | 835 m <sup>3</sup>       | 0                        | 0.015 tonnes        | 0             | 0.015 tonnes        | 0                | 0                |
| June 2011         | 3 m <sup>3</sup>           | 3 m <sup>3</sup>         | 0                        | 0.001 tonnes        | 0             | 0.001 tonnes        | 0                | 0                |
| <b>Total</b>      | <b>4921.9m<sup>3</sup></b> | <b>4885m<sup>3</sup></b> | <b>36.9m<sup>3</sup></b> | <b>2.390 tonnes</b> | <b>0</b>      | <b>2.390 tonnes</b> | <b>20kg</b>      | <b>20kg</b>      |

Remark\*: Chemical wastes generated from the project sites including Upper Tai Po River, Lam Tsuen River and She Shan River were centralized for disposal.

**Appendix I: Construction programme (Rev. No. 15)**

**Drainage Services Department**  
 Contract No. DC/2007/06  
**River Improvement Works in Upper Lam Tsuen River, She Shan River and Upper Tai Po River**

**Revised Master Programme Rev (15)**

| ID   | 任務名稱   | Duration   | Start      | Finish     | 2010 |    |    |    | 2011 |    |    |    | 2012 |    |    |    | 2013 |  |
|------|--|------------|------------|------------|------|----|----|----|------|----|----|----|------|----|----|----|------|--|
|      |  |            |            |            | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 |      |  |
| 1072 | Install Stone Facing                                   | 14 days    | 2/6/2011   | 18/6/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1073 | Reinstatement of River bed Variation Order No. 178     | 3 days     | 20/6/2011  | 22/6/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1074 |  | 37 days    | 23/6/2011  | 5/8/2011   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1075 | Temp. Haul Road Diversion                              | 7 days     | 23/6/2011  | 30/6/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1076 | Excavation   | 14 days    | 27/7/2011  | 18/7/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1077 | Formwork   | 7 days     | 19/7/2011  | 26/7/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1078 | Re-BAR   | 7 days     | 27/7/2011  | 3/8/2011   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1079 | Concrete   | 2 days     | 4/8/2011   | 5/8/2011   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1080 | Programme of Upper Tai Po River                        | 1747 days? | 28/9/2007  | 31/10/2012 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1081 | Wei Season of 2010                                     | 184 days   | 1/4/2010   | 1/10/2010  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1082 | Wei Season of 2011                                     | 183 days   | 1/4/2011   | 1/11/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1083 | Wei Season of 2012                                     | 184 days   | 19/3/2012  | 31/10/2012 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1084 | Works Suspended Due to Villager's Ball                 | 42 days?   | 7/11/2010  | 18/12/2010 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1085 |  | 1615 days? | 28/9/2007  | 24/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1086 | Gabion Wall (Ch 230-275 RHS) TG1/TG1A                  | 40 days    | 28/1/2011  | 9/3/2011   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1087 | Excavation and Formation                               | 20 days    | 28/1/2011  | 16/2/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1088 | Gabion Wall Construction (Ch 235-275 LHS)              | 14 days    | 17/2/2011  | 2/3/2011   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1089 | Backfilling  | 6 days     | 3/3/2011   | 25/11/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1090 | Retaining Wall (Ch 275-330 RHS) TR1 (replaced by AD1)  | 220 days?  | 3/3/2011   | 25/11/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1091 | Excavation and Formation                               | 12 days    | 3/3/2011   | 16/3/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1092 | Laying Concrete block and gabion units (Ch275-330 RHS) | 12 days    | 17/3/2011  | 30/3/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1093 | Backfilling  | 6 days     | 31/3/2011  | 7/4/2011   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1094 | Excavation and Formation                               | 7 days     | 12/11/2011 | 19/11/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1095 | Laying Concrete block and gabion units (Ch320-330 RHS) | 4 days?    | 2/11/2011  | 24/11/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1096 | Backfilling  | 21 days    | 31/10/2011 | 27/10/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1097 | Drainage & Footpath (Ch 275-320 RHS)                   | 16 days    | 10/2/2012  | 28/2/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1098 | Excavation and Formation                               | 7 days     | 18/2/2012  | 25/2/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1099 | Gabion Wall (Ch 315-330 LHS) TCG2A                     | 7 days     | 10/2/2012  | 17/2/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1100 | Excavation and Formation                               | 2 days     | 27/2/2012  | 28/2/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1101 | Backfilling  | 4 days     | 6/2/2012   | 9/2/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1102 | Maintenance Staircase (Ch 315 LHS)                     | 4 days     | 6/2/2012   | 9/2/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1103 | Formwork and concreting                                | 4 days     | 6/2/2012   | 9/2/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1104 | Drainage & Footpath (Ch 307-330 LHS)                   | 14 days    | 27/2/2012  | 13/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1105 | Construction of drainage & footpath                    | 14 days    | 27/2/2012  | 13/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1106 | Temp Utility and Pedestrian Diversion at Ch230         | 171 days   | 23/8/2011  | 24/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1107 | Temp UU diversion near Ch230                           | 39 days    | 29/8/2011  | 15/10/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1108 | Temp Pedestrian diversion                              | 119 days   | 1/11/2011  | 26/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1109 | Demolition of Interim Footbridge at Ch230              | 7 days     | 12/11/2011 | 19/11/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1110 | Demolition of Interim Footbridge                       | 7 days     | 12/11/2011 | 19/11/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1111 | Gabion Wall (Ch 230-257 LHS) TCG2/TG2A/TG2B            | 1615 days? | 28/9/2007  | 24/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1112 | Excavation and Formation                               | 14 days    | 2/11/2011  | 6/12/2011  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1113 | Gabion Wall Construction (Ch 230-257 LHS)              | 7 days     | 7/12/2011  | 14/12/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1114 | Backfilling  | 3 days     | 15/12/2011 | 17/12/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1115 | Maintenance Staircase (Ch 242 LHS)                     | 4 days     | 19/12/2011 | 22/12/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1116 | Formwork and concreting                                | 4 days     | 19/12/2011 | 22/12/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1117 | Gabion Wall (Ch 257-270 LHS) TCG4                      | 11 days    | 23/12/2011 | 7/1/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1118 | Excavation and Formation                               | 5 days     | 23/12/2011 | 30/12/2011 |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1119 | Gabion Wall Construction (Ch 257-270 LHS)              | 3 days     | 31/12/2011 | 4/1/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1120 | Backfilling  | 3 days     | 31/12/2011 | 7/1/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1121 | Retaining Wall (Ch 275-315 LHS) TR1 (replaced by AD1)  | 46 days    | 9/1/2012   | 5/3/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1122 | Excavation and Formation                               | 21 days    | 9/1/2012   | 4/2/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1123 | Laying Concrete block and gabion units                 | 18 days    | 6/2/2012   | 25/2/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1124 | Backfilling  | 7 days     | 27/2/2012  | 5/3/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |
| 1125 | Drainage & Footpath (Ch 200-307 LHS)                   | 60 days    | 19/12/2011 | 3/3/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |  |

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任務 進度 里程碑 上圖例任務 分期 外部任務 摘要 摘要





**Drainage Services Department**  
 Contract No. DC/2007/06  
**River Improvement Works in Upper Lam Tsuen River, She Shan River and Upper Tai Po River**  
**Revised Master Programme Rev (15)**

| ID   | 任務名稱  | Duration  | Start      | Finish      | Q3 | Q4 | 2010 | 2011 | 2012 | 2013 |
|------|---|-----------|------------|-------------|----|----|------|------|------|------|
|      |   |           |            |             |    |    | Q1   | Q2   | Q3   | Q4   |
| 1190 | Construction of Abutment B (RHS)                | 19 days   | 21/11/2011 | 12/12/2011  |    |    |      |      |      |      |
| 1191 | Excavation and Blinding                         | 5 days    | 21/11/2011 | 25/11/2011  |    |    |      |      |      |      |
| 1192 | Formwork and rebar fixing for base slab         | 2 days    | 25/11/2011 | 28/11/2011  |    |    |      |      |      |      |
| 1193 | Concreting of base slab                         | 1 day     | 29/11/2011 | 29/11/2011  |    |    |      |      |      |      |
| 1194 | Stripping off formwork                          | 3 days    | 30/11/2011 | 2/12/2011   |    |    |      |      |      |      |
| 1195 | Rebar fixing and shuttering formwork for column | 4 days    | 31/12/2011 | 7/1/2012    |    |    |      |      |      |      |
| 1196 | Concreting of column                            | 1 day     | 8/1/2012   | 8/1/2012    |    |    |      |      |      |      |
| 1197 | Stripping off formwork                          | 3 days    | 9/1/2012   | 12/1/2012   |    |    |      |      |      |      |
| 1198 | Construction of decking                         | 25 days   | 28/9/2012  | 2/5/2012    |    |    |      |      |      |      |
| 1199 | Formwork and rebar fixing for decking           | 8 days    | 28/9/2012  | 10/4/2012   |    |    |      |      |      |      |
| 1200 | Concreting                                      | 1 day     | 11/4/2012  | 11/4/2012   |    |    |      |      |      |      |
| 1201 | Stripping off formwork                          | 14 days   | 12/4/2012  | 27/4/2012   |    |    |      |      |      |      |
| 1202 | Railing installation                            | 2 days    | 30/4/2012  | 2/5/2012    |    |    |      |      |      |      |
| 1203 | Demolition of Bridge TB-B                       | 1 day     | 23/4/2012  | 23/4/2012   |    |    |      |      |      |      |
| 1204 | Demolition works                                | 1 day     | 23/4/2012  | 23/4/2012   |    |    |      |      |      |      |
| 1205 | Lighting at Footbridge TB05                     | 10 days   | 11/4/2012  | 21/4/2012   |    |    |      |      |      |      |
| 1206 | Construction of Drawings / Drawings             | 6 days    | 11/4/2012  | 17/4/2012   |    |    |      |      |      |      |
| 1207 | Public lighting installation (CE2313)           | 3 days    | 18/4/2012  | 20/4/2012   |    |    |      |      |      |      |
| 1208 | Public lighting installation (CE2314)           | 3 days    | 18/4/2012  | 20/4/2012   |    |    |      |      |      |      |
| 1209 | T&C   | 1 day     | 21/4/2012  | 21/4/2012   |    |    |      |      |      |      |
| 1210 | Construction of Gabion Wall at TB B             | 5 days    | 24/4/2012  | 30/4/2012   |    |    |      |      |      |      |
| 1211 | Excavation and Formation                        | 2 days    | 24/4/2012  | 25/4/2012   |    |    |      |      |      |      |
| 1212 | Gabion Wall Construction (Ch 230-257 LHS)       | 2 days    | 26/4/2012  | 27/4/2012   |    |    |      |      |      |      |
| 1213 | Backfilling                                     | 1 day     | 30/4/2012  | 30/4/2012   |    |    |      |      |      |      |
| 1214 |   |           |            |             |    |    |      |      |      |      |
| 1215 |   |           |            |             |    |    |      |      |      |      |
| 1216 | Gabion Wall (Ch 335-345 LHS) TQ2/TQ2A           | 16 days   | 20/9/2012  | 11/4/2012   |    |    |      |      |      |      |
| 1217 | Excavation and Formation                        | 6 days    | 20/9/2012  | 26/9/2012   |    |    |      |      |      |      |
| 1218 | Gabion Wall Construction (Ch 335-345 LHS)       | 6 days    | 27/9/2012  | 2/4/2012    |    |    |      |      |      |      |
| 1219 | Backfilling                                     | 4 days    | 3/4/2012   | 11/4/2012   |    |    |      |      |      |      |
| 1220 | Drainage & Footpath (Ch 335-345 LHS)            | 12 days   | 12/4/2012  | 25/4/2012   |    |    |      |      |      |      |
| 1221 | Construction of drainage & footpath             | 12 days   | 12/4/2012  | 25/4/2012   |    |    |      |      |      |      |
| 1222 | Gabion Wall (Ch 330-345 RHS) TQ2                | 14 days   | 13/12/2011 | 30/12/2011  |    |    |      |      |      |      |
| 1223 | Excavation and Formation                        | 4 days    | 13/12/2011 | 16/12/2011  |    |    |      |      |      |      |
| 1224 | Gabion Wall Construction (Ch 330-345 RHS)       | 6 days    | 17/12/2011 | 23/12/2011  |    |    |      |      |      |      |
| 1225 | Backfilling                                     | 4 days    | 24/12/2011 | 30/12/2011  |    |    |      |      |      |      |
| 1226 | Drainage & Footpath (Ch 330-340 RHS)            | 12 days   | 31/12/2011 | 1/4/12/2012 |    |    |      |      |      |      |
| 1227 | Construction of drainage & footpath             | 12 days   | 31/12/2011 | 1/4/12/2012 |    |    |      |      |      |      |
| 1228 |   |           |            |             |    |    |      |      |      |      |
| 1229 | River Bed formation (Ch 330-350)                | 8 days    | 30/4/2012  | 9/5/2012    |    |    |      |      |      |      |
| 1230 | Paving Grade 500 ice Stone                      | 8 days    | 30/4/2012  | 9/5/2012    |    |    |      |      |      |      |
| 1231 |   |           |            |             |    |    |      |      |      |      |
| 1232 | Step 4 (Ch 330)                                 | 8 days    | 20/9/2012  | 28/9/2012   |    |    |      |      |      |      |
| 1233 | Excavation and Blinding                         | 4 days    | 20/9/2012  | 23/9/2012   |    |    |      |      |      |      |
| 1234 | Formwork and rebar fixing for base slab         | 2 days    | 24/9/2012  | 26/9/2012   |    |    |      |      |      |      |
| 1235 | Concreting of base slab                         | 1 day     | 27/9/2012  | 27/9/2012   |    |    |      |      |      |      |
| 1236 | Stripping off formwork                          | 1 day     | 28/9/2012  | 28/9/2012   |    |    |      |      |      |      |
| 1237 |   |           |            |             |    |    |      |      |      |      |
| 1238 | Ch 45-230                                       | 1615 days | 28/9/2007  | 24/5/2012   |    |    |      |      |      |      |
| 1239 | Footbridge TB02 (Ch 130)                        | 432 days  | 21/10/2010 | 5/3/2012    |    |    |      |      |      |      |
| 1240 | Construction of Abutment A (LHS)                | 23 days   | 21/10/2010 | 24/10/2010  |    |    |      |      |      |      |
| 1241 | Excavation and Blinding                         | 6 days    | 21/10/2010 | 27/10/2010  |    |    |      |      |      |      |
| 1242 | Formwork and rebar fixing for base slab         | 5 days    | 8/10/2010  | 12/10/2010  |    |    |      |      |      |      |
| 1243 | Concreting of base slab                         | 1 day     | 13/10/2010 | 13/10/2010  |    |    |      |      |      |      |
| 1244 | Stripping off formwork                          | 3 days    | 14/10/2010 | 16/10/2010  |    |    |      |      |      |      |
| 1245 | Rebar fixing and shuttering formwork for column | 5 days    | 17/10/2010 | 21/10/2010  |    |    |      |      |      |      |
| 1246 | Concreting of column                            | 1 day     | 22/10/2010 | 22/10/2010  |    |    |      |      |      |      |
| 1247 | Stripping off formwork                          | 2 days    | 23/10/2010 | 24/10/2010  |    |    |      |      |      |      |
| 1248 | Construction of decking                         | 33 days   | 23/9/2011  | 4/5/2011    |    |    |      |      |      |      |

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任務進度: [Progress bar]  
 里程碑: [Milestone bar]  
 摘要: [Summary bar]  
 上圖型任務: [Task type bar]  
 上圖型里程碑: [Milestone type bar]  
 分期: [Phase bar]  
 外部任務: [External task bar]  
 專案摘要: [Project summary bar]  
 摘要詳細: [Summary details bar]

















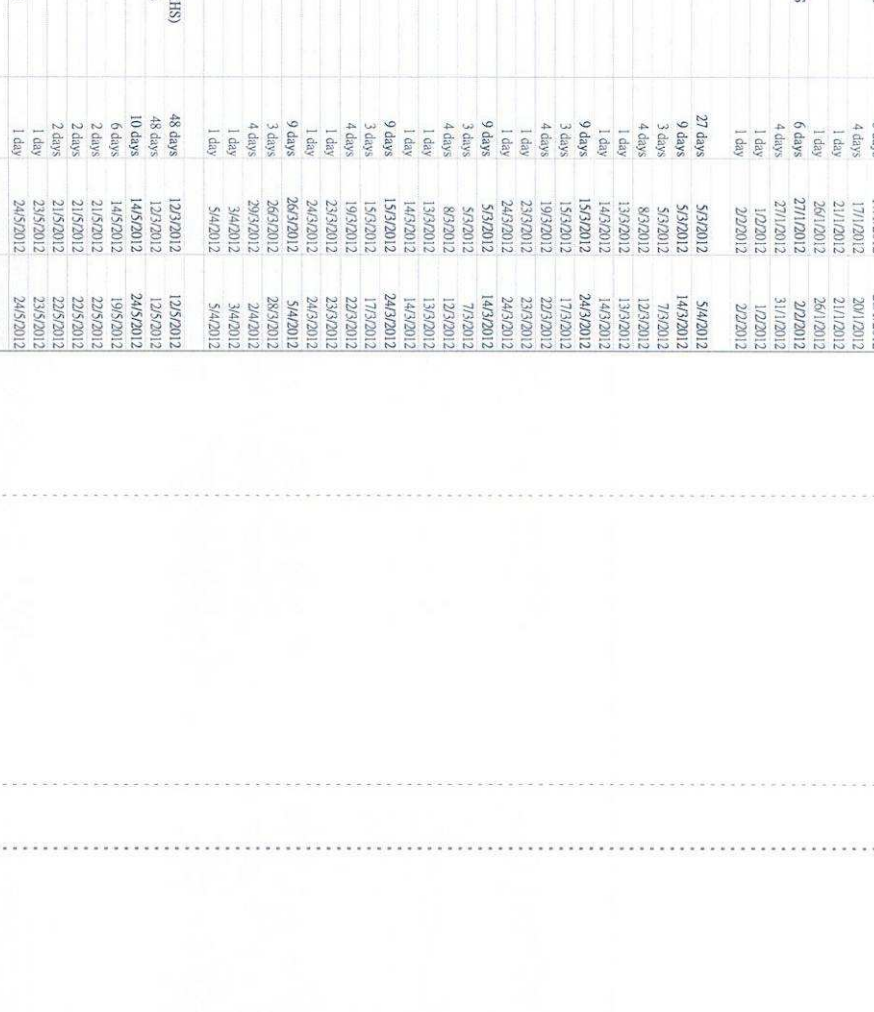




**Drainage Services Department**  
**Contract No. DC/2007/06**  
**River Improvement Works in Upper Lam Tsuen River, She Shan River and Upper Tai Po River**

**Revised Master Programme Rev (15)**

| ID   | 任務名稱  | Duration   | Start      | Finish     | 2010 |    |    |    | 2011 |    |    |    | 2012 |    |    |    | 2013 |    |
|------|---|------------|------------|------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|
|      |   |            |            |            | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q1   | Q2 |
| 1780 | Stripping off formwork  | 1 day      | 16/12/12   | 16/12/12   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1781 | Wall Stem Construction TR3 Bay 3 RHS  | 6 days     | 17/12/12   | 26/12/12   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1782 | Formwork and rebar fixing   | 4 days     | 17/12/12   | 20/12/12   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1783 | Concreting  | 1 day      | 21/12/12   | 21/12/12   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1784 | Stripping off formwork  | 1 day      | 26/12/12   | 26/12/12   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1785 | Wall Stem Construction TR3 Bay 3 LHS  | 6 days     | 27/12/12   | 2/2/2013   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1786 | Formwork and rebar fixing   | 4 days     | 27/12/12   | 31/12/12   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1787 | Concreting  | 1 day      | 1/2/2013   | 1/2/2013   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1788 | Stripping off formwork  | 1 day      | 2/2/2013   | 2/2/2013   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1789 | Concrete Slab (CH546 - CH596)   | 27 days    | 5/3/2012   | 5/4/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1790 | Bay 1   | 9 days     | 5/3/2012   | 14/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1791 | Excavation/Blinding   | 3 days     | 5/3/2012   | 7/3/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1792 | Formwork and rebar fixing   | 4 days     | 8/3/2012   | 12/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1793 | Concreting  | 1 day      | 13/3/2012  | 13/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1794 | Formwork and rebar fixing   | 1 day      | 14/3/2012  | 14/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1795 | Stripping off formwork  | 1 day      | 15/3/2012  | 15/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1796 | Bay 2   | 9 days     | 15/3/2012  | 24/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1797 | Excavation/Blinding   | 3 days     | 15/3/2012  | 17/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1798 | Formwork and rebar fixing   | 4 days     | 19/3/2012  | 22/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1799 | Concreting  | 1 day      | 23/3/2012  | 23/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1800 | Stripping off formwork  | 1 day      | 24/3/2012  | 24/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1801 | Bay 3   | 9 days     | 5/3/2012   | 14/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1802 | Excavation/Blinding   | 3 days     | 5/3/2012   | 7/3/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1803 | Formwork and rebar fixing   | 4 days     | 8/3/2012   | 12/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1804 | Concreting  | 1 day      | 13/3/2012  | 13/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1805 | Stripping off formwork  | 1 day      | 14/3/2012  | 14/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1806 | Bay 4   | 9 days     | 15/3/2012  | 24/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1807 | Excavation/Blinding   | 3 days     | 15/3/2012  | 17/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1808 | Formwork and rebar fixing   | 4 days     | 19/3/2012  | 22/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1809 | Concreting  | 1 day      | 23/3/2012  | 23/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1810 | Stripping off formwork  | 1 day      | 24/3/2012  | 24/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1811 | Bay 5   | 9 days     | 26/3/2012  | 5/4/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1812 | Excavation/Blinding   | 3 days     | 26/3/2012  | 28/3/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1813 | Formwork and rebar fixing   | 4 days     | 29/3/2012  | 2/4/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1814 | Concreting  | 1 day      | 3/4/2012   | 3/4/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1815 | Stripping off formwork  | 1 day      | 5/4/2012   | 5/4/2012   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1816 | Drainage and Footpath (CH525-615 LHS & RHS)                                 | 48 days    | 12/3/2012  | 12/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1817 | Construction of footpath & drainage works                                   | 48 days    | 12/3/2012  | 12/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1818 | Lighting at CH 550-610  | 10 days    | 14/5/2012  | 24/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1819 | Construction of Downpits / Decline  | 6 days     | 14/5/2012  | 19/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1820 | Public lighting Installation (CE2325)                                       | 2 days     | 21/5/2012  | 22/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1821 | Public lighting Installation (CE2326)                                       | 2 days     | 21/5/2012  | 22/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1822 | Public lighting Installation (CE2329)                                       | 2 days     | 21/5/2012  | 22/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1823 | Public lighting Installation (CE2327)                                       | 2 days     | 21/5/2012  | 22/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1824 | T&C   | 1 day      | 23/5/2012  | 23/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1825 | Removal of existing lighting (CE1601-32)                                    | 1 day      | 24/5/2012  | 24/5/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1826 | Section 4 - Box Culvert at Ping Long  | 0 days     | 9/12/2009  | 9/12/2009  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1827 | Section 4 - Box Culvert (Area A)  | 0 days     | 9/12/2009  | 9/12/2009  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1828 | Completion of Work at Section 4   | 0 days     | 9/12/2009  | 9/12/2009  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1829 |   |            |            |            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1830 |   |            |            |            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1831 | Section 5 - Landscape Establishment Works (Portion B, C, D, E, F, G, H & I) | 1665 days* | 26/9/2007  | 25/7/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1832 | Section 5 Landscape Works   | 1665 days* | 26/9/2007  | 24/7/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1833 | Commencement of Works   | 1 day      | 26/9/2007  | 26/9/2007  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1834 | Material Submission   | 120 days   | 26/9/2007  | 26/12/2008 |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1835 | Submission Approval   | 0 days*    | 9/2/2008   | 9/2/2008   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1836 | Landscape Hardworks   | 1541 days* | 13/11/2007 | 19/4/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1837 | Landscape Softworks   | 365 days   | 31/1/2011  | 18/4/2012  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |
| 1838 | Submission of Tree Survey   | 400 days   | 29/9/2007  | 1/11/2008  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |



**Drainage Services Department**  
 Contract No. DC/2007/06  
 River Improvement Works in Upper Lam Tsuen River, She Shan River and Upper Tai Po River

**Revised Master Programme Rev (15)**

| ID   | 任務名稱   | Duration   | Start     | Finish    | 2010 |    |    |    |    |    |    |    | 2011 |    | 2012 |    | 2013 |    |  |
|------|--|------------|-----------|-----------|------|----|----|----|----|----|----|----|------|----|------|----|------|----|--|
|      |  |            |           |           | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3   | Q4 | Q1   | Q2 | Q1   | Q2 |  |
| 1839 | Preservation and Protection of Preserved Trees               | 1265 days  | 2/11/2008 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1840 | Landscape Establishment Works                                | 1265 days  | 2/11/2008 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1841 | Completion of Works  | 0 days     | 25/7/2012 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1842 |  |            |           |           |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1843 | Section 6 - Landscape Establishment Works (Portion J, K & M) | 1666 days* | 28/9/2007 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1844 | Section 6 Landscape Works                                    | 1665 days  | 28/9/2007 | 24/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1845 | Commencement of Works  | 1 day      | 28/9/2007 | 28/9/2007 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1846 | Material Submission  | 120 days   | 28/9/2007 | 26/1/2008 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1847 | Submission Approval  | 0 days     | 9/2/2008  | 9/2/2008  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1848 | Landscape Hardworks  | 1161 days* | 2/11/2008 | 19/4/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1849 | Landscape Softworks  | 365 days   | 1/2/2011  | 19/4/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1850 | Submission of Tree Survey                                    | 400 days   | 28/9/2007 | 1/1/2008  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1851 | Preservation and Protection of Preserved Trees               | 1265 days  | 2/11/2008 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1852 | Landscape Establishment Works                                | 1265 days  | 2/11/2008 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1853 | Completion of Works  | 0 days     | 25/7/2012 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1854 |  |            |           |           |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1855 | Section 7 - Landscape Establishment Works (Portion L, N & P) | 1666 days* | 28/9/2007 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1856 | Section 7 Landscape Works                                    | 1665 days  | 28/9/2007 | 24/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1857 | Commencement of Works  | 1 day      | 28/9/2007 | 28/9/2007 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1858 | Material Submission  | 120 days   | 28/9/2007 | 26/1/2008 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1859 | Submission Approval  | 0 days     | 9/2/2008  | 9/2/2008  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1860 | Landscape Hardworks  | 1176 days* | 12/1/2008 | 19/4/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1861 | Landscape Softworks  | 365 days   | 1/2/2011  | 19/4/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1862 | Submission of Tree Survey                                    | 400 days   | 28/9/2007 | 1/1/2008  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1863 | Preservation and Protection of Preserved Trees               | 1265 days  | 2/11/2008 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1864 | Landscape Establishment Works                                | 1265 days  | 2/11/2008 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1865 | Completion of Works  | 0 days     | 25/7/2012 | 25/7/2012 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1866 |  |            |           |           |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1867 | Section 8 - All Remaining Work at All Portions               | 1301 days* | 28/9/2007 | 3/5/2011  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1868 | Commencement of Works  | 1 day      | 28/9/2007 | 28/9/2007 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1869 | All remaining works at all Area                              | 1300 days  | 28/9/2007 | 3/5/2011  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1870 | Completion of Works  | 0 days     | 3/5/2011  | 3/5/2011  |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |
| 1871 |  | 1 day*     | 28/9/2007 | 28/9/2007 |      |    |    |    |    |    |    |    |      |    |      |    |      |    |  |