EXECUTIVE SUMMARY

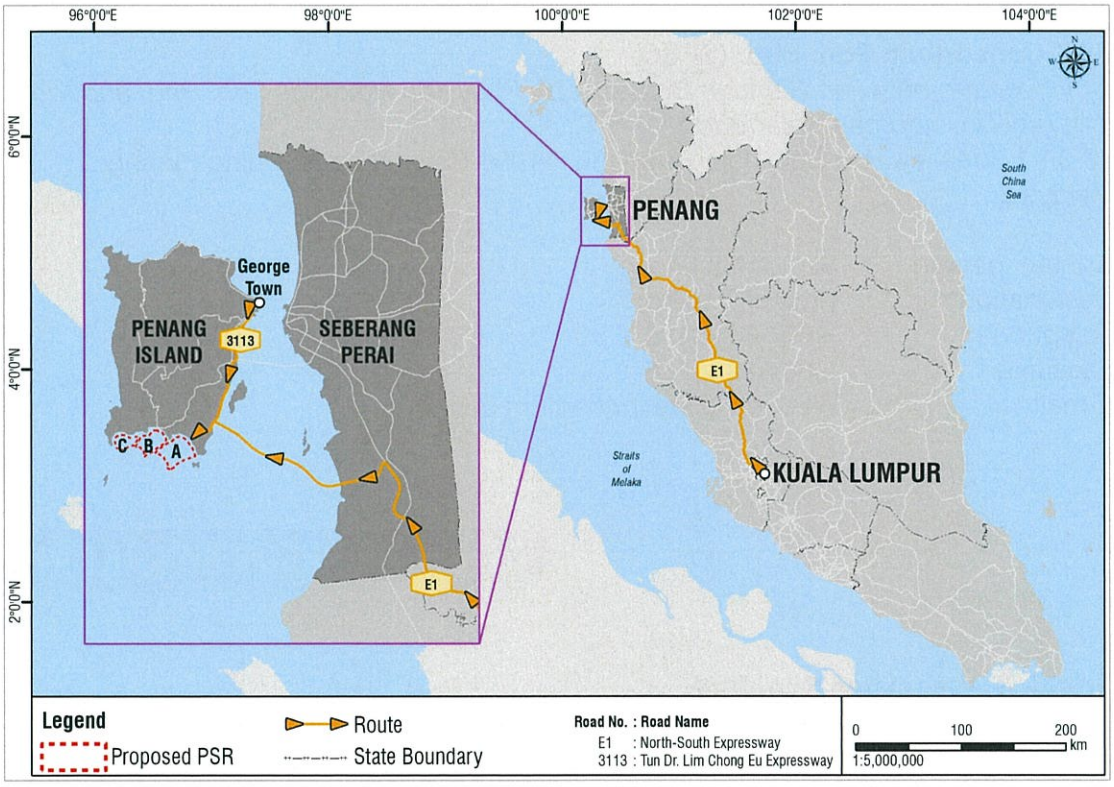
CHAPTER 1

PROJECT TITLE

THE PROPOSED RECLAMATION AND DREDGING WORKS FOR THE PENANG SOUTH RECLAMATION (PSR), PENANG

LOCATION

22 km away from Georgetown via the Tun Dr. Lim Chong Eu (LCE) Expressway and about 352 km away from Kuala Lumpur via the North-South Expressway



PROJECT BACKGROUND

- The Penang State Government intends to undertake land reclamation activities of three man-made islands at the south coast of Penang Island.
- The three man-made islands are intended to be developed as a part of the expansion of Bayan Lepas Free Industrial Zone (FIZ) as well as for mixed development comprising of residential and commercial area.

CHAPTER 1

PROJECT PROPONENT

Penang State Government
Kompleks Pentadbiran Kerajaan Pulau Pinang, Paras 25, Komtar, Georgetown, 10503 Pulau Pinang, Malaysia.

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PROJECT DELIVERY PARTNER

SRS Consortium Sdn. Bhd. (SRSC)
(Joint venture between Gamuda Berhad, Loh Phoy Yen Holdings Sdn. Bhd. and Ideal Property Development Sdn. Bhd.)
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EIA & HYDRAULIC CONSULTANT

Dr. Nik & Associates Sdn. Bhd.
No. 22 & 24, Jalan Wangsa Delima 6, Kuala Lumpur Suburban Centre (KLSC), Section 5, Pusat Bandar Wangsa Maju, 53300 Kuala Lumpur, Malaysia.

Contact persons	:	Pn. Rosniza Ramli (*EIA Study Team Leader*)
	:	Ir. Iwan Tan Sofian Tan (*Hydraulic Study Team Leader*)
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CHAPTER 1

LEGAL REQUIREMENTS

- Environmental Quality Act 1974 (Act 127)
- Exclusive Economic Zone Act 1984
- Town and Country Planning Act 1976 (Act 172)
- Land Development Act 1956 (Act 474)
- National Forestry Act 1984 (Act 313)
- Lembaga Kemajuan Ikan Malaysia Act 1971 (Act 49)
- Civil Aviation Regulations 1996 (Amendment 2004)
- National Land Code Act 1965
- Continental Shelf Act 1966
- Fisheries Act 1985
- Land Conservation Act (Revised 1989) (Act 385)
- Penang Port Commission Act (1955)
- Merchant Shipping (Oil Pollution) Act 1994
- Wildlife Conservation Act 2010

PRESCRIBED ACTIVITY

Second Schedule Activity 7:
Land Reclamation

a) Coastal reclamation or land reclamation along river banks involving an area of 50 hectares or more.
b) Coastal reclamation or land reclamation along river banks within or adjacent or near to environmentally sensitive areas.
c) Reclamation for man-made island.

First Schedule Activity 15:
Dredging

a) Capital dredging.

PLANNING POLICIES

- Sustainable Development Goals (SDGs)
- Fourth National Physical Planning (NPP-4)
- National Urbanisation Policy 2 (NUP2)
- National Green Technology Policy
- Rancangan Fizikal Zon Persisiran Pantai Negara 2 (RFZPPN2)
- Rancangan Struktur Negeri Pulau Pinang 2030
- Northern Corridor Economic Region (NCER)
- Integrated Shoreline Management Plan (ISMP) Penang

CHAPTER 3
STATEMENT OF NEED

01 Green and sustainable planning for Penang's future generation

02 The transformation of Penang into a green Smart City

03 Human capital to drive Penang's transformation

04 Economic transformation of Penang

05 Driving economic growth for Penang and Malaysia

06 Relieve development pressures on George Town

07 Addressing new land scarcity and preserving Penang's hills

08 Home for all income levels served by well-planned amenities

09 New beginning for fishermen

CHAPTER 4
PROJECT OPTIONS

Location	**Option 1** Mainland Penang
	Option 2 West coast of Penang Island
	Option 3 North coast of Penang Island
	Option 4 East coast of Penang Island
	Option 5 South coast of Penang Island
	Option 6 Further seaward of south coast of Penang Island

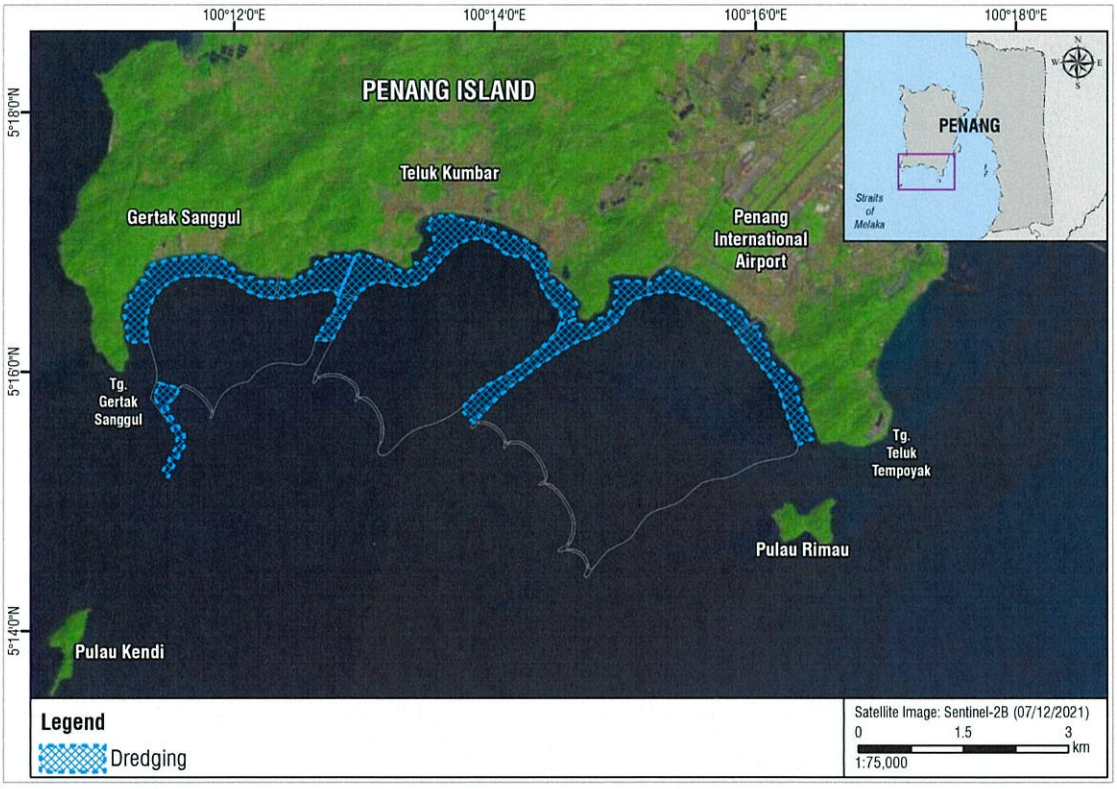
Layout	**Option 1** Reclaimed islands with foreshore reclamation for airport extension
	Option 2 Streamlined edges of Island A with foreshore reclamation for airport extension
	Option 3 Reduction of size of Island A with no foreshore reclamation
	Option 4 Increased number of embayed beaches at the south coastlines of reclaimed islands

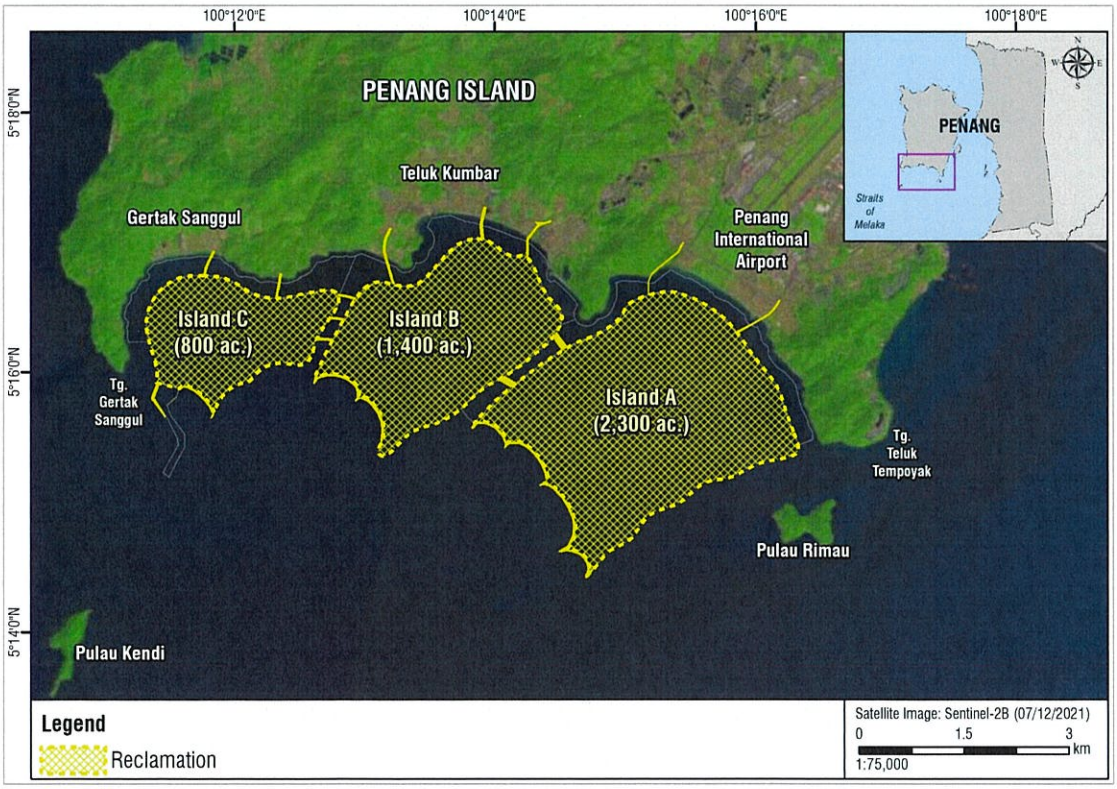
Phasing	**Option 1** Reclamation of Island B first, then Island A and lastly Island C (B-A-C)
	Option 2 Reclamation of Island A first, then Island B and lastly Island C (A-B-C)

No-Build

CHAPTER 4
PROJECT LAYOUT

Located across the south coast of Penang Island and along the coastline of Tanjung Teluk Tempoyak to Tanjung Gertak Sanggul.





PROJECT COMPONENTS

1. **Reclamation of Islands A, B and C:**
   - Potential sand source locations: Perak and Selangor
   - Rock source locations: Teluk Tempoyak and Pantai Remis
2. **Dredging works around Islands A, B and C:**
   - Disposal ground at Muka Head
3. **Coastal structures:**
   - Revetment, artificial beach, vertical wall, breakwater, etc.
4. **Connection bridges:**
   - Seven bridges connecting PSR islands to Penang Island
   - Five bridges connecting the three islands internally
5. **Topside development:**
   - Made up of residential, commercial, industrial, etc.

RECLAMATION

1. **Reclamation of Island A:**
   - Area: 2,300 acres
   - Sand volume: 102 million m^3
2. **Reclamation of Island B:**
   - Area: 1,400 acres
   - Sand volume: 66 million m^3
3. **Reclamation of Island C:**
   - Area: 800 acres
   - Sand volume: 39 million m^3

DREDGING OF CHANNEL (UP TO -2m CD)

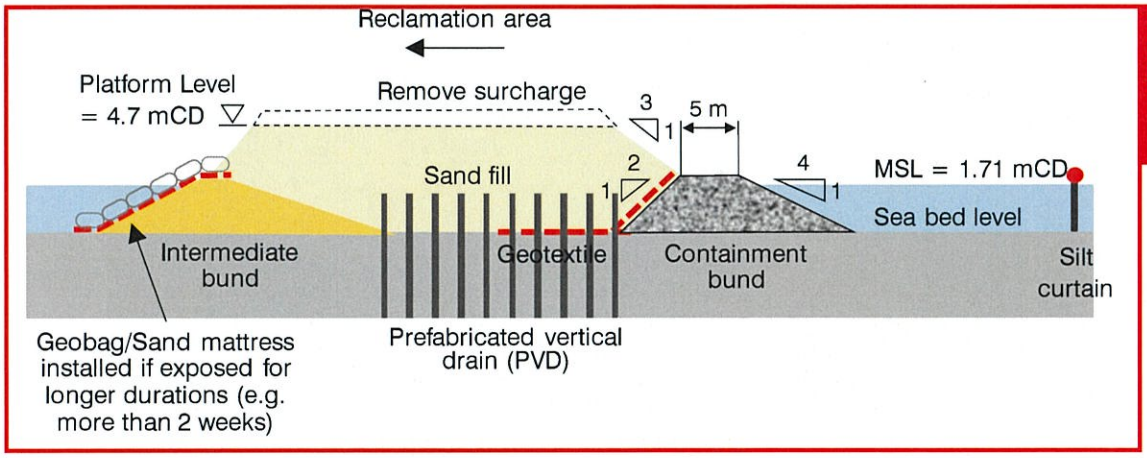
1. **Dredging of channel around Island A:**
   - Channel width: 150 – 250 m
   - Channel length: 8.1 km
   - Dredging volume: 2.2 million m^3
2. **Dredging of channel around Island B:**
   - Channel width: 150 – 250 m
   - Channel length: 5.2 km
   - Dredging volume: 2.4 million m^3
3. **Dredging of channel around Island C:**
   - Channel width: 150 – 250 m
   - Channel length: 5.5 km
   - Dredging volume: 1.7 million m^3

RECLAMATION ACTIVITES

- Perimeter rock containment bund: construction and reclamation
- Perimeter sand containment bund: construction and reclamation
- Construction of intermediate bund
- Installation of silt curtain
- Offloading of fill material

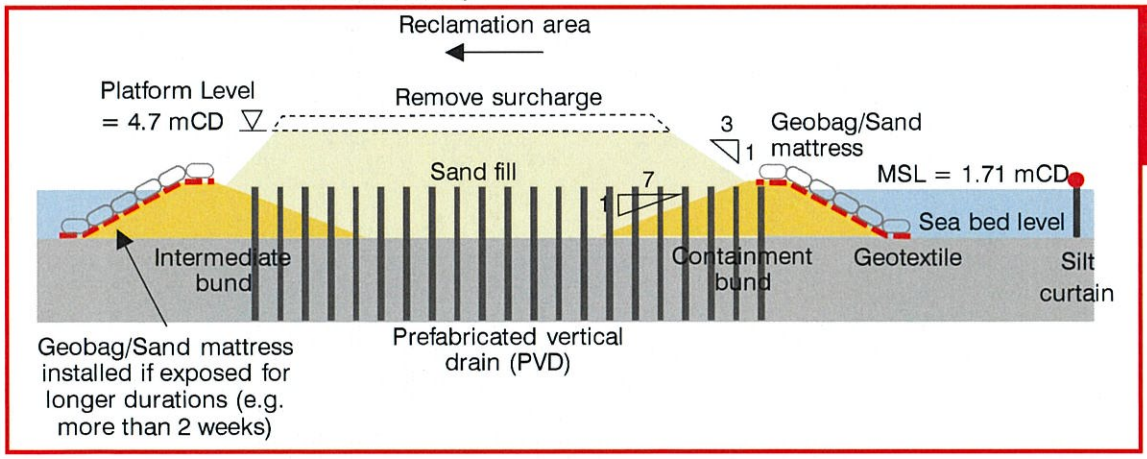
Perimeter Rock Containment Bund: Construction and Reclamation

- At areas with high current speed and ESAs

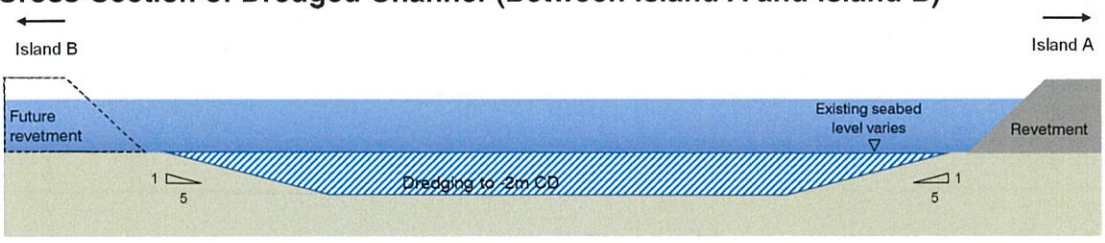


Perimeter Sand Containment Bund: Construction and Reclamation

- At areas with low current speed



Cross-Section of Dredged Channel (Between Island A and Island B)



RECLAMATION SUB-PHASINGS FOR ISLANDS A, B AND C

CHAPTER 5
PROJECT SCHEDULE AND PHASES

The Project is expected to complete in:

CHAPTER 6
EXISTING ENVIRONMENT

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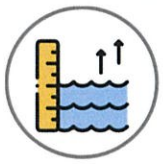
LAND USE

- Administration: under Majlis Bandaraya Pulau Pinang (for existing land)
- Main land use type: agriculture (29.15%), forest (27.48%), residential (14.63%), transportation (10.20%)

BATHYMETRY

- The Project site is generally shallow
- Seabed level up to around -3 m CD

WATER LEVELS



- Maximum and mean spring tidal range is 3.09 and 1.97 m respectively
- Mean neap tidal range is 0.51 m

CURRENTS

- Currents within Malacca Straits move southwardly during ebbing period and moving eastward during flood flow
- Mean current speed up to about 0.2 m/s and maximum current speed up to about 0.7 m/s for all climatic conditions

WAVES

- Wave heights along the southern coastline of Penang Island are relatively low

TSUNAMI

- Maximum water level is higher at the frontage of Permatang Damar Laut but reduces progressively westwards towards Gertak Sanggul

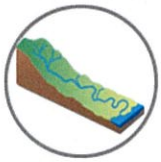
GEOLOGY & GEOTECHNICAL

- Penang Island mostly comprise of granite with minor granodiorite
- Seabed subsoil stratum at the Project site mainly consists of clay and sandy clay

CLIMATE & METEOROLOGY

- Uniform temperature, humidity and rainfall distribution

HYDROLOGY & DRAINAGE



- Five main rivers: Sungai Gertak Sanggul, Sungai Teluk Kumbar, Sungai Batu, Sungai Bayan Lepas and Bayan Lepas Main Drain

WATER

- 29 marine water quality sampling stations
- 4 estuarine water quality sampling stations
- Both marine and river water quality considered generally within Category E1 and Class III respectively.

Rev. 01

SEDIMENT

- 13 sediment quality sampling stations
- Several heavy metals were below Washington Marine Sediment Quality Standard (2013)

AIR

- 4 air quality sampling stations
- Existing air quality is generally good and complied with New Malaysia Ambient Air Quality Standard (DOE, 2014)

NOISE

- 4 noise sampling stations
- Existing noise levels were below maximum permissible limit of Suburban Residential Areas category (DOE, 2004)

UNDERWATER NOISE

- Croaking sound and other fish sound tend to favour the mid frequency band
- Anthropogenic noise sources may vary from shipping, recreational boating and fishing activities

VIBRATION

- 4 vibration sampling stations
- Existing vibration levels were below safe limit of Planning Guideline for Vibration Limits & Control in the Environment (DOE, 2016)

MARINE TRAFFIC & NAVIGATION	TERRESTRIAL FLORA	TERRESTRIAL FAUNA
		
▪ The Project site is located outside of the boundary of the Penang Port Limit ▪ Main existing marine facilities include pier, ferry terminal, cargo terminal, etc.	▪ 121 plant species from 61 families recorded ▪ Almost 75% of the total plants are from non-exclusive category ▪ 22 exclusive species of mangrove plants found ▪ No mangrove species on the IUCN Red List Categories and Criteria found	▪ All recorded avifauna are categorised under the status of Least Concerned (IUCN, 2007) ▪ Migratory avifauna species were recorded during migratory season (October until May) ▪ All other types of fauna are considered as insignificant for this Project

LAND TRAFFIC	
	▪ 3 existing major roads nearest to Project area ▪ Junctions are performing between LoS A and F during peak hours

- Population dominated by *Bacillariophyta*
- No harmful algal blooms or polluter indicator species were detected

PHYTOPLANKTON

- Population dominated by *Arthropoda*

ZOOPLANKTON

- Population dominated by *Arthropoda*
- No polluter indicator species were detected

MACROBENTHOS

- Most turtle landings recorded within Penang National Park
- Green Turtle is the main species recorded in Penang overall

TURTLE

- Most fish species categorised as Least Concern at Pulau Kendi and Pulau Rimau (IUCN, 2010-2019)

REEF FISH

- Most invertebrates categorised as Not Evaluated at both Pulau Kendi and Pulau Rimau (IUCN, 2022)

INVERTEBRATES

- Unidentified dolphin species observed off the reclamation footprint during recent years, especially at Teluk Kumbar and Pulau Kendi

MARINE MAMMALS

- A total 79 species fish fauna recoded at study area, comprised of 70 fish species, 3 shrimp species, 4 crab species, 1 mantis shrimp species and 1 cephalopod species

FISH FAUNA

- Consists of 22 corals taxa (*Anthozoan*) recorded at both Pulau Rimau and Pulau Kendi
- Diploastrea heliopora is categorised as Near Threatened, while Pachyseris speciosa is categorised as Least Concern (IUCN, 2014)
- Coral bleaching is observed at Pulau Kendi
- Lower diversity and coral cover recorded at Pulau Rimau than Pulau Kendi

CORAL REEF

CHAPTER 6
SOCIO-ECONOMY

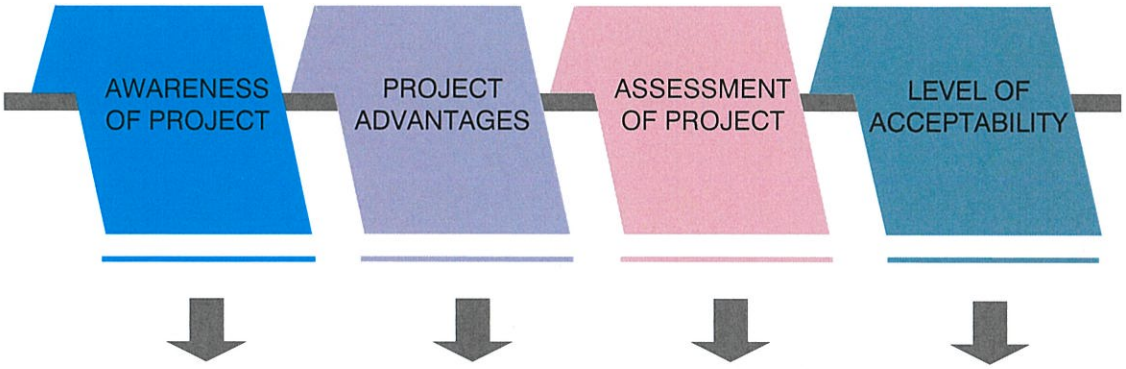
SOCIAL PROFILE / DEMOGRAPHY

Rev. 01

01 Matured age structure

02 Mixed education background (fishermen group least educated, 63% of public with at least upper secondary education)

03 Public were mainly salary earners (private sector with mostly involved in business)

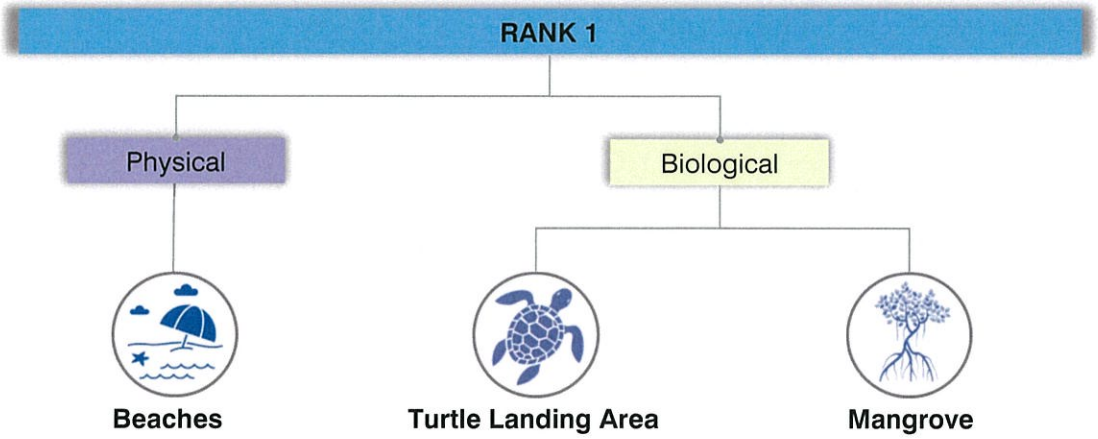


- Knew about Project (92.9%)
- Did not know (7.1%)

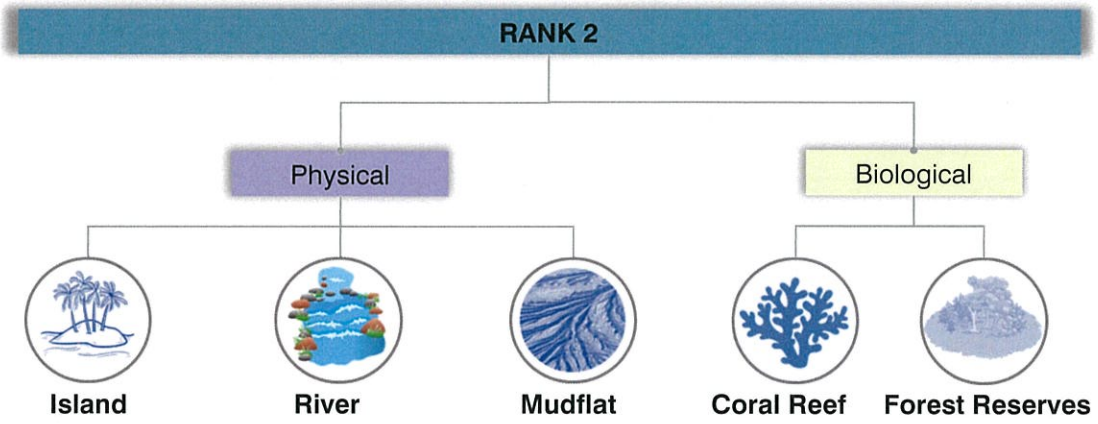
- Employment opportunities to local population (50.3%)
- Increased business opportunities (43.7%)
- Increased value of land/ property (41.2%)
- Improvement of basic amenities (40.7%)

- Positive impacts (89.5%)
- Negative impacts (10.5%)

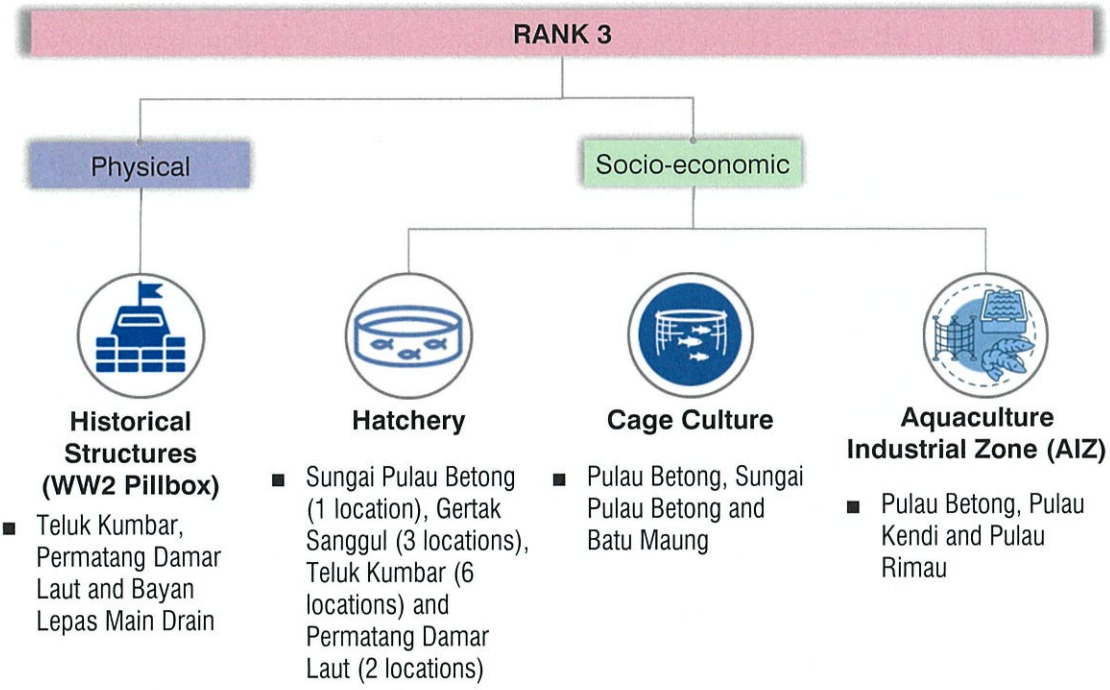
- Agreed (79.9%)
- Disagreed (20.1%)
- Unsure (0%)

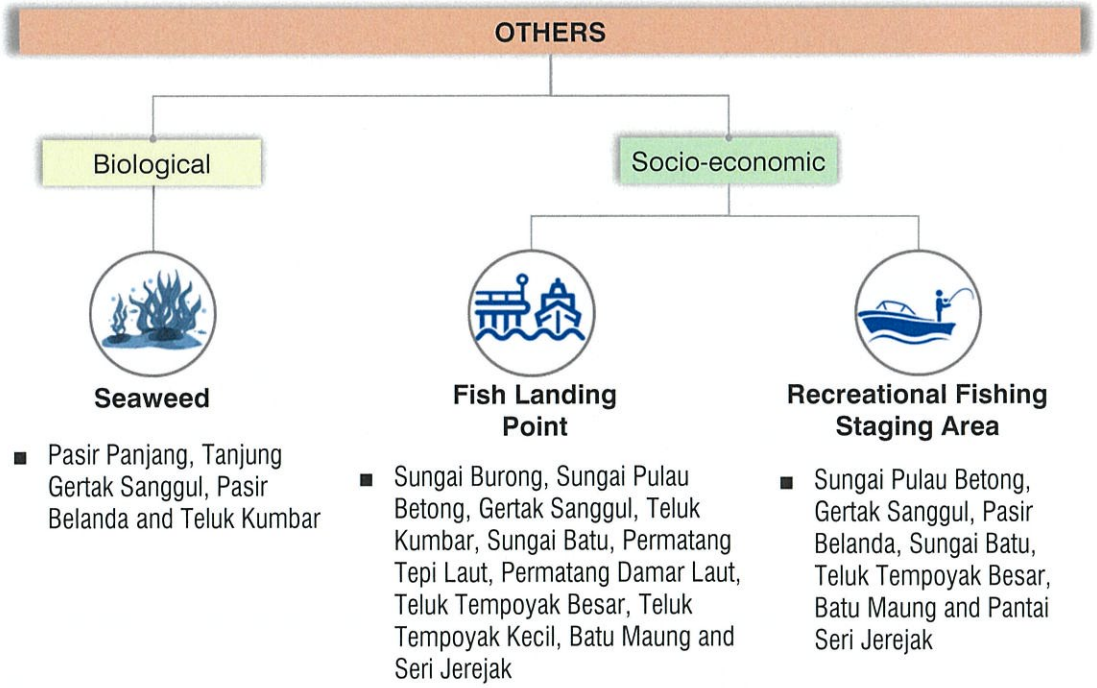


- Pantai Pasir Panjang, Pantai Gertak Sanggul, Pantai Tanjung Asam, Pantai Nelayan and Pantai Bakar Kapor
- Gertak Sanggul, Pasir Belanda, Teluk Kumbar, Sungai Batu, Teluk Tempoyak and Pulau Rimau
- Sungai Gertak Sanggul, Sungai Teluk Kumbar, Sungai Teluk Kumbar, Sungai Bayan Lepas, Bayan Lepas Main Drain, Teluk Tempoyak Besar and Teluk Tempoyak Kecil



- Pulau Betong, Pulau Kendi and Pulau Rimau
- Sungai Gertak Sanggul, Sungai Gemuruh, Sungai Teluk Kumbar, Sungai Mati, Sungai Batu, Sungai Bayan Lepas, Bayan Lepas Main Drain and Sungai Ikan Mati
- Along the coastline: Permatang Damar Laut, Teluk Kumbar and Gertak Sanggul
- Pulau Kendi and Pulau Rimau
- Balik Pulau Forest Reserve, Pasir Panjang Forest Reserve, Bukit Gemuruh Forest Reserve and Bukit Genting Forest Reserve


RANK 3
Physical
Socio-economic
Historical Structures (WW2 Pillbox)
Teluk Kumbar, Permatang Damar Laut and Bayan Lepas Main Drain
Hatchery
Sungai Pulau Betong (1 location), Gertak Sanggul (3 locations), Teluk Kumbar (6 locations) and Permatang Damar Laut (2 locations)
Cage Culture
Pulau Betong, Sungai Pulau Betong and Batu Maung
Aquaculture Industrial Zone (AIZ)
Pulau Betong, Pulau Kendi and Pulau Rimau


OTHERS
Biological
Socio-economic
Seaweed
Pasir Panjang, Tanjung Gertak Sanggul, Pasir Belanda and Teluk Kumbar
Fish Landing Point
Sungai Burong, Sungai Pulau Betong, Gertak Sanggul, Teluk Kumbar, Sungai Batu, Permatang Tepi Laut, Permatang Damar Laut, Teluk Tempoyak Besar, Teluk Tempoyak Kecil, Batu Maung and Seri Jerejak
Recreational Fishing Staging Area
Sungai Pulau Betong, Gertak Sanggul, Pasir Belanda, Sungai Batu, Teluk Tempoyak Besar, Batu Maung and Pantai Seri Jerejak

SUMMARY OF POTENTIAL IMPACTS AND ITS ASSOCIATED P2M2

RIVER OUTLET 	**IMPACTS**	Current speed, wave heights, bed level changes (erosion and sedimentation), water quality, aesthetics.
	P2M2	a) Bed level changes ▪ Maintenance dredging for sedimentation every 5 years, depending on bathymetric survey. ▪ Coastal protection structure (hard and soft) for erosion such as revetment and beach nourishment. b) Water quality ▪ Implementing Green River Programme to improve the water quality for major rivers in southern Penang Island ▪ Reduction in pollution load especially for BOD (up to 70%), phosphorus (up to 99%) and ammoniacal nitrogen (up to 81%). ▪ Control land use and point source discharge within the southern Penang Island area.
HATCHERIES 	**IMPACTS**	Current speed, bed level changes (erosion), sediment spill dispersion, water quality, footprint.
	P2M2	a) Sediment dispersion ▪ Combination of perimeter bund and silt curtain in managing the sediment plume during reclamation. ▪ Upgrading of filtration system, based on feedback from consultation with the operators. ▪ Controlled dredging and reclamation operation. b) Footprint ▪ Relocation of seawater intake pipe to suitable area, based on feedback from the operators. c) Water quality ▪ Implementing Green River Programme to improve the water quality. ▪ Reduction in pollution load especially for BOD (up to 70%), phosphorus (up to 99%) and ammoniacal nitrogen (up to 81%). ▪ Widening of navigation channel based on results of detailed hydraulic analysis. ▪ Best Management Practices (BMPs) for solid waste, scheduled waste and wastewater.
CORALS 	**IMPACTS**	Current speed, wave heights, sediment spill dispersion.
	P2M2	a) Sediment dispersion ▪ Combination of perimeter bund and silt curtain in managing the sediment plume during reclamation. b) Offset programme ▪ Provide grant or financial support for coral related research. ▪ Deployment of artificial reefs.

SUMMARY OF POTENTIAL IMPACTS AND ITS ASSOCIATED P2M2

ISLANDS 	**IMPACTS**	-
	P2M2	A sufficient buffer zone is provided between the proposed reclamation footprint and Pulau Rimau (500 m buffer) as well as Pulau Kendi (3 km buffer).
RECREATIONAL BEACH 	**IMPACTS**	Noise, aesthetics.
	P2M2	a) Enhancement of existing beach ▪ Additional enhancement works may be required if the upper beach areas experience siltation of fine sediments. b) Monitoring survey ▪ Periodic bathymetry and nearshore surveys to assess beach and bed level changes during and after Project implementation. c) Beach nourishment ▪ If beach erosion is detected from monitoring survey, beach nourishment shall be conducted.
RECREATIONAL FISHING STAGING AREA 	**IMPACTS**	Aesthetics.
	P2M2	Improvement on current staging area i.e. improving public access to the area.
FISH-LANDING POINT 	**IMPACTS**	Current speed, wave heights, bed level changes (sedimentation), footprint, aesthetics.
	P2M2	New fishermen jetties ▪ New jetties for fishermen will be built.
AQUACULTURE 	**IMPACTS**	-
	P2M2	Insignificant impact, thus no P2M2 proposed.

SUMMARY OF POTENTIAL IMPACTS AND ITS ASSOCIATED P2M2

HUMAN 	**IMPACTS**	Current speed, sediment spill dispersion, water quality, footprint, noise, air quality, aesthetics.
	P2M2	**Fishermen** Implementation of SIMP that includes: a) *Ex-gratia* ▪ Suitable quantum and eligibility criteria based in fishing operation. ▪ Will benefit licensed fishermen of nine fishing units. b) New boats and engines ▪ Larger boats with higher capacity will be offered for qualified fishermen. ▪ This will allow fishermen to fish further and safer. c) Pusat Perkhidmatan Setempat Nelayan (PPSN) ▪ Proactive measure in managing impact. ▪ Mediator between State Government and stakeholders (fishermen). ▪ Disseminating information and latest updates on the Project. ▪ Conduct engagements and other joint activities with the fishermen and local community. ▪ Receive complaints and feedbacks from the impacted fishermen and local community. ▪ Three PPSN are already in operation. d) PELITAKU ▪ Streamline the implementation of SIMP initiatives. ▪ Spearheaded by the Fishermen Taskforce and implemented by the Penang Infrastructure Corporation, BPEN and PPSN. e) Conserving/Restoring the fishery and ecosystem ▪ Deployment of Fish Aggregating Device (FAD) and artificial reefs. ▪ Fish stocking/releasing of fish fry at strategic locations (sea ranching). ▪ Monitoring of the released and natural stocks to assess the impacts. ▪ Mangrove replanting programme. f) Social proactive measures ▪ Improving local education status by providing scholarships (priorities to fishermen's children) and tuition centres. ▪ Other commitments which include four fisherman's jetties.

SUMMARY OF POTENTIAL IMPACTS AND ITS ASSOCIATED P2M2

HUMAN 	**IMPACTS**	Current speed, sediment spill dispersion, water quality, footprint, noise, air quality, aesthetics.
	P2M2	**Local community and business operators** a) Employment opportunities ▪ Construction works targeted to engage 30% of local workers. ▪ Labour requirement to be partly recruited from locals. ▪ Appropriate skills training programme for locals. b) Community development ▪ Continuous community engagement to foster good relationship. ▪ Marginalisation could be overcome by direct participation of locals in the development. ▪ Add local amenities, schools, services and health facilities to cater for increased population. c) Noise control ▪ Restriction on night works at specific area closest to residential area.
MANGROVE 	**IMPACTS**	Sediment spill dispersion, footprint.
	P2M2	An offset programme in collaboration with the Forestry Department and FRIM shall be conducted. The small and localised mangrove area adjacent to the proposed Project area can be enhanced by replanting programme. This programme shall be organised by PPSN set up by the Project Proponent.
MARINE BIOLOGY 	**IMPACTS**	Total loss within the Project's footprint (trade-off).
	P2M2	Offset Programme: a) Mudflat ▪ Restoration of fish habitat in Penang. ▪ Provide grant or financial support for Fisheries Research Fund which includes study on the migration route of shrimp. ▪ Mangrove replanting programme. b) Macrobenthos ▪ Deployment of FAD. ▪ Deployment of artificial reef. ▪ Mangrove replanting programme. ▪ Shoreline eco-enhancement on PSR.

Rev. 02

CHAPTER 7 AND 8

SUMMARY OF POTENTIAL IMPACTS AND ITS ASSOCIATED P2M2

Rev. 01

ECONOMIC VALUATION OF ENVIRONMENTAL IMPACTS

Significant Environmental Services

- Loss of mudflat or muddy seabed due to reclamation;
- Loss of mudflat or muddy seabed due to capital and maintenance dredging;
- Loss of coral area;
- Potential change in visitor experience on public beaches;
- Loss of recreational fishing area; and
- Loss of fishing ground and direct access to sea (higher cost of fishing

Overall Assessment

DISCOUNT RATE	ANNUAL SERVICE LOSS VALUE OVER 50 YEARS
8%	RM238.1 million
6%	RM318.1 million
4%	RM451.4 million

CHAPTER 9

ENVIRONMENTAL MANAGEMENT PLAN

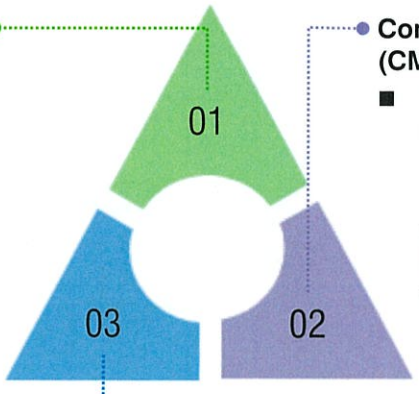
PROJECT IMPLEMENTATION

- Competent person
- Environmental policy
- Environmental regulatory compliance monitoring committee
- Budget
- Environmental performance monitoring committee
- Mini laboratory
- Performance monitoring, compliance monitoring and impact monitoring
- Record keeping
- Data analysis and interpretation
- Reporting and communicator
- Future improvement/ redundancy

ENVIRONMENTAL MONITORING

Performance Monitoring (PM)

- To prevent system function failures and to ensure that it is working properly and optimally
- Required for efficiency of the perimeter rock bund structures, maintaining the silt curtains and vessels operation



Compliance Monitoring (CM)

- Include water quality, sediment quality, air quality, vibration and noise monitoring; and Dredging and Disposal Monitoring System (DDMS)

Impact Monitoring (IM)

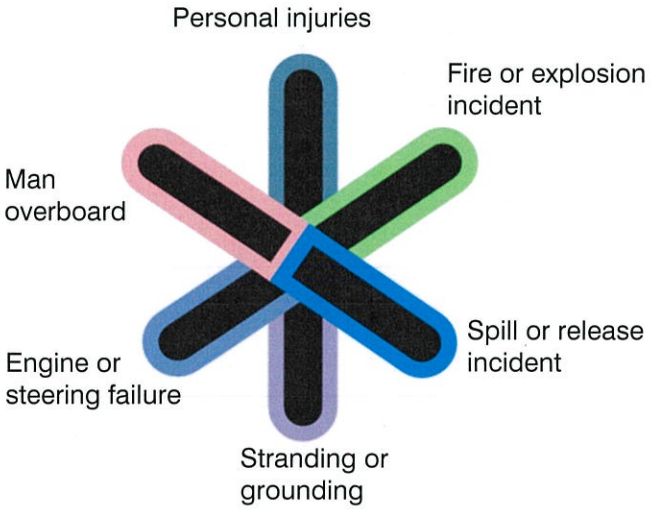
- Cover offset monitoring, bathymetry survey and public complaint monitoring

ITEM		PARAMETER	SAMPLING FREQUENCY
Performance Monitoring	Daily turbidity and TSS monitoring (online)	TSS and turbidity	Real-time monitoring
Compliance Monitoring	Water quality	Temperature, salinity, pH, conductivity, turbidity, DO, BOD, TOC, TSS, oil & grease, AN, phosphate, nitrate, heavy metals, faecal coliform and *E.coli*	Monthly
	Sediment quality	Zinc, nickel, copper, chromium, lead, arsenic, cadmium, mercury & aluminium	Quarterly
	Air quality	PM_{10}, $PM_{2.5}$, SO_2, NO_2, O_3 and CO	Quarterly
	Noise and vibration	L_{min}, L_{max}, L_{10}, L_{90}, L_{eq} (24 hours profile) Vibration levels	Quarterly
	Dredging and Disposal Management System (DDMS)	To track the movement of hopper barge from the dredging area to the disposal site off Muka Head	Real time monitoring
Impact Monitoring	Offset monitoring	To monitor whether proposed offset programmes in **Chapter 8** are conducted correctly and are successful	Bi-annually (mangroves and artificial reefs)
			Coral reefs: ■ Quarterly during dredging and reclamation phase ■ Upon completion, continued monitoring for at least another two quarters
	Biological monitoring	To measure primary and secondary productivity of the area. The parameters are the density and diversity of phytoplankton, zooplankton, macrobenthos and fish	■ Quarterly during dredging and reclamation phase ■ Upon completion, continued monitoring for at least another two quarters
	Fisheries and aquaculture monitoring	Continuous consultation with the local fishermen and aquaculture operators (hatcheries and cage cultures) on any deleterious effect or losses	■ Quarterly during dredging and reclamation phase ■ Upon completion, continued monitoring for at least another two quarters
	Public complaint monitoring	Complaints from the public can be made at PPSN set up by the Project Proponent	-
Environmental Audits		To audit the compliances with the EIA approval conditions and the relevant environmental regulations and guidelines	Every 4 months

CHAPTER 9

EMERGENCY RESPONSE PLAN (ERP)

On-site emergency plans will be prepared to protect personnel and the public in terms of health, safety and environment in any case of an accident or natural disaster affecting or relating to the Project.



CHAPTER 10

STUDY FINDINGS

From the overall assessment, it can be concluded that:

The proposed development is expected to cause various degree of impacts on the environment, social as well as the surrounding land use

The State Government has shown commitment and has already implemented some of the mitigating measures proposed so that this development will be beneficial to both the local communities and the Penang State