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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.

FY2010 EXPENDITURE ESTIMATES

Expenditure Estimates by Object Class

Code	Object Class	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010	Change over FY2009
	TOTAL EXPENDITURE	\$930,852,760	\$1,092,523,500	\$997,893,700	\$1,090,874,200	\$92,980,500 9.3%
	Main Estimates					
	OPERATING EXPENDITURE	\$605,830,366	\$747,965,500	\$671,424,900	\$769,773,400	\$98,348,500 14.6%
	<i>RUNNING COSTS</i>	<i>\$602,101,235</i>	<i>\$743,442,100</i>	<i>\$666,901,500</i>	<i>\$764,385,000</i>	<i>\$97,483,500 14.6%</i>
	Expenditure on Manpower	\$13,751,204	\$15,070,800	\$14,948,100	\$15,197,200	\$249,100 1.7%
1200	Political Appointments	1,320,778	1,604,500	1,275,000	1,523,700	248,700 19.5
1500	Permanent Staff	12,425,461	13,466,300	13,673,100	13,673,500	400 0.0
1600	Temporary, Daily-Rated & Other Manpower	4,965	0	0	0	0 0.0
	Other Operating Expenditure	\$13,019,781	\$13,486,800	\$40,483,100	\$56,918,000	\$16,434,900 40.6%
2100	Supplies & Services	11,142,884	8,417,600	36,743,400	53,009,700	16,266,300 44.3
2300	Manpower Development	238,556	1,422,200	1,336,200	1,455,900	119,700 9.0
2400	Public Relations & Exercises	1,591,231	3,396,000	2,220,500	2,382,400	161,900 7.3
2700	Equipment	47,111	251,000	183,000	70,000	-113,000 -61.7
	Operating Grant	\$575,330,249	\$714,884,500	\$611,470,300	\$692,269,800	\$80,799,500 13.2%
3100	Operating Grant to Statutory Boards	575,330,249	714,884,500	611,470,300	692,269,800	80,799,500 13.2
	<i>TRANSFERS</i>	<i>\$3,729,132</i>	<i>\$4,523,400</i>	<i>\$4,523,400</i>	<i>\$5,388,400</i>	<i>\$865,000 19.1%</i>
3600	Subventions	3,729,132	4,523,400	4,523,400	5,388,400	865,000 19.1

Expenditure Estimates by Object Class - continued

Code	Object Class	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010	Change over FY2009	
Development Estimates							
DEVELOPMENT EXPENDITURE		\$325,022,394	\$344,558,000	\$326,468,800	\$321,100,800	-\$5,368,000	-1.6%
5100	Direct Development	323,670,998	342,350,500	324,938,100	313,931,600	-11,006,500	-3.4
5200	Capital Grant	1,351,396	2,207,500	1,530,700	7,169,200	5,638,500	368.4
OTHER DEVELOPMENT FUND OUTLAYS		\$0	\$290,000,000	\$0	\$0	\$0	0.0%
5600	Loans	0	290,000,000	0	0	0	0.0
9100	Loan Repayments	3,646,667	3,646,700	3,646,700	3,646,700	0	0.0
	Net Lending	-3,646,667	286,353,300	-3,646,700	-3,646,700	0	0.0

Establishment List

Category/Personnel	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010
POLITICAL APPOINTMENTS	2	2	2	2
Minister	1	1	1	1
Parliamentary Secretary	1	1	1	1
PERMANENT STAFF	107	115	115	115
Accounting Profession (2008)	1	1	1	1
Administrative	7	8	8	8
Corporate Support	23	25	25	25
Information Service (2008)	2	2	2	2
Management Executive Scheme (2008)	64	66	66	66
Management Support Scheme (2008)	3	3	3	3
Operations Support	3	4	4	4
Shorthand Writers	4	6	6	6
OTHERS	3,602	3,846	3,857	3,969
National Environment Agency	3,313	3,557	3,568	3,680
Public Utilities Board	289	289	289	289
TOTAL	3,711	3,963	3,974	4,086

FY2009 BUDGET

The Ministry of the Environment and Water Resources (MEWR)'s revised FY2009 total expenditure is \$997.89 million. This is an increase of \$67.04 million or 7.2% higher than the actual FY2008 expenditure of \$930.85 million. Of the total expenditure, \$671.42 million or 67.3% is for operating expenditure and \$326.47 million or 32.7% is for development expenditure.

Operating Expenditure

The revised FY2009 operating expenditure of \$671.42 million is \$65.59 million or 10.8% higher than the actual FY2008 sum of \$605.83 million. This increase is largely due to higher expenditure for decommissioning and demolition of pumping stations and used water assets.

Development Expenditure

The revised FY2009 development expenditure of \$326.47 million is \$1.45 million or 0.4% higher than the actual FY2008 sum of \$325.02 million.

FY2010 BUDGET

The total expenditure of MEWR in FY2010 is projected to be \$1.09 billion, an increase of \$92.98 million or 9.3% higher than the revised FY2009 expenditure. Of the total expenditure, \$769.77 million or 70.6% is for operating expenditure and \$321.10 million or 29.4% is for development expenditure.

Operating Expenditure

The provision of \$769.77 million for operating expenditure represents an increase of \$98.35 million or 14.6% over the revised FY2009 expenditure. The increase is largely due to increase contractual commitments for environmental services. Out of the total operating expenditure, \$764.39 million or 99.3% is for running costs and \$5.39 million or 0.7% is for transfers.

The major share of the operating budget, \$516.62 million (67.1%) will go towards the National Environment Agency Programme. This is followed by the Public Utilities Board Programme which will take up \$176.97 million (23.0%) and the Administration Programme with \$76.18 million (9.9%).

National Environment Agency Programme

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

For FY2010, the NEA is allocated an operating grant of \$516.62 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 FY2010, PUB is allocated an operating grant of \$176.97 million mainly for drainage operations, ABC Waters maintenance and upcoming water infrastructure projects such as the Serangoon and Punggol Reservoir Schemes.

Development Expenditure

Development expenditure in FY2010 is expected to be \$321.10 million, a decrease of \$5.37 million or 1.6% over the revised FY2009 figure of \$326.47 million.

The major projects to be funded in FY2010 are Rehabilitation of Sewerage Network System Phase 4 (\$68 million), Sewer Schemes to Serve Marina South, Pasir Ris/Tampines Areas and Phase out Nee Soon Pumping Station (\$30.97 million) and ABC Water Project (\$22.47 million).

Total Expenditure by Programme

Code	Programme	Running Costs	Transfers	Operating Expenditure	Development Expenditure	Total Expenditure
LA	Administration	72,115,200	4,067,000	76,182,200	8,713,900	84,896,100
LG	Public Utilities Board	176,971,600	0	176,971,600	303,421,000	480,392,600
LH	National Environment Agency	515,298,200	1,321,400	516,619,600	8,965,900	525,585,500
Total		\$764,385,000	\$5,388,400	\$769,773,400	\$321,100,800	\$1,090,874,200

Development Expenditure by Project

Project Title	Total Project Cost	Actual Expenditure up to end of FY2007	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010
DEVELOPMENT EXPENDITURE	...	...	\$325,022,394	\$344,558,000	\$326,468,800	\$321,100,800
<i>DIRECT DEVELOPMENT</i>	...	...	<i>323,670,998</i>	<i>342,350,500</i>	<i>324,938,100</i>	<i>313,931,600</i>
Administration Programme						
Minor Development Projects	...	...	1,446,327	875,500	592,600	2,970,600
Public Utilities Board Programme						
Proposed Sewers to Serve New Developments in Changi	13,500,000	7,626,774	128,631	4,000	4,000	1,500
Inspection and Rehabilitation of Pumping Mains	49,000,000	31,450,892	2,776,552	5,000,000	3,750,000	3,660,000
Improvement to Bukit Timah First Diversion Canal	177,600,000	3,283,298	0	0	0	1,000,000
Improvement to Tanglin Halt Outlet Drain	47,000,000	13,091,168	2,919,952	12,500,000	10,505,000	9,000,000
Improvement to Drains Along Stage 2 of Circle Line	27,590,000	21,426,274	3,236,957	1,500,000	900,000	150,000
Extension of Sewerage Reticulation System to Serve Tengah Airbase Area	4,800,000	0	116,852	1,937,000	2,713,200	1,890,000
Construction of a Barrage Across Marina Channel	270,000,000	209,350,092	35,885,144	15,000,000	15,000,000	8,100,000

Development Expenditure by Project - continued

Project Title	Total Project Cost	Actual Expenditure up to end of FY2007	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010
Improvement to Old Roadside Drains in Batch 3 of the Estate Upgrading Programme	26,900,000	12,612,359	6,349,989	0	2,200,000	50,000
Relief Sewers for MacPherson Area	4,800,000	1,090,391	965,949	500,000	200,000	1,000
Relief Sewers within Marina Reservoir Catchment	8,000,000	1,541,853	1,603,333	700,000	998,000	1,000
Rehabilitation of Sewers Phase 3	153,000,000	33,185,937	66,144,570	12,700,000	12,258,000	6,000,000
Rehabilitation of Sanitary Drain-Lines in Marina Reservoir Catchment	68,000,000	14,038,822	16,461,884	4,000,000	3,911,000	4,000,000
Phasing Out of Sewage Treatment Plants in Seletar Air Base	12,500,000	1,734,363	2,395,829	600,000	494,000	65,000
Improvement to Old Roadside Drains 5-Year Programme FY2006-FY2010	150,000,000	9,266,158	52,011,435	35,000,000	42,830,000	10,000,000
Sewers to Divert Used Water from Kranji Water Reclamation Plant to the Deep Tunnel Sewerage System	10,100,000	5,267,476	2,238,164	151,000	151,000	2,100
Sewer Extension to Service Old Yio Chu Kang Road Areas	2,060,000	78,845	1,312,348	400,000	400,000	3,000
New Projects	...	...	0	10,505,000	1,300,000	11,550,000
Installation of Landfill Remediation System for Lorong Halus Landfill Site	35,000,000	4,448,767	16,508,557	10,000,000	10,000,000	4,000,000
Improvement to Joan Road Outlet Drain	20,000,000	6,490,001	11,781,754	600,000	670,000	100,000
Active, Beautiful And Clean Waters Programme	101,980,000	2,046,162	7,865,922	24,500,000	33,000,000	23,920,000
Improvement to Sungei Seletar Between Upper Thomson Road and Springleaf Avenue	8,100,000	1,190,988	3,447,066	70,000	600,000	12,000
Demolition of Pumping Stations at Tuas and Loyang Avenue	4,500,000	16,495	457,246	2,080,000	1,881,000	1,516,000
Improvement to Geylang River Phase 1 - From Dunman Road to Guillemard Road	29,700,000	0	18,682	2,000,000	600,000	4,000,000
Consultancy Services for Marina Reservoir Predictive Water Quality Modeling and Study	5,670,600	1,695,542	87,449	1,102,200	549,400	1,919,400
Enhancement and Upgrading of Used Water Pumping Installations	8,500,000	83,318	2,481,494	1,600,000	1,860,000	4,060,000
Sewer Schemes to serve Marina South & Pasir Ris/Tampines Areas & Phase out Nee Soon Pumping Station	199,000,000	154,833	3,461,418	35,000,000	17,537,000	30,970,000
Improvement to Three Outlet Drains in the Western Part of Singapore	33,000,000	0	793,373	10,000,000	15,466,000	9,000,000

Development Expenditure by Project - continued

Project Title	Total Project Cost	Actual Expenditure up to end of FY2007	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010
Improvement to Sungei Bedok Between Upper Changi Road East and Bedok Junction	34,700,000	0	0	5,000,000	900,000	5,000,000
Sewer Extension for North Coast Wafer Fabrication Park Area	24,500,000	0	787,405	10,000,000	10,000,000	5,212,000
Improvement to Old Roadside Drains in Batch 5 of Estate Upgrading Programme FY2008-FY2012	87,200,000	0	3,499,723	30,000,000	29,759,000	20,000,000
Improvement to Sungei Kallang Between Upper Thomson Road and Bishan Road	49,700,000	0	0	10,000,000	3,750,000	22,000,000
Improvement to 3 Outlet Drains in Eastern Singapore	24,200,000	0	28,620	4,000,000	3,709,000	5,000,000
Improvement to 4 Outlet Drains in Central Singapore	30,200,000	0	52,036	1,000,000	1,000,000	14,000,000
Improvement to Geylang River Phase 2	36,000,000	0	0	1,000,000	0	1,000,000
Rehabilitation of Sewerage Network System Phase 4	395,000,000	0	469,755	60,000,000	60,000,000	68,000,000
Sewer Extension to Phase Out Sewage Treatment Plants Phase 1	29,000,000	0	142,587	1,500,000	1,500,000	5,210,000
Marina East Drainage Scheme Phase 1	3,500,000	0	0	1,800,000	200,000	1,500,000
Remote Monitoring of Used Water Network System to Enhance Pipeline Integrity and Operational Reliability	5,000,000	0	0	0	245,000	3,000,000
Sewerage Works for Additional Reclamation off Tuas Hockey Stick	80,000,000	39,985,858	620,351	800,000	1,756,000	105,000
5-Year Sewerage Programme FY1994-FY1998	2,354,339,000	2,193,499,449	5,014,768	1,652,300	1,920,000	5,161,000
Deep Tunnel Sewerage System Phase 1	3,274,000,000	3,156,766,210	21,247,050	2,930,000	10,309,000	362,000
Improvement to Drains at Benoi Sector Area	8,400,000	0	0	0	60,000	500,000
Relief Sewers at Keng Lee Road, Hougang Ave 6 Areas and Mandai Estate	4,450,000	0	0	0	200,000	1,000,000
Improvement to Rochor Canal (between Jalan Besar and Crawford Street)	42,000,000	0	0	0	0	600,000
Sewer Extensions to Phase out Sewage Treatment Plants Phase 2	47,800,000	0	0	0	300,000	2,500,000
Improvement to Drains in Syed Alwi Road Area	17,000,000	0	0	0	50,000	500,000
Relief Sewers at Lavender Street Area, Serangoon Central Area and Kaki Bukit Area	31,500,000	0	0	0	200,000	2,500,000

Development Expenditure by Project - continued

Project Title	Total Project Cost	Actual Expenditure up to end of FY2007	Actual FY2008	Estimated FY2009	Revised FY2009	Estimated FY2010
Remote Volatile Organic Compounds Monitoring System for Trade Effluent Surveillance	2,625,000	0	0	0	750,000	1,500,000
Renewal and Relocation of Central Monitoring System for Water Reclamation Network	7,900,000	0	0	0	230,000	3,800,000
National Environment Agency Programme						
Minor Development Projects	...	...	152,128	0	1,779,000	140,000
New Projects	...	...	0	500,000	0	6,000,000
Consultancy Services for the Development of Semakau Landfill Phase 2	8,000,000	0	0	0	0	1,400,000
Completed Projects	...	...	48,759,699	23,843,500	15,950,900	0
<i>CAPITAL GRANTS</i>	...	...	<i>1,351,396</i>	<i>2,207,500</i>	<i>1,530,700</i>	<i>7,169,200</i>
Administration Programme						
Innovation For Environmental Sustainability (IES) Fund	...	...	1,259,118	2,207,500	1,508,600	1,943,300
Environment Technology Research Programme	15,000,000	0	0	0	0	3,800,000
National Environment Agency Programme						
Grant for Energy Efficient Technologies	22,000,000	0	0	0	17,800	1,425,900
Completed Projects	...	...	92,277	0	4,300	0

KEY PERFORMANCE INDICATORS

Desired Outcomes

- Contribution to economy growth
- Safe drinking water at affordable cost
- Good environmental and water infrastructure and services
- Ensure adequate and sustainable water supply
- Water conservation
- Clean and healthy environment

Key Performance Indicators

Desired Outcome	Performance Indicator	Actual FY2007	Actual FY2008	Revised FY2009	Estimated FY2010
Administration Programme					
Contribution to economic growth	Employment in the Water Industry (i)	8,950	8,500 (ii)	8,800	9,000
	Value-added contribution of the Water Industry to GDP (\$ million) (i)	823	830 (ii)	920	1,020
Public Utilities Board Programme					
Safe drinking water at affordable cost	% of tests meeting WHO drinking water quality guidelines	100	100	100	100
Good environmental and water infrastructure and services	No. of sewerage service disruptions per 1,000 km of sewer maintained per month	19.0	19.0	16.3	<20
	% of unaccounted for water	4.5	4.4	4.5	4.5
	Supply interruptions restored within 6 hours	97	99	96	97
	Size of flood prone area (ha)	98.0	80.0	77.3	56.0
Ensure adequate and sustainable water supply	Total domestic consumption of potable water (mil m ³)	266.4	272.9	271.3	274.5
	Total non-domestic consumption of potable water (mil m ³)	189.5	189.5	187.8	187.8
	Volume of NEWater sale (mil m ³)	56.9	77.0	72.4	95.0
	Volume of industrial water sale (mil m ³)	25.8	21.9	26.5	26.7
	Volume of used water treated (mil m ³)	528.0	516.1	564.2	530.7
Water conservation	Per capita domestic water consumption (litres/day)	156.7	155.9	155.0	154.0
National Environment Agency Programme					
Clean and healthy environment	% of days in a year where PSI is in the "Good" range	94.8	97.0	91.2	>85
	No. of air pollution incidents per million population	13.7	3.3	1.7	<15
	No. of water pollution incidents per million population	3.6	3.3	2.1	<10

(i) Data for this KPI is by calendar year.

(ii) The FY2008 figure is an estimate as there is a 2-year lag in data availability from Department of Statistics and EDB.

Key Performance Indicators - continued

Desired Outcome	Performance Indicator	Actual FY2007	Actual FY2008	Revised FY2009	Estimated FY2010
	Recycling rate (%)	54	56	56	57
	No. of local dengue (DF and DHF) cases per 100,000 population	180.6	131.8	100.0	<130
	No. of food outlet related food poisoning outbreaks per 1,000 food outlets	2.5	3.8	5.9	<5
	Energy Consumption per dollar GDP: Improvement from 2005 levels (%) (i)	8.4	17.1	17.1	17.1
Good environmental and water infrastructure and services	Total waste incinerated (mil tons/year)	2.38	2.45	2.48	2.52

(i) Data for this KPI is by calendar year.