



DEPARTMENT OF IRRIGATION
AND DRAINAGE MALAYSIA



Minutes of Meeting

**The 37th Meeting of Malaysia – Thailand
Joint Evaluation Team**

on Golok River Mouth Improvement Project

29th June 2022

Online Conference

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AGENDA 1: OPENING ADDRESS

Mr. Hj. Zainalfikry Bin Hj. Daud, the leader of Malaysia's delegates, welcomed the Thailand's delegates to the 37th Meeting of Malaysia – Thailand Joint Evaluation Team (JET) on Golok River Mouth Improvement Project on 29th June 2022.

Mr. Prinya Kamolsin, the leader of the Thailand's delegates, expressed his appreciation for the warmth welcome and arrangements for the Meeting. Mr. Prinya Kamolsin was assigned to be this meeting co-chairman due to Mr. Surachart Malasri was in a quarantine order.

Both sides introduced their delegates and the list of delegates is as shown in **APPENDIX A**.

AGENDA 2: ADOPTION OF AGENDA

The Malaysian side presented the proposed agenda for the Meeting. The Meeting agreed to proceed according to the proposed agenda as shown in **APPENDIX B**.

AGENDA 3: MATTERS FOR CONSIDERATION

3.1 Report on Monitoring and Evaluation of Golok River Mouth

The Thai side reported the post-monsoon surveys, which were done by the Thai side on April 2022 and found that the sea bed level at Malaysia breakwater tip is increased from -2.8m MSL (Post-Monsoon in June 2019) to -2.7m MSL (Post-Monsoon in April 2022) while erosion at Thailand breakwater tip is decreased from -4.5m MSL (Post-Monsoon in June 2019) to -5.9m MSL (Post-Monsoon in April 2022). While deepest riverbed level

around Transit Point B is decreased from -6.1m MSL (Post-Monsoon in June 2019) to -7.3m MSL (Post-Monsoon in April 2022).

Referring to JSC 16th meeting, both sides have agreed for JET to form a task force. Subsequently, the task force revised its members and had the first technical meeting on February 2020. While the first coordination meeting was held on 3rd September 2021. Further details are shown in **APPENDIX C**.

The Malaysian side also inform that the next planned date for task force meeting will be held on 24th August 2022 to 25th August 2022 at Narathiwat, Thailand and the date has been agreed with the Thai side.

3.2 Maintenance Dredging of Golok River Mouth

As agreed in the JET 25, JTWG 32 and JSC 14, the maintenance dredging is required based on the following criteria:

- i. When the cross-section area of the river mouth between Thailand and Malaysia breakwater tip is blocked up to 30% (for drainage purpose); or
- ii. When the bed level of the river mouth is at -2.0 m MSL or shallower (for navigation purpose);

The sediment patterns are to be monitored for at least 2 consecutive monsoon seasons in order to identify the need of maintenance dredging.

The Thai side reported that based on the results of the post-monsoon (April 2022) surveys that no need for the maintenance dredging of Golok River Mouth at the time being.

The Malaysian side suggested to decreased (deepen) the design channel level to be -4.0m instead of -3.0m on Malaysian side, to allow larger ships to pass through while maintain the stability of river banks and their engineering protection works, for the purpose of larger ship and low tide navigation.

The Thai side acknowledged the proposed design channel level to be based on the following criteria:

1. Referring to the 1997 Agreement, the maintenance dredging is required at -3.0 m MSL. The Malaysian side has proposed to decreased the design channel level to be -4.0m MSL which needs to be further deliberated on effects including engineering, drainage and navigation to be consistent with the 1997 Agreement.

2. The design channel dredging at -4.0m MSL needs to be further deliberated on the stability of existing break water and design channel.

3. The Thai side has proposed to have more information of dredging including report of dredging area, feasibility, slope stability and calculation report to be discussed further at the next JTWG meeting.

The Meeting has agreed the matter to be studied further and to be presented in JTWG and JSC meetings for further action.

3.3 Protection Work of Transit Point B

The Meeting acknowledged the agenda 3.1 of the JSC 16th Meeting took note that:

- i. Based on the presentation of the detailed design, the Malaysian side observed that the proposed protection works involve new specifications and components which need to be further deliberated since it is not in line with the provisions in the 1997 Agreement. Hence, Malaysia proposed that a new agreement to be drafted and negotiated between both sides; and
- ii. The Thai side confirmed that the 1997 Agreement includes the proposed protection works which is stated as protection works to transit point B under ANNEX 1 Paragraph 3.0 (b) of the 1997 Agreement.

The JSC meeting on April 2019 agreed that the JET and JTWG meetings to discuss the matter.

As at the JET meeting on September 2019, the Malaysian team proposes to classify the works to be done as an upgrading of the existing facility of Transit Point B. Afterward, at the 37th JTWG meeting on March 2020, the Malaysian team requested Thai team to consider adding a landing point or jetty for maintenance works for Transit Point B. The Malaysian side has agreed in previous JET-36 meeting with the design of Jetty and will proposed this matter in JTWG meeting. The designs are shown in **APPENDIX D**.

The Thai side has proposed the Malaysian side to check the stability of the Transit Point B Structure as the latest survey shows that erosion occurred at the Transit Point B Is at -7.3 Thai MSL. The Malaysian side will take note on this matter.

The Thai side informed that JET THAI Committee has no delegate from Ministry of Foreign Affairs (MOFA) for considering on the agreement. The meeting has agreed the matter to be further discussed in the next JTWG meeting.

3.4 Rehabilitation and Protection Works at Golok River Mouth

The Thai side informed that the EIA was approved in August 2021. The project is now in the budget request process, and the construction is expected to begin in first quarter of year 2024. The revised implementation schedule as shown in **APPENDIX E**.

The Malaysian side informed that they would like to start the construction in the Malaysian part first because budget was already allocated for the works on this year.

The Thai side requested the Malaysian side to show the method of statement for construction of dyke and mitigation measures for environment and navigation effect if they plan to proceed early for the constructions of dykes.

The Thai side inform that they don't have any obstruction on the construction of the dykes but suggested that if the Malaysian side want to proceed the constructions works this year, this matter needed to be reported to JTWG and JSC meeting for endorsement beforehand.

3.5 Mutual Calibration of Rating Curve at Cableway Station

The Malaysian side reported that 24 mutual gauging that has been done in 2021. The results of 2021 mutual gauging data as shown in **APPENDIX F**. The maximum discharge that was recorded was **433.342 m³/s** at **10.10 m** stage on 6th Jan 2021. The Malaysian' side presented the 2021 mutual rating curve. The rating curve has been developed by the Thai side using water year mutual gauging data as shown in **APPENDIX G**. Thailand's rating curve were selected because of the highest maximum flow rate **560 m³/s** at the stage of **10.60 m** for flood prediction purposes.

The Malaysian side presented the comparison of 2021 and 2022 engineering cross-section survey at cableway station that was done by the Thai side. The result showed that river bank at the Thai side is slightly higher (0.698m MSL) compared to Malaysia river bank as shown in **APPENDIX H**. The Malaysian side also informed that the cross section at cableway station shows that there are no significant changes by comparing 2021 and 2022.

The Malaysia side also presented the comparison of 2019, 2020, 2021 and 2022 engineering cross section at the cableway that was done by the Thai side. 2019 cross section shows Malaysia riverbank significantly has been eroded and significantly changed 2019, 2020 and 2021 mutual rating curve as per in **APPENDIX I**.

The Malaysian side presented the 2022 mutual gauging data. The results of 2022 mutual gauging data as shown in **APPENDIX J**. The Malaysian side also reported that the maximum discharge is recorded at **476.323 m³/s** at the stage of **10.14 m. MSL**. on 26th February 2022. The Malaysian side proposed that for the next mutual gauging works to be carried out on very 17th day of every month or the next earliest working day if the 17th fall on public holiday or weekends. The Thai side agreed with the schedule.

The Malaysian side also proposed the Thai side to extend 20 meters into Malaysia's land when conducting engineering survey works and the Malaysian side will assist the Thai side for the stated matter. The Thai side agreed to the matter and letter of information before conduct the surveying works will be send to the Malaysian side 2 weeks before the surveying date.

The Meeting accepted the cross-section done by the Thai side and been informed with the river geomorphology pattern. The meeting also agreed to adopt Thailand 2021 rating curve as the Mutual Rating for 2021.

3.6 Real Time Monitoring System and Joint Website for Golok River Basin

The Malaysian side reported that the fifteen (15) telemetry hydrological station data has been shared together since 2019. The Malaysian side reported that two telemetry stations that was offline currently are online. The real time data for the two (2) station can be access from the joint website. The Thai side reported that the repair work for six (6) telemetry stations may take a longer time because of the location of all (6) six

stations are in remoted area and had a network problem. The Thai side suggested to add telemetry rainfall data from X.274 (Bukaeta) to be add on the joint website.

The Malaysian side also requested water level data for X.119A station which is at Rantau Bridge, Sungai Golok, Narathiwat for the year 2020, 2021 and 2022 with the time interval of 15 minutes because the Malaysian telemetry hydrological station data was lost sometimes. The Thai side agreed and will sent the proposed data to the Malaysian side.

The meeting acknowledged that (2) two hydrological stations in the Malaysian side are online and can be access on the Joint Website and (8) eight stations on the Thai side still offline due to equipment and network problem because of location are remoted. Both sides acknowledged this matter and the Thai side would solve it as soon as possible.

AGENDA 4: OTHER MATTERS

4.1 Integrated River Basin Management (IRBM) Plan for Golok River

The Thai side informed that Office of the National Water Resources (ONWR) is the new member to JSC Thai committee as the new JSC THAI Committee was signed in 2020.

The Thai side informed the progress of reviewing new MOU. The Royal Irrigation Department (RID) has submitted comments and proposals to Ministry of Agriculture and Cooperatives (MOAC). Due to JET THAI Committee has no delegates from MOFA, MOAC and ONWR, the matter needs to be discussed in the next JTWG.

4.2 Flood Problems in Golok River Basin

Refer to Minutes of 37th JTWG Meeting that:

- i. The Malaysian side has been informed that Tumpat district in Kelantan suffered severe flooding on 2nd December 2019 which lasted for 2 weeks. The Thai side also informed that they also experienced severe flooding on Sungai Kolok and Tak Bai district.

- ii. The Malaysian side informed that they have initiated a flood bund project and this project is now at the construction stage.
- iii. The Malaysian side request for data sharing regarding flood bund level and flood mitigation planning by both sides. The Thai side informed that Narathiwat province will call for a meeting with relevant agencies and the outcome will be discussed further at the next JTWG meeting.

The Malaysian side presented the Layout Concepts of Flood Bund Project at Golok River, Kelantan as shown in **APPENDIX K** and the project are on the final stage of constructions. The Malaysian side also request for data sharing regarding flood bund level and flood mitigation planning by Thai's sides.

The Thai side acknowledged and would send necessary information belonged Joint Hydraulic model study (2012) to Malaysian side. Meanwhile, the information belonged to Narathiwat Province must be inquired for to the concerned department. The Meeting accepted.

4.3 Date and venue for next JET meeting

The meeting proposed the date and venue for the next JET meeting is as follows:

Date: February 2023
Venue: Phuket, Thailand

AGENDA 5: MATTERS TO BE REFERRED TO THE JTWG

Matters for information

- 1. Monitoring and Evaluation of Golok River Mouth
- 2. Mutual Calibration of Rating Curve at Cableway Station
- 3. Real Time Monitoring System and the Joint Websites for Golok River Basin

Matters for Consideration

- 1. Maintenance Dredging of Golok River Mouth
- 2. Rehabilitation and Protection Works at Golok River Mouth

3. Protection Work at Transit Point B
4. Integrated River Basin Management (IRBM) Plan for Golok River
5. Flood Problem in Golok River Basin

AGENDA 6: CLOSING SESSION

6.1 Closing Ceremony

Both side co-chairman presented their closing speech, and thanks everyone for their attendance and cooperation for the meeting.

AGENDA 7: ADOPTION OF MINUTES OF THE MEETING

The Meeting agreed to adopt the minutes of meeting of the 37th Meeting of Malaysia - Thailand Joint Evaluation Team on the Golok River Mouth Improvement Project.



(Mr. Hj. Zainalfikry Bin Hj. Daud)
Co-Chairman
Joint Evaluation Team, Malaysia



(Mr. Prinya Kamolsin)
Representative for Co-Chairman
Joint Evaluation Team, Thailand

APPENDIX A

THE 37th MEETING OF THAILAND - MALAYSIA JOINT EVALUATION TEAM (JET) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

LIST OF MALAYSIA DELEGATES



Name
Designation
Department

Haji Zainalfikry Bin Haji Daud
Director
Division of Coastal Zone Management
Department of Irrigation and Drainage
Contact no.
Email

+60135868559
zainalfikry@water.gov.my



Name
Designation
Department

Ir. Yuhaslin binti Yusof
Senior Engineer
Division of Water Resources Management
and Hydrology
Contact no.
Email

+60126512180
yuhaslin@water.gov.my



Name
Designation
Department

Mrs. Kalsom binti Mean
Senior Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage
Contact no.
Email

+6019 3034624
kalsom@water.gov.my



Name
Designation
Department

Mr. Epyzul Akmal Bin Mohd Shahali
Senior Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage
Contact no.
Email

+6012-255 0318
epyzul@water.gov.my



Name
Designation
Department

Contact no.
Email

Ir. Ts. Noor Aishah binti Zaharin
Engineer
Division of Flood Management
Department of Irrigation and Drainage
+60326161575
aishah@water.gov.my



Name
Designation
Department

Contact no.
Email

Ir. Ts. Wan Zaidi Bin Wan Mahamood
Engineer
Kelantan Federal Project Implementation
Unit
+6010 9099199
wanzaidi@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Muhammad Khairil Izwan
Engineer
Department of Irrigation and Drainage
Kelantan
+60135190291
khairilizwan@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Mohd Eizam Bin Yusof
Engineer
Division of Water Resources Management
and Hydrology
+6016 4844359
eizam@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Mohd Nasyarul bin Ahmad Rizan
Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage
+60135125289
nasyarul@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Wan Shanusi Bin Wan Daud
Technical Assistant
Department of Irrigation and Drainage
Kelantan
+60148084343
shanusi@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Ahmad Nasiruddin bin Ismail
Assistant Engineer
Kelantan Federal Project Implementation
Unit
+60179106113
nasiruddin@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Mohammad Firdaus Yong
Assistant Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage
Malaysia
+60148542549
firdausyong@water.gov.my

APPENDIX A

THE 37th MEETING OF THAILAND - MALAYSIA JOINT EVALUATION TEAM (JET) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

LIST OF THAI DELEGATES



Name
Designation
Department

Mr. Prinya Kamolsin
Expert on Irrigation (Hydraulic Engineering)
Royal Irrigation Department

Contact no.
Email

+668 6074 4874
p_kamolsin@mail.rid.go.th



Name
Designation
Department

Mr. Apiwat Chanasongkram
Director
Narathiwat Provincial Irrigation Office,
Regional Irrigation Office 17,
Royal Irrigation Department

Contact no.
Email

+66485 511 73
miwmiwiemiw@gmail.com



Name
Designation
Department

Mr. Rut InnuPat
Director
Construction Project for Large Scale Irrigation
11, Bureau of large scale water resources
development, Royal Irrigation Department

Contact no.
Email

+66 7459 8463
rutw50@yahoo.com



Name
Designation
Department
Contact no.
Email

Mr. Kanchadin Srpratoom
Senior Advisor on Foreign Irrigation Program
Royal Irrigation Department
+662 241 2688
kanchadin@yahoo.com



Name
Designation
Department
Contact no.
Email

Mr. Soratorn Panluan
Survey Engineer Professional Level
Survey and Engineering Bureau
Marine Department
+66832326905
soratorn@yahoo.com



Name
Designation
Department
Contact no.
Email

Mr. Chinnawat Prommanop
Director,
Golok River Basin Operation and Maintenance
Project, Regional Irrigation Office 17
Royal Irrigation Department
+6681 542 6501
chinnawat_n@hotmail.com



Name
Designation
Department
Contact no.
Email

Miss Kanokporn Boochabun
Director, Hydrology Irrigation Center (Southern
Region),
Royal Irrigation Department
+6681 695 0743
kboochabun@gmail.com



Name
Designation
Department
Contact no.
Email

Mr. Arthon Suttigarn
Director, Project Planning Division 4
Bureau of Project Management,
Royal Irrigation Department
+668 3115 7774
asut999@gmail.com



Name
Designation
Department
Contact no.
Email

Mr Uckrawud Intarapanich
Director
Foreign Project Management and International
Affairs Division, Bureau of Project Management,
Royal Irrigation Department
+668 9209 0550
uck_uck1@hotmail.com



Name
Designation
Department

Contact no.
Email

Mr. Attapan Diloksohon
Chief of Foreign Project Management Branch
Bureau of Project Management,
Royal Irrigation Department
+668 0270 9997
atdplk@gmail.com



Name
Designation

Department

Contact no.
Email

Mrs. Janjira Buddhawong
Chief of Foreign Programing Brunch
Bureau of Project Management,
Royal Irrigation Department
+668 6397 7873
janjirab@yahoo.com

**THE 37th MEETING OF THAILAND - MALAYSIA
JOINT EVALUATION TEAM (JET)
ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT**

PROPOSED AGENDA

Agenda 1: Opening Session

Agenda 2: Adoption of Agenda

Agenda 3: Matters for Consideration

- 3.1 Monitoring and Evaluation of Golok River Mouth
- 3.2 Maintenance Dredging of Golok River Mouth
- 3.3 Protection Work at Transit Point B
- 3.4 Rehabilitation and Protection Works at Golok River Mouth
- 3.5 Mutual Calibration of Rating Curve at Cableway Station
- 3.6 Real Time Monitoring System and the Joint Website for Golok River Basin

Agenda 4: Other matters

- 4.1 Integrated River Basin Management (IRBM) Plan for Golok River Basin
- 4.2 Flood Problem in Golok River Basin
- 4.3 Date and venue for next meeting

Agenda 5: Matters To Be Referred To JTWG

Agenda 6: Closing Session

Agenda 7: Adoption Of Minutes Of Meeting

Revised of Task Force Team

THAILAND TEAM



MISS KANOKPORN BOOCHABUN
DIRECTOR, HYDROLOGY IRRIGATION
CENTER (SOUTHERN REGION), ROYAL
IRRIGATION DEPARTMENT



MR. CHINNAWAT PROMMANOP
DIRECTOR,
GOLOK RIVER BASIN OPERATION AND
MAINTENANCE PROJECT
REGIONAL IRRIGATION OFFICE 17



MR. SORATORN PANLUAN
SURVEY ENGINEER PROFESSIONAL
LEVEL
SURVEY AND ENGINEERING BUREAU,
MARINE DEPARTMENT



MR. ATTAPAN DILOKSOPON
CIVIL ENGINEER, PROFESSIONAL LEVEL
ROYAL IRRIGATION DEPARTMENT
(SECRETARIAT)

MALAYSIA TEAM

DEPUTY DIRECTOR

WATER RESOURCES MANAGEMENT AND
HYDROLOGY DIVISION, DEPARTMENT OF IRRIGATION
AND DRAINAGE MALAYSIA



MR. ZAIDI BIN DERAMAN
ENGINEER
DEPARTMENT OF IRRIGATION AND DRAINAGE
KELANTAN



MRS. KALSOM BINTI MEAN
SENIOR ENGINEER
COASTAL ZONE MANAGEMENT DIVISION,
DEPARTMENT OF IRRIGATION AND DRAINAGE
MALAYSIA



MR. MOHD EIZAM BIN YUSOF
ENGINEER
DIVISION OF WATER RESOURCES MANAGEMENT
AND HYDROLOGY, DEPARTMENT OF IRRIGATION
AND DRAINAGE MALAYSIA (SECRETARIAT)

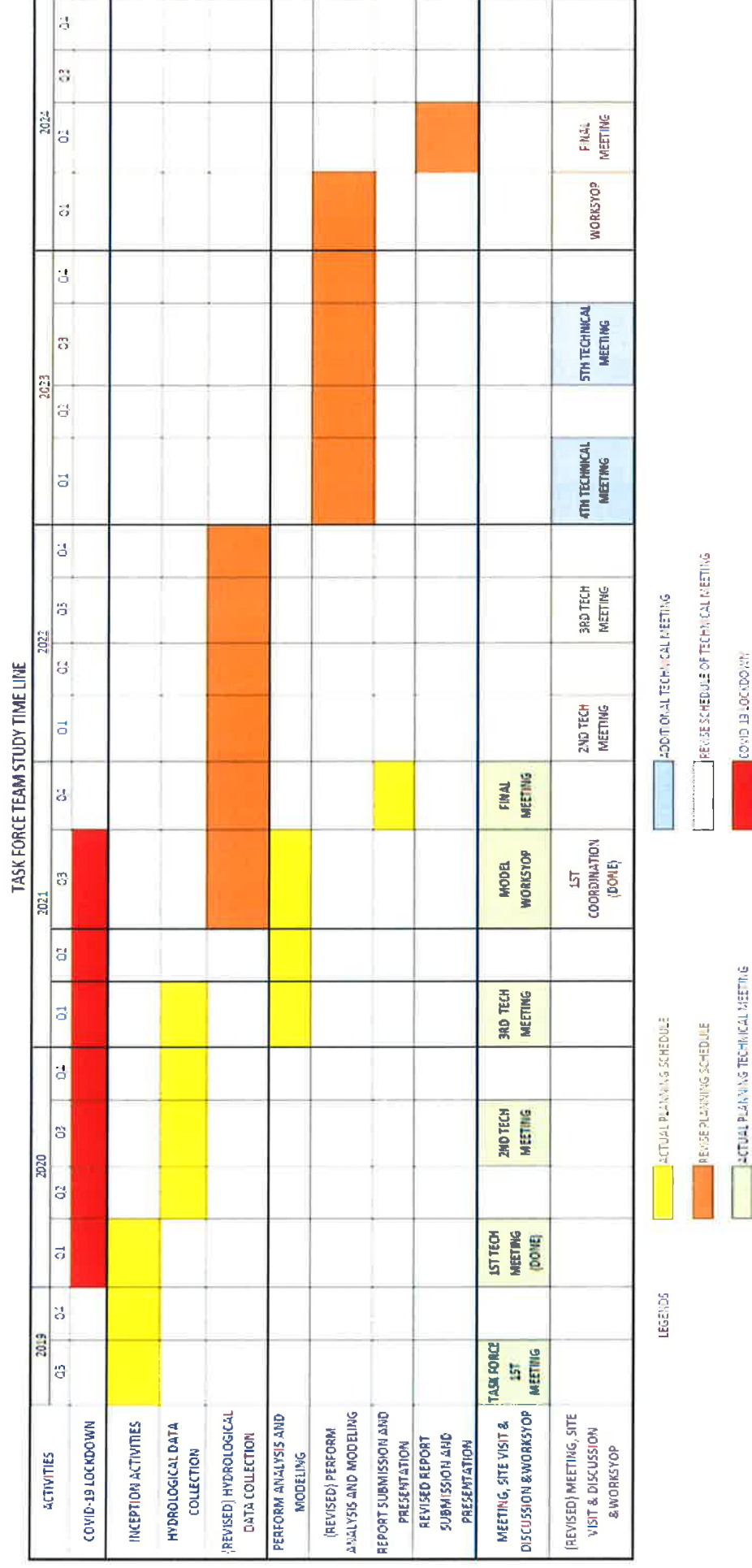
1st TECHNICAL MEETING (FEB 2020)

TASK FORCE TEAM

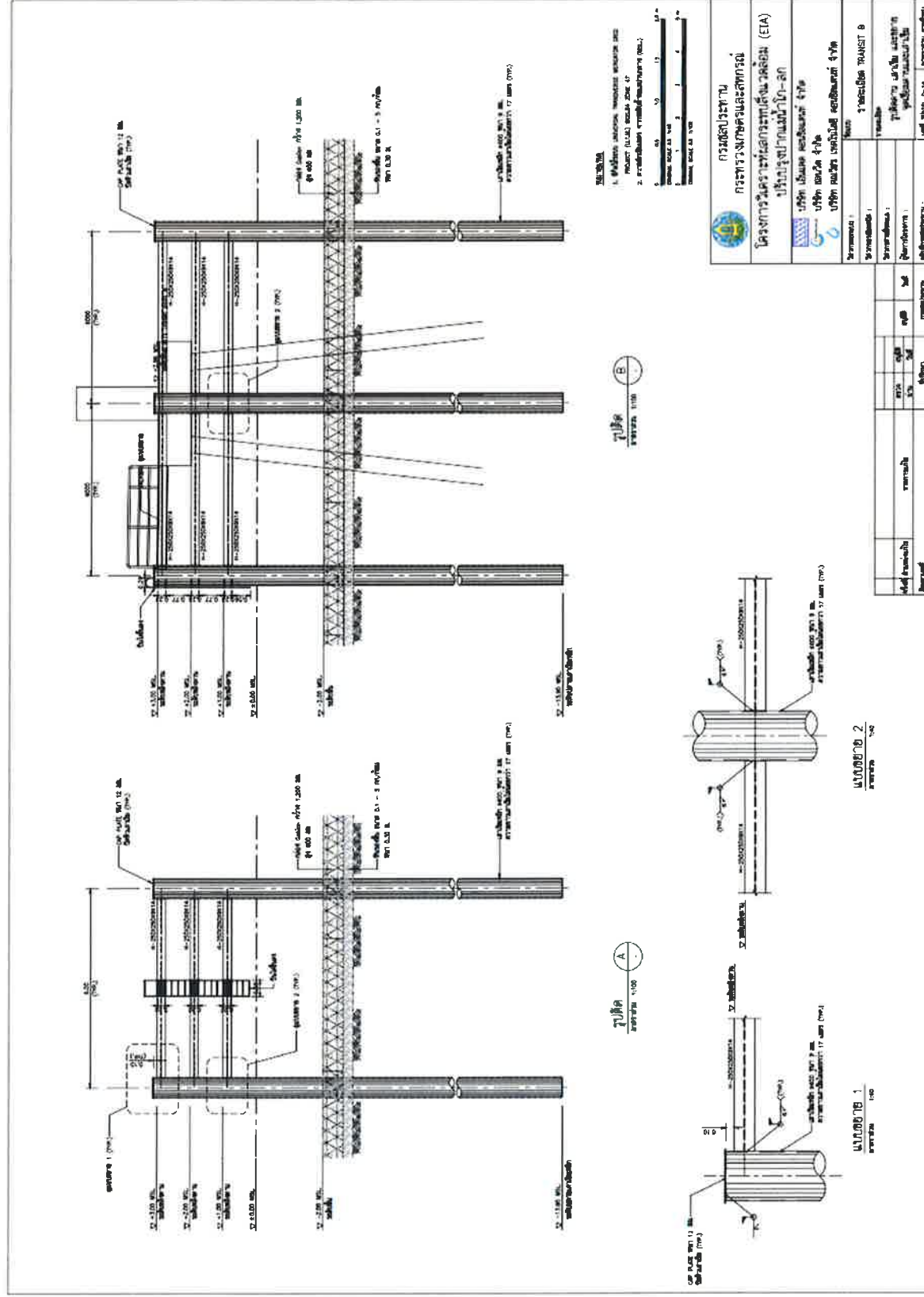
1. 1st Technical meeting and site visit of Task Force Team (TFT) was held at Tumpat, Malaysia and Narathiwat, Thailand on 26 until 27 February 2020.
2. The meeting was held to discuss on both hydrological stations, previous studies, roadmap (project timeline) and site visit to the site.
3. Together, TFT agreed to share twenty-seven (27) rainfall, twelve (12) water level, six (6) stream flow and two (2) evaporation stations to be included in this study. TFT also agreed to share non hydraulic data such as river cross section survey, topographical maps, schematic diagram, land use, study and etc.
4. TFT also agreed to use existing hydrological and hydraulic model from the previous study.
5. Next, TFT will hold a Technical Meeting on 3 September 2021 (Friday). This meeting is to discuss for realign and adjustment to the roadmap (project timeline) because of movement control order/lockdown/curfew due to Covid 19 pandemic.

APPENDIX C

Task Force Team Revised Timeline



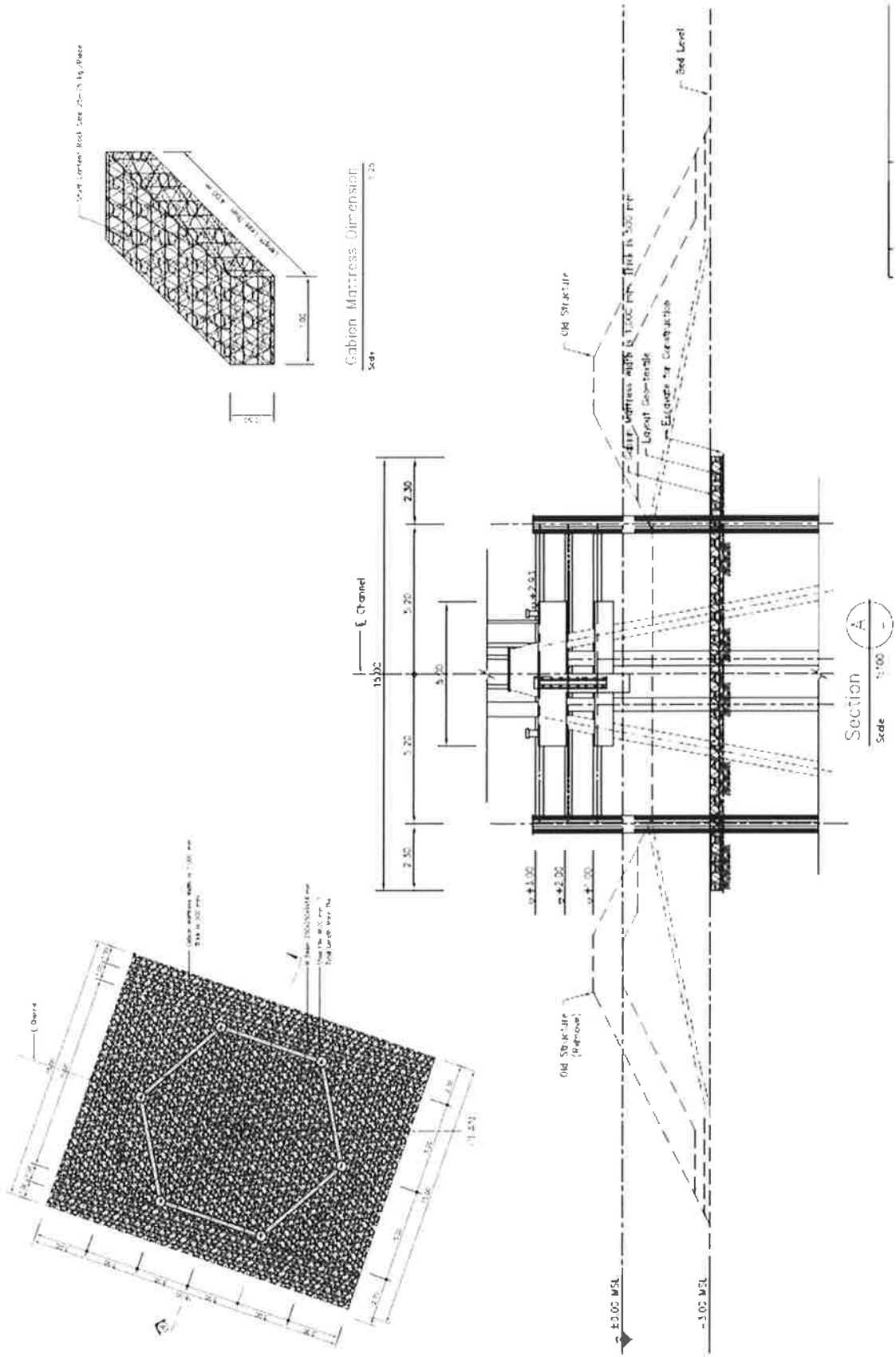
REVISED DESIGN OF PROTECTION WORK AT TRANSIT POINT B



REVISED DESIGN OF PROTECTION WORK AT TRANSIT POINT B



REVISED DESIGN OF PROTECTION WORK AT TRANSIT POINT B



Construction road map (THAI)

DETAILS	2017	2018	2019	2020	2021				2022				2023				2024			
					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Feasibility and EIA study	Complete APR 2017																			
Physical Model (3D)	Complete MAR 2018																			
Detailed Design	Complete APR 2017																			
EIA approval								Approved AUG2021												
Construction									Prepared Doc	Budget Request	Tender Process	Monsoon Season Oct-Mar							24 months (2024-2025)	

Construction road map (MAS)

DETAILS	2017	2018	2019				2020-2022				2023				2024			
	Q1-4	1	2	3	4	1	2	3	4	Q1-4	1	2	3	4	1	2	3	4
Detailed Design																		
EIA approval																		
Proposed to JTWG & JSC																		
Construction																		

~12 months
6 months
3 months
24 months (2023-2024)

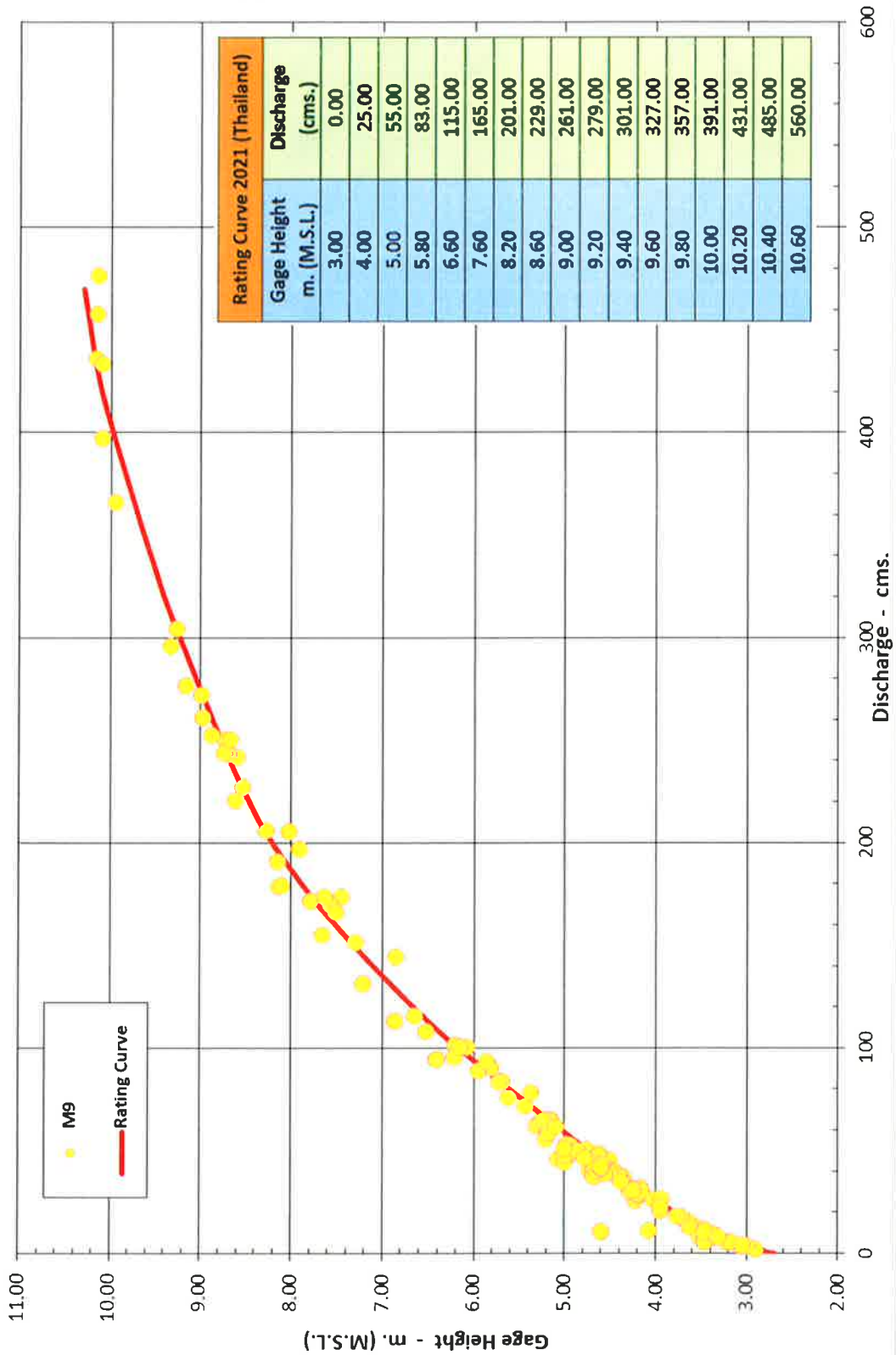
JTWG AUG2022
JSC NOV2022

APPENDIX F

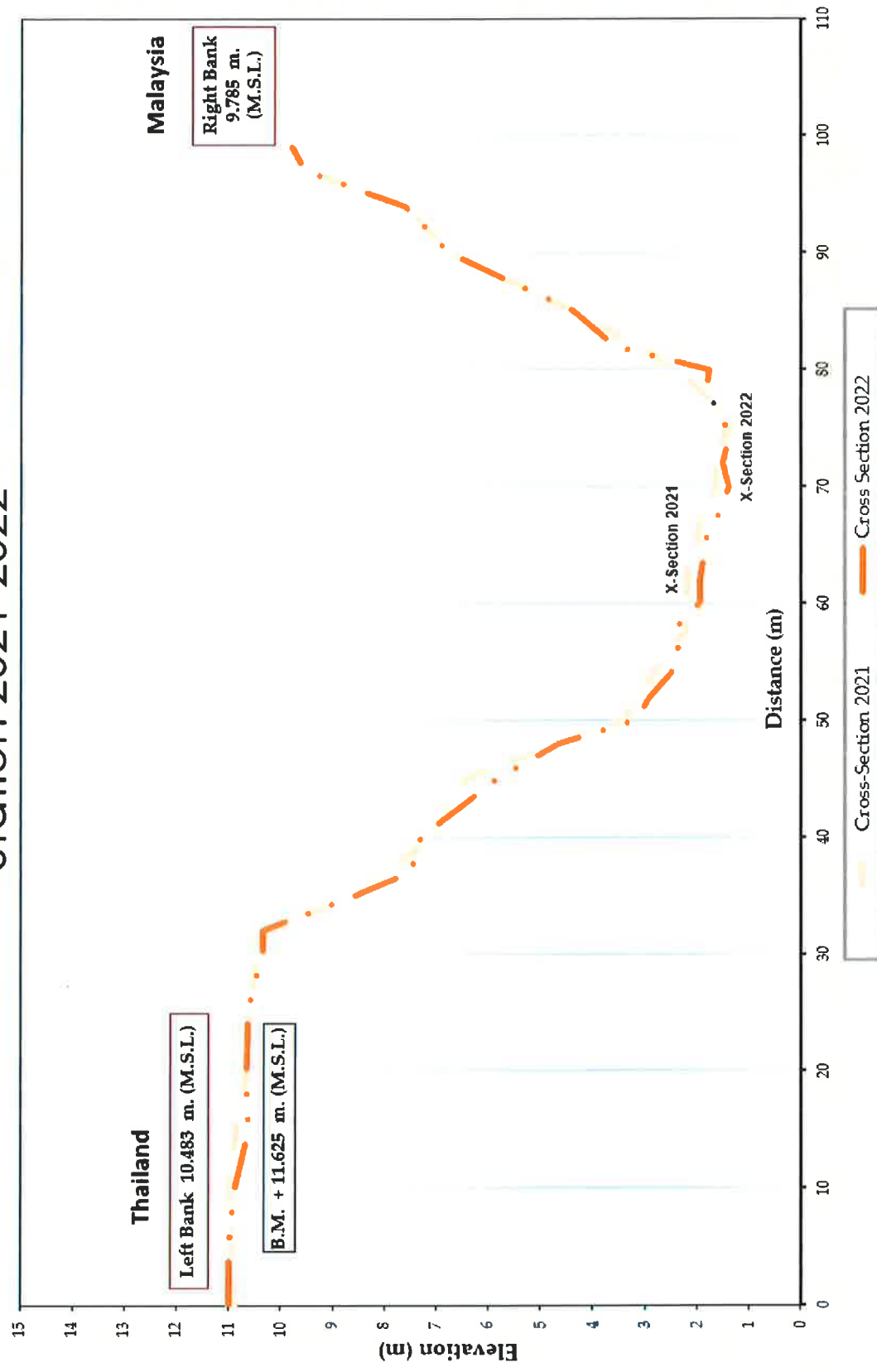
2021 Malaysia-Thailand Mutual Gauging Data

No.	Date	Stage (m)	Discharge (m ³ /s)	Area, A (m ²)	Velocity (m/s)
1	6 Jan 2021	10.100	433.342	363.300	1.193
2	12 Jan 2021	8.280	205.999	252.711	0.815
3	18 Feb 2021	3.630	13.343	58.042	0.23
4	10 Mar 2021	3.320	8.053	48.800	0.165
5	9 Apr 2021	4.190	28.747	72.248	0.398
6	22 Apr 2021	3.940	26.597	69.724	0.381
7	20 May 2021	5.370	78.226	111.700	0.7
8	23 May 2021	5.720	83.211	124.095	0.61
9	25 May 2021	4.790	46.634	91.056	0.512
10	24 June 2021	5.000	51.128	89.900	0.569
11	30 July 2021	3.730	17.534	42.200	0.415
12	26 Aug 2021	4.590	43.167	75.600	0.571
13	30 Aug 2021	6.10	49.615	89.347	0.556
14	23 Sep 2021	3.960	22.626	51.100	0.433
15	28 Oct 2021	4.160	30.509	62.060	0.492
16	17 Nov 2021	7.660	155.199	195.381	0.794
17	18 Nov 2021	8.140	178.486	216.455	0.825
18	3 Dec 2021	8.100	178.946	232.040	0.772
19	3 Dec 2021	8.150	190.823	223.307	0.855
20	17 Dec 2021	7.300	151.439	186.367	0.813
21	18 Dec 2021	8.880	252.129	272.463	0.925
22	18 Dec 2021	8.980	260.807	275.885	0.945
23	19 Dec 2021	9.950	365.831	339.186	1.079
24	31 Dec 2021	7.640	173.423	215.140	0.806

RATING CURVE WATER YEAR 2021 STATION X.119A
GOLOK RIVER AT BAN LANTU , SUNGAI KOLOK , NARATHIWAT

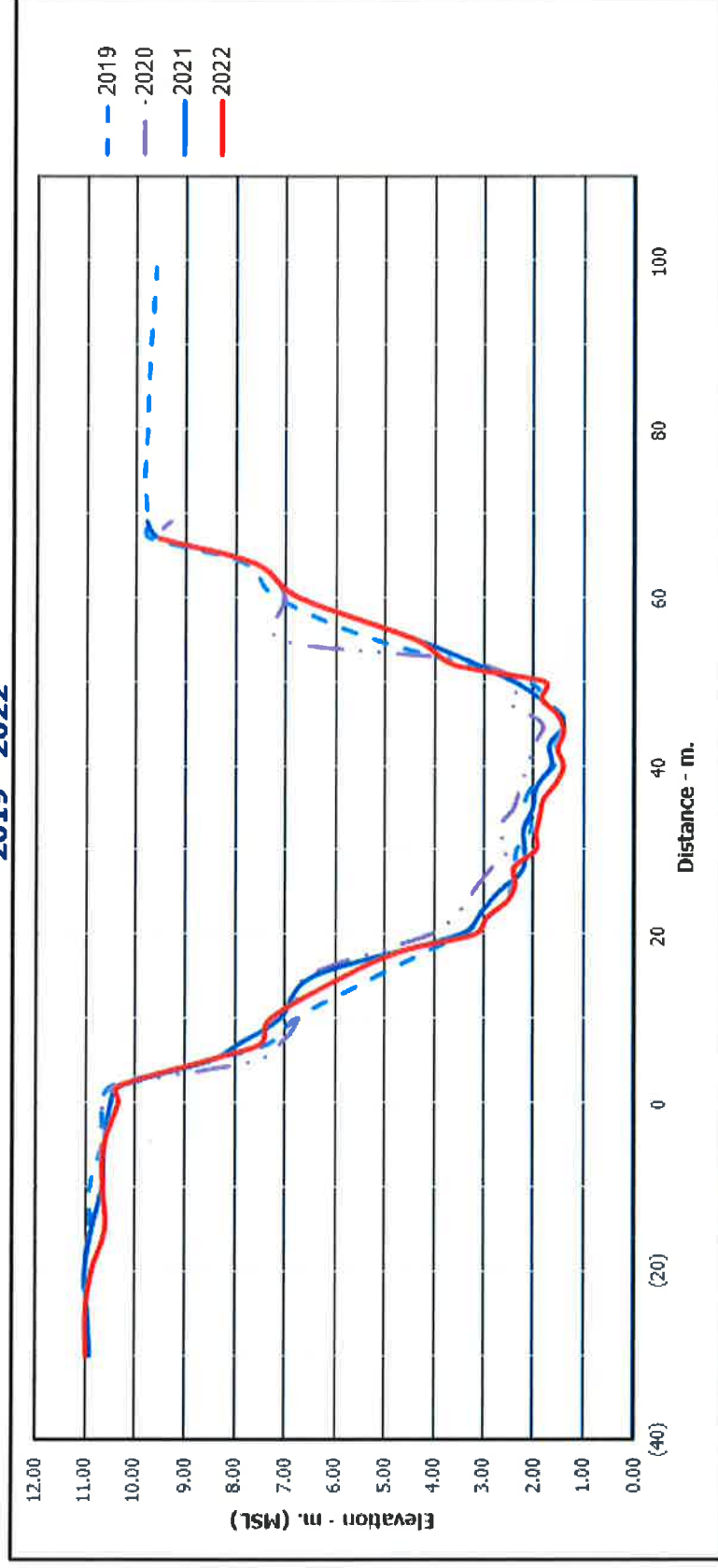


Engineering Cross Section Survey at Golok River Cableway Station 2021-2022



APPENDIX I

Cross section at X.119A Station (Cableway Station) Golok River, Su-Ngai Kolok, Narathiwat
2019 - 2022



APPENDIX J

2022 Malaysia -Thailand Mutual Gauging Data

No	Date	Stage (m)	Discharge (m ³ /s)	Area, A (m ²)	Velocity (m/s)
1	19 Jan 2022	4.250	30.793	72.675	0.424
2	25 Jan 2022	4.18	18.271	58.763	0.311
3	28 Jan 2022	3.770	18.065	54.873	0.329
4	10 Feb 2022	6.640	115.712	166.650	0.694
5	10 Feb 2022	7.05	117.967	164.927	0.715
6	24 Feb 2022	5.100	61.722	107.424	0.575
7	25 Feb 2022	6.850	144.310	175.842	0.821
8	26 Feb 2022	10.140	476.323	412.507	1.157
9	31 Mar 2022	4.600	41.863	88.564	0.473
10	21 April 2022	5.31	67.143	114.592	0.586
11	22 May 2022	4.570	40.636	92.037	0.442
12	13 Jun 2022	4.80	38.916	87.376	0.445
13	22 Jun 2022	5.16	51.871	97.787	1.142

