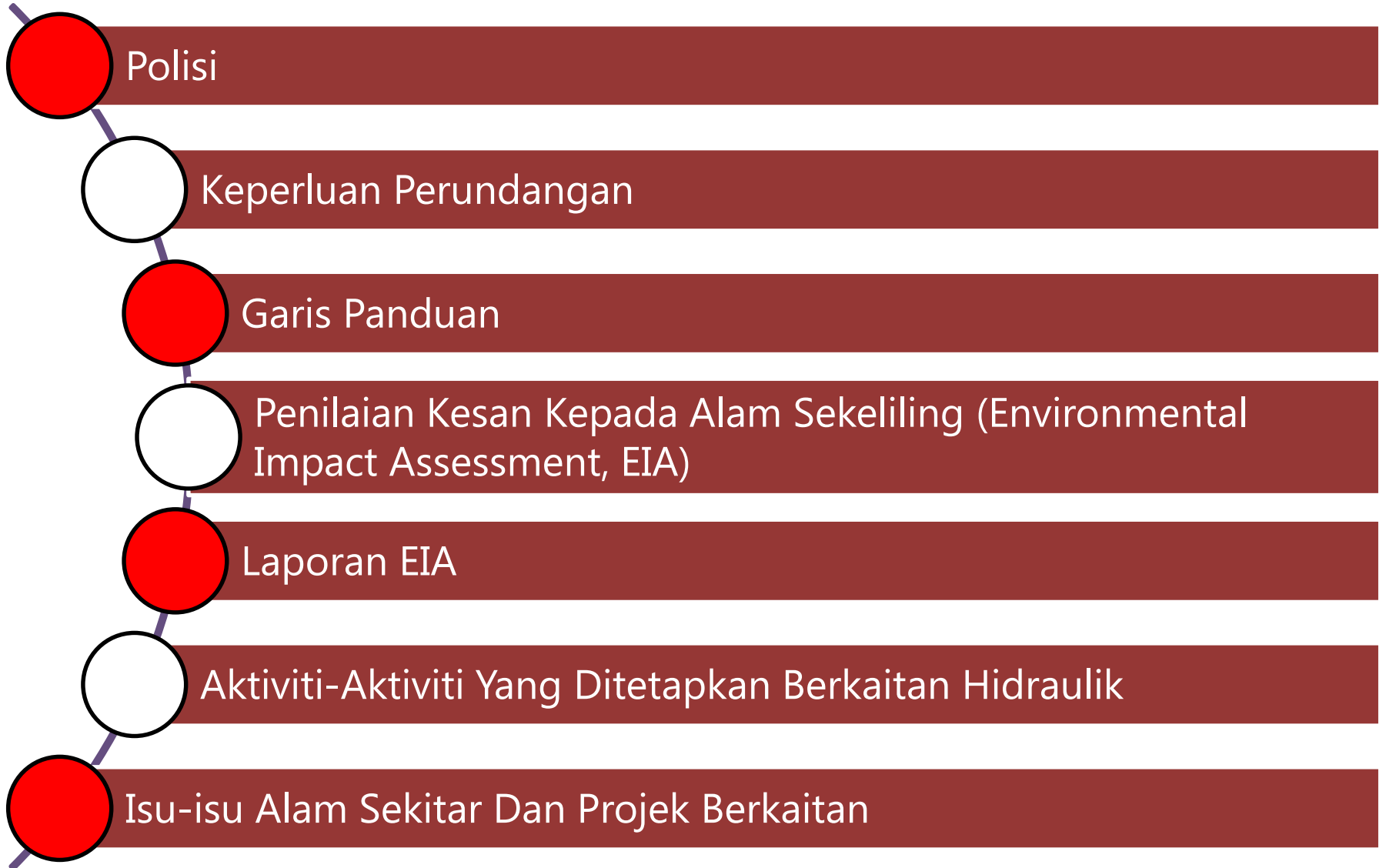




Aspek Polisi, Perundangan dan Garispanduan EIA Berkaitan Hidraulik

9.00 pagi
16 April 2018 (Isnin)
Akar Beach Resort, Port Dickson

RANGKA PEMBENTANGAN



VIDEO PENAMBAKAN

POLISI

POLISI YANG BERKAITAN



NATIONAL POLICY ON BIOLOGICAL DIVERSITY 2016 – 2025

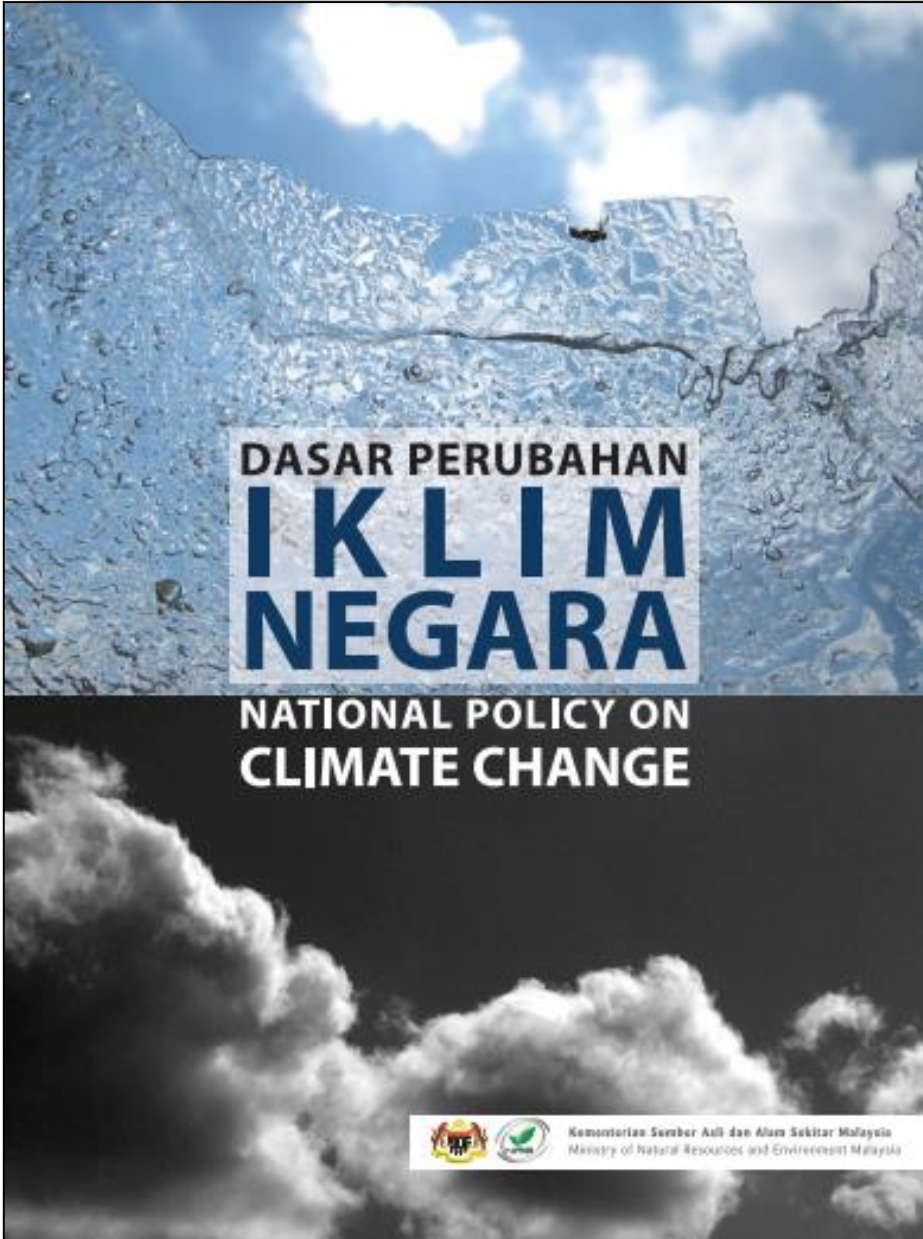


Dasar Alam Sekitar Negara *National Policy on the Environment*



KEMENTERIAN SAINS, TEKNOLOGI DAN ALAM SEKITAR, MALAYSIA
Ministry of Science, Technology and the Environment, Malaysia

POLISI YANG BERKAITAN



DASAR PERUBAHAN IKLIM NEGARA

NATIONAL POLICY ON
CLIMATE CHANGE



Kementerian Sumber Asli dan Alam Sekitar Malaysia
Ministry of Natural Resources and Environment Malaysia

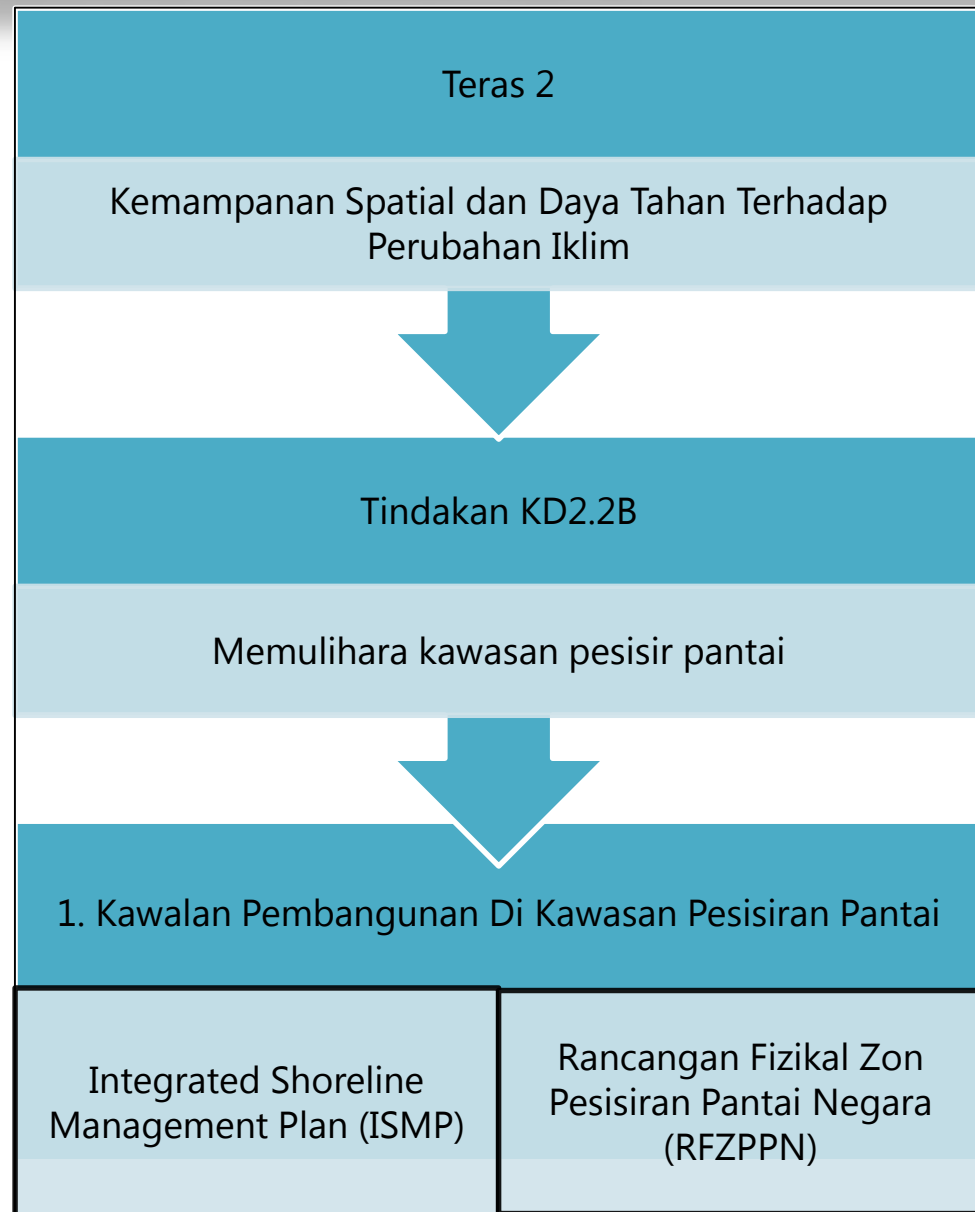


RFN3

Rancangan Fizikal Negara Ke-3



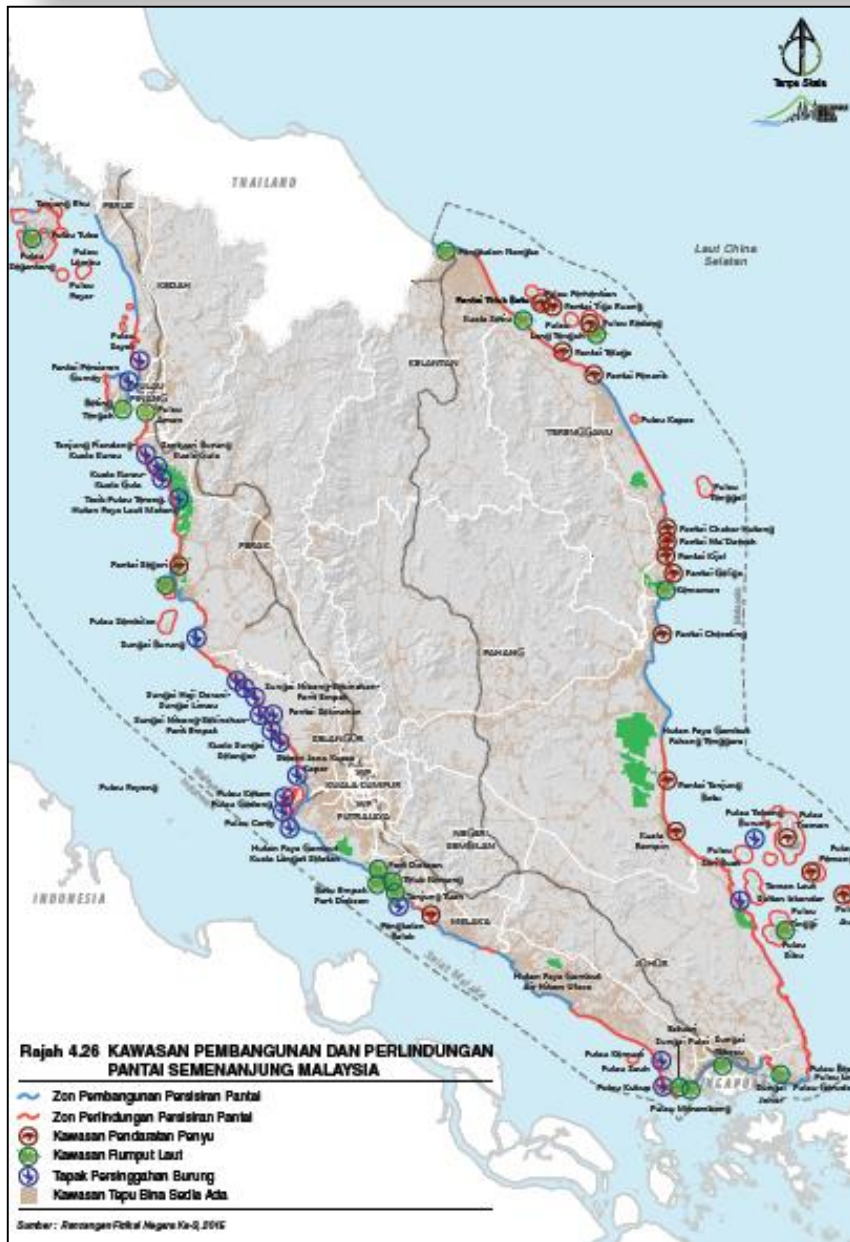
RANCANGAN FIZIKAL NEGARA KE-3



RANCANGAN FIZIKAL NEGARA KE-3



RANCANGAN FIZIKAL NEGARA KE-3



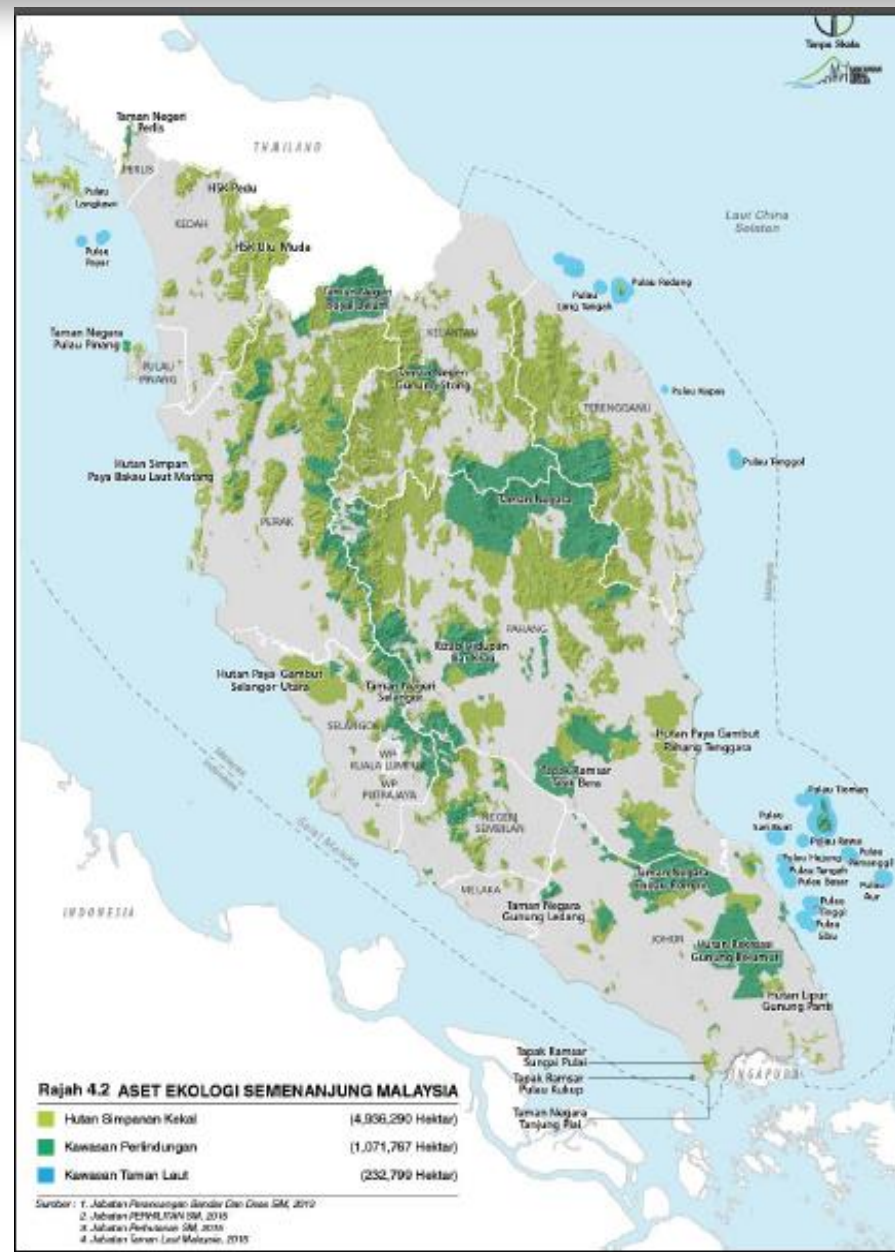
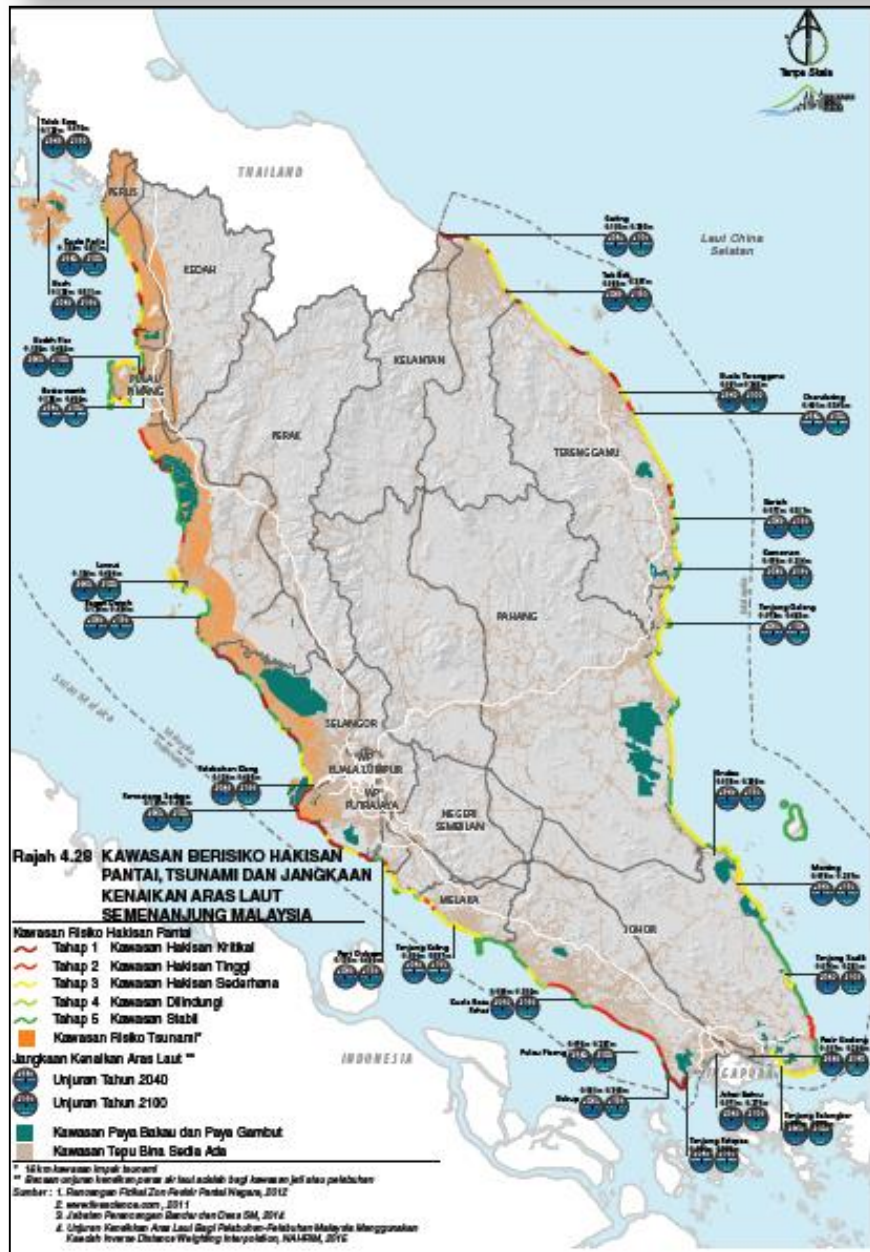
RANCANGAN FIZIKAL NEGARA KE-3

Ciri-ciri	Zon Perlindungan Persisiran Pantai	Zon Pembangunan Persisiran Pantai
Kawasan Terlibat	- Kawasan habitat penting yang terancam iaitu seperti yang dinyatakan di dalam kajian ini (Rujuk Rajah 4.4): - Kawasan Tapak Persinggahan Burung - Kawasan Rumput Laut - Kawasan Pendaratan Penyu - Tanah Lembap yang mempunyai ekosistem unik - Kawasan Sensitif Alam Sekitar Persisiran Pantai (KSASPP) di dalam Rancangan Fizikal Zon Persisiran Pantai Negara iaitu: - Paya Bakau; - Dataran Lumpur; - Hutan Paya Air Tawar; - Hutan Paya Gambut; - Hutan Darat; - Rumput Laut; - Terumbu Karang; - Pulau-pulau; - Tapak Penetasan Penyu; - Kawasan Tuntung; - Kawasan Berkepentingan Burung; dan - Kawasan Larangan Perikanan. - Kawasan KSAS persisiran pantai yang telah diwartakan di dalam Rancangan Struktur dan Rancangan Tempatan turut dikelaskan sebagai zon perlindungan. - Habitat penting di dalam kajian-kajian lain turut akan termasuk di dalam zon perlindungan ini.	- Kawasan yang tidak mempunyai habitat-habitat terancam semasa serta masa hadapan seperti yang dinyatakan dalam RFN Ke-3 dan kajian lain. - Kawasan di luar KSASPP seperti yang dinyatakan di dalam Rancangan Fizikal Zon Persisiran Pantai Negara dan luar kawasan Kawasan Sensitif Alam Sekitar (KSAS) yang dinyatakan di dalam Rancangan Struktur dan Rancangan Tempatan. - Kawasan pelabuhan atau terminal sedia ada dan cadangan masa hadapan - Kawasan penambakan/tebus guna sedia ada yang telah diluluskan oleh Kerajaan Negeri/Persekutuan.

RANCANGAN FIZIKAL NEGARA KE-3

Ciri-ciri	Zon Perlindungan Persisiran Pantai	Zon Pembangunan Persisiran Pantai
Kaedah Pengurusan	- Persekitaran semula jadi di zon perlindungan ini perlu dikekalkan bagi membolehkan fungsi semula jadi kawasan ini berfungsi dengan baik. Sebarang pembangunan termasuk tebus guna tanah dan tambakan tanah yang boleh mengubah atau menjejaskan persekitaran semula jadi di zon ini adalah tidak dibenarkan. - Bagi kawasan yang terjejas akibat hakisan pantai, kerja-kerja perlindungan persisiran pantai hendaklah dilakukan bagi melindungi habitat penting ini. - Perlindungan persisiran pantai di zon ini hendaklah mesra alam seperti: • Penambakan pasir pantai; • Penanaman semula pokok bakau di kawasan paya bakau; dan • Tiub geotekstil dan lain-lain. - Sebarang jenis perlindungan pantai yang berstruktur yang boleh mengubah keadaan semula jadi kawasan di zon ini adalah tidak dibenarkan.	- Aktiviti yang dibenarkan hanya boleh dijalankan di kawasan persisiran pantai 5 km ke darat dan 3 batu nautika ke laut (sumber RFZPPN, JPBD Semenanjung Malaysia) - Memastikan kawasan pembangunan adalah terkawal dan perlu menyediakan laporan EIA dan memenuhi kriteria selamat, terpelihara, produktif dan bebas cemar dan minima gangguan kepada aset pantai. - Pembangunan perlu merujuk kepada rangka kerja KSAS, RFZPPN, ISMP negeri dan garis panduan kawasan pantai sedia ada dan masa hadapan. - Selain daripada memenuhi syarat-syarat pembangunan yang sedia ada, sebarang aktiviti penambakan dan tebus guna tanah setelah mendapat nasihat oleh MPFN, perlu juga mengambil kira aspek-aspek yang berikut: • Impak perubahan iklim, termasuk kenaikan paras laut, bagi tempoh yang tidak kurang 100 tahun; • Kesesuaian reka bentuk dengan bentuk persisiran pantai yang sedia ada; • Kegunaan bahan tebus guna yang tidak tercemar, yang mungkin memberi impak negatif kepada habitat-habitat semula jadi persisiran pantai dan lautan; dan • Ketersediaan laluan kepada penduduk tempatan ke kawasan persisiran pantai (kecuali bagi kawasan yang terlarang).

RANCANGAN FIZIKAL NEGARA KE-3



RANCANGAN FIZIKAL NEGARA KE-3



Teras 3

Pembentukan Komuniti Inklusif dan Badaya Huni



Tindakan KI3.1A

Meluaskan Penglibatan Awam Dalam Proses
Perancangan Di peringkat Tempatan



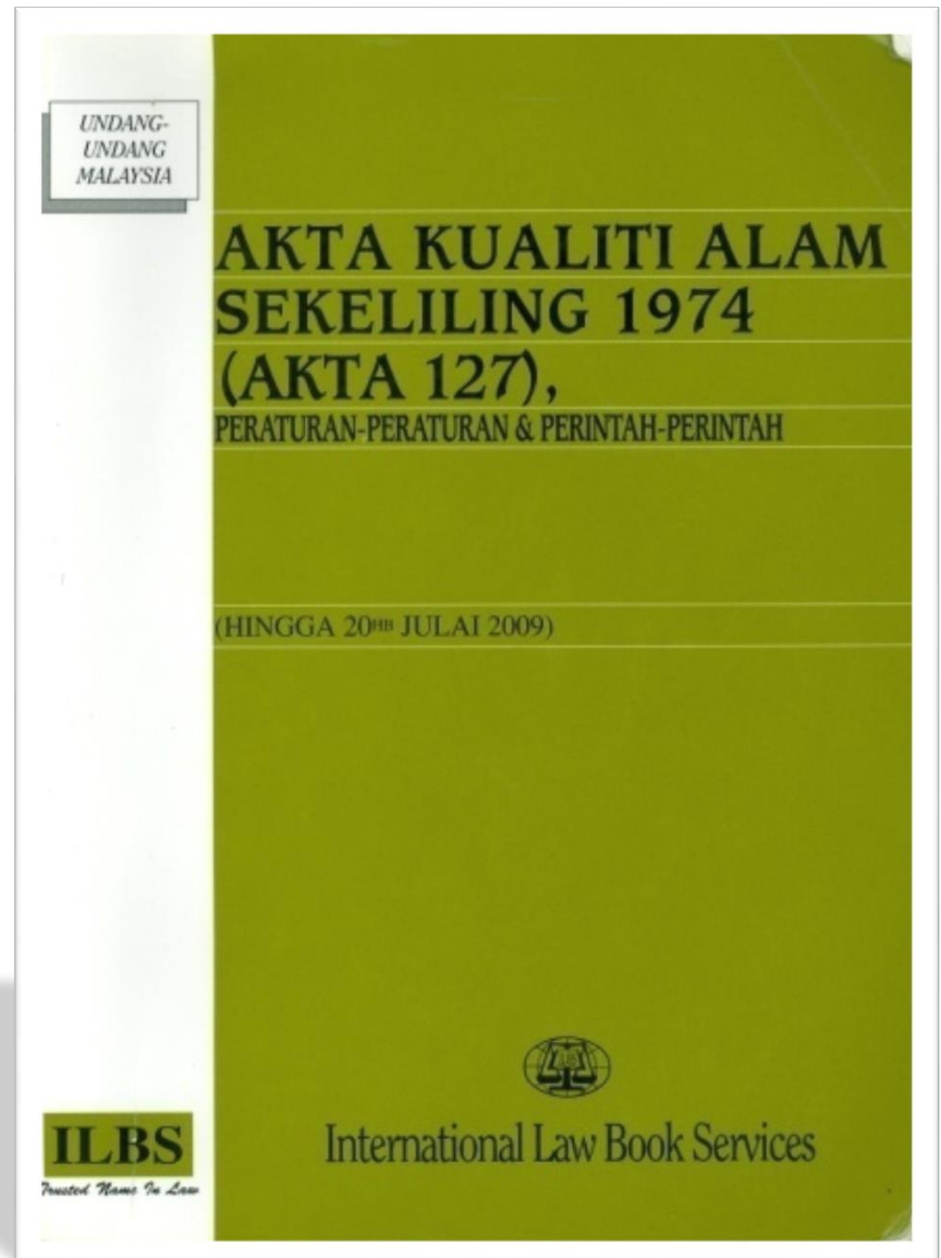
Sesi Perbincangan Bagi Mendapatkan Maklumbalas

KEPERLUAN PERUNDANGAN

KEPERLUAN PERUNDANGAN (EIA)

**Seksyen 34A dan
Seksyen 34AA, Akta
Kualiti Alam
Sekeliling 1974**

**Perintah Kualiti Alam
Sekeliling (Aktiviti Yang
Ditetapkan) (Penilaian
Kesan Kepada Alam
Sekeliling) 2015**



SEKSYEN 34A DAN 34AA AKAS 1974

PERINTAH KUALITI ALAM SEKELILING (AKTIVITI YANG DITETAPKAN) (PENILAIAN KESAN KEPADA ALAM SEKELILING) 2015

Seksyen 34A
AKAS 1974

- Aktiviti Yang Ditetapkan
- Orang Layak Untuk Menjalankan EIA
- Penyenggaraan Senarai Orang Yang Layak
- Tanggungjawab Orang Yang Layak
- Laporan EIA Berdasarkan Garis Panduan
- Kelulusan Laporan EIA Oleh KP
- Kemuka Laporan Tambahan
- Kesalahan Melanggar Seksyen 34A, AKAS 1974

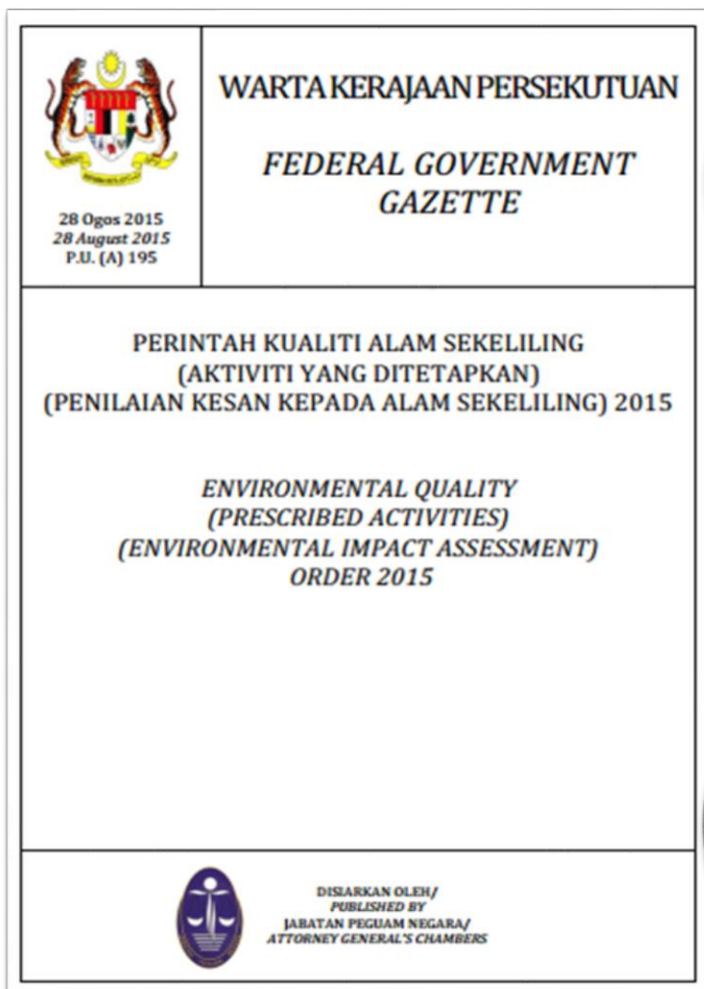
Seksyen 34AA
AKAS 1974

- Perintah Larangan Atau Perintah Berhenti Kerja
- Bagi Menghalang Aktiviti Yang Ditetapkan
- Kesalahan Melanggar Seksyen 34AA, AKAS 1974

Perintah EIA
2015

- Senarai Aktiviti Yang Ditetapkan
- Jadual Pertama dan Jadual Kedua

PERINTAH KUALITI ALAM SEKELILING (AKTIVITI YANG DITETAPKAN) (PENILAIAN KESAN KEPADA ALAM SEKELILING) 2015



JADUAL PERTAMA

- 21 aktiviti yang ditetapkan
- Senarai Aktiviti Yang Ditetapkan yang **tidak memerlukan Pameran Awam** mengikut Prosedur dalam Garispanduan Penilaian Kesan Kepada Alam Sekeliling.
- Piagam 5 minggu dan 3 minggu, pengesahan TOR dan tiada pameran awam.

JADUAL KEDUA

- 17 aktiviti yang ditetapkan
- Senarai Aktiviti Yang Ditetapkan yang **memerlukan Pameran Awam** mengikut Prosedur dalam Garispanduan Penilaian Kesan Kepada Alam Sekeliling.
- Piagam 12 minggu, pengesahan TOR dan pameran awam

AKTIVITI YANG DITETAPKAN (JADUAL PERTAMA)



1. Pertanian



2. Aerodrom



3. Saliran dan Pengairan



4. Perikanan



5. Perhutanan



6. Industri



7. Penebusgunaan Tanah



8. Perlombongan



9. Petroleum



10. Pelabuhan



11. Penjanaan dan Pemancaran Kuasa



12. Pembangunan Di Kawasan Pantai dan Bukit



13. Pembangunan Di Kawasan Cerun



14. Pengolahan dan Pelupusan Buangan



15. Pengorekan



16. Perumahan



17. Pembangunan Estet Industri



18. Bandar Baharu



19. Kuari



20. Jalan



21. Bekalan Air

AKTIVITI YANG DITETAPKAN (JADUAL KEDUA)



1. Pertanian



2. Aerodrom



3. Saliran dan Pengairan



4. Perikanan



5. Perhutanan



6. Industri



7. Penebusgunaan Tanah



8. Perlombongan



9. Petroleum



10. Pelabuhan



**11. Penjanaan dan
Pemancaran Kuasa**



**12. Pembangunan Di Kawasan
Pantai, Taman Negara dan
Taman Negeri**



**13. Pembangunan Di Kawasan
Cerun**



**14. Pengolahan dan
Pelupusan Buangan**



15. Pembinaan Empangan



16. Pengangkutan



**17. Bahan Radioaktif dan
Buangan Radioaktif**

AKTIVITI YANG DITETAPKAN DI SABAH DAN SARAWAK



- **SABAH**: Perintah Perlindungan Alam Sekitar (Aktiviti Yang Ditetapkan) 2005



- **SARAWAK**: Perintah Sumber Asli dan Alam Sekitar (Aktiviti Yang Ditetapkan) 1994

APPLICATION TO THE STATE OF SABAH

4. (2) This Order shall apply to the **State of Sabah** in respect of the prescribed activities specified in the following items:



(a) items 2, 6, 9, and 14 and sub-item 11 (a,b) of the First Schedule; and

(b) items 2, 6, 9, 11, 14 and 17 of the Second Schedule.



APPLICATION TO THE STATE OF SARAWAK

EIA Activities processed by EPD SABAH

SCHEDULE 1			SCHEDULE 1	
1	Agriculture		13	Development in Slope Area
3	Drainage & Irrigation		15	Dredging
4	Fisheries		16	Housing
5	Forestry		17	Industrial Estate Development
7	Land Reclamation		18	Construction of New Townships
8	Mining		19	Quarry
9(b)	Petroleum (on-shore pipeline)		20	Road
11(c)	Construction of transmission line in environmentally sensitive area.		21	Water Supply
12	Development in Coastal and Hill Area			

APPLICATION TO THE STATE OF SARAWAK

EIA Activities processed by EPD SABAH

SCHEDULE 2	
1	Agriculture
3	Drainage & Irrigation
4	Fisheries
5	Forestry
7	Land Reclamation
8	Mining
10	Ports
12	Development in Coastal and Hill Area
13	Development in Slope Area
15	Construction of Dam

APPLICATION TO THE STATE OF SARAWAK

4. (1) This Order shall apply to the **State of Sarawak** in respect of the prescribed activities specified in the following items:



(a) items 2, 6, 9, 10, 11 (a,b), and 14 (a) of the First Schedule;
and



(b) items 2, 6, 9, 10, 11, 16 and 17 and sub-item 14 (a) of the Second Schedule.

APPLICATION TO THE STATE OF SARAWAK

EIA Activities processed by NREB, Sarawak

SCHEDULE 1		SCHEDULE 1	
1	Agriculture	13	Development in Slope Area
3	Drainage & Irrigation	14	Waste Treatment and Disposal (Solid Waste, Sewage)
4	Fisheries	15	Dredging
5	Forestry	16	Housing
7	Land Reclamation	17	Industrial Estate Development
8	Mining	18	Construction of New Townships
10	Ports (State ports)	19	Quarry
11(c)	Construction of transmission line in environmentally sensitive area.	20	Road
12	Development in Coastal and Hill Area	21	Water Supply

APPLICATION TO THE STATE OF SARAWAK

EIA Activities processed by NREB, Sarawak

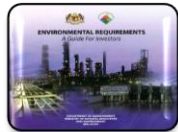
SCHEDULE 2	
1	Agriculture
3	Drainage & Irrigation
4	Fisheries
5	Forestry
7	Land Reclamation
8	Mining
10	Ports (State ports)
12	Development in Coastal and Hill Area
13	Development in Slope Area
14	Waste Treatment and Disposal (Solid Waste)
15	Construction of Dam

GARIS PANDUAN

LIST OF EIA GUIDELINES & PUBLICATIONS



1. A Handbook Of EIA Guidelines



2. Environmental Requirements – A Guide For Investors



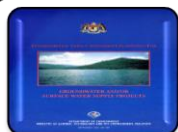
3. EIA Guidelines For Coastal Resort Development Projects



4. EIA Guidelines For Industrial Projects



5. EIA Guidelines For Toxic and Hazardous Waste Treatment and Disposal Projects



6. EIA Guidelines for Groundwater and/or Surface Water Supply Projects.



7. EIA Guidelines for Dam and/or Reservoir Projects.



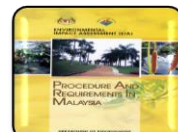
8. EIA Guidelines For Municipal Solid Waste and Sewage Treatment and Disposal Projects



9. EIA Guidelines For Industrial Estate Development



10. Guidelines For The Siting and Zoning Of Industries



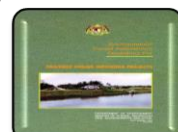
11. Environmental Impact Assessment (EIA) – Procedure and Requirements In Malaysia.



12. EIA Guidelines For Petroleum Industries

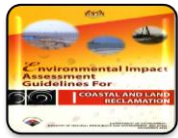


13. EIA Guidelines for Risk Assessment



14. EIA Guidelines for Drainage and/or Irrigation Projects

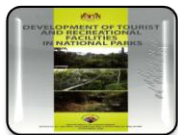
LIST OF EIA GUIDELINES & PUBLICATIONS



15. EIA Guidelines For Coastal and Land Reclamation



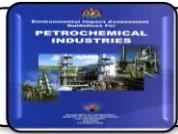
16. EIA Guidelines of Prevention and Control of Soil Erosion And Siltation in Malaysia.



17. EIA Guidelines For Development of Tourist and Recreational Facilities in National Parks.



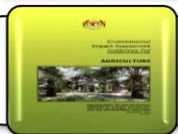
18. EIA Guidelines For Development of Tourist and Recreational Facilities On Island and Marine Parks



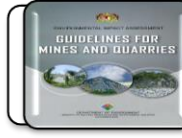
19. EIA Guidelines For Petrochemical Industries.



20. EIA Guidelines for Housing and Township Development Projects.



21. EIA Guidelines for Agriculture



22. EIA Guidelines For Mines And Quarries



23. EIA Guidelines for Forestry



24. EIA Guidelines For Development of Resort and Hotel Facilities in Hill Stations



25. EIA Guidelines For Thermal Power Generation And/Or Transmission Projects



26. Guidelines on the Economic Valuation of the Environmental Impacts for EIA Projects



27. EIA Guidelines for Fishing Harbours and/or Land Based Aquaculture Projects



28. Penilaian Kesan Kepada Alam Sekeliling Bagi Pembangunan Padang Golf



ENVIRONMENTAL IMPACT ASSESSMENT GUIDELINE IN MALAYSIA



Department of Environment
Ministry of Natural Resources and Environment
Malaysia

ENVIRONMENTAL IMPACT ASSESSMENT GUIDELINE IN MALAYSIA 2016



**ENVIRONMENTAL IMPACT ASSESSMENT
GUIDELINES FOR DEVELOPMENT IN
COASTAL AREAS AND MARINE PARKS**



Department of Environment
Ministry of Natural Resources and Environment
Malaysia

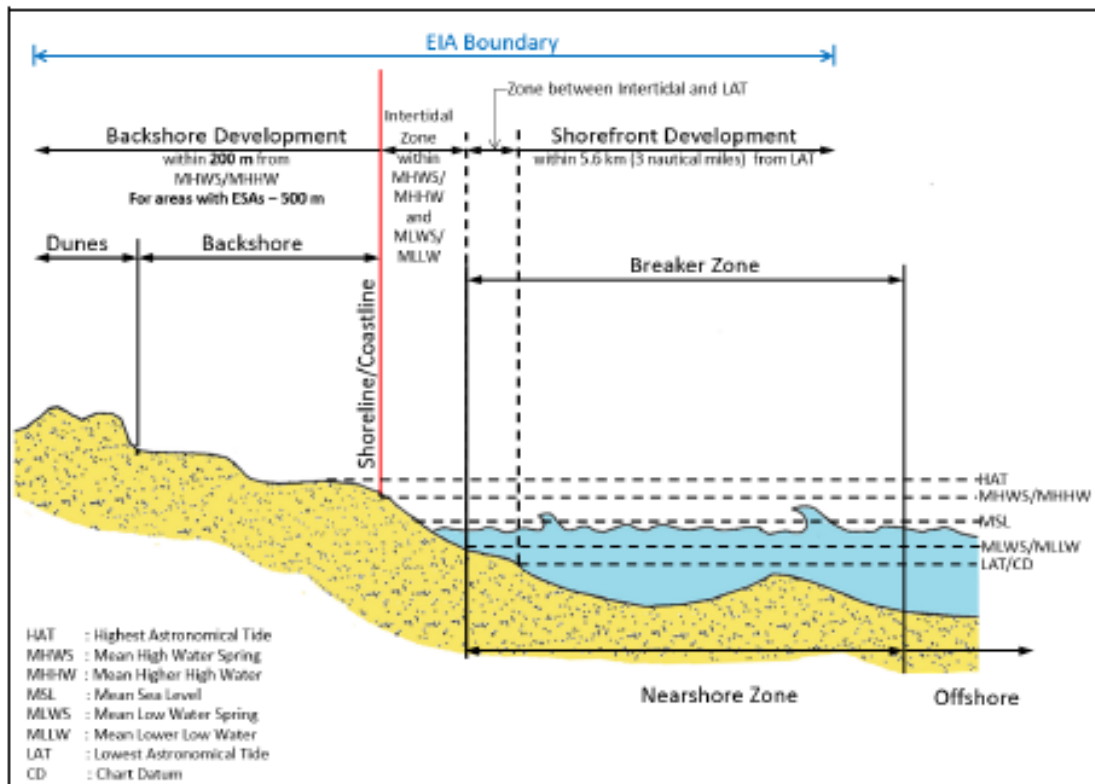
**ENVIRONMENTAL
IMPACT
ASSESSMENT
GUIDELINES FOR
DEVELOPMENT IN
COASTAL AREA
AND MARINE
PARKS**

(c) Coastal Areas

The "coastal area" is a generic term used to describe the shoreline area, which interfaces the land with the sea.

For the purpose of this Guidelines, the coastal areas shall cover the areas within 200 m inland from the shoreline [based on the mean high water spring (MHWS) or mean higher high water (MHHW)], and up to three nautical miles seawards from the low water mark [mean low water spring (MLWS)/mean lower low water (MLLW)] (refer to Figure 2.4.1).

For development encroaching into the ESAs, the landward limit shall extend up to 500 m from the MHWS/MHHW.



DEFINISI COASTAL AREA SEPERTIMANA DALAM EIA GUIDELINES FOR DEVELOPMENT IN COASTAL AREA AND MARINE PARKS



DEPARTMENT OF ENVIRONMENT MALAYSIA
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

GARISPANDUAN EIA BAGI AKTIVITI PNEBUSGUNAAN TANAH DAN PENGOREKAN, PELABUHAN, KUARI DAN PERLOMBONGAN

(AS(PN)91/622/1426 Jld. 3()

- INTERIM REPORT -

PERLOMBONGAN



KUARI



PELABUHAN



PNEBUSGUNAAN TANAH



PENGOREKAN

eesb

(Co. No 71780 P)

ENVIRO ENHANCE SDN BHD

Doc.Ref : Rev.0

Date : October 2017

**ENVIRONMENTAL
IMPACT
ASSESSMENT
GUIDELINES FOR
RECLAMATION,
DREDGING, PORT,
QUARRY AND
MINING ACTIVITY
(WORK IN
PROGRESS)**



GARIS PANDUAN PERANCANGAN

Pembangunan Fizikal Pulau-Pulau
Dan Taman Laut



**GARIS PANDUAN
PERANCANGAN
PEMBANGUNAN
FIZIKAL PULAU-
PULAU DAN
TAMAN LAUT**

PENILAIAN KESAN
KEPADA ALAM
SEKELILING
(ENVIRONMENTAL
IMPACT ASSESSMENT,
EIA)

PENILAIAN KESAN KEPADA ALAM SEKELILING (ENVIRONMENTAL IMPACT ASSESSMENT, EIA)



a study to identify, predict, evaluate and communicate information about the impacts (both beneficial and adverse) on the environment of a proposed development activity and to detail out the mitigating measures prior to project approval and implementation

LAPORAN EIA

FORMAT LAPORAN EIA

1

- Deklarasi Pemaju Projek

2

- Deklarasi Jururunding

3

- Ringkasan Eksekutif

4

- Bab 1: Pengenalan

5

- Bab 2: Bidang Rujukan Kajian EIA

6

- Bab 3: Penyataan Keperluan

7

- Bab 4: Pilihan Projek

8

- Bab 5: Penerangan Projek

9

- Bab 6: Alam Sekitar Sedia Ada

10

- Bab 7: Penilaian Impak

11

- Bab 8: Langkah Kawalan

12

- Bab 9: EMP

13

- Bab 10: Penemuan Kajian

14

- Rujukan

15

- Appendiks

CONTOH LAPORAN EIA

Second Schedule

Environmental Impact Assessment

Ideal Heights Development Sdn. Bhd.

The Proposed Land Reclamation and Dredging of Kuantan Waterfront Resort City, Kuantan, Pahang

Volume II : Main Report

March, 2017

Project Proponent:



NEWTRON

EIA Consultant:



Proposed Development of an Integrated Petroleum Hub and Maritime Industrial Park including Reclamation at Tanjung Piai, Johor, Malaysia

Detailed Environmental Impact Assessment (DEIA)

Volume II: Main DEIA



State Secretariat Incorporated

The expert in WATER ENVIRONMENTS



Spektrum Kukuh Sdn. Bhd

62800607-RPT-05 Rev. 01
October 2014

**AKTIVITI-AKTIVITI YANG
DITETAPKAN
BERKAITAN HIDRAULIK**

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 4: FISHERIES



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
5.FISHERIES 5 (a) Construction of fishing harbours	4. FISHERIES Land based aquaculture projects accompanied by clearing of mangrove forest, peat swamp forest or fresh water swamp forest covering an area of 20 hectares or more but less than 50 hectares.	4. FISHERIES Land based aquaculture projects accompanied by clearing of mangrove forest, peat swamp forest or fresh water swamp forest covering an area of 50 hectares or more.

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 5

FORESTRY



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
6 (d) Conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 hectares or more.	5. (d) Conversion of an area of— (i) mangrove forest; (ii) peat swamp forest; or (iii) fresh water swamp forest, for industrial, housing or agricultural use covering an area of 20 hectares or more but less than 50 hectares.	5. (f) Conversion of an area of— (i) mangrove forest; (ii) peat swamp forest; or (iii) fresh water swamp forest, for industrial, housing or agricultural use covering an area of 50 hectares or more.
EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
6(e) Clearing of mangrove swamps on islands adjacent to national marine parks.	-	5. (g) Clearing of mangrove forest, peat swamp forest or fresh water swamp forest on islands adjacent to any national marine park.

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 7

LAND RECLAMATION



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE <u>(No Public Display)</u>	SECOND SCHEDULE <u>(Public Display)</u>
4. LAND RECLAMATION Coastal Reclamation involving an area of 50 hectares or more.	7. Coastal reclamation or land reclamation along river banks involving an area of less than 50 hectares.	7. (a) Coastal reclamation or land reclamation along river banks involving an area of 50 hectares or more. 7. (b) Coastal reclamation or land reclamation along river banks within or adjacent or near to environmentally sensitive areas. 7. (c) Reclamation for man-made island.

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 8

MINING



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
11. MINING 11 (a) Mining of minerals in new areas where the mining lease covers a total area in excess of 250 hectares.	8. (a) Ore processing outside mineral tenement area, including concentrating of aluminum, copper, gold, iron, tantalum or rare earth element.	8. (a) Mining of minerals in new areas involving large scale operation.

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
11 (b) Ore processing, including concentrating for aluminium, copper, gold or tantalum.	-	8. (b) Mining of minerals within or adjacent or near to environmentally sensitive area.

EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
11(c) Sand dredging involving an area of 50 hectares or more.	8. (b) Sand mining on land or river or in coastal area or in territorial waters not exceeding 3 nautical miles measured from the low-water line, involving an area of 20 hectares or more.	-

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
11(c) Sand dredging involving an area of 50 hectares or more.	8. (c) Sand mining in continental shelf area.	-

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 10

PORT



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
10.PORTS (a)Construction of ports.	-	10. PORTS: (a) Construction of a new port.

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
5. FISHERIES 5(a) Construction of fishing harbours.	-	10. (b) Construction of a new fishing port.

EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
10. PORTS 10(b) Port expansion involving an increase of 50 percent or more in handling capacity per annum.	10. PORTS: (a) Expansion of port involving an increase of 50 percent or more in handling capacity per annum.	-

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
5. FISHERIES 5 (b) Harbour expansion involving an increase of 50 percent or more in fish landing capacity per annum.	10. PORTS 10. (b) Expansion of fishing port involving an increase of 50 percent or more in fish landing capacity per annum.	-

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 12

DEVELOPMENT IN COASTAL AND HILL AREA (First Schedule)



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
17. RESORT AND RECREATIONAL DEVELOPMENT 17(a) Construction of coastal resort facilities or hotels with more than 80 rooms.	12. <i>DEVELOPMENT IN COASTAL AND HILL AREA:</i> 12. (a) Construction of building or facilities with 80 rooms or more in coastal area.	-

EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
17(b) Hill station resort or hotel covering an area of 50 hectares or more.	12. (b) Construction of hill-station resort or hotel at 300 meters or more above mean sea level covering an area of 20 hectares or more.	-

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 12

DEVELOPMENT IN COASTAL AREA, NATIONAL PARK AND STATE PARK (Second Schedule)



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
17. RESORT AND RECREATIONAL DEVELOPMENT 17(c) Development of tourist or recreational facilities in national parks. 17(d) Development of tourist or recreational facilities on islands in surrounding waters which are gazetted as national marine park.	-	12. DEVELOPMENT IN COASTAL AREA, NATIONAL PARK AND STATE PARK: Development of tourist facilities, recreational facilities or other facilities— (a) in any national park or state park; or (b) on any island in surrounding waters which has been gazetted as a national marine park or marine reserve under the Fisheries Act 1985 [Act 317].

PRESCRIBED ACTIVITY EIA ORDER, 2015

Activity 15

DREDGING (First Schedule)



EIA ORDER, 2015 – Prescribed Activity

EIA ORDER, 1987	FIRST SCHEDULE (<u>No Public Display</u>)	SECOND SCHEDULE (<u>Public Display</u>)
-	15. DREDGING: (a) Capital dredging. (b) Disposal of waste dredged materials.	-

ISU ALAM SEKITAR DAN PROJEK BERKAITAN

ENVIRONMENTAL ISSUES



PLANNING



DESIGN



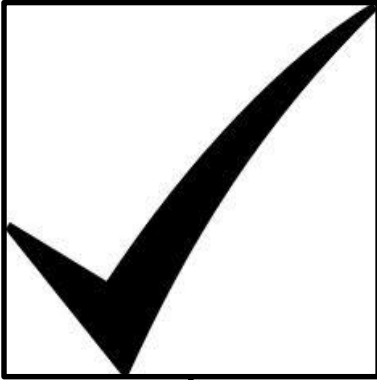
**CONSTRUC-
TION**



OPERATION



PLANNING

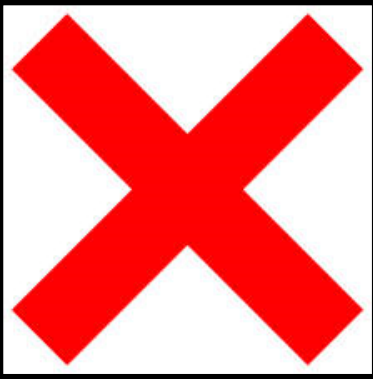


PLANNING

- In line with National Physical Plan, Structure Plan, Local Plan and other policies.
- Avoid Environmental Sensitive Areas (ESAs) / Protective Areas (mudflat, sea grass bed, corals, mangroves, RAMSAR sites, turtle landing sites, etc)
- Project and Site options.



PLANNING



What will happen if ENVIRONMENT IS NOT CONSIDERED IN PLANNING?

PLANNING

- Permanent damage to ESAs/ Protected Areas.
- Inadequate buffer zone.
- Public outcry/ objections/ complaints.
- Long-term and continuous environmental problems.

DESIGN

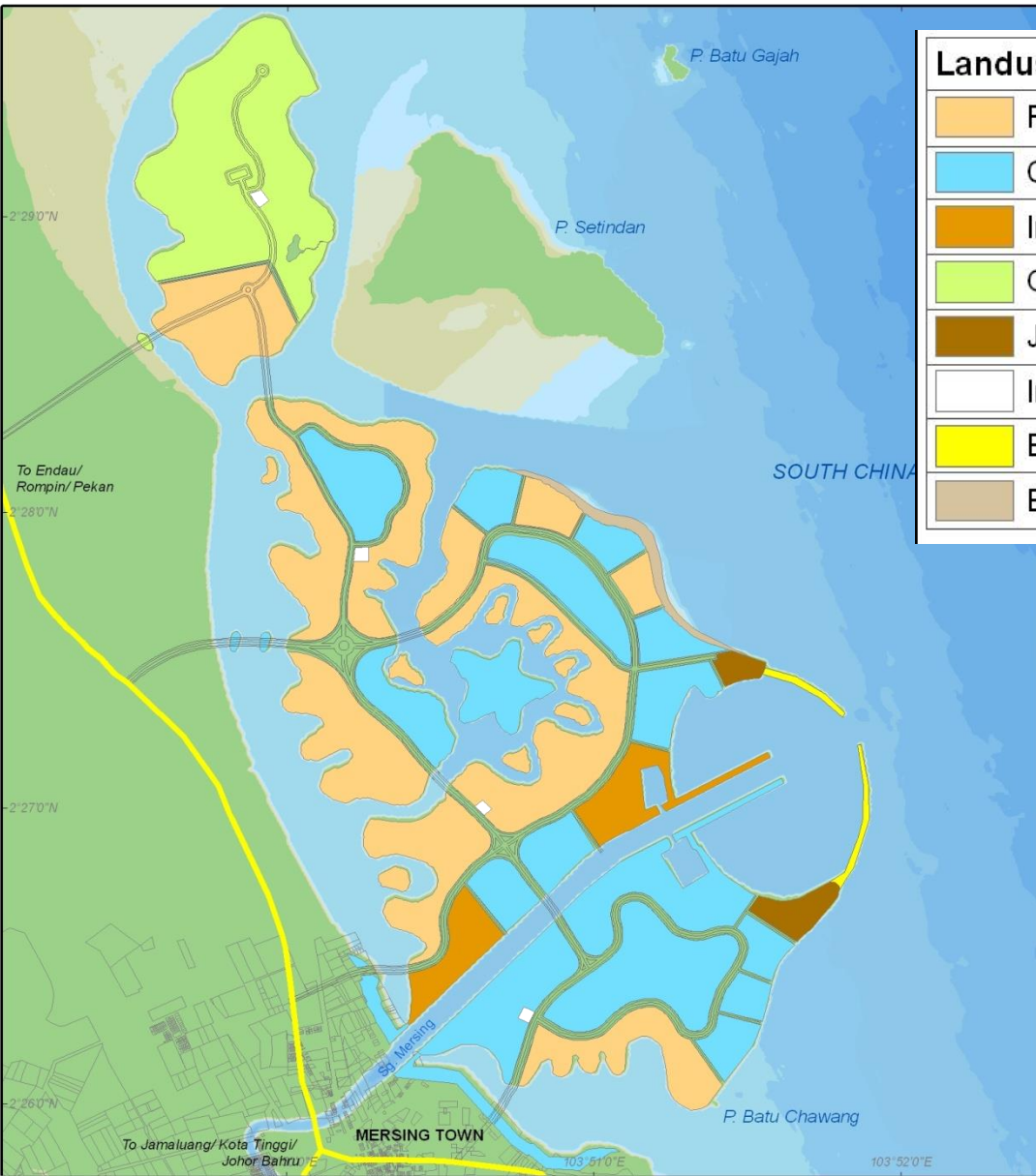


DESIGN

- Incorporate findings of EIA study : hydrology, hydraulic, geo-technical, coastal processes, erosion risk, QRA etc.
- Effective mitigating measure.
- *Design with nature*

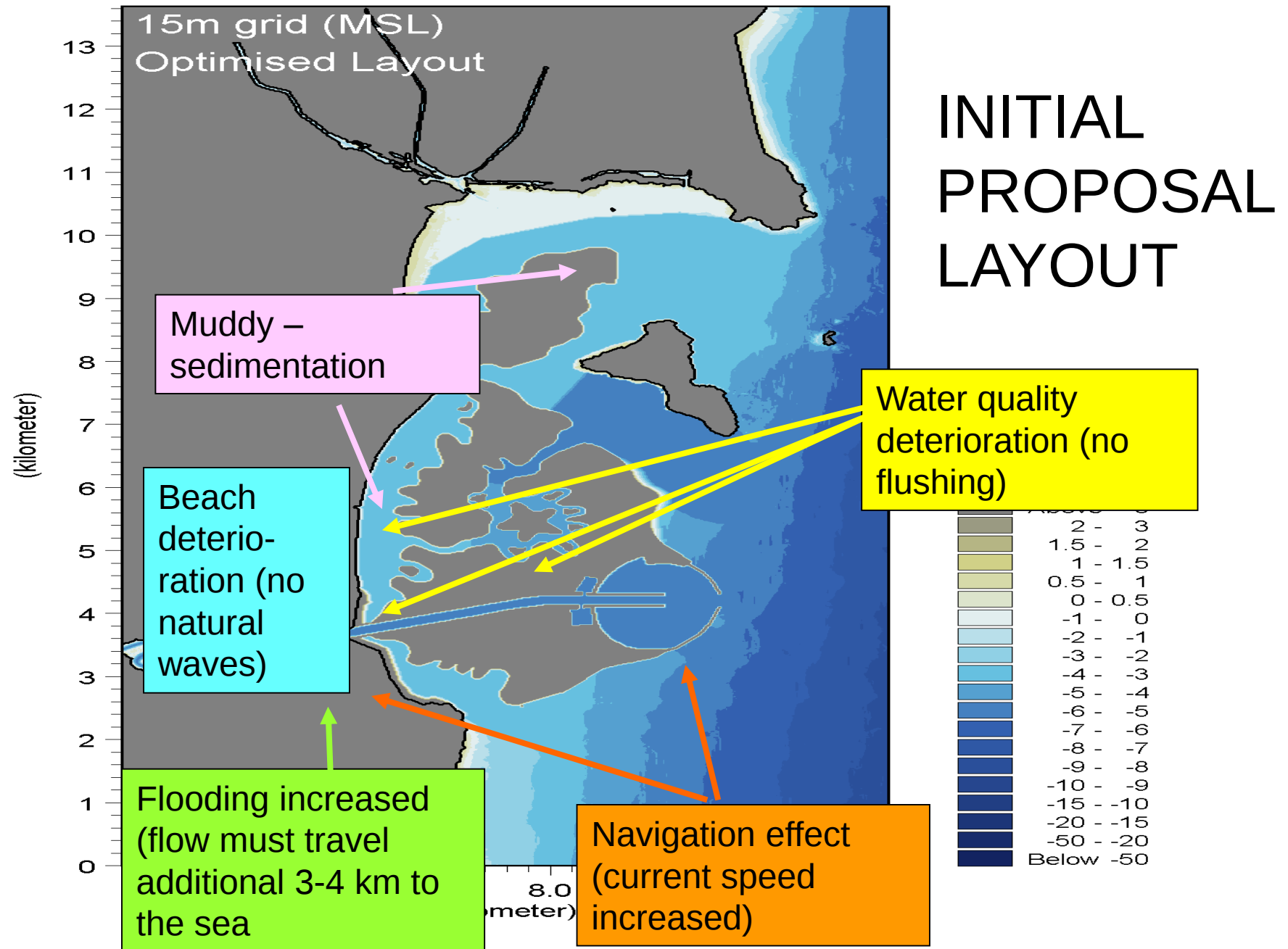


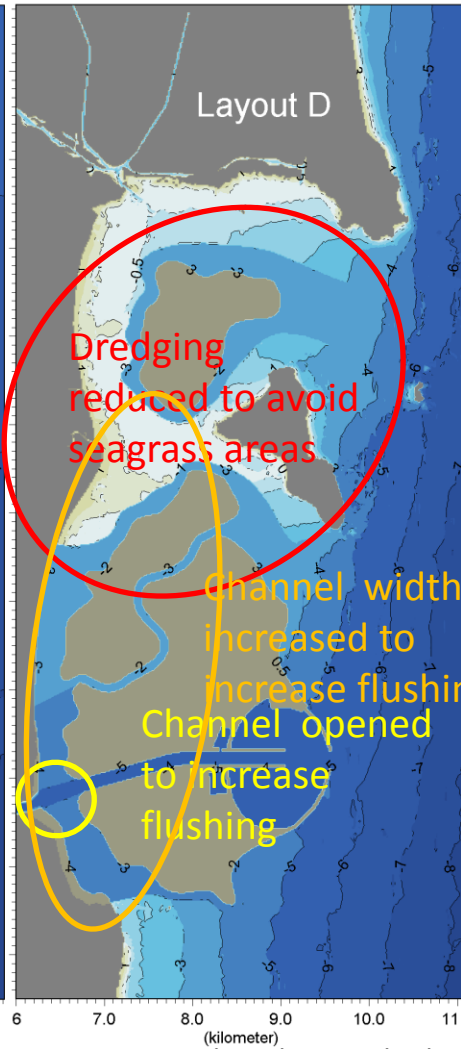
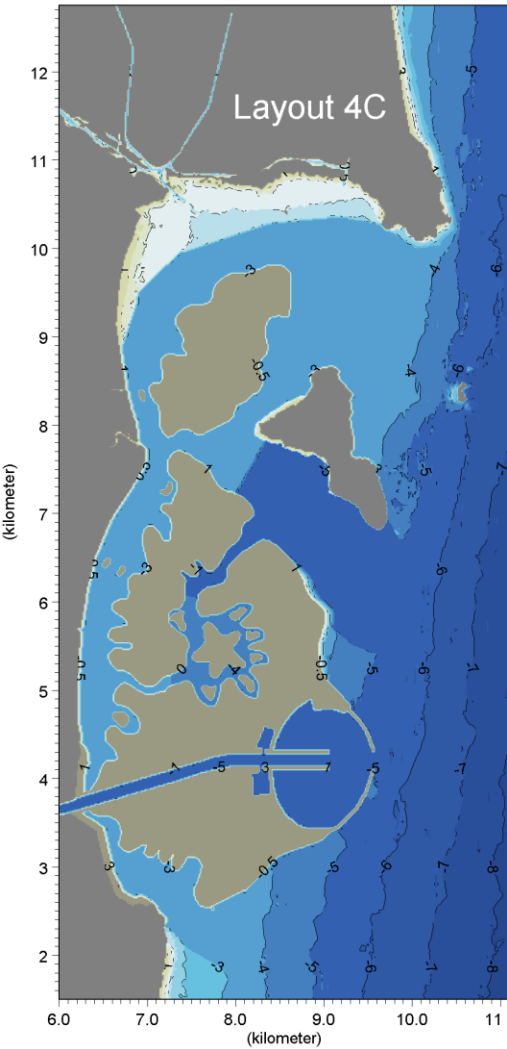
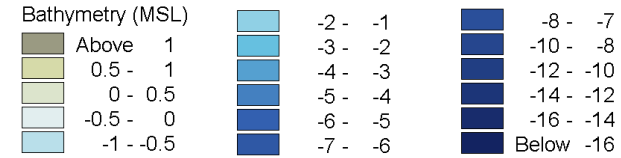
Development Master Plan for Mersing Laguna



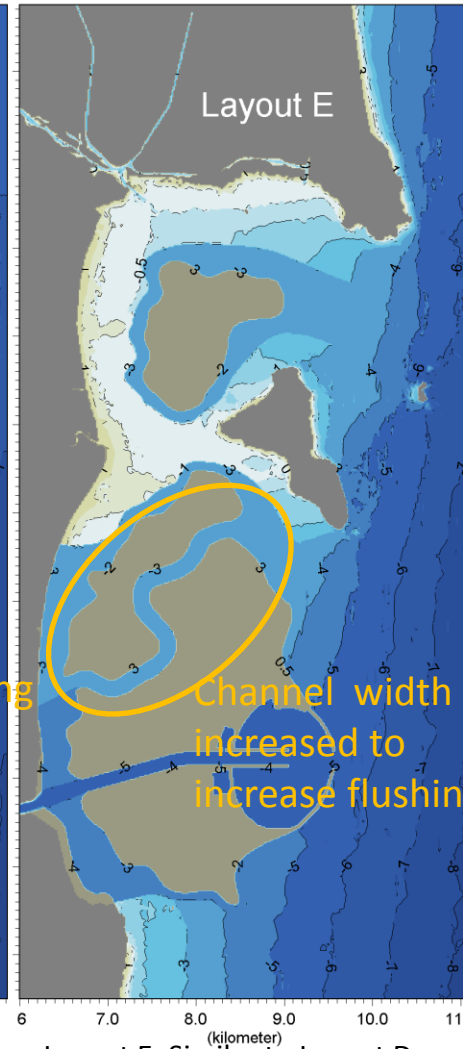
Landuse	Unit	Acres	%
Residential	18	815.85	37.08
Commercial	17	776.21	35.29
Institution	2	93.88	4.27
Golf Resort	1	288.67	13.12
Jetty	2	34.22	1.56
Integrated Infrastructure	4	7.36	0.33
Breakwater	2	13.0	0.64
Beach	1	23.65	1.17

**Source: Mersing Laguna
Project- DEIA**

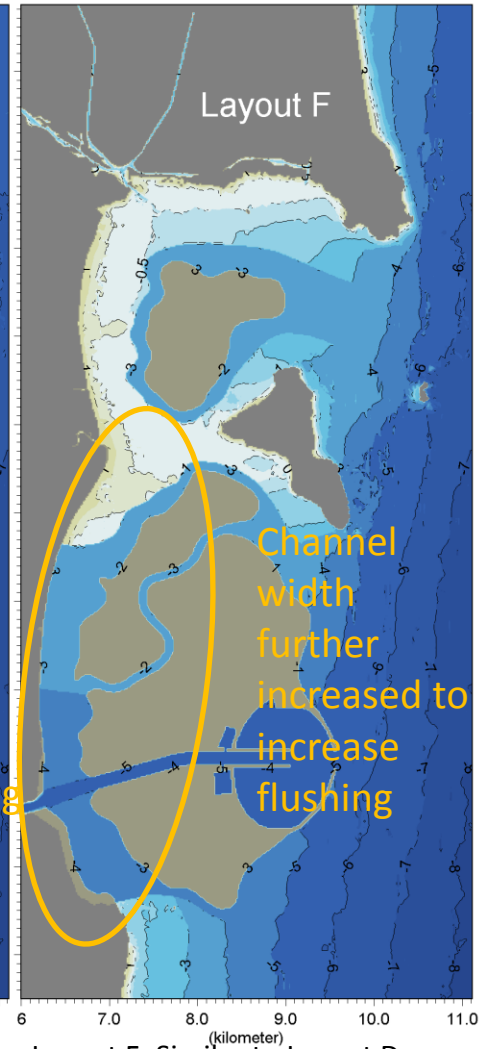




Layout D: Widened, smoothed channels & reduced dredging.



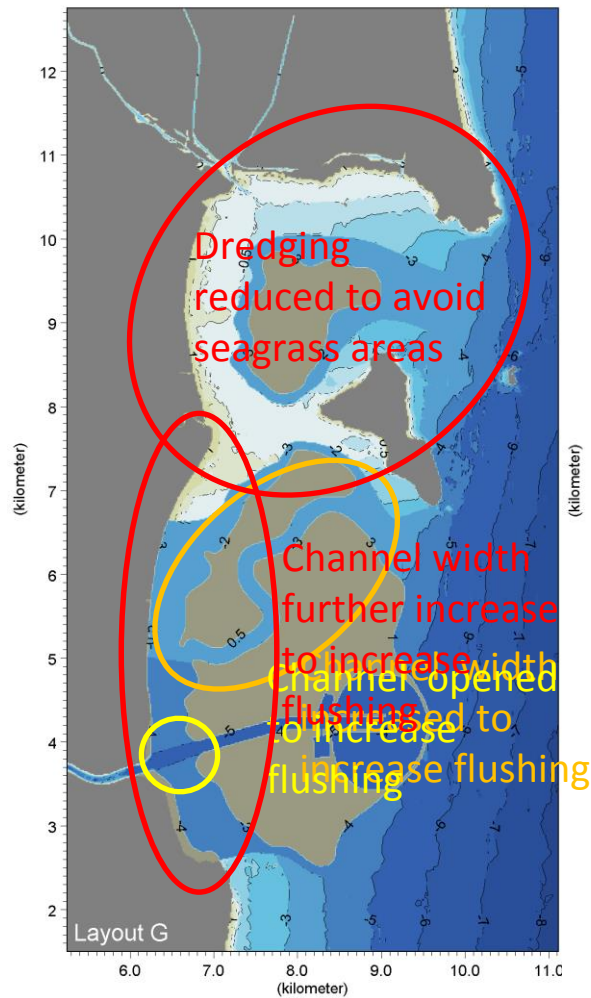
Layout E: Similar to Layout D but width of channel increased to 200m.



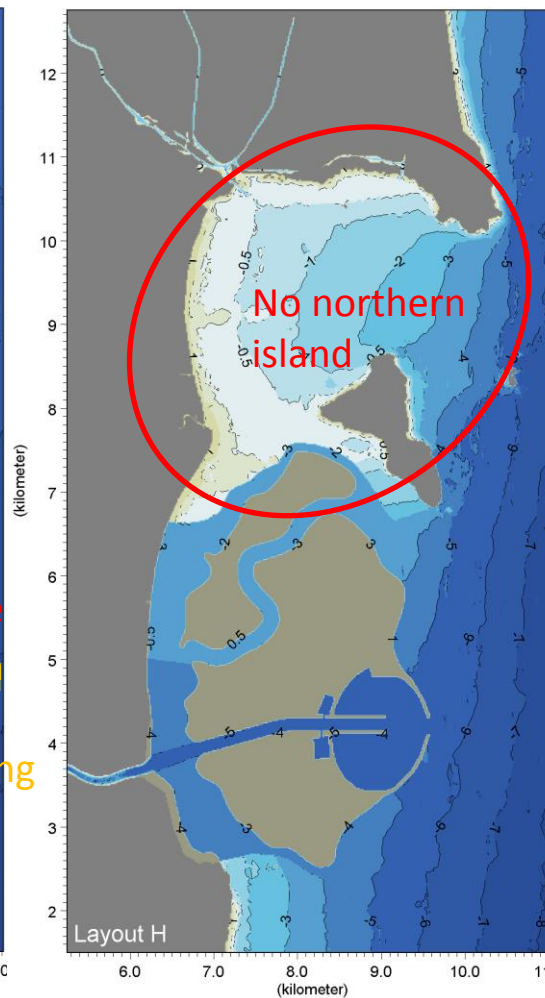
Layout F: Similar to Layout D but with reclamation moved seaward.

Bathymetry for EIA proposal 4C and JPS alternative layout GHI

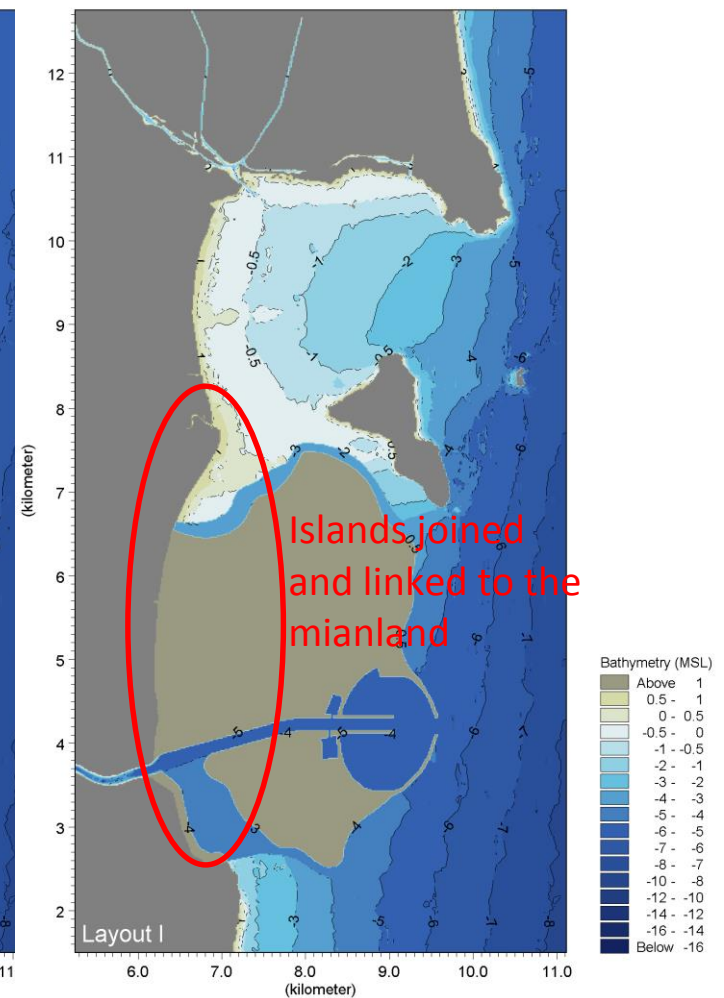
Source: JPS for Mersing Laquna Project



Layout G: Similar with Layout F but width of channel increased to 200m.



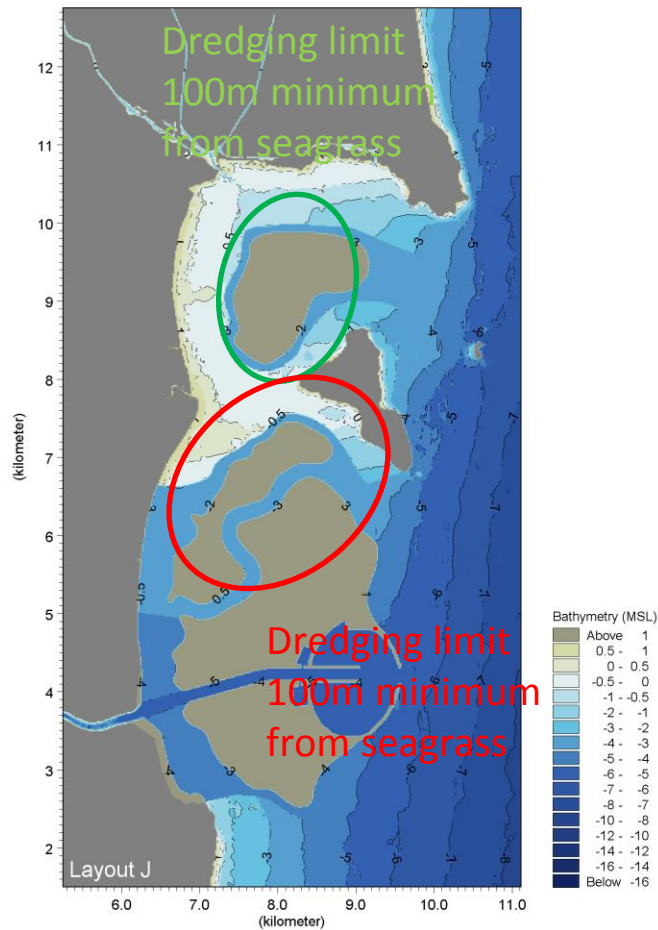
Layout H: Similar to Layout G but without northern island.



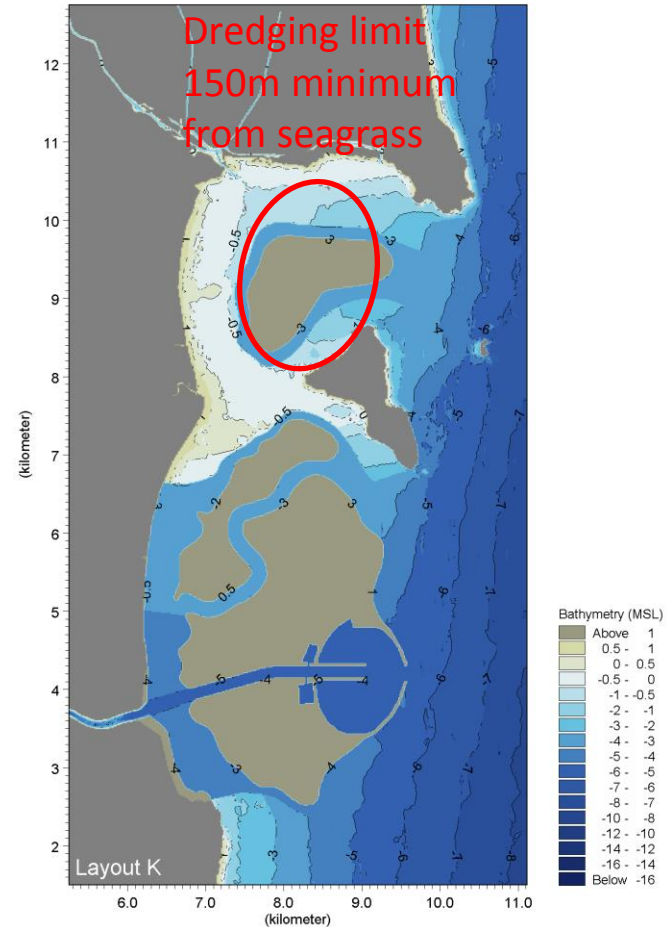
Layout I: As layout H but with islands B and C joined together and linked to the mainland.

Bathymetry For EIA Proposal 4C And JPS Alternative Layout JK

Source: JPS for Mersing
Laquna Project

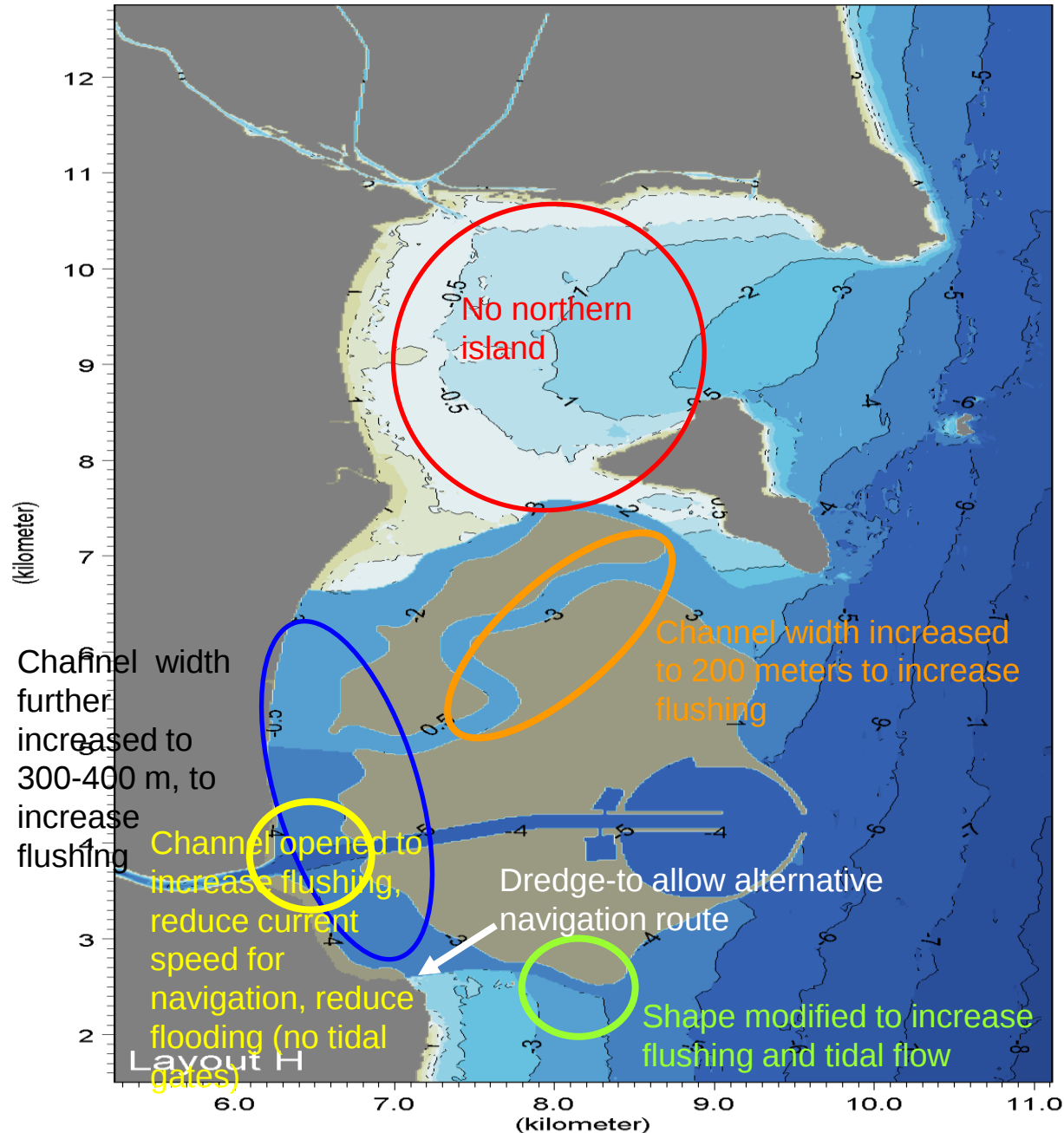


Layout J: As layout G but with the minimum distance between dredging and the sea grass areas increased from 30m to 100m. Minimum dredged channel width in the vicinity of the sea grass is 100m.



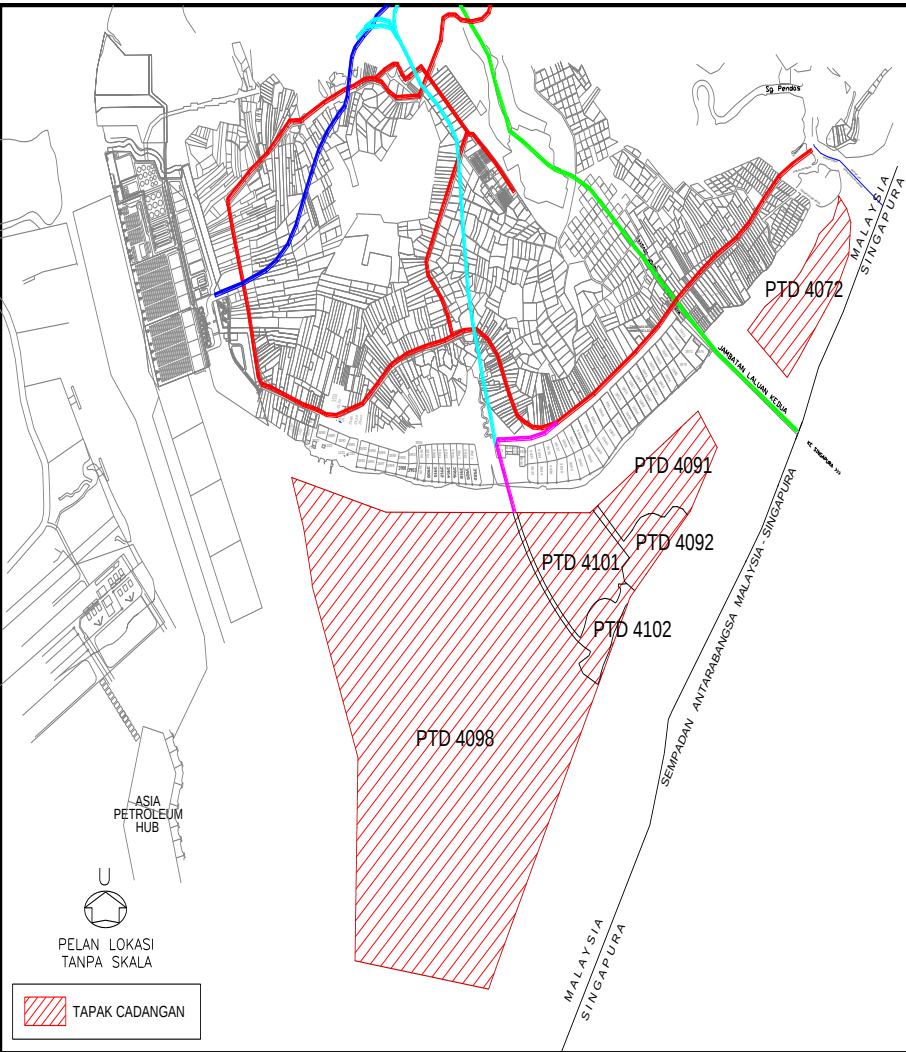
Layout K: As layout J but with the minimum distance between dredging and the sea grass areas around Island A increased from 100m to 150m.

PROPOSED LAYOUT

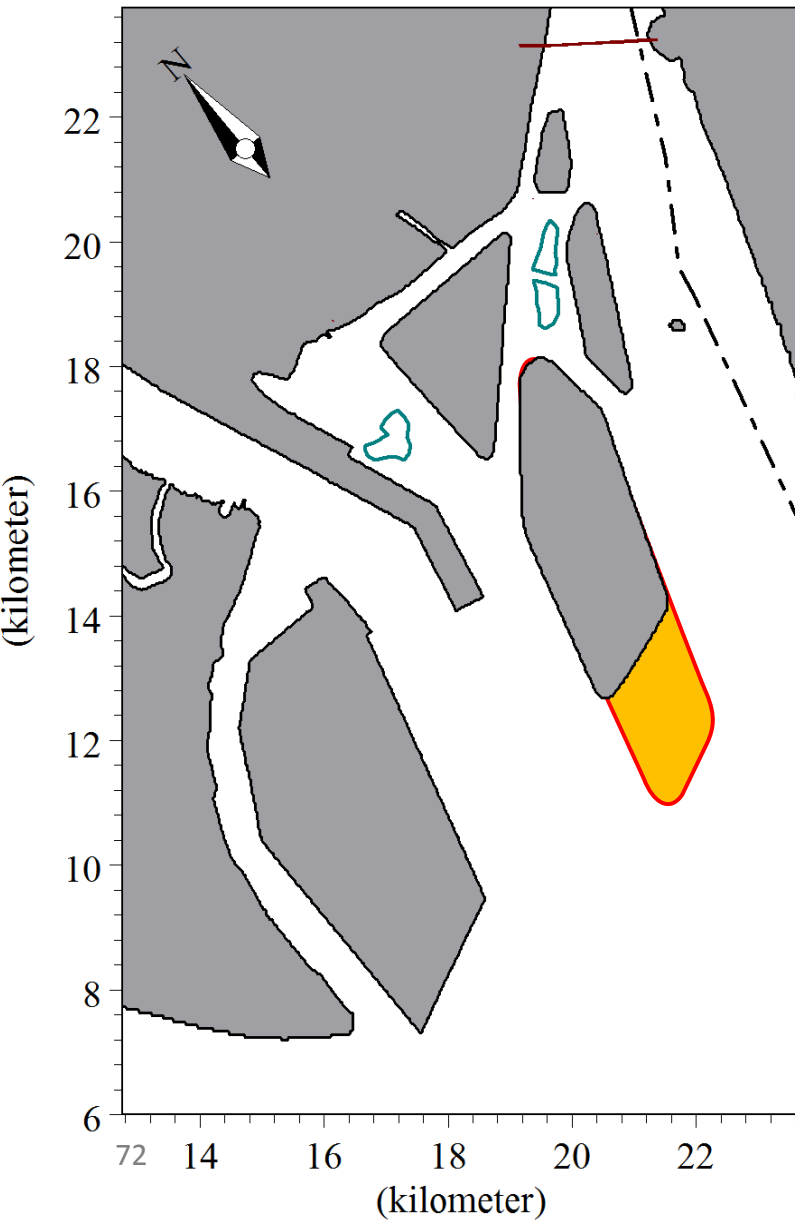


1. No reclamation on sea grass and better pollutant dispersion.
2. Avoid water quality deterioration.
3. Increase flushing for better water quality.
4. Reduce current speed – navigation safety.
5. Increase Channel width– to increase flushing.

PROPOSED LAYOUT



FINAL LAYOUT



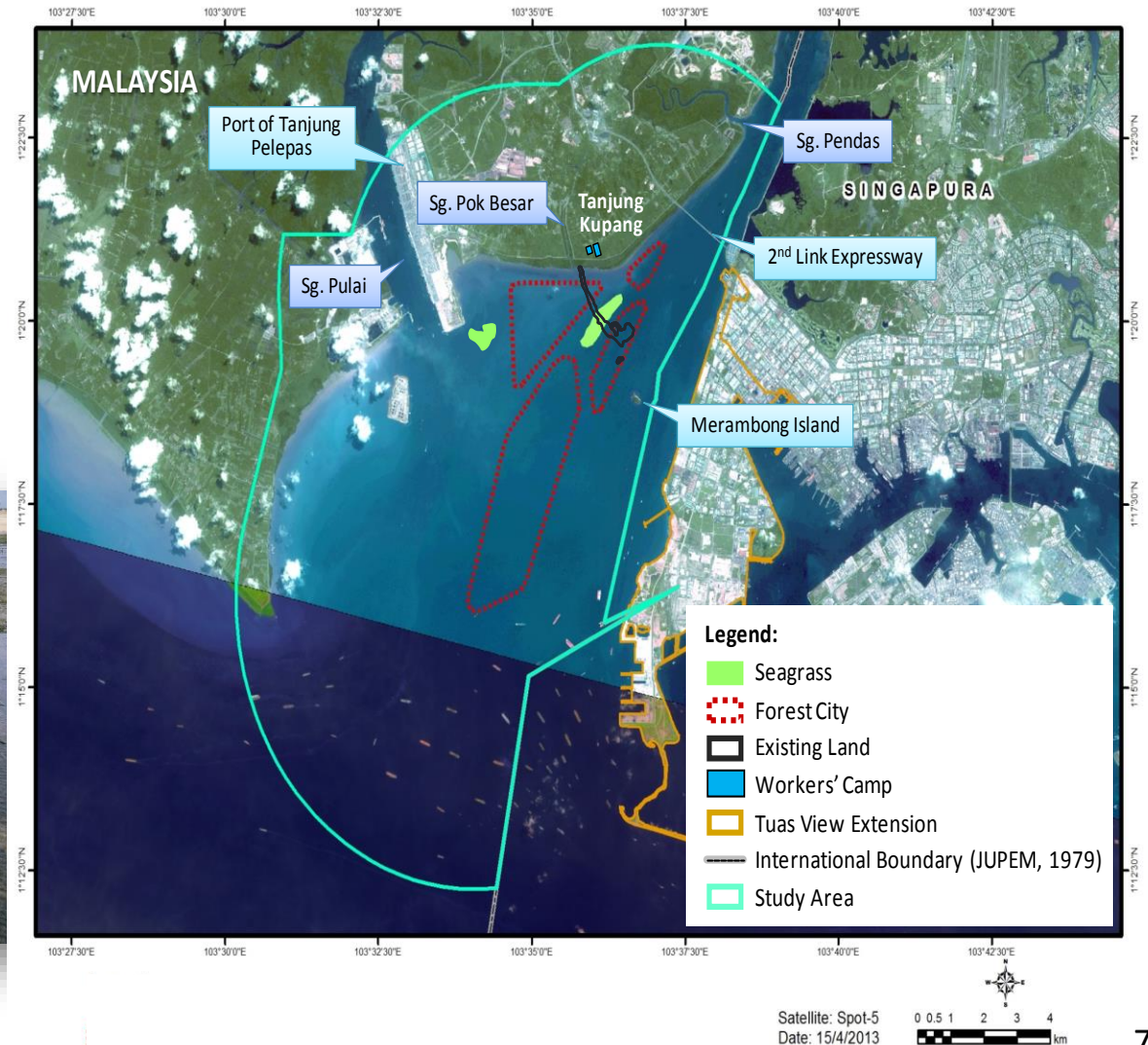
- Reduced size for Island 2
- Portion overlapping with General Purpose Anchorage Area is removed
- More than 500 m buffer from the boundary of the anchorage area.
- Zero transboundary impact
- Seagrass colony undisturbed

FOREST CITY



Pengarah Projek
 COUNTRY GARDEN
 A MAHA LESTARI 100% 100%
 BERKUALITI BERKUALITI

- 3.96 ha of seagrass meadows is ravaged by CG Causeway.



DEIA ISSUES

CONCERN ISSUES – Variation from DEIA Book

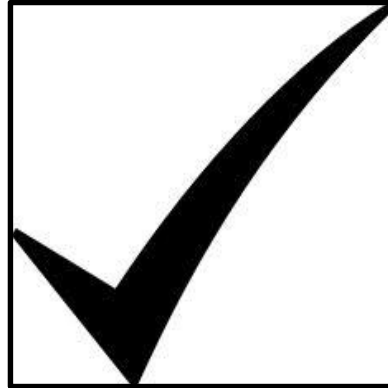


Item	Issue
A	Removal of Island 3
B	New Stockpile Location & Temporary Causeway
C	Maintain CG Causeway 2
D	Construction of Temporary Steel Bridge & Opening of Channel Underneath
E	Construction of Temporary Platform for Permanent Bridge Works

Plumes are spotted surrounding the activities (No perimeter bund, No double layer silt curtain)

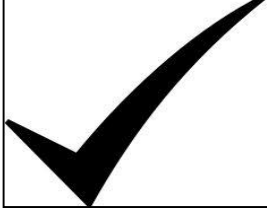


CONSTRUCTION



CONSTRUCTION

- Earthwork and Construction
 - LDP2M2
 - Hydraulic Report
- Effective Mitigation Measures and
- Best Management Practices (BMPs) –water quality,
- Proper and scheduled maintenance.



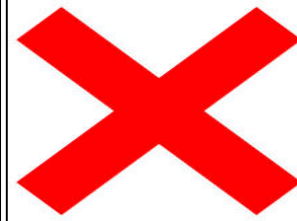
Reclamation Method

- Perimeter bunds.
- Sand fill pumped into bunded area
- Controlled discharge of water.



**Source: Independent Deepwater Petroleum Terminal,
Pengerang, Johor - DEIA**

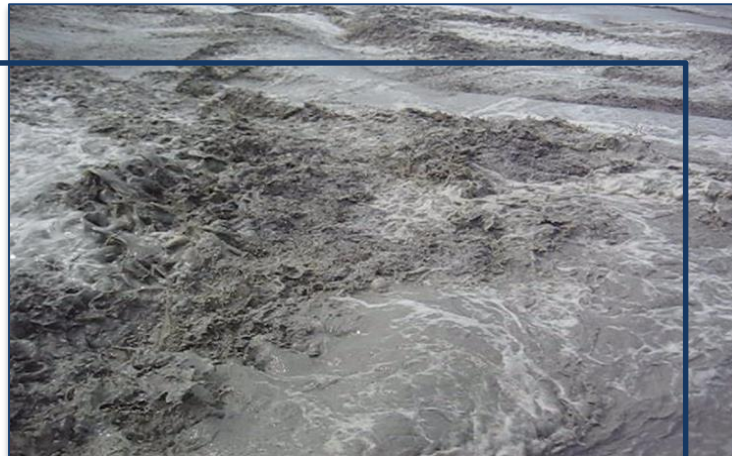
Reclamation Method



Hydro fill

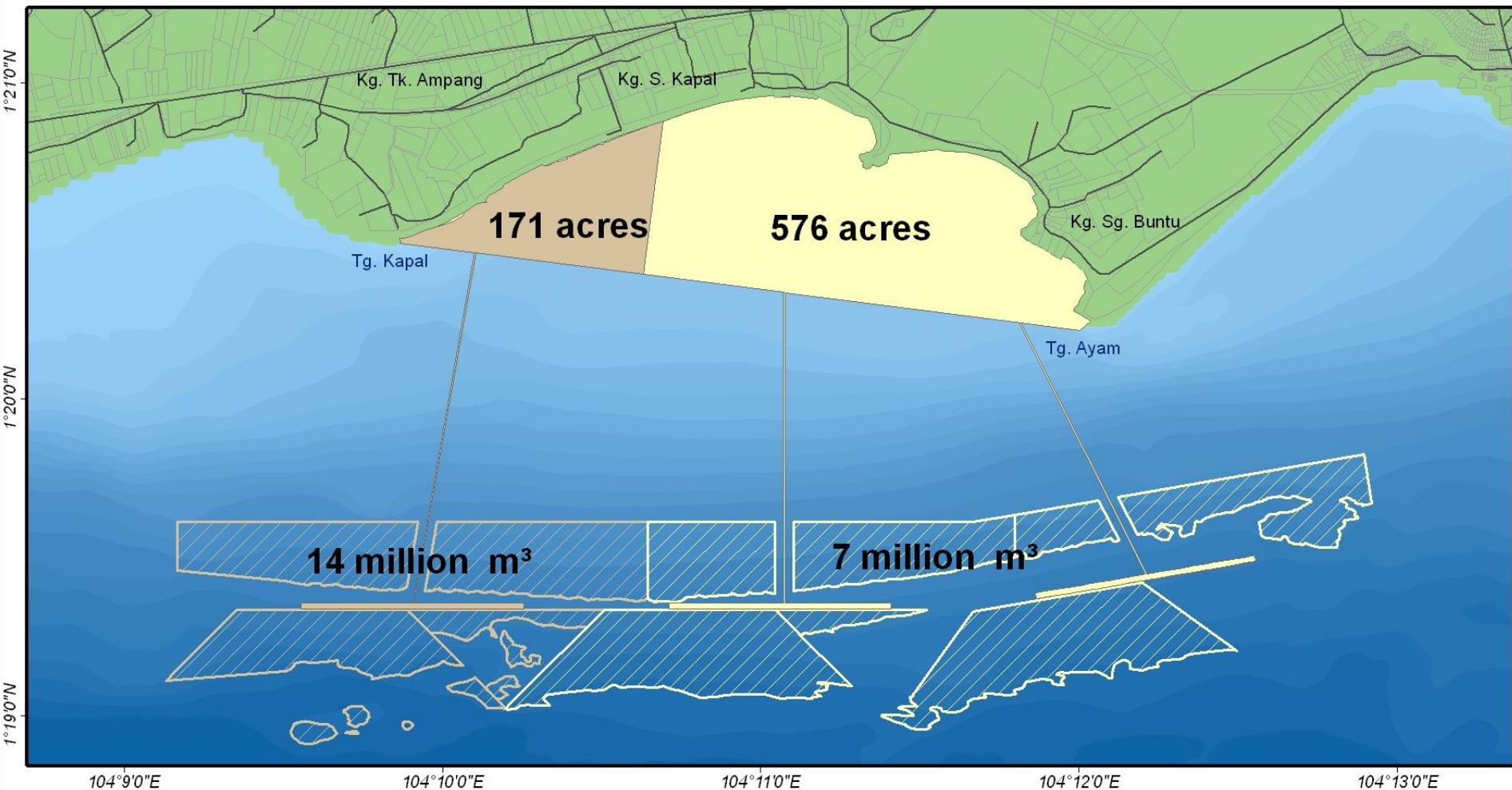


Hydro fill



Muddy water

Development Phases



Legend

Reclamation

- Phase 1
- Future Phase

Dredging

- Phase 1
- Future Phase

**Source: Independent Deepwater Petroleum
Terminal, Pengerang, Johor - DEIA**

Dredging Phases
Option 1: Western Phase 1

0 500 1,000 Meters



MITIGATION MEASURES: Silt curtain / Sheet Pile

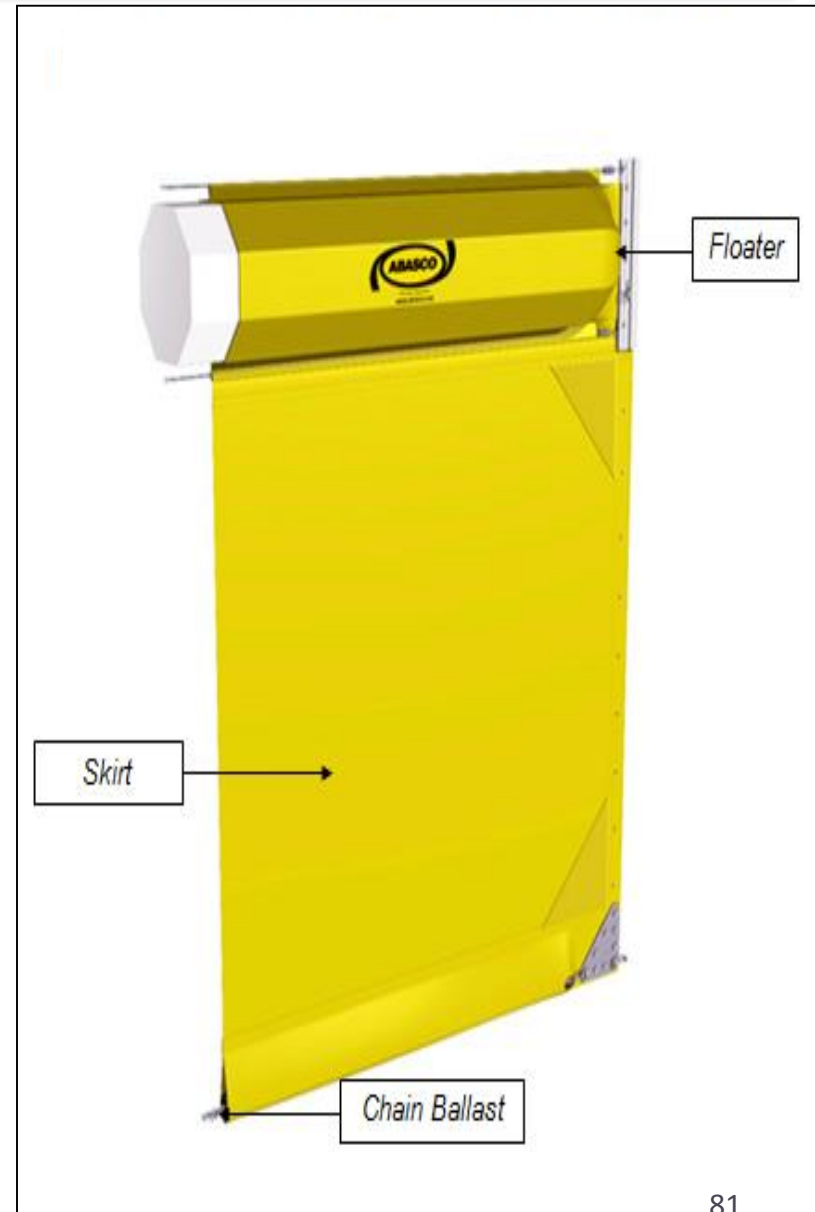
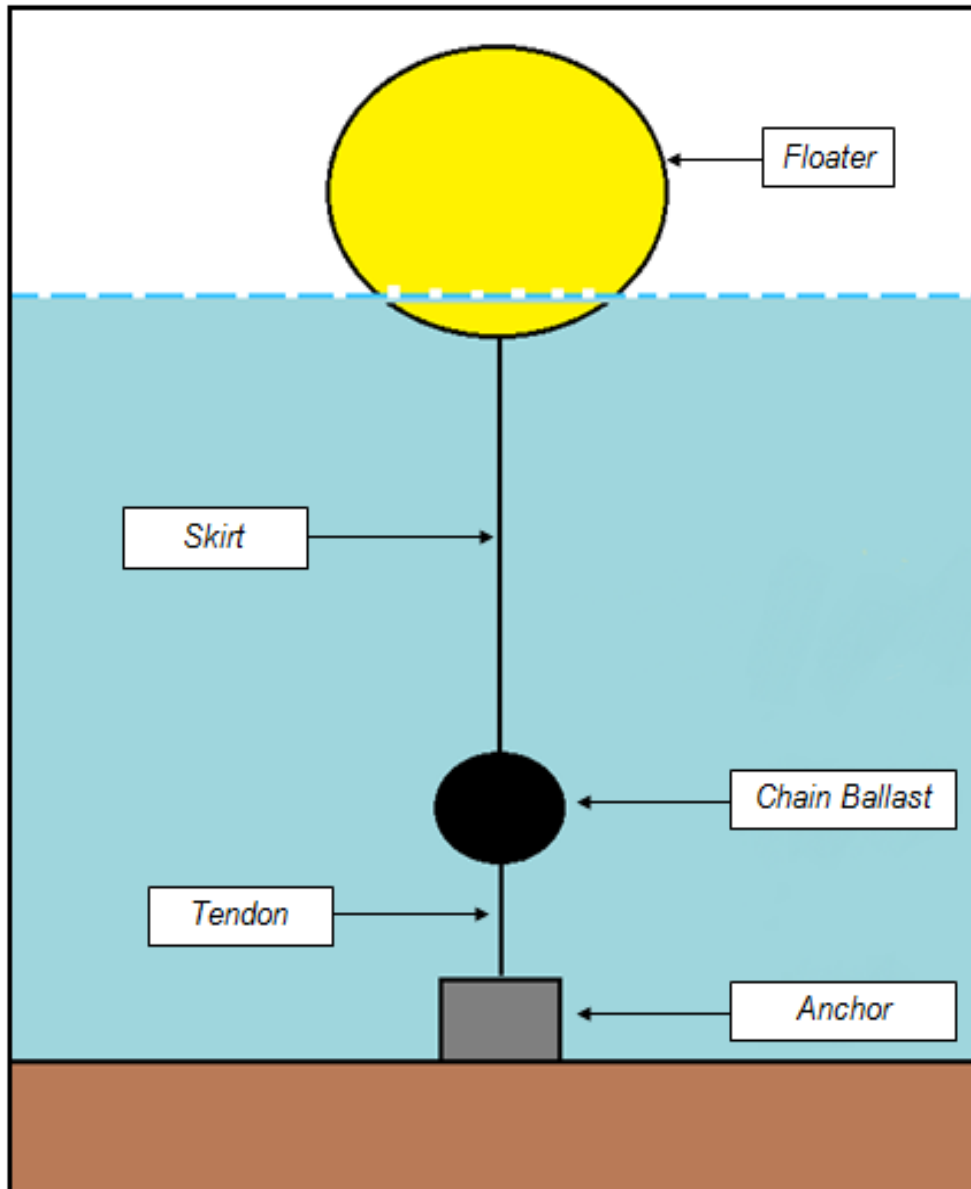


**Double
layered silt
curtain**



Sheet Pile

KOMPONEN *SILT CURTAIN* YANG TIPIKAL





JAS Ibu Pejabat dan JAS Negeri Johor

PASUKAN SCUBA JAS



JAS Negeri Pahang

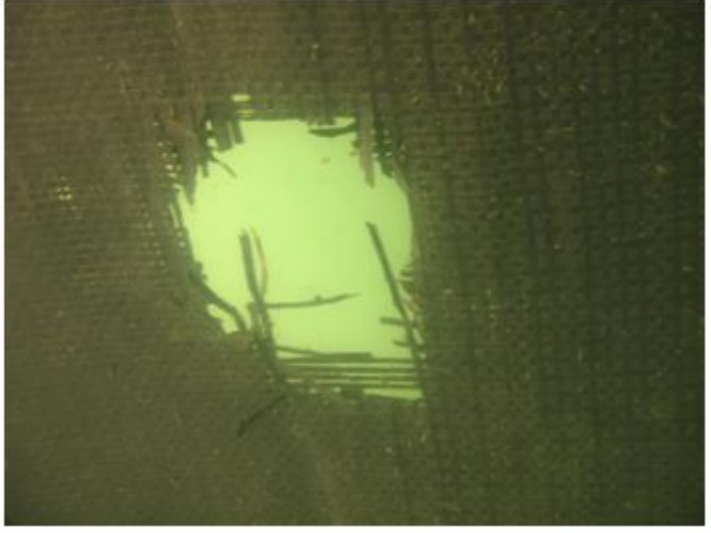


JAS Negeri Pulau Pinang

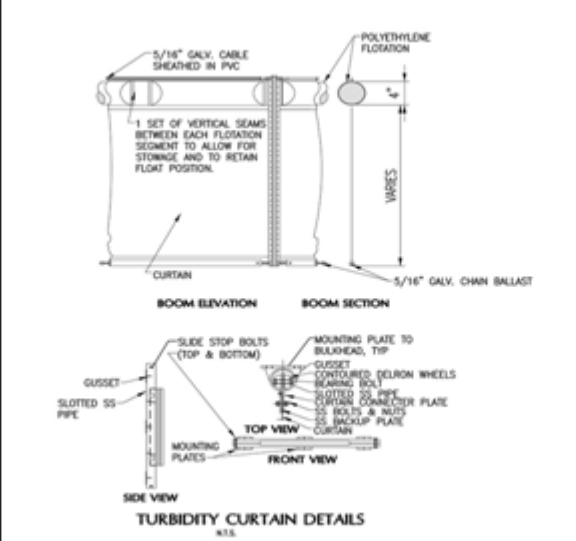
SILT CURTAIN – DOs and DONTs

BIL.	PERKARA	PATUH 	TIDAK PATUH 
1.	<i>Silt curtain</i> dipasang di tapak cadangan projek.		
2.	<i>Silt curtain</i> diselenggara secara berkala bagi memastikan tiada hidupan laut pada <i>skirt</i> .		

SILT CURTAIN – DOs and DONTs

BIL.	PERKARA	PATUH	✓	TIDAK PATUH	✗
3.	Skirt berada dalam keadaan yang baik dan tidak koyak.				
4.	Kelim antara skirt diikat dengan kemas.				

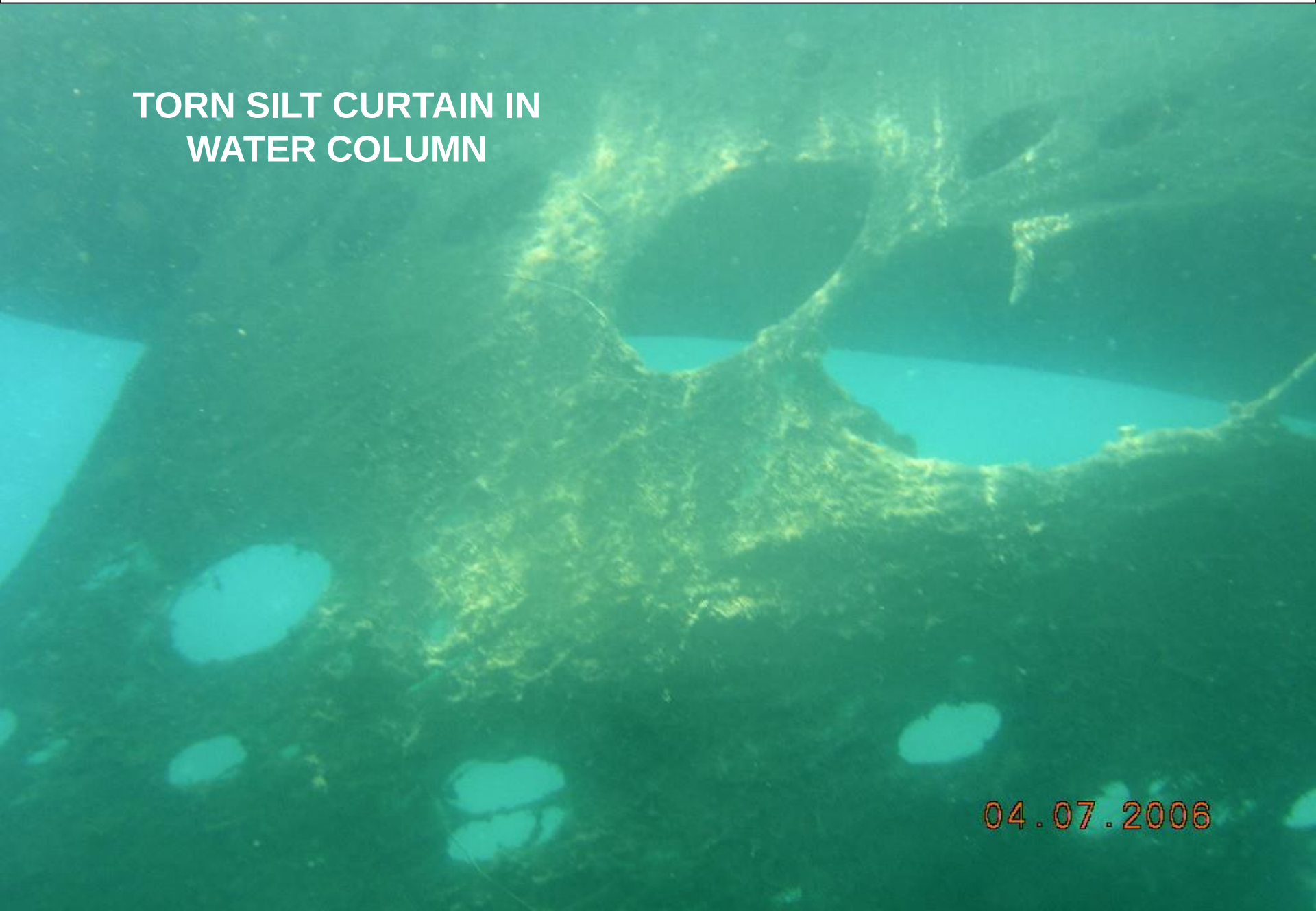
PANDUAN PEMERIKSAAN SILT CURTAIN

BIL.	PERKARA	PATUH	TIDAK PATUH
5.	Floater berfungsi dengan baik dan berada pada kedudukan yang betul.		
6.	Memastikan silt curtain yang dipasang berdasarkan kepada spesifikasi yang telah ditetapkan dalam EMP.		

Silt curtains not maintained

TORN SILT CURTAIN IN
WATER COLUMN

04.07.2006



Silt curtains not maintained

TORN SILT CURTAIN



Silt curtains not maintained

Slide courtesy: DOE Johor

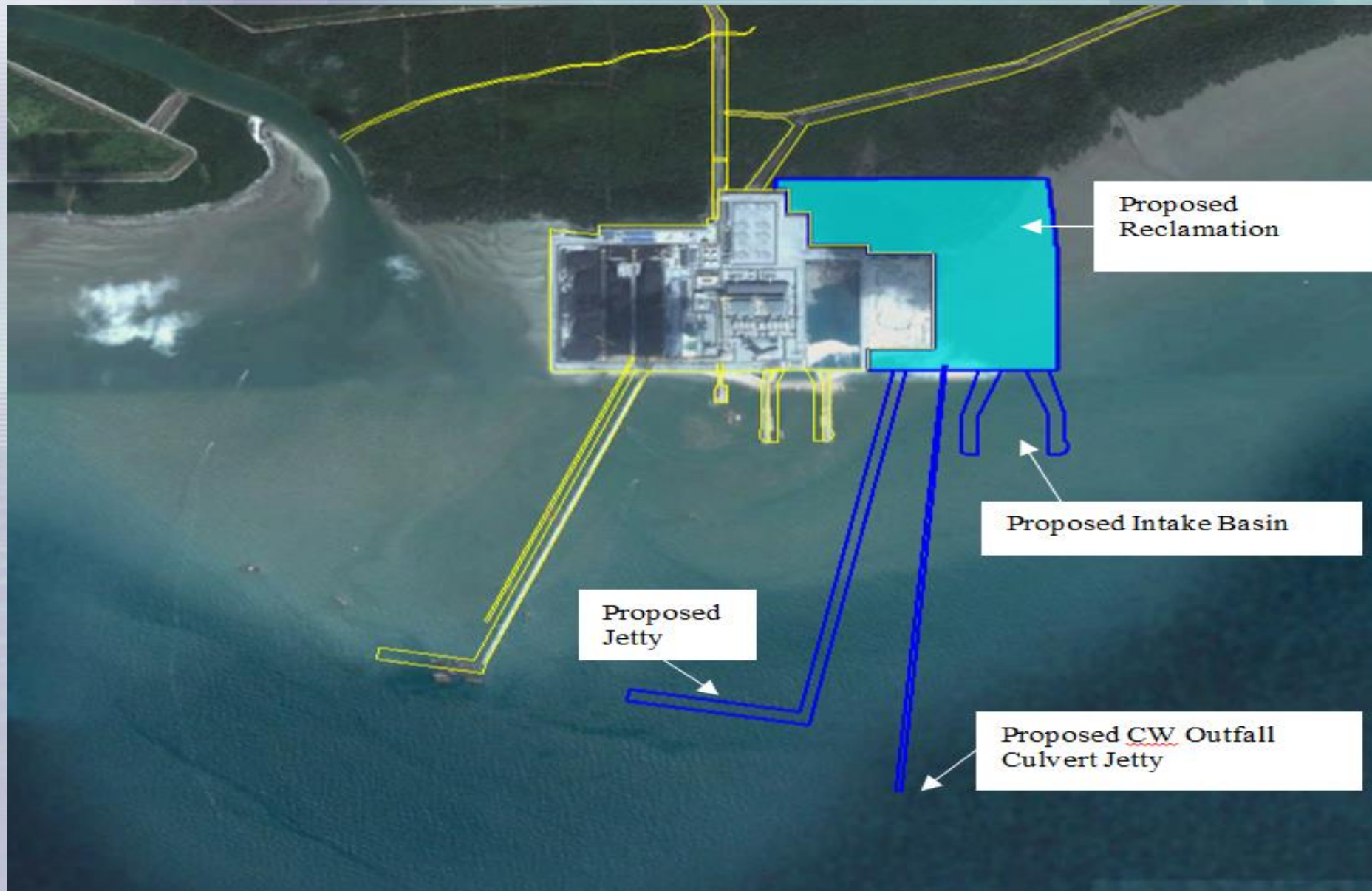


APA YANG PELIK????

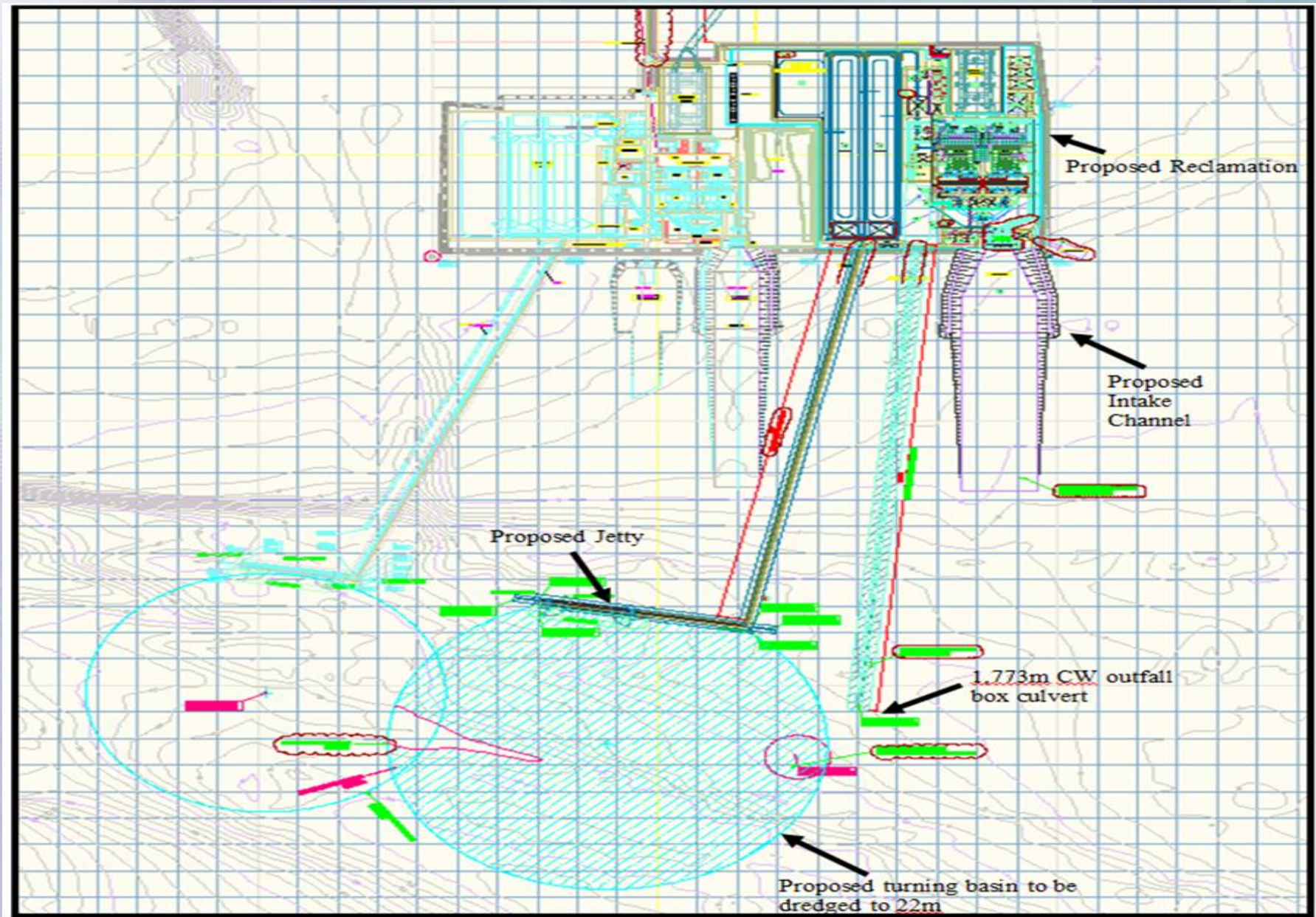


Slide courtesy: DOE Johor

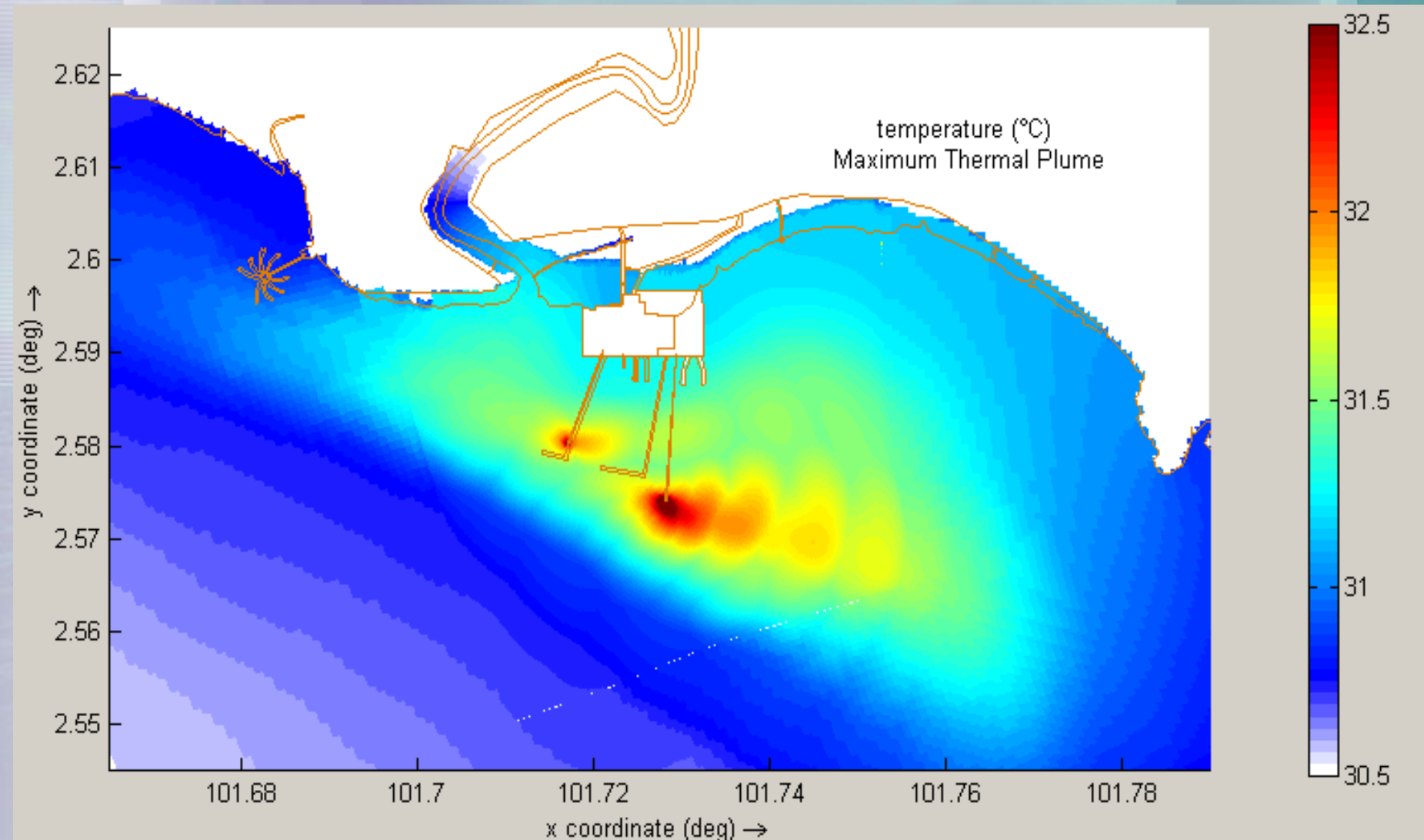
JIMAH POWER PLANT



JIMAH POWER PLANT



THERMAL PLUME DISPERSION - OUTFALL CASE 2 - (NE Monsoon- Max Thermal Plume)





Reclamation at Tanjung Tokong.

Bund erupted and resulted in sediment dispersion and sedimentation at Gurney Drive.

Image © 2007 DigitalGlobe
© 2007 Europa Technologies

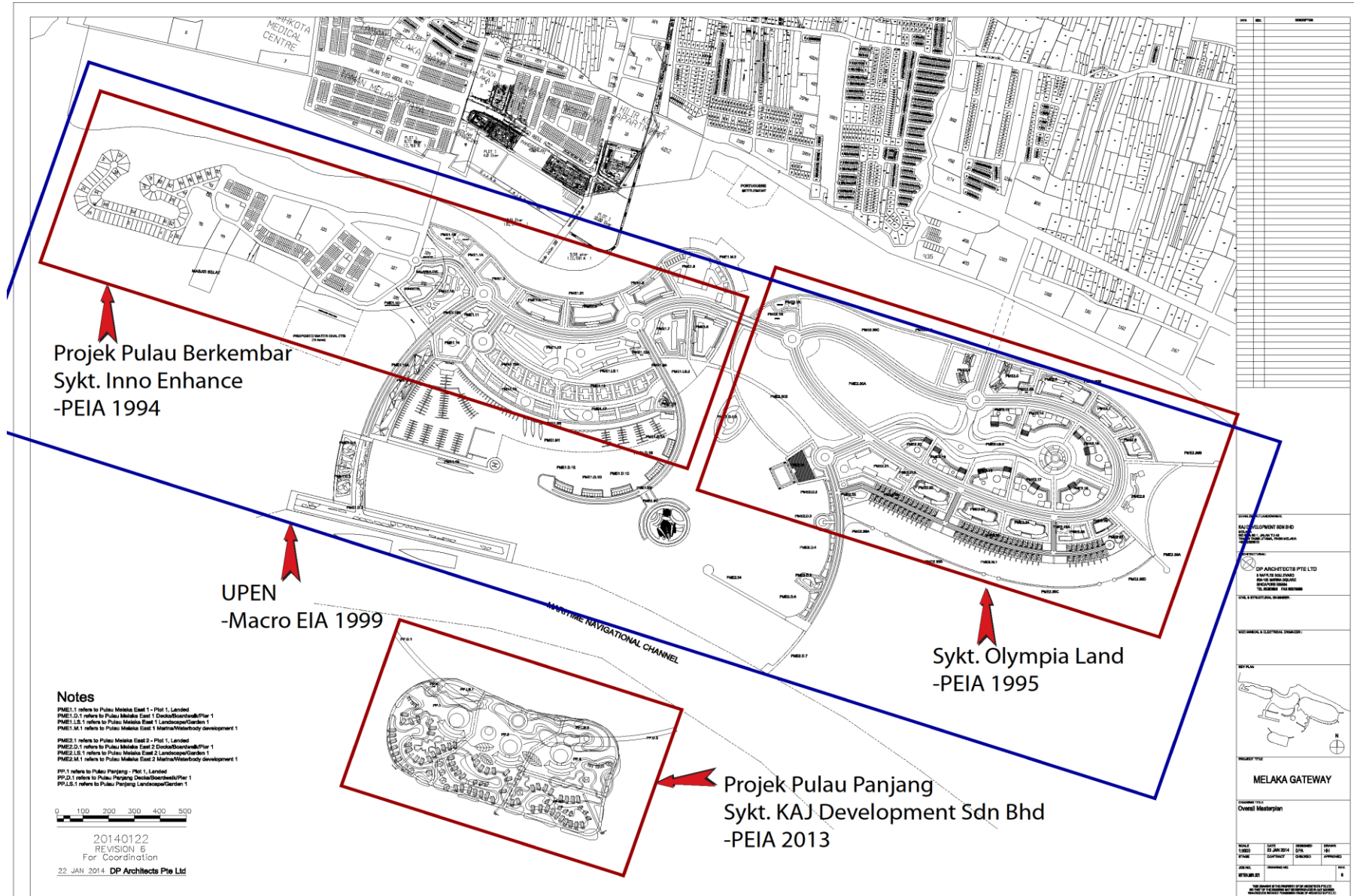
© 2006 Google™

**Sedimentation at
Gurney Drive.**

Kawasan Macro EIA Di Melaka



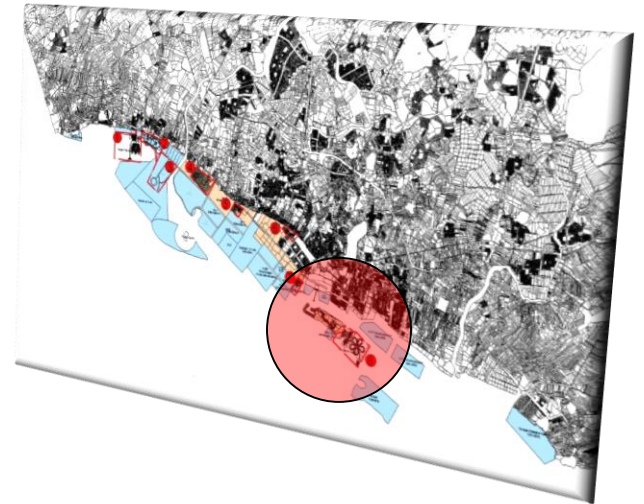
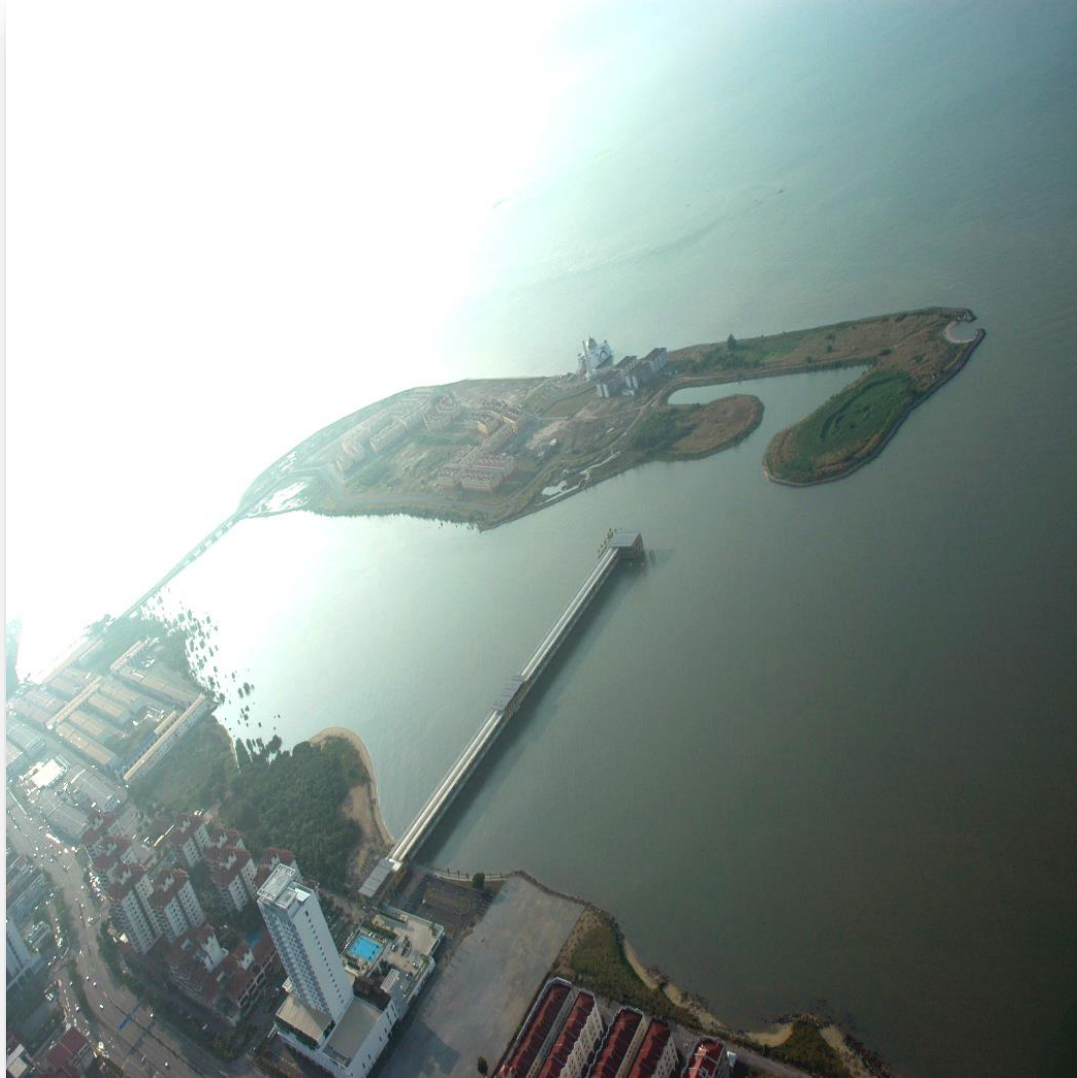
MELAKA GATEWAY



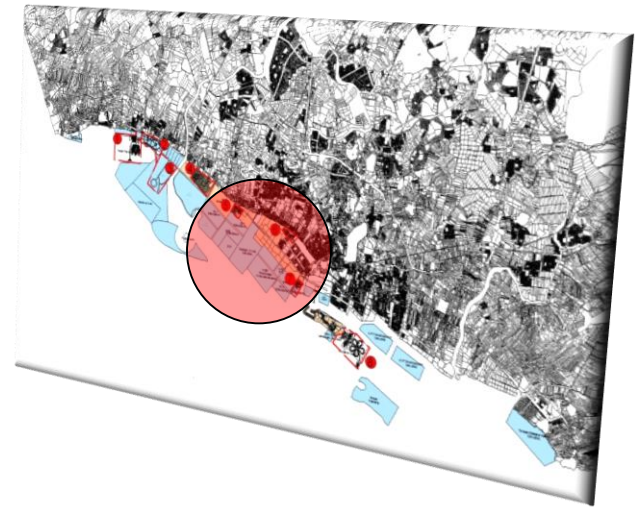
MELAKA GATEWAY



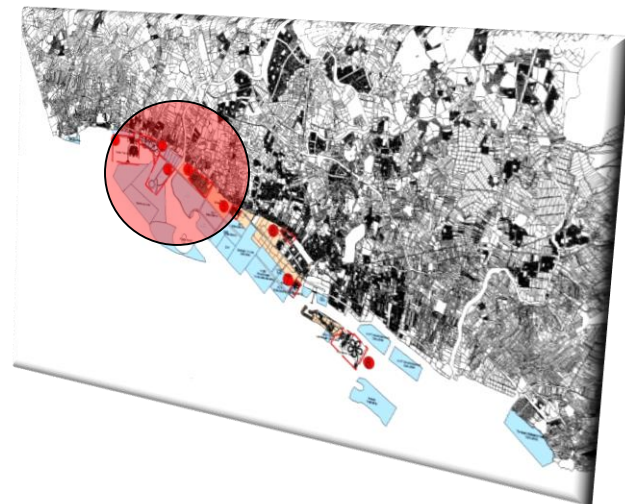
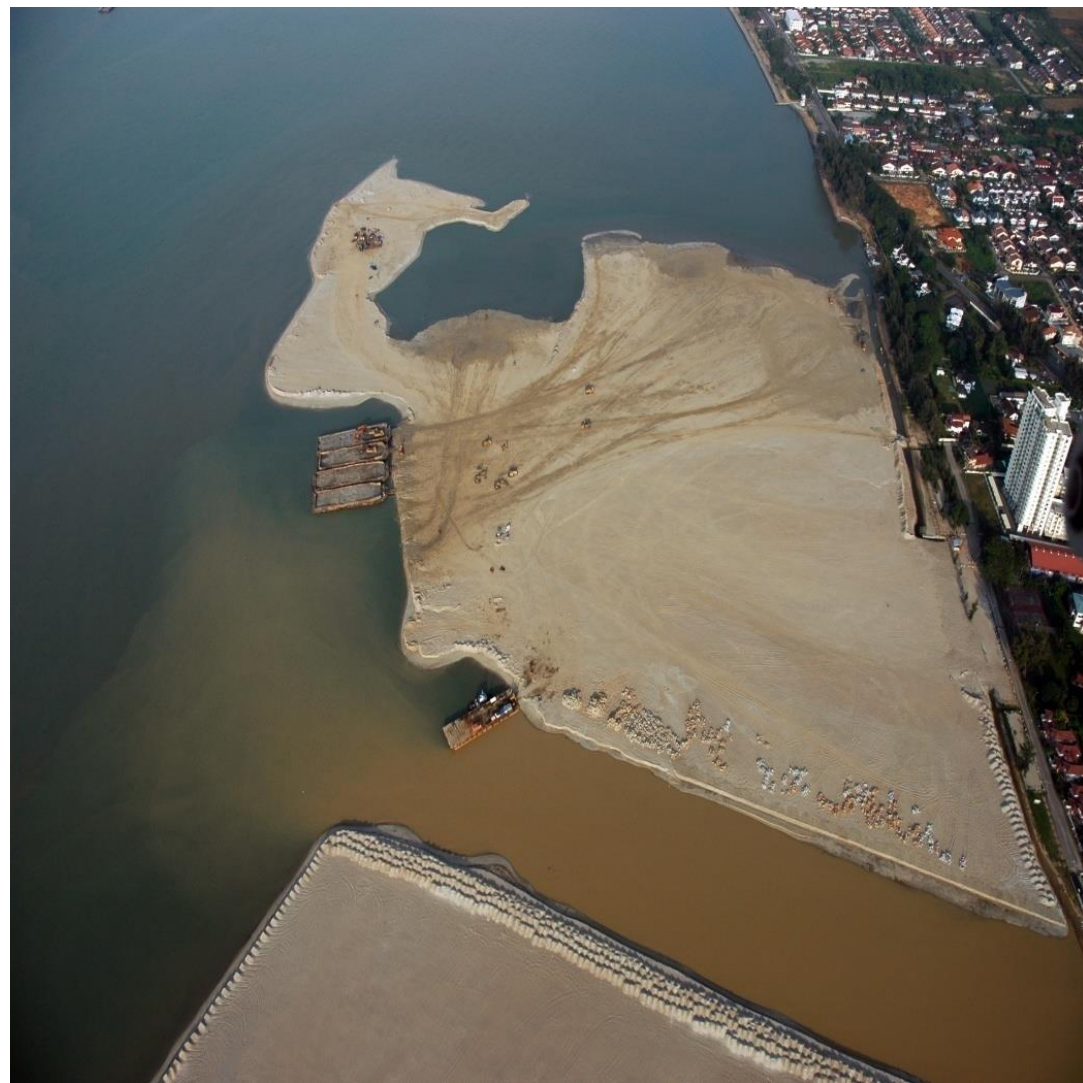
Kawasan Pulau Melaka



Kawasan Kota Laksamana - Limbongan



Kawasan Klebang





***Kawasan
penambakan
Pantai Klebang***

***Muara Sungai
Seri Melaka yang
telah
dipindahkan ke
laut***









Pemandangan Pulau Upeh Dari Kawasan Penambakan Laut





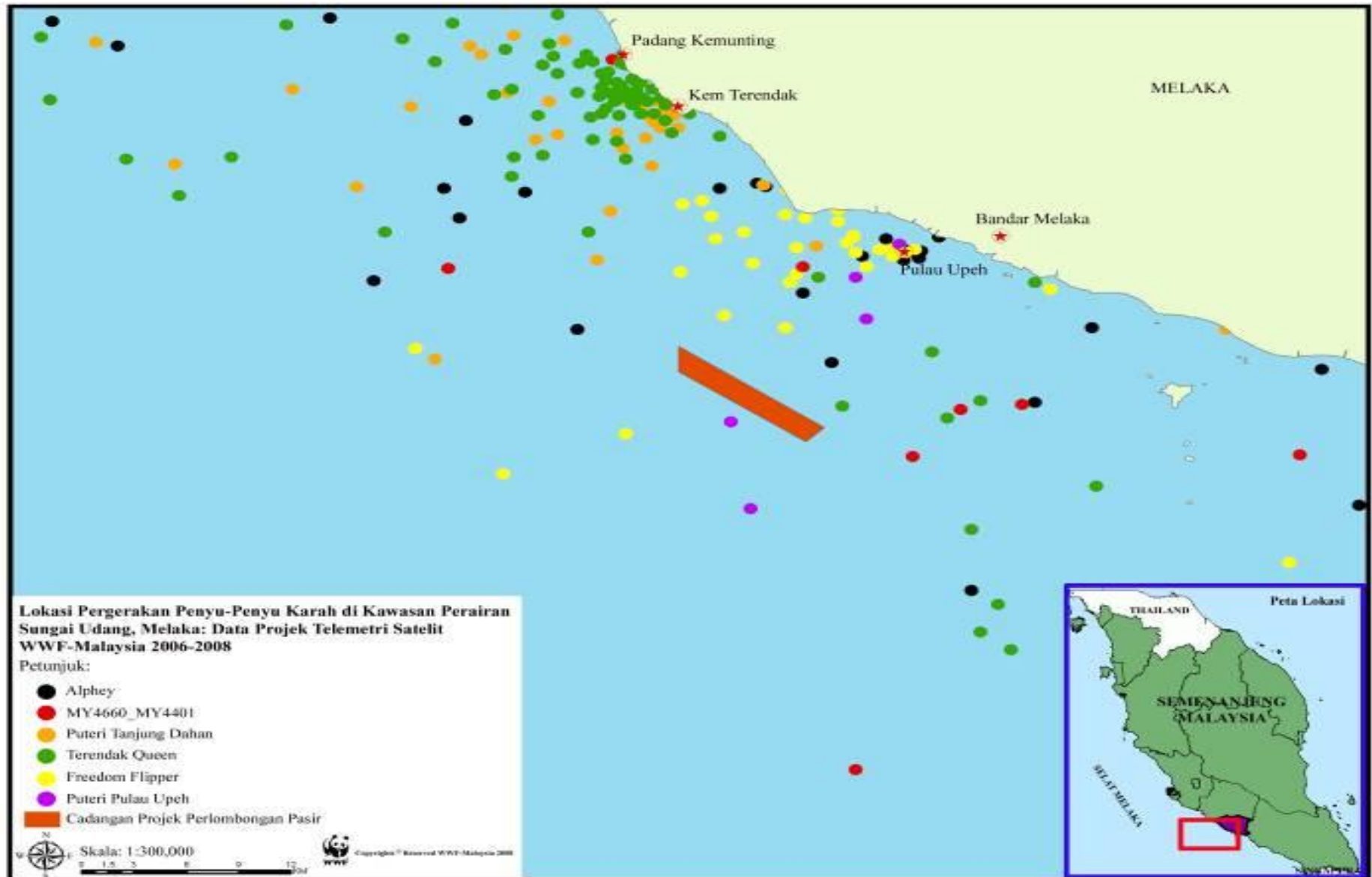


KAJIAN POPULASI PENYU

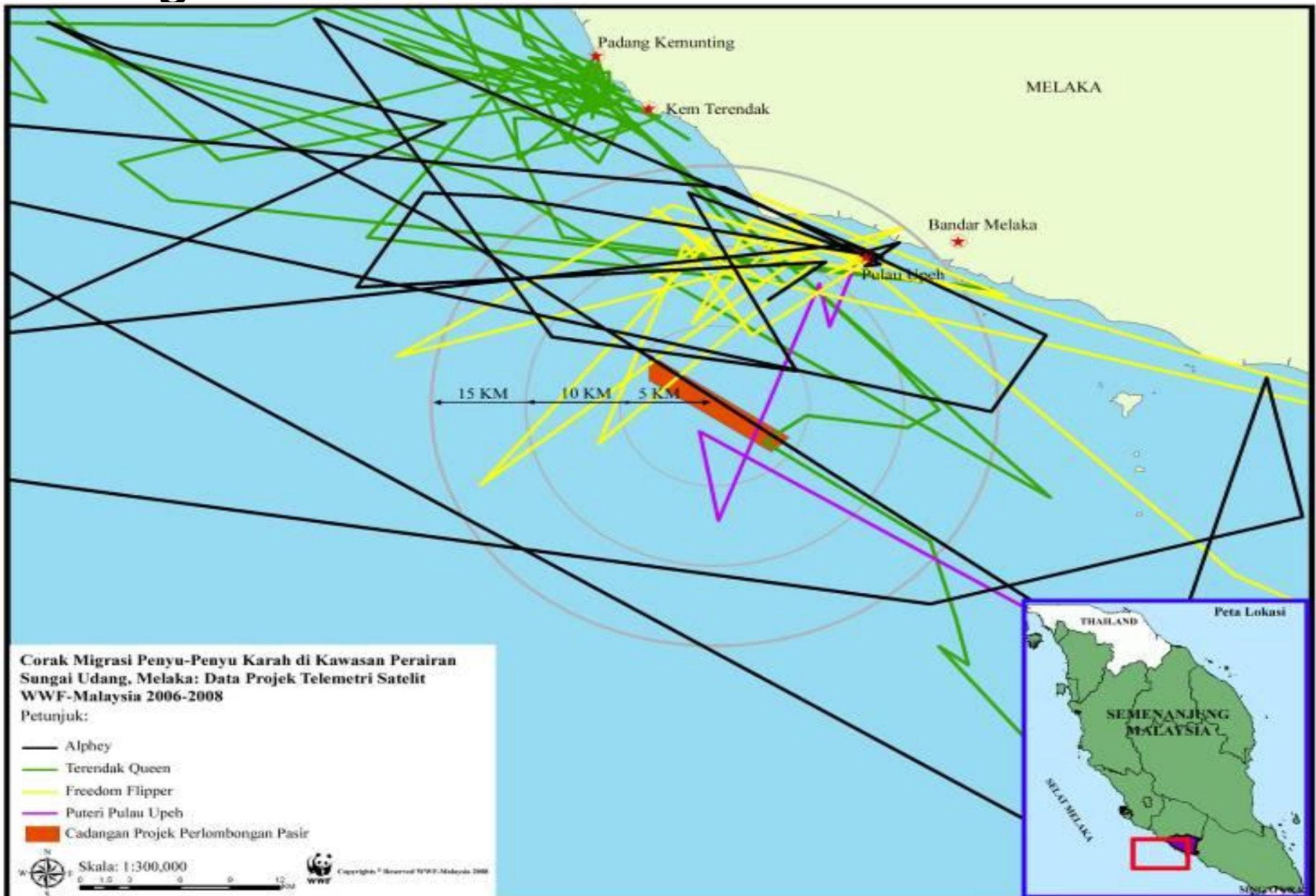
WWF Malaysia



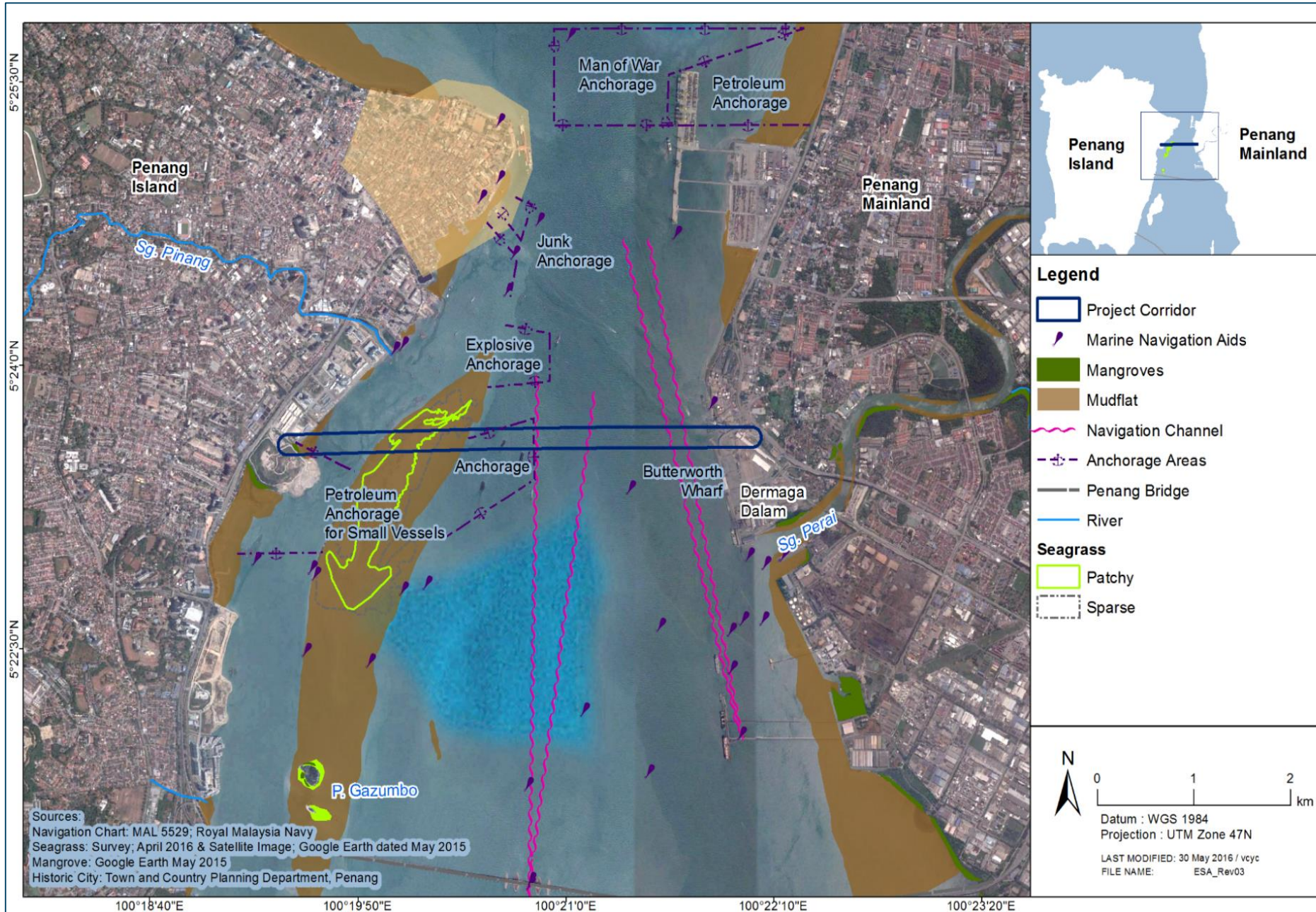
Location Points Demarcating Utilisation Of The Coastal Waters By The Hawksbill Turtles In Melaka 2006-2008



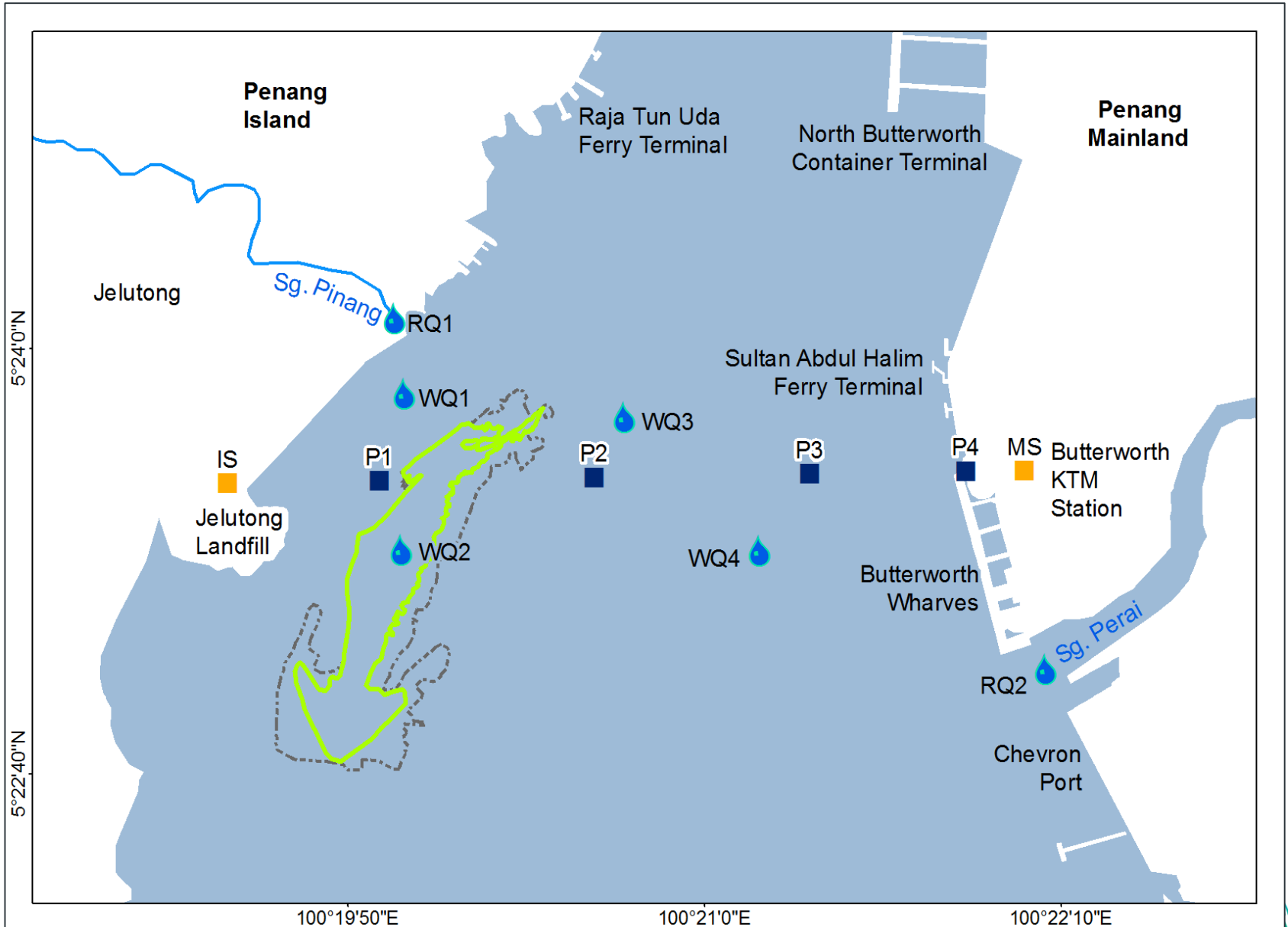
Movement Pattern showing Inter-nesting Habitat & Migration Route of Hawksbill Turtles in Melaka



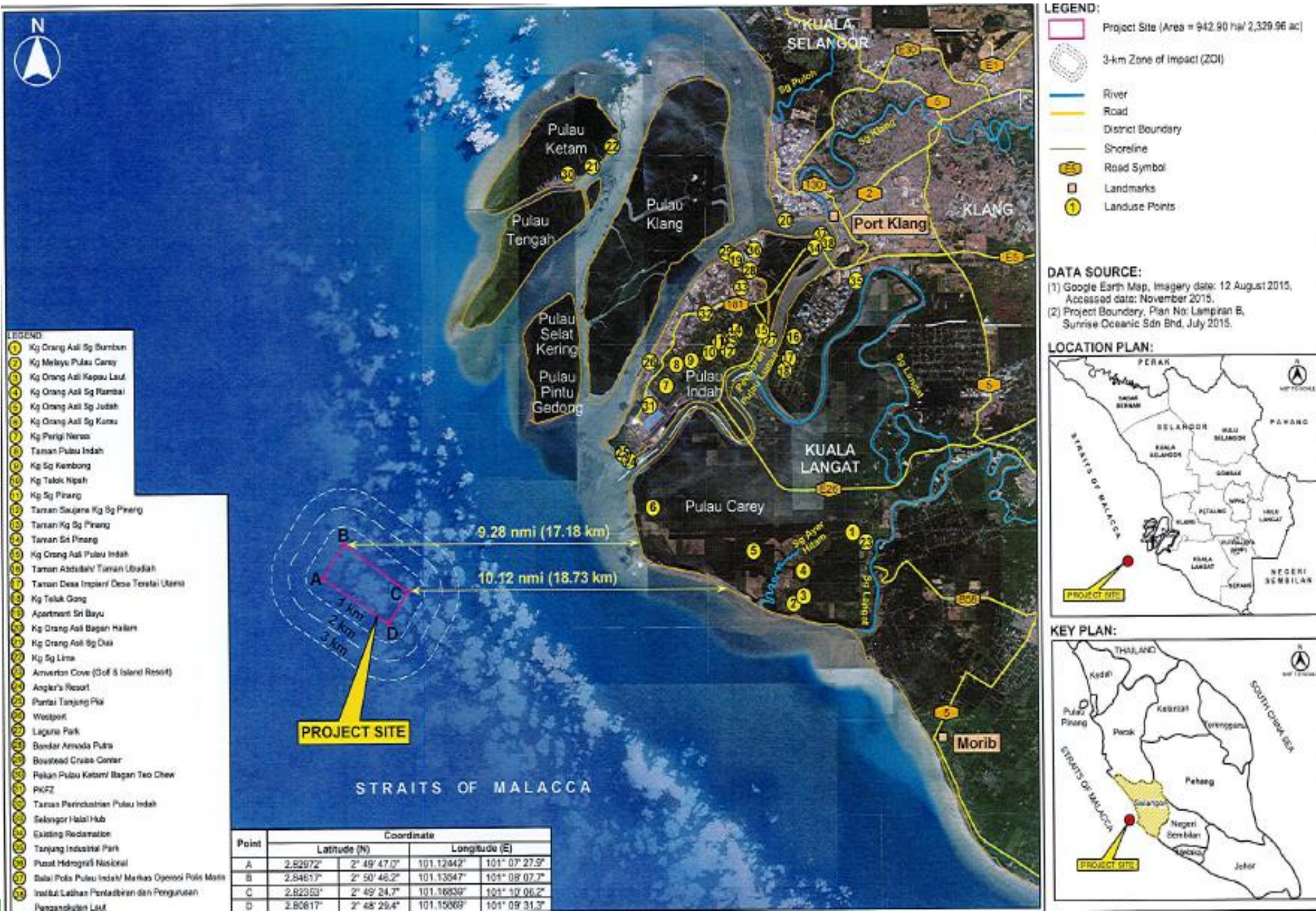
SKY CAB PENANG



SKY CAB PENANG



SAND MINING



PERAK HEAVY INDUSTRIES PARK (PHIP)

Admin Office

Warehouse

Oil Tank Farm

Oil Tank Farm

Downstream Industries

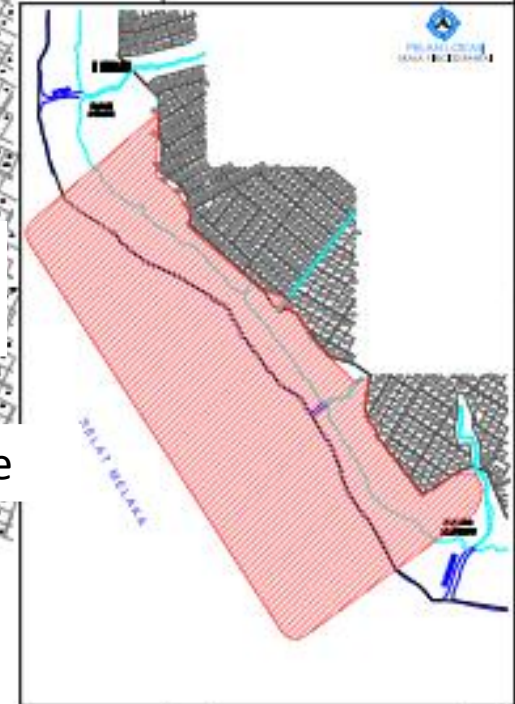
Jetty
Terminals &
Facilities

Integrated
Steel Mill

Downstream
Industries

Warehouse

Independent
Power Plant



NOTA: Untuk lebih jelasnya mengenai lokasi dan luas kawasan PHIP, sila rujuk kepada carta lokasi yang tertera di bawah ini. Carta lokasi ini adalah berdasarkan kepada data yang telah disediakan oleh pihak berkuasa yang berkaitan. Carta lokasi ini adalah berdasarkan kepada data yang telah disediakan oleh pihak berkuasa yang berkaitan. Carta lokasi ini adalah berdasarkan kepada data yang telah disediakan oleh pihak berkuasa yang berkaitan.

NOTA: Untuk lebih jelasnya mengenai lokasi dan luas kawasan PHIP, sila rujuk kepada carta lokasi yang tertera di bawah ini. Carta lokasi ini adalah berdasarkan kepada data yang telah disediakan oleh pihak berkuasa yang berkaitan. Carta lokasi ini adalah berdasarkan kepada data yang telah disediakan oleh pihak berkuasa yang berkaitan.

ESA:

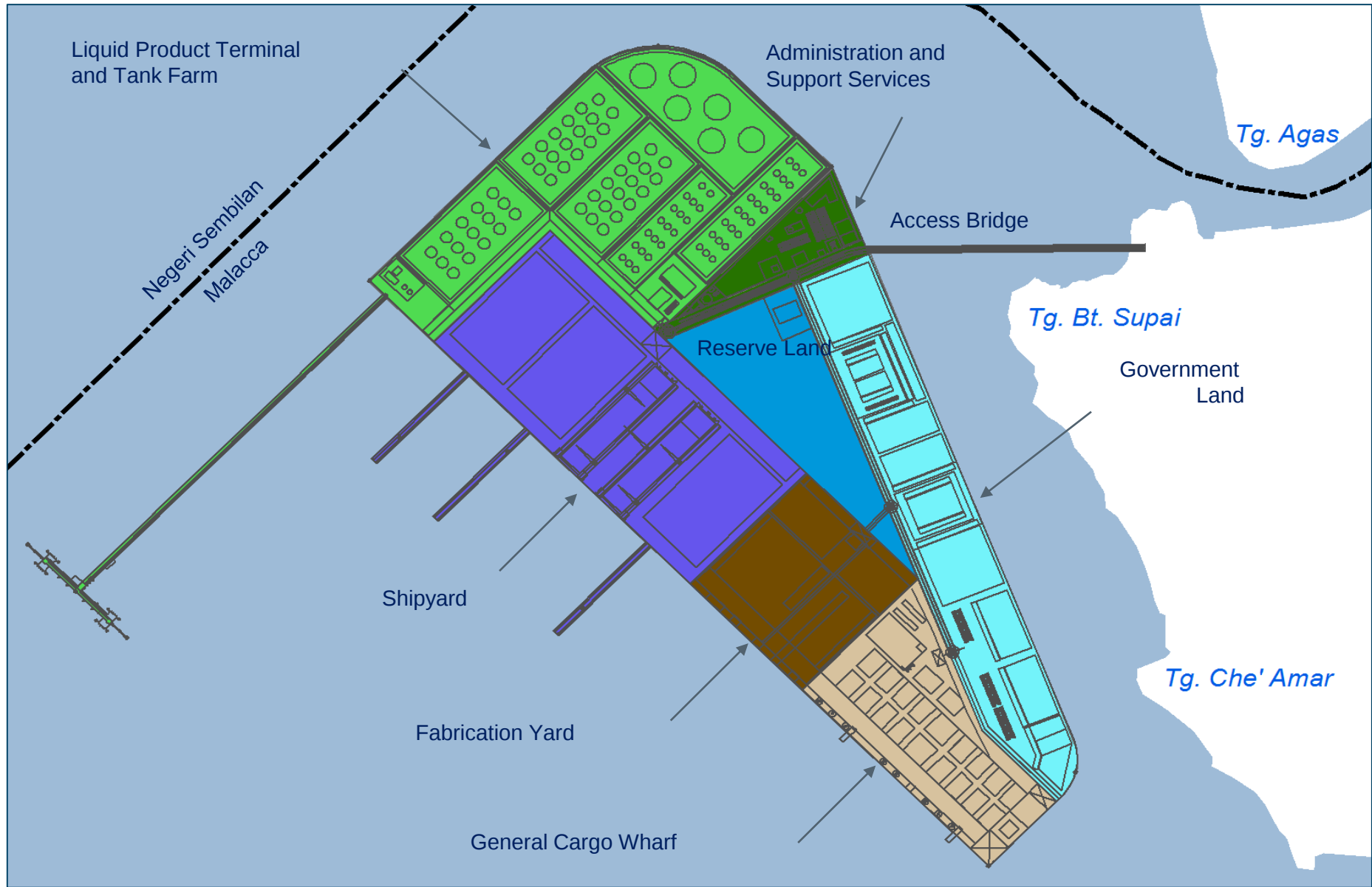
1. Sungai Perak
2. Bagan Datoh Jetty
3. Beting Beras Basah
4. Bagan Sungai Burung
5. Bagan Sungai Tiang
6. Bagan Sungai Belukang
7. Cockles breeding area
8. Hutan Melintang Port
9. Kuala Bernam Forest Reserve

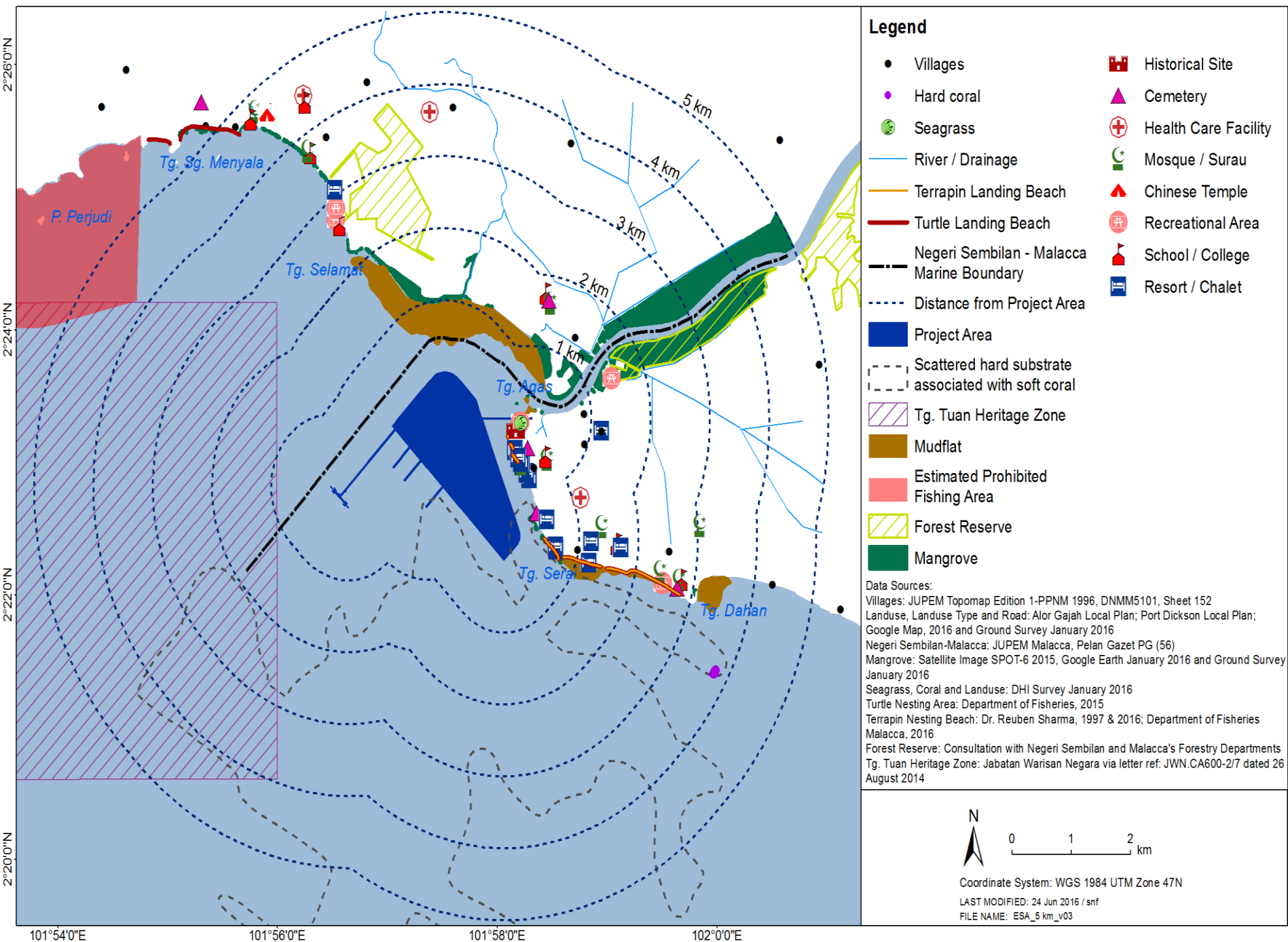
ESA DI SEKITAR PERAK HEAVY INDUSTRIES PARK (PHIP)

Type of ESA	Location	Distance (km)
Historical Site	Beting Beras Basah	14
Natural Cockles Breeding Area	River mouth of Sungai Bernam	2.7
Terrapin Habitat	Sungai Perak	13
Forest Reserve	Kuala Bernam	13.46
Settlement Area	Kampung Bagan Sungai Belukang	0.7
	Kampung Bagan Sungai Tiang	0.7
Important Birds Area	Bagan Sungai Burung	8.4
Eroding Shoreline	Shoreline between Sungai Tiang and Sungai Belukang	-
Mangroves	Rungkup-Bagan Pasir Laut	1
Marine Structures	Bagan Datoh Jetty	16
	Hutan Melintang Port	9.5

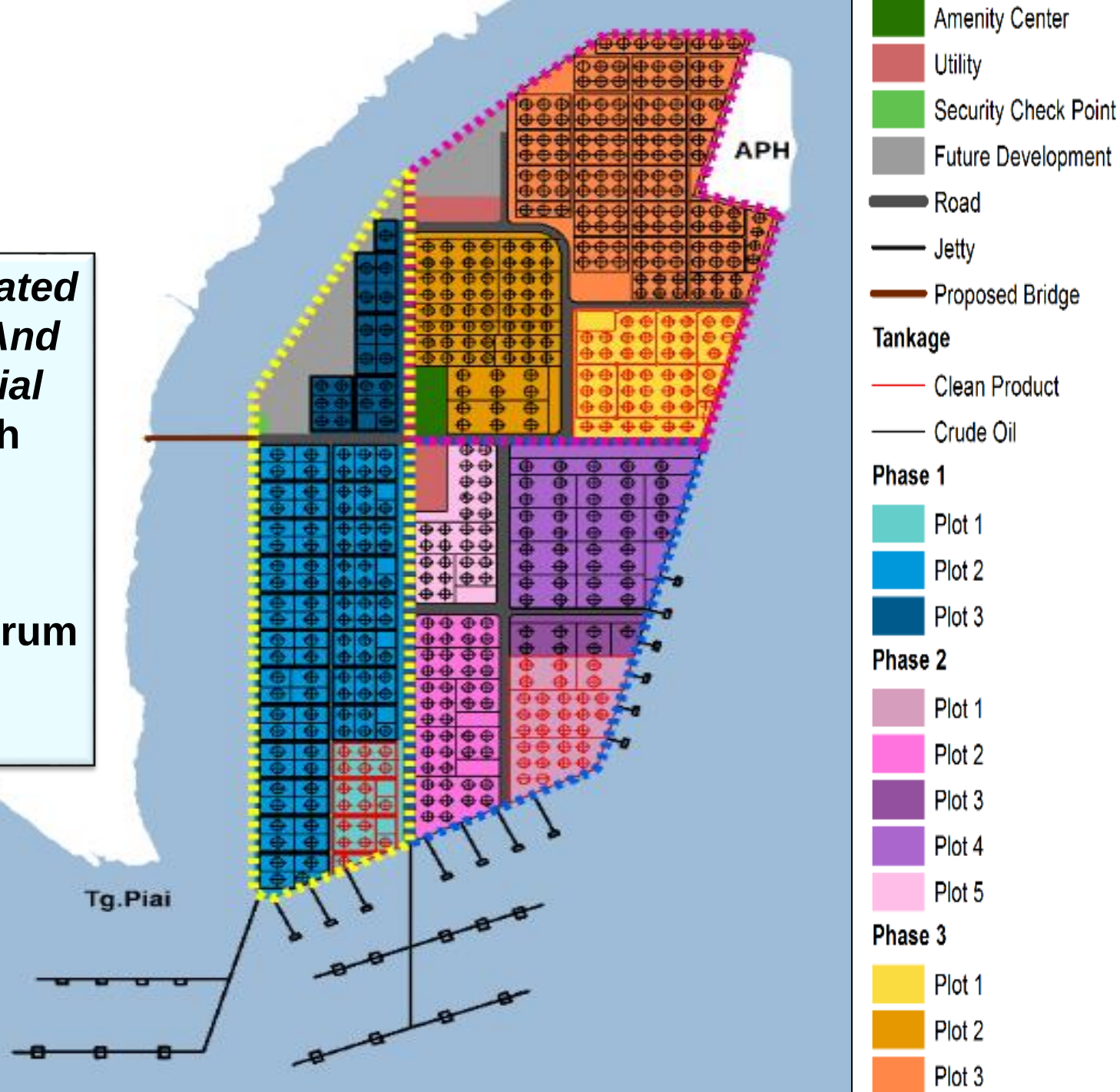


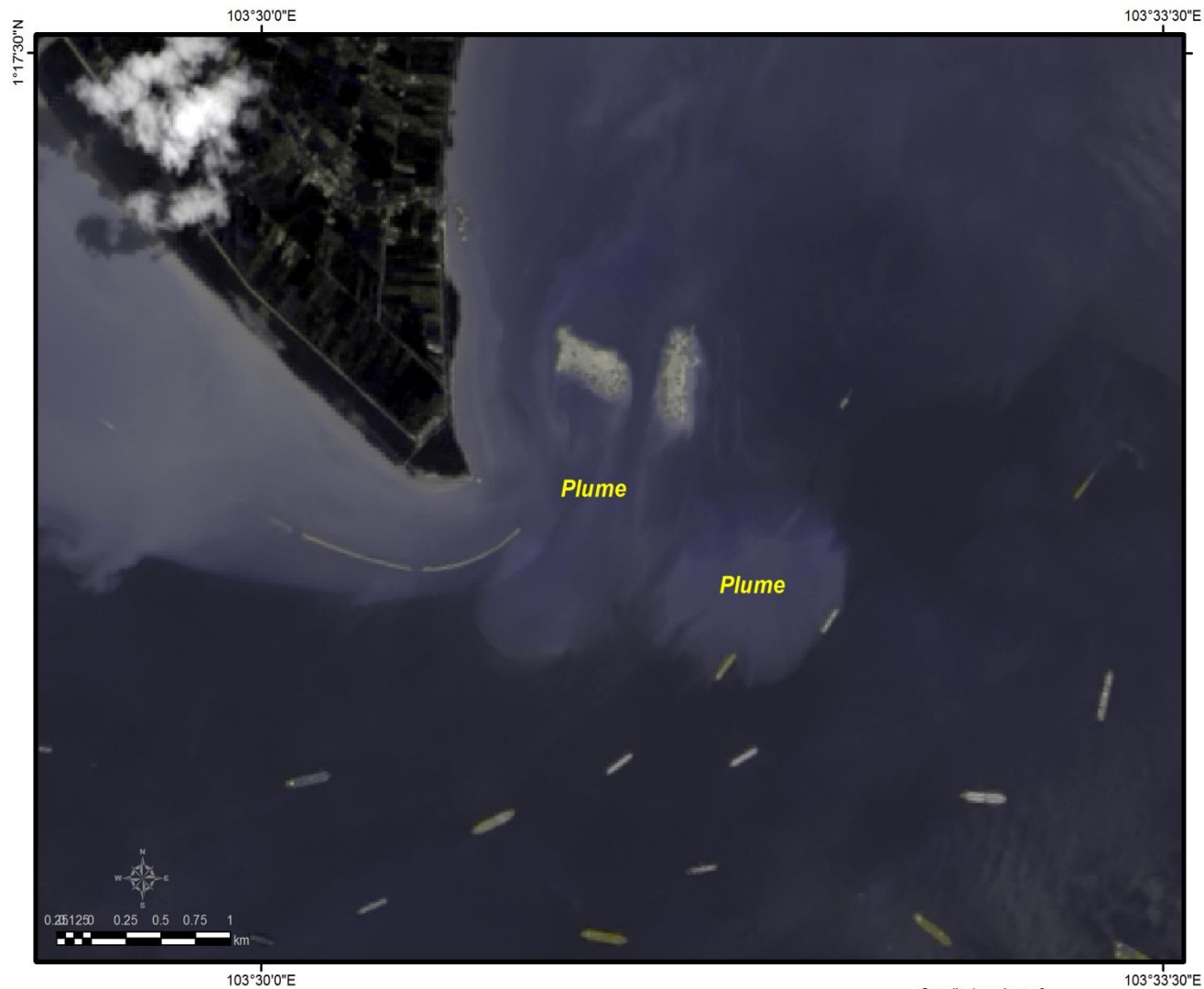
KUALA LINGGI INTERNATIONAL PORT





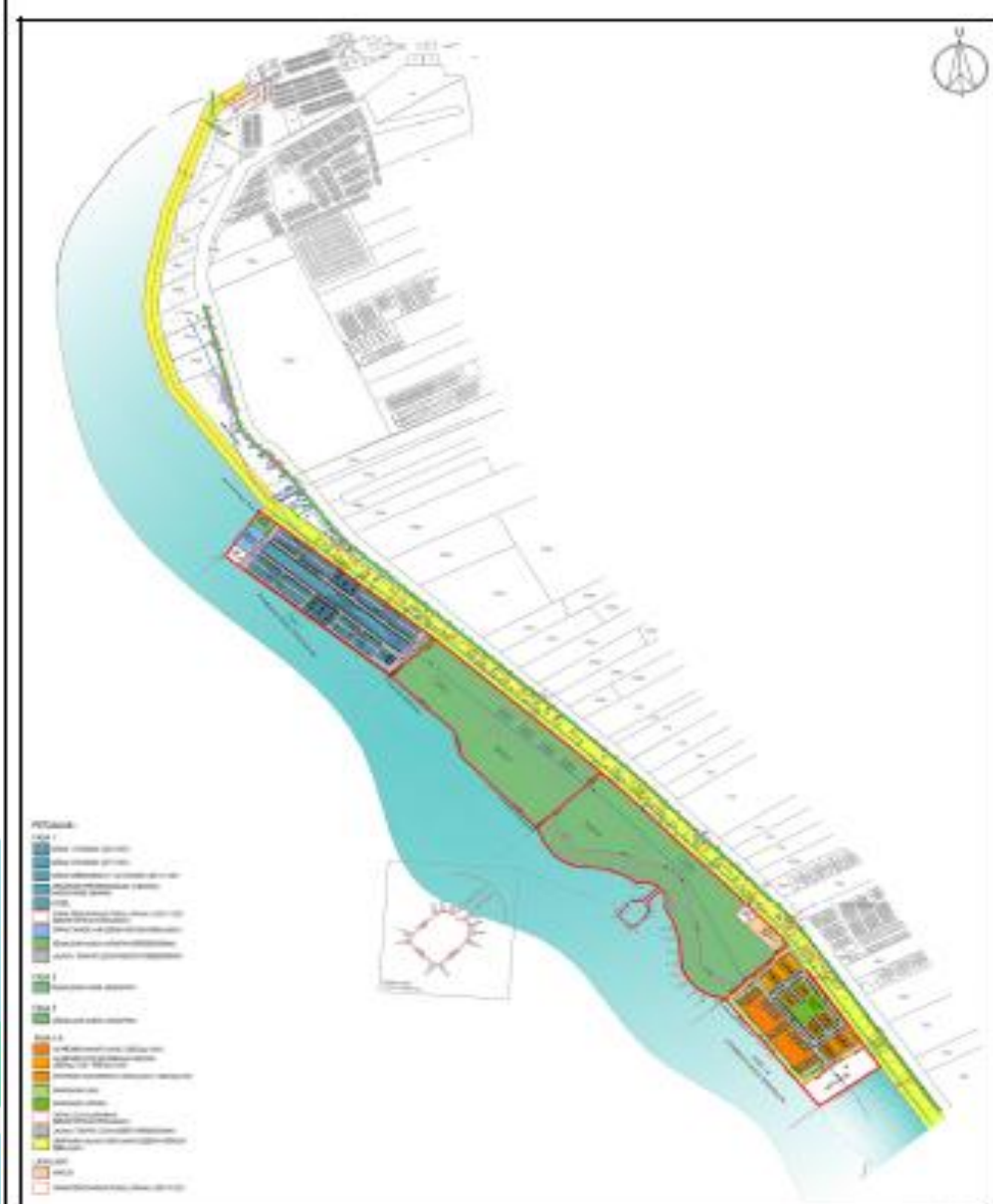
***Proposed Integrated
Petroleum Hub And
Maritime Industrial
Park, Tg Piai oleh
Perbadanan
Setiausaha
Kerajaan Negeri
Johor dan Spektrum
Kukuh Sdn Bhd***





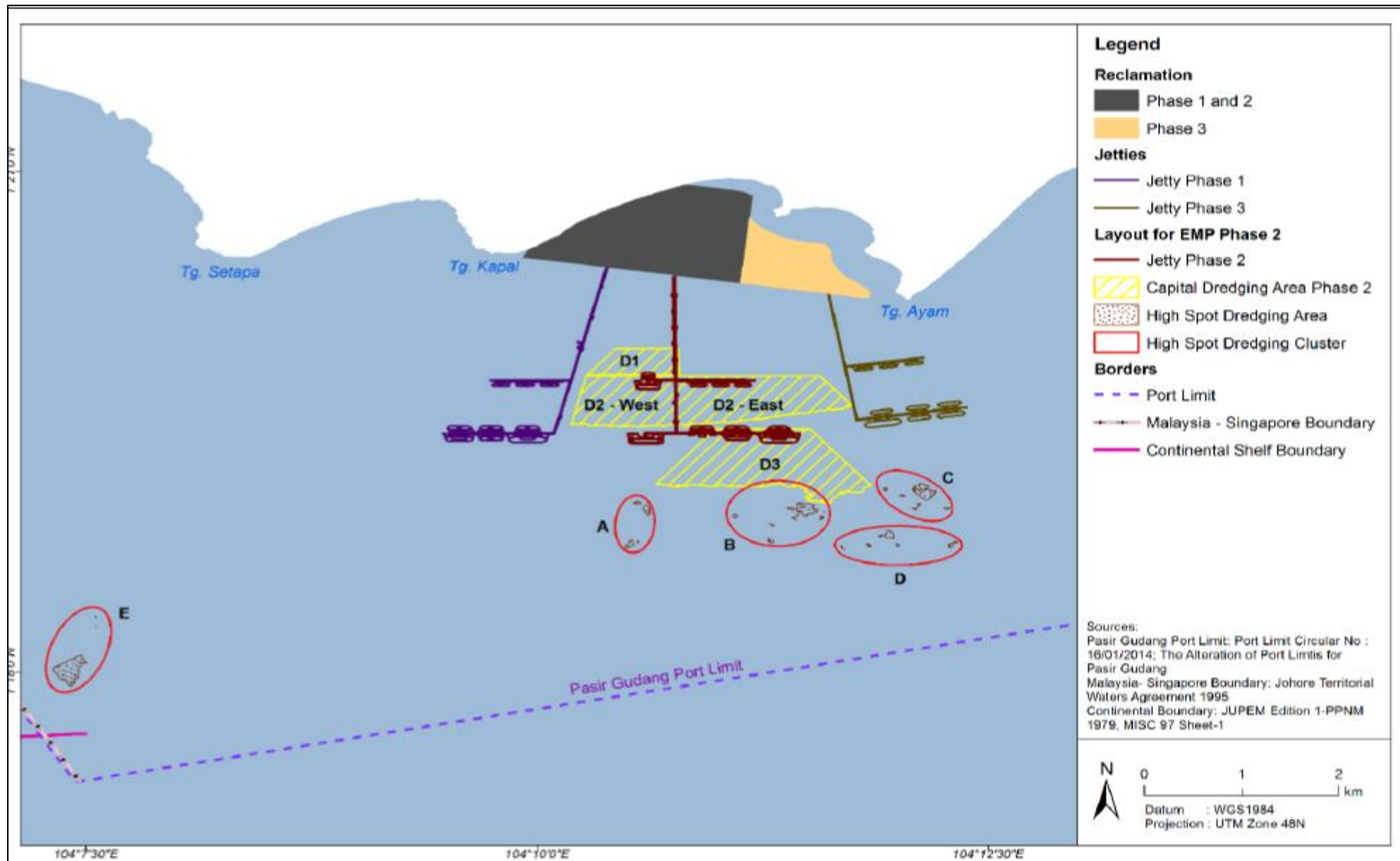
Satelit: Landsat- 8
Tarikh: 16 April 2016

Kerja-kerja penambakan yang tidak mengikut prosedur kerja telah mengakibatkan sedimen plume dapat dikesan di sekitar kawasan penambakan



Proposed Land Reclamation For Mixed Coastal Development At Bandar Kuala Kedah, Daerah Kota Setar, Kedah Darul Aman

PERMOHONAN PELUASAN SKOP EIA BAGI PENGOREKAN HIGH SPOT



PENILAIAN IMPAK (CLUSTER E)

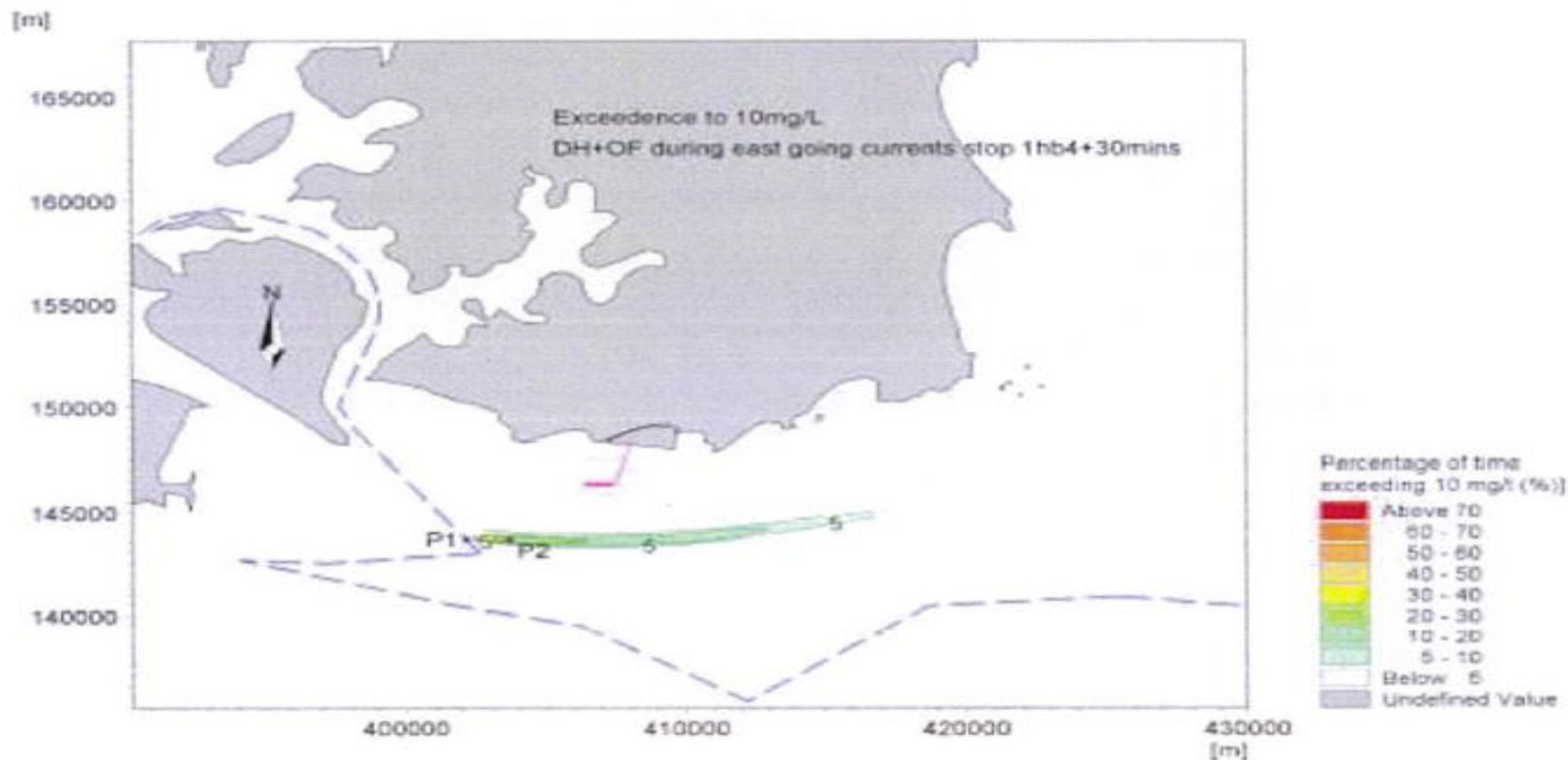


Figure 3.5 Dredging at High Spot E according to Scenario E-5

Tiada impak merentas sempadan

Pengorekan dilaksanakan 30 minit sebelum arus ke arah timur dan dihentikan 1 jam sebelum arus beralih arah

Persampelan kualiti air marin sepanjang sempadan antarabangsa yang berkaitan

LANGKAH KAWALAN

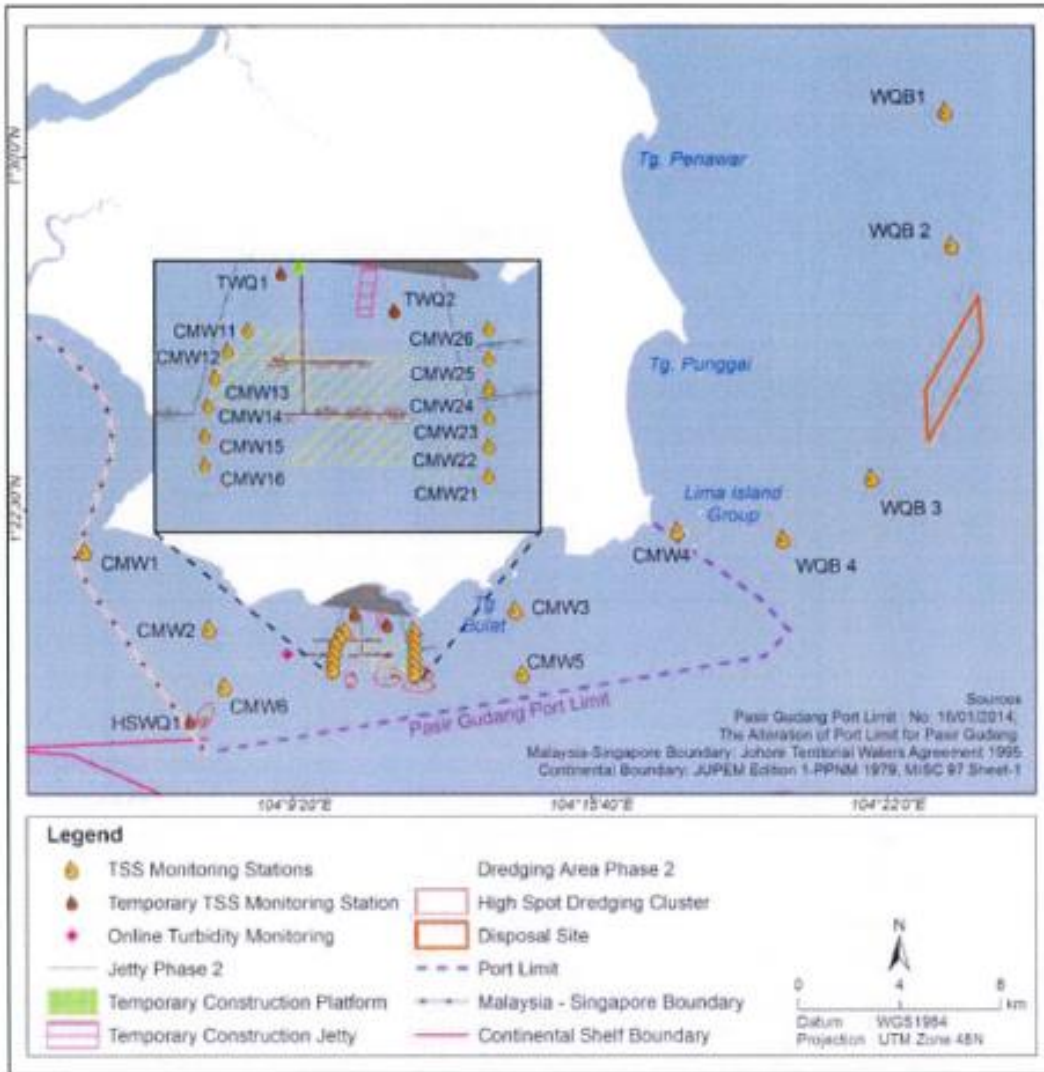


Figure 3.6 Water quality stations of the project including the HSWQ 1 for the high spot dredging at area E

Persampelan Kualiti
Air Marin

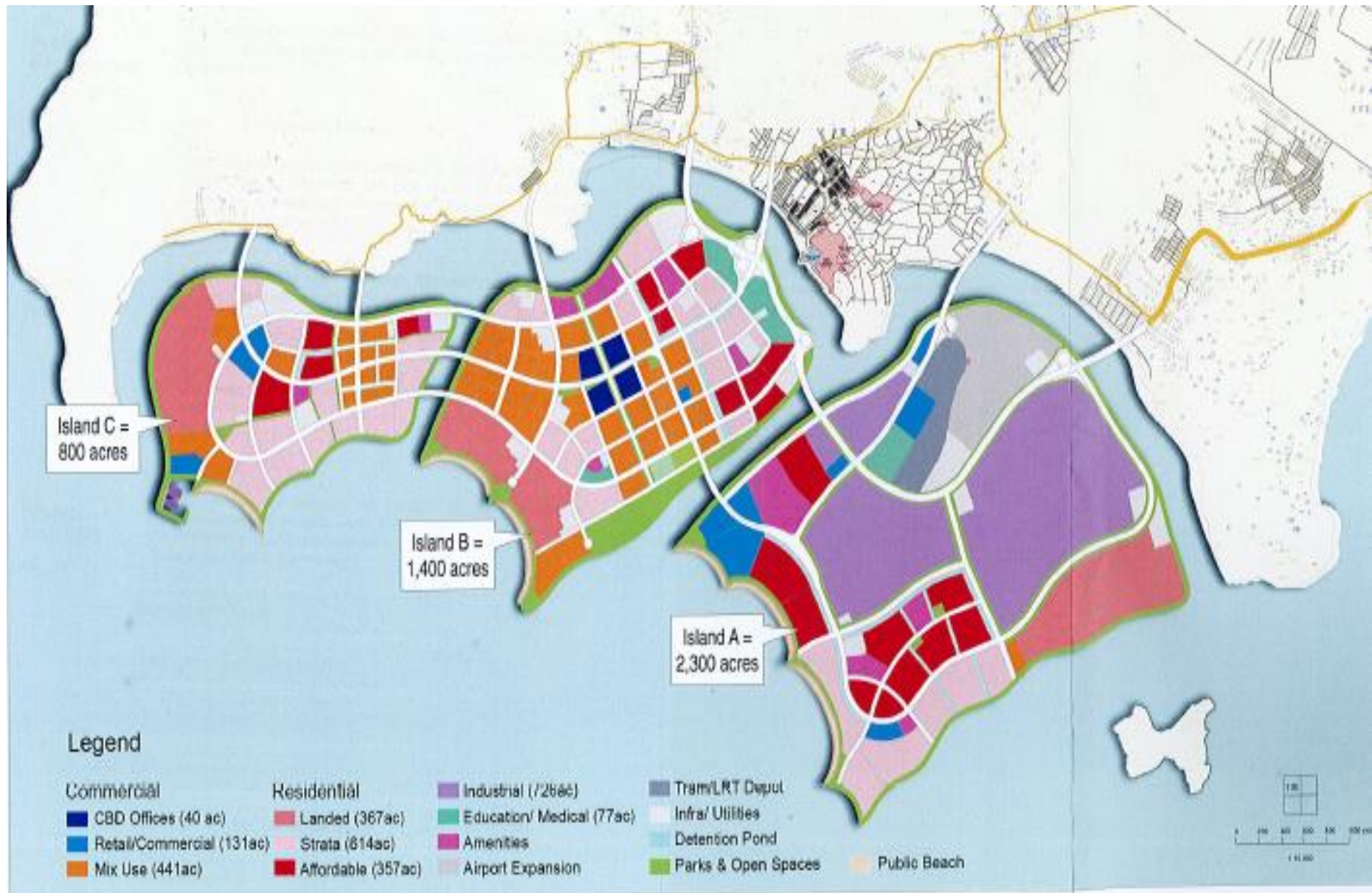
LANGKAH KAWALAN

Table 3.2 Predicted east going currents time from 29 July – 20 August 2016

Start Time	End Time	Available Dredging Time (hr)
29/07/16 19:10	30/07/16 3:05	7:55
30/07/16 20:05	31/07/16 4:05	8:00
31/07/16 21:00	01/08/16 4:55	7:55
01/08/16 21:50	02/08/16 5:40	7:50
02/08/16 22:35	03/08/16 6:25	7:50
03/08/16 23:20	04/08/16 7:05	7:45
05/08/16 0:00	05/08/16 7:40	7:40
06/08/16 0:40	06/08/16 8:05	7:25
06/08/16 15:20	06/08/16 17:05	1:45
07/08/16 1:15	07/08/16 8:25	7:10
07/08/16 15:15	07/08/16 18:15	3:00
08/08/16 1:50	08/08/16 8:35	6:45
08/08/16 15:25	08/08/16 19:20	3:55
09/08/16 2:25	09/08/16 8:30	6:05
09/08/16 15:50	09/08/16 20:35	4:45
10/08/16 3:00	10/08/16 8:00	5:00
10/08/16 16:25	10/08/16 22:30	6:05
11/08/16 3:35	11/08/16 6:50	3:15
11/08/16 17:15	12/08/16 1:40	8:25
12/08/16 18:15	13/08/16 3:10	8:55
13/08/16 19:10	14/08/16 3:40	8:30
14/08/16 19:55	15/08/16 4:10	8:15
15/08/16 20:45	16/08/16 4:45	8:00
16/08/16 21:30	17/08/16 5:25	7:55
17/08/16 22:15	18/08/16 6:00	7:45
18/08/16 23:00	19/08/16 6:40	7:40
19/08/16 13:55	19/08/16 15:50	1:55
19/08/16 23:45	20/08/16 7:15	7:30
20/08/16 13:45	20/08/16 15:50	2:05

Tempoh Masa
Pengorekan

PENANG SOUTH RECLAMATION SCHEME



PENAMBAKAN 400 EKAR DI MELAKA

- Marine Habitat
 - Mangrove (at least 6 transect lines)
 - Sg. Punggur
 - Sg. Umbai
 - Anjung Batu
 - Coral Reef (at least 6 dive sites)
 - Pulau Besar
 - Pulau Serimbun
 - Pulau Lalang
 - Pulau Burong

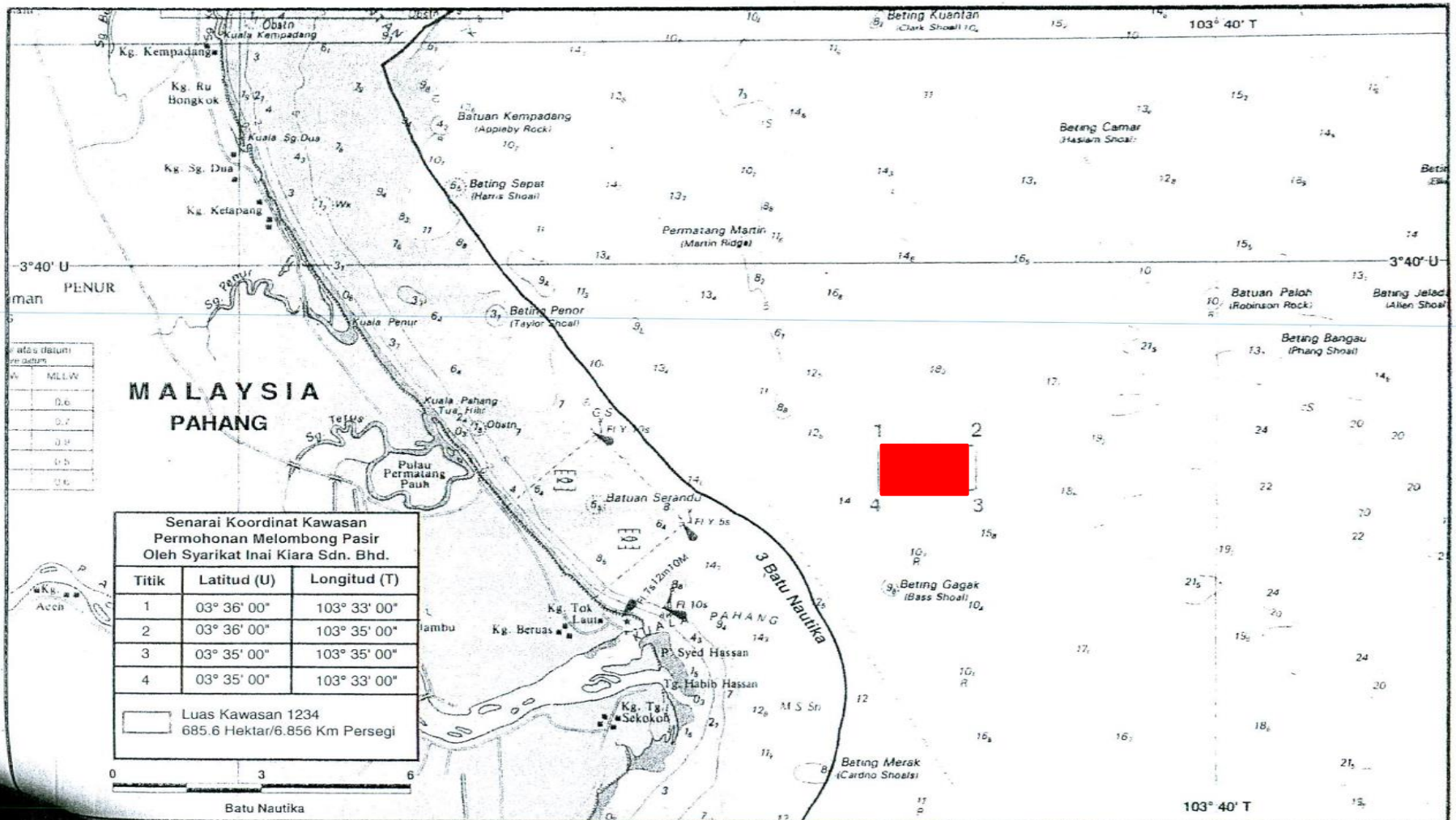


PENGOREKAN PASIR LAUT PAHANG

SULIT

Permohonan Melombong Pasir Di Bawah Seksyen 4
Akta Pelantar Benua 1966 P.U 2009
oleh Syarikat Inai Kiara Sdn. Bhd.
JKPTG(S)/SPHP/8-2 SK 254 (2)

Lampiran A

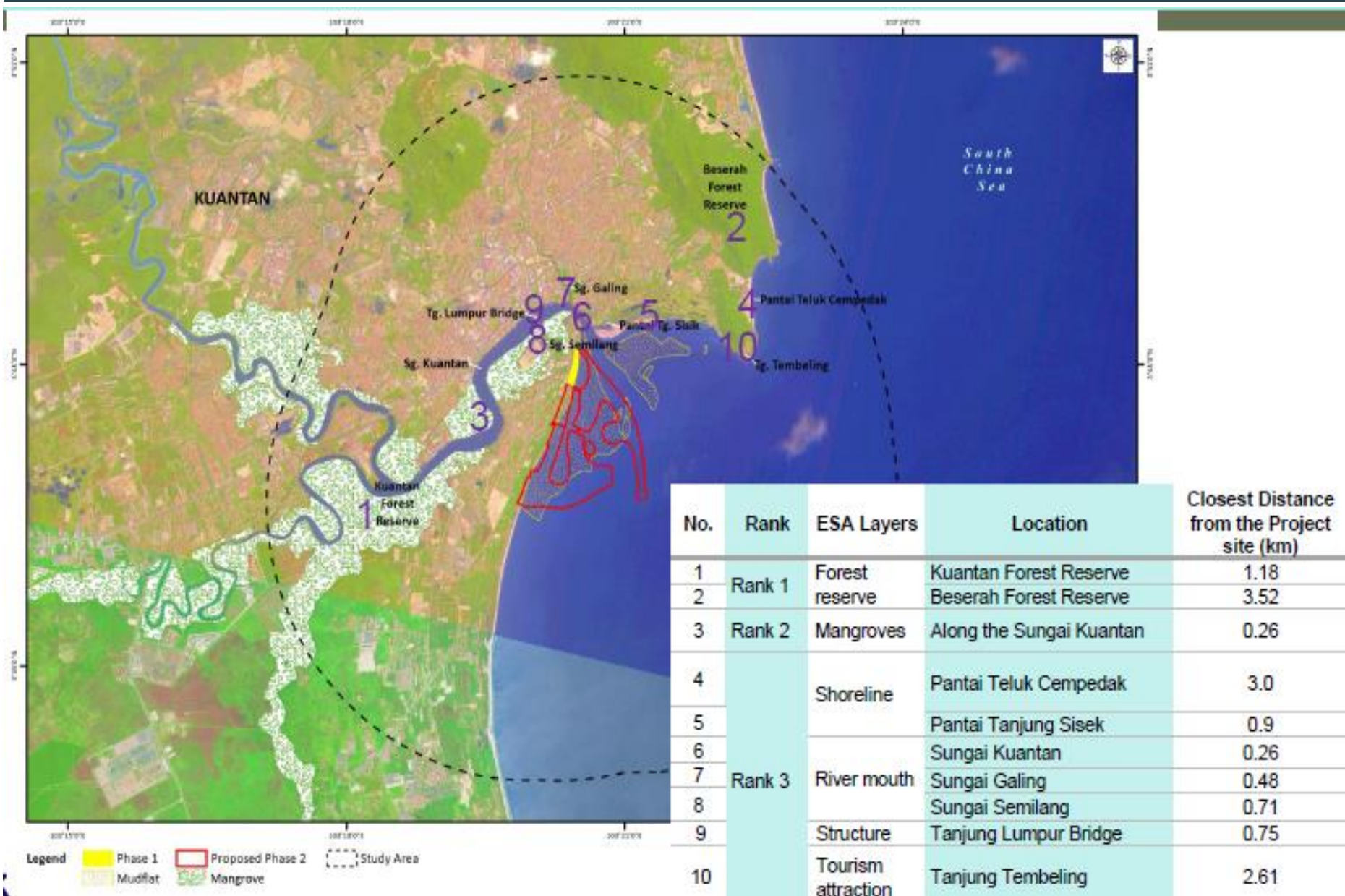


KERATAN DARIPADA CARTA MAL 635
Rujukan kami : JUPEM.BP.EP(S) (SK.2) 10.13.6 Jld. 14 (2)

Skala 1 : 200 000

SULIT

KUANTAN WATERFRONT RESORT CITY



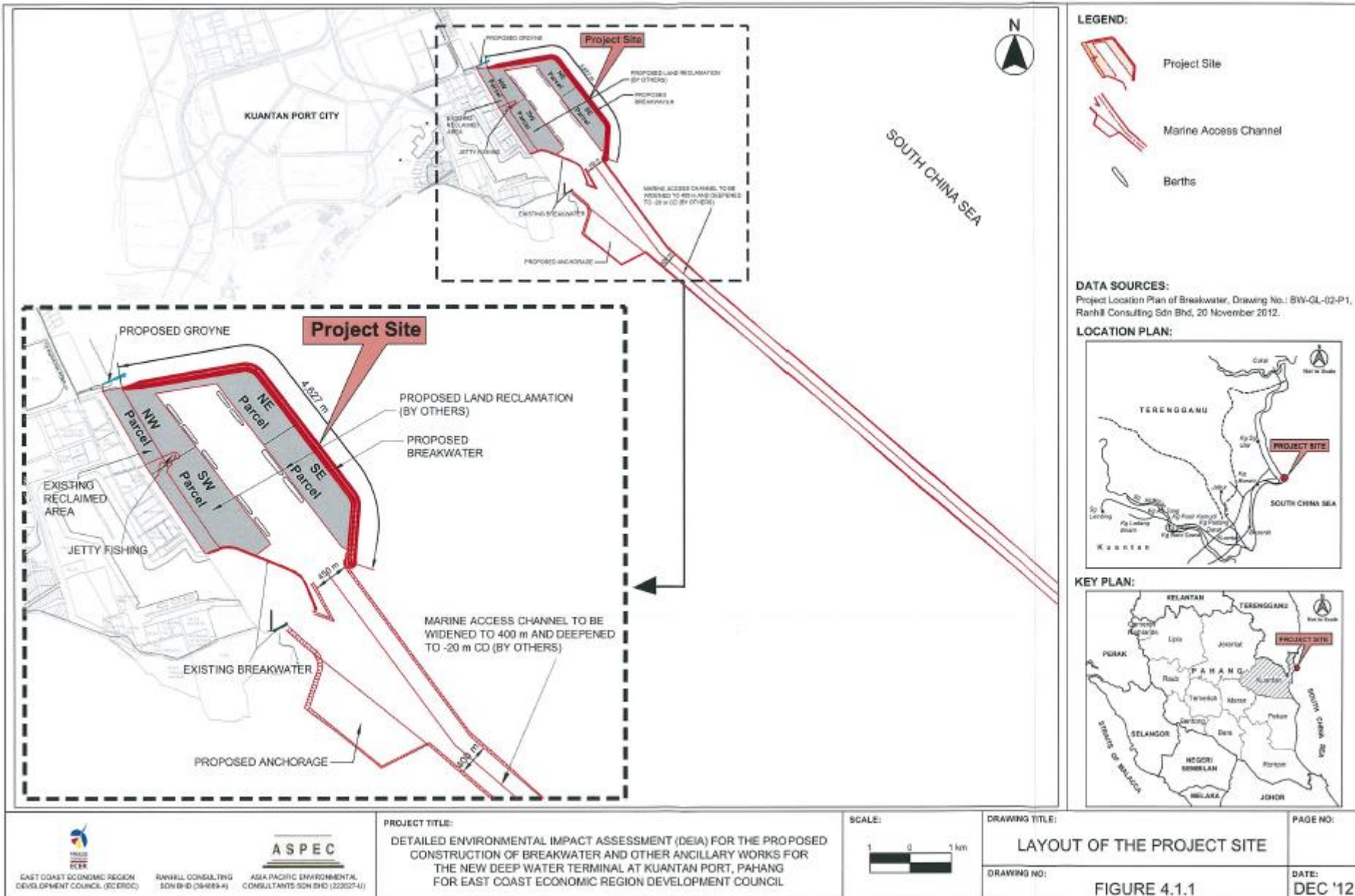
PENGOREKAN PASIR DI PERAIRAN SELANGOR



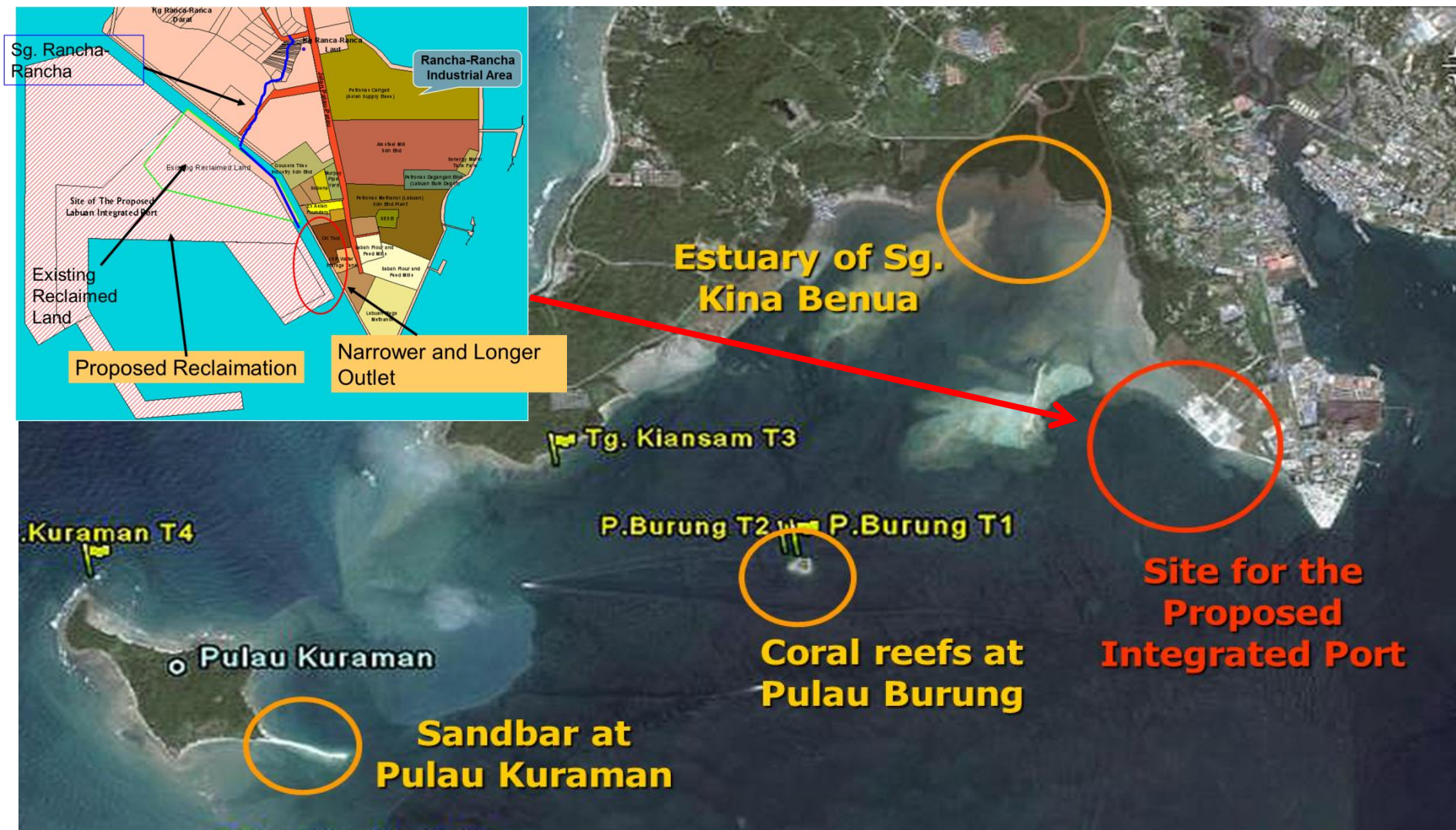
LAPANGAN TERBANG SULTAN MAHMUD



PENGOREKAN ALUR PELAYARAN PELABUHAN KUANTAN



PELABUHAN BERSEPADU DI RANCA-RANCA, LABUAN



SEKIAN, TERIMA KASIH