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MINISTRY OF THE ENVIRONMENT AND WATER RESOURCES

OVERVIEW

Mission Statement

To deliver and sustain a clean and healthy environment and water resources for all in Singapore.

FY2011 EXPENDITURE ESTIMATES

Expenditure Estimates by Object Class

Code	Object Class	Actual FY2009	Estimated FY2010	Revised FY2010	Estimated FY2011	Change over FY2010	
	TOTAL EXPENDITURE	\$979,299,334	\$1,090,874,200	\$1,145,960,600	\$1,137,994,900	-\$7,965,700	-0.7%
	Main Estimates						
	OPERATING EXPENDITURE	\$656,190,172	\$769,773,400	\$731,696,800	\$727,030,500	-\$4,666,300	-0.6%
	<i>RUNNING COSTS</i>	<i>\$652,150,878</i>	<i>\$764,385,000</i>	<i>\$726,670,200</i>	<i>\$721,736,900</i>	<i>-\$4,933,300</i>	<i>-0.7%</i>
	Expenditure on Manpower	\$13,779,829	\$15,197,200	\$16,768,900	\$16,915,000	\$146,100	0.9%
1200	Political Appointments	1,281,234	1,523,700	2,345,400	1,874,100	-471,300	-20.1
1500	Permanent Staff	12,484,083	13,673,500	14,423,500	15,040,900	617,400	4.3
1600	Temporary, Daily-Rated & Other Staff	14,512	0	0	0	0	0.0
	Other Operating Expenditure	\$29,435,666	\$56,918,000	\$31,704,300	\$29,251,700	-\$2,452,600	-7.7%
2100	Consumption of Products & Services	27,889,661	53,009,700	28,707,100	25,887,500	-2,819,600	-9.8
2300	Manpower Development	295,537	1,455,900	1,256,600	1,369,300	112,700	9.0
2400	International & Public Relations, Public Communications	1,215,082	2,382,400	1,685,700	1,951,400	265,700	15.8
2700	Asset Acquisition	34,288	70,000	54,900	43,500	-11,400	-20.8
2800	Miscellaneous	1,098	0	0	0	0	0.0
	Grants, Subventions & Capital Injections to Organisations	\$608,935,383	\$692,269,800	\$678,197,000	\$675,570,200	-\$2,626,800	-0.4%
3100	Grants, Subventions & Capital Injections to Statutory Boards	608,935,383	692,269,800	678,197,000	675,570,200	-2,626,800	-0.4
	<i>TRANSFERS</i>	<i>\$4,039,293</i>	<i>\$5,388,400</i>	<i>\$5,026,600</i>	<i>\$5,293,600</i>	<i>\$267,000</i>	<i>5.3%</i>
3800	International Organisations & Overseas Development Assistance	4,039,293	5,388,400	5,026,600	5,293,600	267,000	5.3

Code	Object Class	Actual FY2009	Estimated FY2010	Revised FY2010	Estimated FY2011	Change over FY2010
	Development Estimates					
	DEVELOPMENT EXPENDITURE	\$323,109,162	\$321,100,800	\$414,263,800	\$410,964,400	-\$3,299,400
5100	Government Development	321,594,586	313,931,600	411,042,000	408,591,500	-2,450,500
5200	Grants & Capital Injections to Organisations	1,514,576	7,169,200	3,221,800	2,372,900	-848,900

Establishment List

Category/Personnel	Actual FY2009	Estimated FY2010	Revised FY2010	Estimated FY2011
POLITICAL APPOINTMENTS	2	2	2	2
Minister	1	1	1	1
Parliamentary Secretary	1	1	1	1
PERMANENT STAFF	104	115	115	115
Accounting Profession (2008)	1	1	1	1
Administrative	8	8	8	8
Corporate Support	23	25	25	22
Information Service (2008)	2	2	2	2
Management Executive Scheme (2008)	60	66	66	70
Management Support Scheme (2008)	3	3	3	6
Operations Support	3	4	4	3
Shorthand Writers	4	6	6	3
OTHERS	3,590	3,969	3,929	3,969
National Environment Agency	3,316	3,680	3,695	3,735
Public Utilities Board	274	289	234	234
TOTAL	3,696	4,086	4,046	4,086

FY2010 BUDGET

The Ministry of the Environment and Water Resources (MEWR)'s revised FY2010 total expenditure is \$1.15 billion. This is an increase of \$166.66 million or 17.0% higher than the actual FY2009 expenditure. Of the total expenditure, \$731.70 million or 63.9% is for operating expenditure and \$414.26 million or 36.1% is for development expenditure.

Operating Expenditure

The revised FY2010 operating expenditure of \$731.70 million is \$75.51 million or 11.5% higher than the actual FY2009 sum of \$656.19 million. This increase is largely due to higher expenditure for increased operating cost and expanded work scope in environmental services.

Development Expenditure

The revised FY2010 development expenditure of \$414.26 million is \$91.15 million or 28.2% higher than the actual FY2009 sum of \$323.11 million. The increase is mainly due to payments for works carried out on Changi Water Reclamation Plant (CWRP) under the Deep Tunnel Sewerage System (DTSS) project.

FY2011 BUDGET

The total expenditure of MEWR in FY2011 is projected to be \$1.14 billion, a decrease of \$7.97 million or 0.7% below the revised FY2010 expenditure. Of the total expenditure, \$727.03 million or 63.9% is for operating expenditure and \$410.96 million or 36.1% is for development expenditure.

Operating Expenditure

The provision of \$727.03 million for operating expenditure represents a decrease of \$4.67 million or 0.6% below the revised FY2010 expenditure. Out of the total operating expenditure, \$721.74 million or 99.3% is for running costs and \$5.29 million or 0.7% is for transfers.

The major share of the operating budget, \$476.46 million (65.5%) will go towards the National Environment Agency Programme. This is followed by the Public Utilities Board Programme which will take up \$200.43 million (27.6%) and the Administration Programme with \$50.14 million (6.9%).

National Environment Agency Programme

The National Environment Agency (NEA) aims to promote and maintain a sustainable clean and healthy environment for Singapore.

For FY2011, the NEA is allocated an operating grant of \$476.46 million. This grant is mainly for the implementation of key programmes to ensure that Singapore continues to have clean air, clean land, clean water and a high standard of public health.

Working in partnership with the people, private and public (3P) sectors, the NEA will continue to take the leading role in promoting energy efficiency in the households, transport, building, industry and power generation sectors, and the use of cleaner energy technologies. NEA will also continue to place emphasis on promoting waste minimisation and recycling and ensure the efficient disposal of waste at incineration plants and landfill facility.

NEA will keep public areas free of litter and ensure a high standard of environmental public health. Vector and food-borne diseases will be kept under control through comprehensive ground surveillance and appropriate preventive measures as well as enhanced vector research.

Public Utilities Board Programme

The Public Utilities Board (PUB) aims to secure an efficient, adequate and sustainable supply of water. For FY2011, PUB is allocated an operating grant of \$200.43 million mainly for drainage operations, ABC Waters maintenance and water infrastructure projects such as the Serangoon and Punggol Reservoir Schemes.

Development Expenditure

Development expenditure in FY2011 is expected to be \$410.96 million, a decrease of \$3.30 million or 0.8% below the revised FY2010 figure of \$414.26 million.

The major projects to be funded in FY2011 are Rehabilitation of Sewerage Network System Phase 4 (\$70.80 million), Sewer Schemes to Serve Marina South, Pasir Ris/Tampines Areas and Phase out Nee Soon Pumping Station (\$31.22 million), Improvement to Geylang River Phase 1 from Dunman Road to Guillemard Road (\$21 million), Road Raising at Orchard Road (\$20.60 million), Improvement to Old Roadside Drains [FY10-FY14] (\$20 million), and Improvement to Bukit Timah First Diversion Canal (\$10 million).

Total Expenditure by Programme

Code	Programme	Running Costs	Transfers	Operating Expenditure	Development Expenditure	Total Expenditure
LA	Administration	46,166,700	3,972,200	50,138,900	2,333,200	52,472,100
LG	Public Utilities Board	200,430,700	0	200,430,700	390,577,200	591,007,900
LH	National Environment Agency	475,139,500	1,321,400	476,460,900	18,054,000	494,514,900
Total		\$721,736,900	\$5,293,600	\$727,030,500	\$410,964,400	\$1,137,994,900

Development Expenditure by Project

Project Title	Total Project Cost	Actual Expenditure up to end of FY2008	Actual FY2009	Estimated FY2010	Revised FY2010	Estimated FY2011
DEVELOPMENT EXPENDITURE	...	...	\$323,109,162	\$321,100,800	\$414,263,800	\$410,964,400
<i>GOVERNMENT DEVELOPMENT</i>	...	...	<i>321,594,586</i>	<i>313,931,600</i>	<i>411,042,000</i>	<i>408,591,500</i>
Administration Programme						
Minor Development Projects	...	...	51,913	2,970,600	1,548,700	2,333,200
Public Utilities Board Programme						
Inspection and Rehabilitation of Pumping Mains	49,000,000	34,227,444	2,943,724	3,660,000	3,660,000	615,000
Improvement to Bukit Timah First Diversion Canal	177,600,000	3,283,298	15,362	1,000,000	1,000,000	10,000,000
Improvement to Outlet Drain from Sin Ming Road to Braddell Road	9,559,000	3,026,841	0	0	0	6,000,000
Improvement to Tanglin Halt Outlet Drain	47,000,000	16,011,120	14,895,236	9,000,000	9,000,000	2,000,000
Upgrading of Pumping Installations	16,000,000	8,329,363	0	0	10,000	1,000,000
Extension of Sewerage Reticulation System to Serve Tengah Airbase Area	5,700,000	116,852	2,377,000	1,890,000	1,890,000	500,000
Construction of a Barrage Across Marina Channel	270,000,000	245,235,236	14,483,455	8,100,000	8,100,000	1,000,000
Improvement to Old Roadside Drains in Batch 3 of the Estate Upgrading Programme	26,900,000	18,962,348	1,559,686	50,000	500,000	500,000
Relief Sewers for MacPherson Area	4,800,000	2,056,340	104,413	1,000	266,000	1,000
Relief Sewers within Marina Reservoir Catchment	8,000,000	3,145,187	1,051,016	1,000	561,000	1,000
Rehabilitation of Sewers Phase 3	153,000,000	99,330,506	21,282,502	6,000,000	12,000,000	7,000,000
Rehabilitation of Sanitary Drain-Lines in Marina Reservoir Catchment	42,200,000	30,500,706	5,061,969	4,000,000	2,800,000	1,600,000
Phasing Out of Sewage Treatment Plants in Seletar Air Base	12,500,000	4,130,191	727,310	65,000	1,000	10,000
Improvement to Old Roadside Drains 5-Year Programme FY2006-FY2010	150,000,000	61,277,593	40,764,099	10,000,000	18,000,000	5,000,000
New Projects	...	...	0	11,550,000	1,000,000	7,350,000
Active, Beautiful And Clean Waters Programme	101,980,000	9,912,084	31,794,822	23,920,000	33,920,000	11,530,000
Demolition of Pumping Stations at Tuas and Loyang Avenue	4,500,000	473,740	1,006,466	1,516,000	1,516,000	430,000
Improvement to Geylang River Phase 1 - From Dunman Road to Guillemard Road	29,700,000	18,682	149,907	4,000,000	4,000,000	21,000,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2008	Actual FY2009	Estimated FY2010	Revised FY2010	Estimated FY2011
Consultancy Services for Marina Reservoir Predictive Water Quality Modeling and Study	5,670,600	1,782,991	544,730	1,919,400	0	152,000
Enhancement and Upgrading of Used Water Pumping Installations	11,400,000	2,564,811	1,593,237	4,060,000	4,060,000	2,600,000
Sewer Schemes to serve Marina South & Pasir Ris/Tampines Areas & Phase out Nee Soon Pumping Station	199,000,000	3,616,250	20,449,306	30,970,000	30,970,000	31,215,000
Improvement to Three Outlet Drains in the Western Part of Singapore	33,000,000	793,373	15,158,419	9,000,000	9,000,000	5,000,000
Sewer Extension for North Coast Wafer Fabrication Park Area	24,500,000	787,405	10,837,531	5,212,000	5,212,000	215,000
Improvement to Old Roadside Drains in Batch 5 of Estate Upgrading Programme FY2008-FY2012	87,200,000	3,499,723	33,112,853	20,000,000	20,000,000	8,000,000
Improvement to Sungei Kallang Between Upper Thomson Road and Bishan Road	49,700,000	0	4,989,895	22,000,000	22,000,000	19,000,000
Improvement to 3 Outlet Drains in Eastern Singapore	24,200,000	28,620	2,418,452	5,000,000	5,000,000	5,000,000
Improvement to 4 Outlet Drains in Central Singapore	30,200,000	52,036	239,079	14,000,000	4,500,000	10,000,000
Improvement to Geylang River Phase 2	36,000,000	0	0	1,000,000	100,000	1,000,000
Rehabilitation of Sewerage Network System Phase 4	395,000,000	469,755	46,934,851	68,000,000	70,473,800	70,800,000
Relief & Replacement Sewers for Jalan Senang, Siglap and Jalan Leban Areas	4,500,000	0	422,555	0	700,000	1,690,000
Sewer Extension to Phase Out Sewage Treatment Plants Phase 1	29,000,000	142,587	3,435,770	5,210,000	5,210,000	5,400,000
Marina East Drainage Scheme Phase 1	3,500,000	0	0	1,500,000	0	1,000,000
Remote Monitoring of Used Water Network System to Enhance Pipeline Integrity and Operational Reliability	5,000,000	0	0	3,000,000	2,000,000	2,500,000
Remote VOC Monitoring System for Trade Effluent Surveillance	2,625,000	0	0	1,500,000	26,200	1,973,800
Minor Development Projects	...	...	558,026	0	1,013,000	500,000
Improvement to Drains at Benoi Sector Area	8,400,000	0	0	500,000	500,000	5,000,000
Relief Sewers at Keng Lee Road, Hougang Ave 6 Areas and Mandai Estate	4,450,000	0	94,725	1,000,000	880,000	1,980,000
Improvement to Rochor Canal (between Jalan Besar and Crawford Street)	42,000,000	0	36,053	600,000	600,000	15,800,000
Sewer Extensions to Phase out Sewage Treatment Plants Phase 2	47,800,000	0	301,796	2,500,000	2,030,000	10,630,000
Improvement to Drains in Syed Alwi Road Area	27,200,000	0	0	500,000	500,000	9,100,000
Relief Sewers at Lavender Street Area, Serangoon Central Area and Kaki Bukit Area	31,500,000	0	0	2,500,000	600,000	8,550,000
Renewal and Relocation of Central Monitoring System for Water Reclamation Network	7,900,000	0	0	3,800,000	1,000,000	3,400,000
Sewerage Improvement at Jalan Terusan Area	14,000,000	0	0	0	200,000	3,000,000
Sewerage Devt at Jurong Eastern Catchment & Jurong Lake District	230,000,000	0	0	0	2,000,000	8,000,000
Improvement to Roadside Drains in Batch 6 of the Estate Upgrading Programme	80,000,000	0	0	0	100,000	15,000,000
Improvement to Old Roadside Drains 5 Year Programme (FY2010-FY2014)	303,800,000	0	0	0	100,000	20,000,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2008	Actual FY2009	Estimated FY2010	Revised FY2010	Estimated FY2011
Rehabilitation of sanitary drains-lines Punggol Serangoon Reservoir Catchment	28,400,000	0	0	0	1,500,000	8,100,000
Expansion of Sewerage Network in International Road and Telok Blangah Road Area	31,900,000	0	0	0	200,000	1,000,000
Road Raising at Orchard Road	28,600,000	0	0	0	8,000,000	20,600,000
Expansion of Sewerage Network in Geylang ,Jalan Wangi,Woodlands Industrial Park	16,123,800	0	0	0	50,000	500,000
Consultancy Services for Detailed Study and Conceptual Design of Drainage	1,470,000	0	0	0	0	870,000
Sewerage Works for Additional Reclamation off Tuas Hockey Stick	80,000,000	40,606,209	1,584,389	105,000	105,000	5,000
Deep Tunnel Sewerage System Phase 1	3,274,000,000	3,178,013,260	10,427,122	362,000	100,191,500	3,459,400
5-Year Sewerage Programme FY1994-FY1998	2,354,339,000	2,133,578,006	1,187,089	5,161,000	5,160,000	4,000,000
5-Year Drainage Programme FY1994-FY1998	934,555,000	696,300,635	296,909	0	1,000,000	10,000,000
National Environment Agency Programme						
New Projects	...	...	0	6,000,000	0	15,500,000
Consultancy Services for the Development of Semakau Landfill Phase 2	8,000,000	0	0	1,400,000	162,000	181,100
Completed Projects	...	...	28,702,920	9,408,600	6,125,800	0
<i>GRANTS & CAPITAL INJECTIONS TO ORGANISATIONS</i>	...	...	<i>1,514,576</i>	<i>7,169,200</i>	<i>3,221,800</i>	<i>2,372,900</i>
National Environment Agency Programme						
Innovation For Environmental Sustainability (IES) Fund	0	8,357,472	1,510,373	1,943,300	2,140,900	381,500
Grant for Energy Efficient Technologies	22,000,000	0	0	1,425,900	595,000	775,400
Environment Technology Research Programme	15,000,000	0	0	3,800,000	485,900	1,216,000
Completed Projects	...	...	4,202	0	0	0

KEY PERFORMANCE INDICATORS

Desired Outcomes

- Clean & healthy environment
- Access to clean water
- Good environmental & water infrastructure & services
- Shared environmental ownership
- Long term resource sustainability
- Singapore's environment and water strategic and economic interests safeguarded

Key Performance Indicators

Desired Outcome	Performance Indicator	Actual FY2008	Actual FY2009	Revised FY2010	Estimated FY2011
Clean & healthy environment	% of days in a year where PSI is in the "Good" range ¹	96.0	91.0	93.2	> 85
	No. of air pollution incidents per million population ¹	3.1	2.3	2.0	< 8
	No. of water pollution incidents per million population ¹	3.1	2.3	1.6	< 8
	No. of local dengue (Dengue Fever and Dengue Haemorrhagic Fever) cases per 100,000 population ¹	137.0	83.9	120	<130
	No. of food outlet related food poisoning outbreaks per 1,000 food outlets ¹	3.5	5.4	6.2	< 3.9
Access to clean water	% of tests meeting WHO drinking water quality guidelines	100	100	100	100
	Access to improved drinking water sources (%) ²	100	100	100	100
Good environmental & water infrastructure & services	Total waste incinerated (mil tons/year) ¹	2.45	2.48	2.58	2.61
	Accuracy of 3-hourly Nowcast (%) ¹	86.4	89.8	89.0	90.0
	% of unaccounted for water	4.4	4.6	4.5	<5
	No. of leaks per 100km of potable water pipelines per year	7.1	7.1	5.4	6.2
	Size of flood prone area (ha)	80	66	58	48
	No. of sewerage service disruptions per 1,000 km of sewer maintained per month	19	17	15	18
	Access to improved sanitation ³	100	100	100	100
Shared environmental ownership	Per capita domestic water consumption (litres/day)	155.9	154.9	154.0	154.0
Long term resource sustainability	Energy Consumption per dollar GDP: Improvement from 2005 levels (%) ¹	19.7	11.1	11.1	11.1
	Recycling rate (%) ¹	56	57	57	58

¹ Data for this KPI is reported in calendar year basis.

² Includes piped water into premises, public tap/standpipe, borehole/tube well, protected dug well, etc.

³ Includes flush/pour flush toilets or latrines connected to a sewer, septic tank, etc.

Desired Outcome	Performance Indicator	Actual FY2009 / Revised FY 2010	Estimated FY2011
Singapore's environment and water strategic and economic interests safeguarded	Formulate policies and strategies to fulfill Singapore's obligations to international environmental agreements and conventions ⁴	Climate change negotiation (i) Actively participated as a member of the Singapore climate change negotiating team at all United Nations Framework Convention on Climate Change (UNFCCC) meetings. (ii) Supported MFA in bilateral engagements with key countries in the climate negotiations. (iii) Prepared country submissions to UNFCCC to put forward Singapore's views. Bilateral cooperation/FTA negotiations (i) Co-chaired the 2nd Biennial Review of the Memorandum of Intent (MOI) on Environmental Cooperation with USA in May 10 in USA.	Climate change negotiation (i) To continue with Singapore's constructive participation in the climate change negotiations. (ii) To continue with engagement in ASEAN by participation in the ASEAN Working Group on Climate Change (AWGCC). Bilateral cooperation/FTA negotiations (i) To participate and safeguard Singapore's interest in the on-going negotiations for the proposed European Union-Singapore Free Trade Agreement (EUSFTA) and Trans-Pacific Strategic Economic Partnership Agreement (TPP).
	Formulate policies and approaches to advance Singapore's environment and water strategic and economic interests ⁴	Haze (i) Successful completion of action programmes in Indonesia-Singapore collaboration in Jambi Province. (ii) Hosted the Sub-Regional Ministerial Steering Committee (MSC) in Aug 09 and the 5th Conference of Parties to the ASEAN Haze Agreement in Oct 09. (iii) Organised the inaugural MSC Forum in Oct 09. Bilateral cooperation/FTA negotiations (i) Organised the 22nd Malaysia-Singapore Annual Exchange of Visits in Apr 09. (ii) Co-chaired the 4th Brunei-Singapore Annual Exchange of Visits in Jan 10 in Brunei. (iii) Co-chaired the 4th Indonesia-Singapore Environmental Partnership Meeting in Apr 10 in Indonesia.	Haze (i) To organize the MSC Forum in 2011 as a platform for government and civil society participation in haze prevention collaboration. (ii) To maintain collaboration in Jambi Province, Indonesia. (iii) To explore collaboration to other provinces in Indonesia. Bilateral cooperation/FTA negotiations (i) To continue to reaffirm relations by the convening of bilateral meetings with Brunei, Indonesia and Malaysia under established platforms. (ii) To seek more Environment and Water economic space in the on-going negotiations for the proposed EUSFTA and TPP. (iii) To work with International Enterprise Singapore to organize a trade mission to an identified region.

⁴ Data for this KPI is reported in calendar year basis.