



SMHB

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TYPICAL REHABILITATION AND UPGRADING PROJECTS UNDERTAKEN BY SMHB AND ASSOCIATED FIRMS

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Scheme	Description	Completion Year
1. Sarawak Water Supply Grid Program – Improvement of Water Supply System in Betong Division: Package 4 Upgrading of Lubau Water Treatment Plant	<ul style="list-style-type: none"> Intake Works (for ultimate demand of 64 Mld in which 32 Mld is for Module 1 Lubau WTP and the remaining 32 Mld for Module 2 Lubau WTP). Raw Water Pipelines (There will be two (2) designated raw water pipelines provided for conveying raw water to Module 1 Lubau WTP and Module 2 Lubau WTP. For both modules, a single DN 1000mm diameter pipeline of approximately 100m will be laid from the raw water pumping station up to the entrance gate of Intake Works. From the entrance gate of Intake Works, Module 1 and Module 2 will have a separate DN 700 mm diameter pipeline of approximately 500m long to the proposed aerators at the WTP. For Module 1 works, only one (1) pipeline will be laid). Water Treatment Plant (32 Mld). Treated water Pipelines (two (2) designated raw water pipelines provided for conveying treated water from Module 1 Lubau WTP and Module 2 Lubau WTP to the proposed Balancing Reservoir. From Treated Water Pumping Station, Module 1 and Module 2 will have a separate DN 700 mm diameter pipeline of approximately 1,000m long to the proposed Balancing Reservoir. For Module 1 works, only one (1) pipeline will be laid). Balancing Reservoir (Two rectangular reinforced concrete reservoirs with a capacity of about 23 ML (18 hours storage) each will be constructed under Module 1 and Module 2 respectively). 	Ongoing
2. Projek Menaiktaraf Loji Rawatan Air Pelubang, Kedah	<ul style="list-style-type: none"> Intake and raw water pumping station Raw water mains (1200 mm diameter, 300 m long) Water treatment plant upgrading (from 227 Mld to 407 Mld) Distribution works (about 50 km of pipeline of 900mm and 1300 mm diameter and 3 ML reservoir at Alor Janggus 	Ongoing

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3. Upgrading of Sg. Selangor Scheme Phase 1, Selangor	Restoring the Sg. Selangor Scheme Phase 1 to its original design capacity of 950 Mld.	2013
4. Thermal Ice Storage Tank Leak at GDC Plant 1, Putrajaya	Review of storage tank's structural design and contractor's proposed rectification works, identify alternative solutions.	2012
5. Rehabilitation of Sg. Semenyih Reservoir Soffit, Selangor	Refurbishment works to the Balancing Reservoirs No. 1 and 2 at Sg. Semenyih Water Treatment Plant.	2011
6. Slope Stabilisation for Kota Tampan Archaeological Site, Perak	Slope stabilisation work to protect existing museum. Remedial works include 70 m length concrete retaining wall constructed using bore piles to form a contiguous wall, and soil nails installed every 1.5 to 2 m to tie the wall to the ground.	2011
7. Rehabilitation of Treatment Plants and Reticulation, Kedah	Upgrading and refurbishment of Bikan, Jeneri and Jenun water treatment plants.	2008
8. Sg. Terip Augmentation Works, Negeri Sembilan	Increasing the total reliable yield of Talang, Kelinchi and Terip reservoirs to at least 315 Mld to meet the design capacity of the Sg. Terip water treatment Plant.	2005
9. Endau Water Treatment Plant, Johor	Upgrading of raw water pumping for Endau water treatment plant.	2005
10. Sungai Semenyih Water Treatment Plant, Selangor.	Due diligence audit, feasibility study and design for the Rehabilitation and Upgrading Works of the Sungai Semanyih plant.	2006
11. Sungai Lolo and Sungai Sireh Plants, Selangor	Due diligence technical audit and upgrading of Sungai Lolo and Sungai Sireh water treatment plants.	2005
12. Hai Hua Water Supply Project, China	Technical audit of Hai Hua water supply project in Shandong Province.	2005
13. Qiongsan Water Treatment Plant, Hainan Island, China.	Pre-investment technical due diligence study to restore plant capacity from 24 Mld presently to 200 Mld original design capacity.	2005
14. Water Supply at North-South Highway	Assessment and Upgrading of water supply system at the North-South Expressway for PLUS.	2003, 2004
15. Kuala Jelai Water Supply Scheme Phase 2, Negeri Sembilan.	Rehabilitation works to improve efficiency of the existing plant equipment.	2003
16. Chestnut Avenue Water Works, Singapore.	Upgrading of existing water distribution system.	2002
17. Malacca Bertam Estate Treatment Works Extension, Melaka.	Upgrading of plant from 145.5 Mld to 181.8 Mld	2001, 1993-1994
18. Bekok Water Treatment Plant, Johor	Water quality assessment at Sungai Bekok intake and storage lagoon.	2000
19. Improvement of Kedah Utara Water Distribution System.	Water distribution improvement involving 3 reservoirs and 73 km pipelines.	1998
20. Slope Protection at Route B5 Jalan Persekutuan, Kuala Kubu Baru, Selangor	Remedial works for 5 major collapsed slopes and dangerous areas along Jalan Persekutuan 155 (Kuala Kubu	1996-2000

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	Baru-The Gap). A total of 30 slopes were repaired.	
21. Rehabilitation and Upgrading Works of 26 Water Treatment Plants in Selangor under the Water Privatisation Scheme.	Review of engineering studies and detailed engineering design. Scope of works also includes Project Management services for rehabilitation works.	1994-1997
22. Upgrading of Johor Bahru Distribution System – Package 2, Johor.	Study, Design and Implementation works to upgrade the existing water supply system.	1994-1995
23. Distribution Study and Strategic Planning for Water Supply in the States of Selangor and Wilayah Persekutuan.	Distribution Studies.	1994-1995
24. Sungai Sayong Treatment Works, Johor.	Upgrading of treatment works from 13.64 Mld to 33.64 Mld.	1994-1995
25. Reconstruction of Road Embankment at Slope 176 of Ampang-Ulu Langat Road	Remedial works for a section of the Ampang-Ulu Langat Road over a 50 m deep ravine that collapsed towards the end of 1993.	1994
26. Rehabilitation and Upgrading of Water Supply Systems	Studies and Preliminary Engineering Design for the rehabilitation and upgrading of water treatment plants and distribution systems in two selected areas namely Kampar, Perak and Kuala Langat, Selangor.	1992-1993
27. Gunung Semanggol Water Treatment Plant.	Study, Design and Implementation to restore plant capacities to original.	1988
28. Kerian, Larut and Matang Districts Reticulation.	Distribution studies	1986
29. Sungai Linggi Treatment Plant, Rantau, Negeri Sembilan.	Upgrading of plant from 46 Mld to 77 Mld.	1983
30. Bukit Ubi Treatment Plant, Kuantan.	Upgrading of plant from 26 Mld to 36 Mld.	1980
31. Kg. Paloh Treatment Plant, Manjong, Perak.	Upgrading of plant from 23 Mld to 46 Mld.	1980
32. Kuala Lumpur Reticulation.	Distribution studies.	1970 and 1976