

Sewerage Works Approval Transformation (SWAT): Imple

The Sewerage Works Approval Transformation (SWAT) is a long term strategic plan by the National Water Service Commission (SPAN) to establish a transparent, uniform, practical and enforceable sewerage work approval procedure in accordance with the provisions of the Water Services Industry Act (WSIA) 2006. The following objectives have been identified as the fundamental of the SWAT Framework:

- Streamlining application process to ensure effectiveness, efficiency and relevance;
- Reduce documentation and expedite processing time;
- More accountability on developer, consultant and contractor; and
- Declaration by professional.

The proposed framework for this initiative emphasises on the concept of self-regulation and developing smart technical regulations and requirements based on different levels of risk. The degree of risk varies in association with the types of infrastructure and work involved.

List of Works	PUBLIC						PRIVATE							
	SEWERAGE INFRASTRUCTURE													
	Connection	Sewer	Pumping stations	Sewage Treatment Plant	Small Sewage Treatment Plant	Sludge Treatment	Inspection chambers, Individual/ common piping, Connection	Sewer	Pumping station	Sewage Treatment Plant	Small Sewage Treatment Plant	Sludge Treatment	Pre-treatment	Septic tanks
Construction	1	2	5	5	1	5	1	2	3	3	1	3	3	1
Alteration	1	2	5	4	1	4	1	2	3	3	1	3	3	1
Disconnection	1	2	4	3	1	NA	1	2	3	3	1	NA	2	1
Close Up	1	2	3	3	1	3	1	2	3	3	1	3	2	1

Note: Risk Scoring (at scale of 1 to 5)

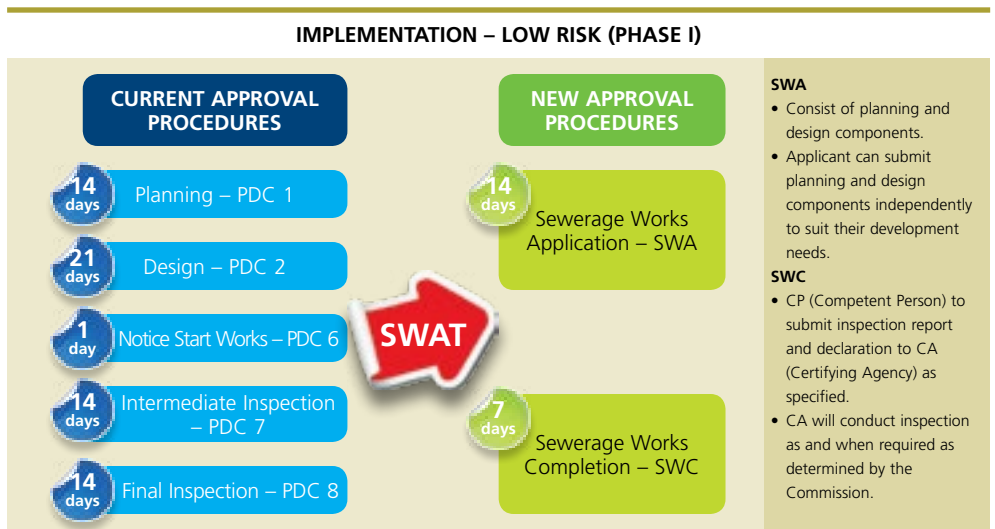
1 Least Risk:	Very low risk, confined and localised harm/threat
2 Slight risk:	Low impact, limited spread of harm/threat
3 Moderate risk:	Reasonably impactful, harm/threat extended
4 High risk:	High impact, wide spread harm/threat
5 Very high risk:	Very high impact, with spread harm/threat and difficult to manage

Scoring	Risk Category	Proposed Implementation
1 Least Risk	Low	Phase 1
2 Slight risk		Phase 2
3 Moderate risk	Medium	Phase 3
4 High risk	High	Phase 4
5 Very high risk		Phase 5

The risk matrix was developed based on different types of system and work of sewerage infrastructures. As such, a new process model was fine-tuned and implemented strategically in phases starting with the Low Risk category which brought about the implementation of SWAT Phase 1.

SWAT Phase I

The new approval procedure was implemented in April 2014 with sewerage infrastructures that are categorised under low risk namely Septic Tank, Single Connection and Small Sewerage Treatment System. SPAN also published the Malaysian Sewerage Guideline Volume II: Sewerage Works Approval Procedure (Special Edition 2014 Low Risk) to provide guidance on matters stipulated in the Rules such as forms, supporting documents, processing time, payment procedure, bank guarantee amount as well as other scope and criteria. The following illustration shows the current approval procedure as well as the newly improved mechanism using SWAT:



Implementation of Phase I and II

SWAT Phase II

As SWAT Phase I continues to be implemented on a voluntary basis (more than 50% of applications for sewerage works approval are already using the SWAT mechanism), Phase II has been proposed to be implemented concurrently. The following table shows a summary of SWAT Phase II procedure requirements:

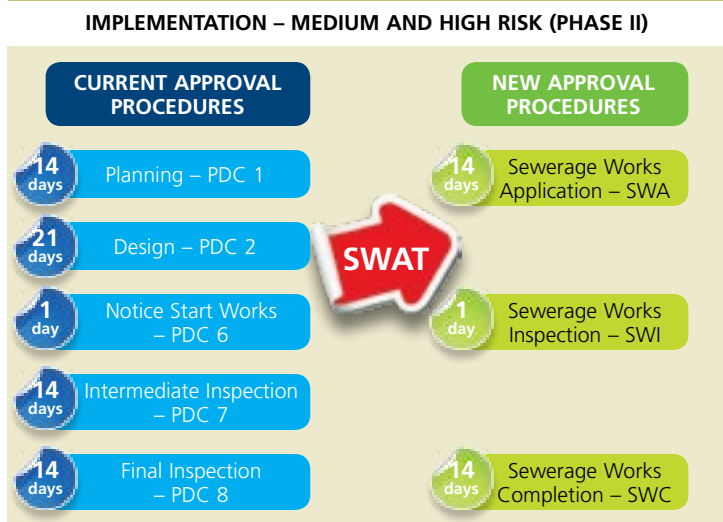
SWAT PHASE II (PROCEDURE)		SEWERAGE INFRASTRUCTURE STATUS							
		PUBLIC				PRIVATE			
		NPS		NWS		STP	NPS	NWS	
STP	<10K PE	≥10K PE	<400mm diagram	≥400mm diagram					
SWA	Planning checked by CA	✓	✓	✓	✓	✓	✓	✓	✓
	Design	Checked by CA	✓			✓		✓	
		Declared by CP		✓		✓		✓	✓
SWI	Inspected & declared by CP	✓	✓	✓	✓	✓	✓	✓	✓
SWC	T&C by CA & OPS	✓	✓	✓	✓	✓			
	T&C declared by CP						✓	✓	✓

Notes:

- a) For public STP in compliance with TS approval and endorsed by the Commission, design declaration by CP for SWA is sufficient.
- b) The Commission or any person authorised by the Commission may inspect the sewerage works at any time deemed necessary by the Commission.

SWI	STP – Sewerage Treatment Plant	OPS – Operation Unit
• CP to submit inspection report and declaration to CA as specified.	NPS – Network Pumping Station	TS – Technical Specification
• CA will conduct inspection as and when required as determined by the Commission.	NWS – Network Sewer	PE – Population Equivalent

The following illustration shows the current approval procedure for medium and high risk sewerage infrastructure as well as the proposed mechanism using SWAT:



Way Forward

SPAN is currently engaging other stakeholders through public consultation on SWAT Phase II implementation to gain feedback as well as address issues of concern such as safety, non-compliance, lack of enforcement and other related matters.

With the on-going consultation, SPAN has taken several actions to improve its SWAT'S efficiency by developing and implementing technical specifications and standards, streamlining the Sewerage Capital Contribution (SCC) collection mechanism, developing sewerage infrastructure selection criteria as well as restructuring skills and competency for water service sector.

To ensure that SWAT is properly and smoothly implemented, SPAN will continue to engage stakeholders through its many initiatives with constant improvement on its online system that will regulate the water services industry more effectively and transparently under WSIA Act 2006.



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