

HEAD L

MINISTRY OF THE ENVIRONMENT AND WATER RESOURCES

OVERVIEW

Mission Statement

To ensure a clean, sustainable environment and water supply for Singapore.

FY2017 EXPENDITURE ESTIMATES

Expenditure Estimates by Object Class

Code	Object Class	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017	Change over FY2016	
	TOTAL EXPENDITURE	\$1,692,412,331	\$1,925,914,700	\$1,838,393,400	\$2,834,243,100	\$995,849,700	54.2%
	Main Estimates						
	OPERATING EXPENDITURE	\$1,125,090,022	\$1,221,826,400	\$1,200,494,000	\$1,284,472,100	\$83,978,100	7.0%
	<i>RUNNING COSTS</i>	\$1,110,265,314	\$1,206,075,000	\$1,185,270,600	\$1,278,861,200	\$93,590,600	7.9%
	Expenditure on Manpower	\$22,146,292	\$23,016,600	\$22,963,300	\$24,207,000	\$1,243,700	5.4%
1200	Political Appointments	981,425	940,000	1,283,100	1,122,300	-160,800	-12.5
1500	Permanent Staff	21,133,230	22,026,500	21,647,200	23,050,400	1,403,200	6.5
1600	Temporary, Daily-Rated & Other Staff	31,637	50,100	33,000	34,300	1,300	3.9
	Other Operating Expenditure	\$9,656,284	\$26,847,100	\$22,730,100	\$34,963,200	\$12,233,100	53.8%
2100	Consumption of Products & Services	7,254,412	24,323,700	19,929,900	32,309,400	12,379,500	62.1
2300	Manpower Development	711,422	922,100	939,700	841,000	-98,700	-10.5
2400	International & Public Relations, Public Communications	1,608,876	1,548,300	1,765,500	1,765,100	-400	0.0
2700	Asset Acquisition	81,575	53,000	95,000	47,700	-47,300	-49.8
	Grants, Subventions & Capital Injections to Organisations	\$1,078,462,738	\$1,156,211,300	\$1,139,577,200	\$1,219,691,000	\$80,113,800	7.0%
3100	Grants, Subventions & Capital Injections to Statutory Boards	1,078,462,738	1,156,211,300	1,139,577,200	1,219,691,000	80,113,800	7.0
	<i>TRANSFERS</i>	\$14,824,708	\$15,751,400	\$15,223,400	\$5,610,900	-\$9,612,500	-63.1%
3600	Transfers to Institutions & Organisations	9,629,493	9,766,900	9,879,700	229,200	-9,650,500	-97.7
3800	International Organisations & Overseas Development Assistance	5,195,215	5,984,500	5,343,700	5,381,700	38,000	0.7
	Development Estimates						
	DEVELOPMENT EXPENDITURE	\$567,322,308	\$704,088,300	\$637,899,400	\$1,549,771,000	\$911,871,600	142.9%
5100	Government Development	555,319,115	631,597,500	581,448,800	635,883,900	54,435,100	9.4
5200	Grants & Capital Injections to Organisations	12,003,194	72,490,800	56,450,600	913,887,100	857,436,500	n.a.

Code	Object Class	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017	Change over FY2016	
	OTHER DEVELOPMENT FUND OUTLAYS	\$0	\$0	\$0	\$9,865,100	\$9,865,100	n.a.
5500	Land-Related Expenditure	0	0	0	9,865,100	9,865,100	n.a.

Establishment List

Category/Personnel	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
POLITICAL APPOINTMENTS	2	2	2	2
Minister	1	1	1	1
Senior Minister of State	1	1	1	1
PERMANENT STAFF	143	149	146	148
Accounting Profession (2008)	1	1	3	3
Administrative	8	8	7	7
Corporate Support	6	6	0	0
Information Service (2008)	2	2	4	4
Management Executive Scheme (2008)	95	107	105	110
Management Support Scheme (2008)	27	21	23	20
Operations Support	3	3	3	3
Shorthand Writers	1	1	1	1
OTHERS	4,333	4,418	4,347	4,405
National Environment Agency	4,002	4,063	4,012	4,050
Public Utilities Board	331	355	335	355
TOTAL	4,478	4,569	4,495	4,555

FY2016 BUDGET

The Ministry of the Environment and Water Resources (MEWR)'s revised FY2016 total expenditure is \$1.84 billion. This is an increase of \$145.98 million or 8.63% higher than the actual FY2015 expenditure. Of the total expenditure, \$1.20 billion or 65.3% is for operating expenditure and \$637.90 million or 34.7% is for development expenditure.

Operating Expenditure

The revised FY2016 operating expenditure of \$1.20 billion is \$75.40 million or 6.7% higher than the actual FY2015 sum of \$1.13 billion. This increase is largely due to increased operating costs and expanded work scope in environmental services, and higher expenditure for potable water operations.

Development Expenditure

The revised FY2016 development expenditure of \$637.90 million is \$70.58 million or 12.4% higher than the actual FY2015 sum of \$567.32 million. This increase is largely due to higher expenditure for drainage and sewerage projects, and the provision of budget for NEA's Sinking Fund.

FY2017 BUDGET

The total expenditure of MEWR in FY2017 is projected to be \$2.83 billion, an increase of \$995.85 million or 54.2% above the revised FY2016 expenditure. Of the total expenditure, \$1.28 billion or 45.3% is for operating expenditure and \$1.55 billion or 54.7% is for development expenditure.

Operating Expenditure

The provision of \$1.28 billion for FY2017 operating expenditure represents an increase of \$83.98 million or 7.0% above the revised FY2016 expenditure. This is mainly due to higher operating grants to the Public Utilities Board (PUB) and National Environment Agency (NEA). Out of the total operating expenditure, \$1.28 billion or 99.6% is for running costs and \$5.61 million or 0.4% is for Transfers.

The major share of the operating budget, \$862.21 million (67.1%) will go towards the NEA Programme. This is followed by the Public Utilities Board (PUB) Programme which will take up \$358.81 million (27.9%) and the Administration Programme with \$63.46 million (5.0%).

National Environment Agency Programme

NEA aims to promote and sustain a clean and healthy living environment for Singapore. For FY2017, NEA is allocated an operating grant of \$862.21 million. This grant is mainly for the implementation of key programmes to ensure that Singapore continues to have high standards of public health, a clean and sustainable environment, timely and reliable meteorological services and to promote resource efficiency and conservation, in collaboration with NEA's partners and the community.

Public Utilities Board Programme

PUB aims to secure an efficient, adequate and sustainable supply of water. For FY2017, PUB is allocated an operating grant of \$358.81 million mainly for the operations and maintenance of drainage systems, the Active, Beautiful, Clean (ABC) Waters Programme and water infrastructure projects.

Development Expenditure

Development expenditure in FY2017 is expected to be \$1.55 billion, an increase of \$911.87 million or 142.9% above the revised FY2016 figure of \$637.90 million. The higher estimate is mainly to fund drainage, sewerage, care-for-the-dead, waste management projects, and the redevelopment of Mandai.

Major PUB drainage projects to be funded in FY2017 include the Proposed Diversion Canal and Detention Tank to Enhance Flood Protection of Stamford Canal (\$47.50mil), Improvement to Bukit Timah First Diversion Canal (\$45.26mil), Engineering Services and Construction for the Improvement of Bedok Canal (Between Upper Changi Road and Bedok Junction and between East Coast Parkway and the Sea) (\$35.30mil), Engineering Services and Construction for 5th Roadside Drains Improvement Programme (\$29.45mil) and Engineering Services and Construction for Improvements to Kallang River between Bishan Road and Braddell Road (\$25.55mil).

Major PUB used water projects to be funded in FY2017 include the Deep Tunnel Sewerage System Phase 2 – Construction Cost (\$41.21mil), Proposed Sewers in North Woodlands (\$32.16mil), Rehabilitation of Sewerage Network System Phase 4 (\$18.00mil), Proposed Expansion of Sewerage Networks in Sengkang and Punggol Areas (\$14.46mil) and Proposed Expansion of Sewerage Networks in Tagore Drive, Mandai Quarry Road and Lorong Lada Hitam Areas (\$9.68mil).

Major NEA projects to be funded in FY2017 include Construction of the Integrated Waste Management Facility (\$600.00mil), Design and Build Road Access for the Development of Integrated Waste Management Facility (\$27.00mil), Redevelopment of Choa Chu Kang Cemetery Phase 3 (\$18.40mil) and Development of New Hawker Centres (\$18.03mil).

Other Development Fund Outlays

A sum of \$9.87mil has been provided for land-related spending in FY2017. This is attributable to the development of sewerage networks in Changi East and NEA's exhumation project.

Total Expenditure by Programme

Code	Programme	Running Costs	Transfers	Operating Expenditure	Development Expenditure	Total Expenditure
LA	Administration	59,170,200	4,289,500	63,459,700	11,312,900	74,772,600
LG	Public Utilities Board	358,806,500	0	358,806,500	863,055,900	1,221,862,400
LH	National Environment Agency	860,884,500	1,321,400	862,205,900	675,402,200	1,537,608,100
	Total	\$1,278,861,200	\$5,610,900	\$1,284,472,100	\$1,549,771,000	\$2,834,243,100

Development Expenditure by Project

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
DEVELOPMENT EXPENDITURE	...	...	\$567,322,308	\$704,088,300	\$637,899,400	\$1,549,771,000
GOVERNMENT DEVELOPMENT	...	...	555,319,115	631,597,500	581,448,800	635,883,900
Administration Programme						
Repair and Refurbishment of ENV Building	20,790,200	0	0	0	2,556,000	10,091,100
Minor Development Projects	...	...	2,389,184	2,476,900	3,254,700	1,221,800
Public Utilities Board Programme						
Improvement to Bukit Timah First Diversion Canal	335,100,000	98,888,361	30,945,510	37,800,000	39,159,000	45,259,000
Improvement to Outlet Drain from Sin Ming Road to Braddell Road	26,089,000	20,397,164	288,547	0	0	95,000
Improvement to Tanglin Halt Outlet Drain	56,700,000	49,600,408	2,710,068	900,000	900,000	57,000
Upgrading of Pumping Installations	16,000,000	12,964,096	686,576	144,200	998,600	29,900
Relief Sewers for MacPherson Area	4,800,000	2,409,216	352	48,100	48,100	5,300
Relief Sewers within Marina Reservoir Catchment	8,000,000	4,929,617	0	96,100	86,100	247,000
Improvement to Old Roadside Drains 5-Year Programme FY2006-FY2010	138,000,000	132,909,615	649,837	45,000	300,000	475,000
New Projects	...	...	0	1,712,300	0	1,841,700
Active, Beautiful And Clean Waters Programme	101,980,000	89,428,674	209,605	1,005,200	1,116,900	480,500
Sewer Schemes to Serve Marina South and Pasir Ris/Tampines Areas and Phase Out Nee Soon Pumping Station	287,700,000	211,418,219	14,255,682	11,313,300	11,313,000	5,093,300
Improvement to 3 Outlet Drains in Eastern Singapore	24,200,000	15,334,033	2,674,835	504,000	2,700,000	95,000
Improvement to 4 Outlet Drains in Central Singapore	30,200,000	17,426,414	1,799,193	2,250,000	2,250,000	475,000
Rehabilitation of Sewerage Network System Phase 4	395,000,000	285,330,743	31,587,840	19,800,000	19,800,000	18,000,000
Relief and Replacement Sewers for Jalan Senang, Siglap and Jalan Lebar Areas	4,500,000	2,843,635	124,569	144,200	144,200	98,300
Sewer Extension to Phase Out Sewage Treatment Plants Phase 1	29,000,000	18,346,868	162,153	144,200	144,200	21,400
Minor Development Projects	...	...	776,402	954,400	770,300	2,423,300
Improvement to Rochor Canal (between Jalan Besar and Crawford Street)	42,000,000	35,489,808	1,231,141	90,000	2,000,000	95,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
Sewer Extensions to Phase Out Sewage Treatment Plants Phase 2	47,800,000	16,033,741	705,752	96,100	926,000	117,500
Improvement to Drains in Syed Alwi Road Area	27,200,000	19,148,905	245,096	327,600	500,000	259,400
Relief Sewers at Lavender Street Area, Serangoon Central Area and Kaki Bukit Area	31,500,000	16,188,841	352,778	96,100	356,000	320,400
Renewal and Relocation of Central Monitoring System for Water Reclamation Network	7,900,000	5,335,258	601,872	315,000	0	162,000
Sewerage Development at Jurong Eastern Catchment and Jurong Lake District	230,000,000	130,875,816	20,912,117	2,996,100	3,012,700	2,483,800
Improvement to Roadside Drains in Batch 6 of the Estate Upgrading Programme	80,000,000	50,219,195	3,919,598	1,800,000	1,800,000	332,500
Improvement to Old Roadside Drains 5 Year Programme (FY2010-FY2014)	303,800,000	177,064,002	49,642,175	18,900,000	19,000,000	7,600,000
Expansion of Sewerage Network in International Road and Telok Blangah Road Area	31,900,000	11,753,394	3,801,692	672,800	502,000	316,100
Expansion of Sewerage Network in Geylang, Jalan Wangi, Woodlands Industrial Park	16,123,800	6,582,424	4,670,598	624,800	811,700	106,800
Expansion of Sewerage Networks in the Bukit Batok Road and Wan Lee Road/Enterprise Road/ Kian Teck Lane Areas	45,186,700	8,165,401	15,631,862	3,667,000	3,896,800	1,665,700
Expansion of Sewerage Networks in Siglap Road, Whampoa East/Towner Road and Kaki Bukit Areas and Upgrading of Mugliston Park Pumping Station	21,397,900	2,985,975	4,974,294	528,700	454,100	1,299,900
Expansion of Sewerage Networks in Jalan Rajah/ Sungei Whampoa area	13,700,000	689,524	1,236,272	2,272,300	2,272,300	2,403,000
Improvement to Old Roadside Drains - Batch 7 of Estate Upgrading Programme	100,200,000	21,274,411	22,525,479	13,500,000	13,481,700	10,409,200
Proposed Expansion of Sewerage Network in Mandai Road Area	30,000,000	743,972	3,375,769	5,767,200	5,980,800	2,221,400
Proposed Expansion of Sewerage Network in Kranji Area	30,400,000	1,476,180	7,632,612	5,430,800	5,434,500	4,156,700
Impr to Alexandra Canal Subsidiary Drain F (Between Tiong Bahru Rd and Havelock Rd)	28,200,000	2,803,997	4,158,141	5,850,000	6,500,000	4,750,000
Expansion of Sewerage Networks in Bedok Reservoir and Changi Business Park Areas	23,400,000	744,233	1,935,142	4,575,300	4,579,600	4,806,000
Expansion of Sewerage Networks in Mugliston Park, Buangkok Link and Ang Mo Kio Ave 5 Areas	69,700,000	1,031,614	6,928,736	11,053,800	14,338,200	6,144,400
Proposed Diversion Canal and Detention Tank to Enhance Flood Protection of Stamford Canal Catchment	306,400,000	29,976,612	45,366,631	53,270,700	53,270,700	47,500,000
Expansion of Sewerage Networks in Marina Central Area	17,900,000	1,030,482	2,004,041	4,229,300	4,229,300	803,100
Proposed Renewal of Equipment and Upgrading of Used Water Pumping Installations	14,770,000	3,195,421	4,953,276	2,340,000	2,700,000	830,000
Proposed Expansion of Sewerage Networks in Tagore Drive, Mandai Quarry Road and Lorong Lada Hitam Areas	61,100,000	5,528,582	17,412,752	12,784,000	8,696,200	9,680,900
Improvement to Siglap Canal (Between East Coast Parkway and the Sea)	31,700,000	3,504,447	10,611,165	6,300,000	6,300,000	475,000
Expansion of Sewerage Networks in Tanah Merah Kechil Area	4,840,000	147,299	3,000,385	2,306,900	801,000	10,700
Proposed 3rd Pumping Main for Choa Chu Kang Pumping Station	9,290,000	474,441	4,050,678	2,306,900	1,335,000	267,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
Expansion of Sewerage Networks in Lorong Lew Lian and Potong Pasir Avenue 3 Areas	10,710,000	344,613	4,419,007	2,883,600	2,807,800	628,000
Expansion of Sewerage Networks in Bishan St 11 and Bishan St 13 Areas	14,760,000	173,312	734,783	5,767,200	5,767,200	2,992,500
Expansion of Sewerage Networks in Amber Road, Meyer Road and Playfair Road Areas	17,770,000	582,248	815,968	4,806,000	3,738,000	2,563,200
Expansion of Sewerage Networks in Yishun Avenue 7, Sembawang Road and Gambas Avenue Areas	39,300,000	689,740	2,005,859	6,728,400	2,719,100	7,390,600
Implementation of 16 Projects under Phase 2 of Active, Beautiful and Clean Waters (ABC Waters) Programme	20,736,601	235,444	1,430,984	1,968,400	2,187,200	1,192,500
Proposed Expansion of Sewerage Networks in Clementi Avenue 4 and Clementi Avenue 6 Areas	9,930,000	157,844	1,109,016	3,844,800	3,844,800	390,700
Expansion of Sewerage Networks in Cuppage Road and Koek Road Areas	6,210,000	88,683	36,201	384,500	395,200	2,093,300
Engagement of Consultant for Review of Marina Barrage Upgrading Plan and Revamp of MB Gallery	1,250,000	258,318	229,586	413,400	409,900	242,300
Impr to Kallang River (Between Bishan Road and Braddell Road)	151,000,000	1,699,620	4,460,087	18,450,000	20,500,000	25,547,100
Expansion of Sewerage Networks in Sembawang Road and Sembawang Avenue Areas	41,877,000	388,990	1,129,406	6,247,800	6,247,800	6,341,800
Expansion of Sewerage Networks in Tuas Avenue 2 and Tuas Avenue 10 Areas	36,722,000	631,364	4,960,033	3,364,200	6,514,800	7,582,800
Impr to Bedok Canal(Bet Upp Changi Rd East and Bedok Junction and Bet East Coast Parkway and the Sea	178,600,000	588,479	1,394,200	23,417,900	26,020,000	35,300,100
Proposed Expansion of Sewerage Networks in Sophia Road and Middle Road Areas	3,410,000	102,131	46,272	96,100	96,100	606,600
Proposed Expansion of Sewerage Networks in Cairnhill Circle and Newton Circus Areas	10,510,000	0	1,147,837	4,133,200	4,133,200	2,653,800
Improvement to Four Outlet Drains in Singapore	61,200,000	191,930	1,698,612	7,200,000	7,200,000	7,125,000
DTSS Phase 2-Engineering Services for Feasibility Study/Preliminary Design and Programme Management	71,300,000	8,327,077	8,757,285	9,152,800	5,278,500	6,632,000
Impr to Sungei Pandan Kechil - Temp Replacement of Pedestrian Bridge and Vehicular Bridge and Temp Tidal Gate	61,400,000	3,667,426	6,911,777	9,000,000	10,000,000	8,550,000
Implementation of 3 Projects under Phase 2 of Active, Beautiful Clean Waters (ABC Waters) Programme	23,020,000	78,893	292,415	5,312,700	5,903,000	9,025,000
5th Roadside Drains Improvement Programme	227,600,000	90,069	2,385,061	19,045,700	14,000,000	29,450,000
Expansion of Sewerage Networks in Leonie Hill Road and River Valley Road	17,350,000	185,490	718,173	3,364,200	3,364,200	5,549,300
Proposed Expansion of Sewerage Networks in Tuas View Square Area	7,370,000	197,152	4,139,044	3,412,300	2,023,900	53,400
Proposed Expansion of Sewerage Networks in St Michael's Road and St. Francis Road Area	6,790,000	184,106	264,687	2,403,000	2,403,000	2,039,900
Improvement to Old Roadside Drains in Batch 8 of the Estate Upgrading Programme	74,500,000	395,386	9,849,492	11,700,000	16,490,000	12,289,200
Drainage Improvement Works at Chai Chee Road/ New Upper Changi Road Junction	8,500,000	3,460,748	314,515	234,000	234,000	427,500
Improvement to Sunset Way Outlet Drain (Between PIE and Sungei Ulu Pandan)	16,900,000	165,528	2,678,393	3,600,000	4,600,000	3,724,000
Marina South Drainage Scheme	47,700,000	0	190,956	677,700	145,000	570,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
Proposed Sewerage Scheme to Serve Holland Plain and Holland Woods Areas	18,900,000	72,557	237,672	1,345,700	213,600	2,990,400
Rehabilitation of Sanitary Drain Lines -Jurong Lake Catchment	19,100,000	236,242	1,425,490	3,420,000	3,420,000	3,500,000
Expansion of Sewerage Networks in Loyang Avenue and Upper Changi Road East Areas	135,110,000	43,320	735,256	3,484,400	400,500	4,920,900
Improvement to Bukit Timah Canal (Between Rifle Range Road and Jalan Kampong Chantek)	79,200,000	34,361	558,468	450,000	90,000	463,600
Urgent Flood Alleviation Programme	77,300,000	4,130,765	18,401,355	22,500,000	22,500,000	10,127,000
Expansion of Sewerage Networks in Lorong Chuan and Lim Tua Tow Road Areas	13,530,000	0	181,452	769,000	769,000	2,834,500
Drainage Improvement Works in Tandem with LTA's Rail and Road works	48,500,000	394,000	1,381,209	5,990,300	6,992,900	3,895,000
Expansion of Sewerage Networks in East Coast Road and Mountbatten Road Areas	11,700,000	0	90,943	336,400	90,600	2,749,900
Proposed Expansion of Sewerage Networks in Bukit Batok East Ave 3 Area	44,900,000	0	190,878	1,537,900	1,537,900	3,743,300
Expansion of Sewage Treatment Plant 1 (STP 1) on Jurong Island by 3 MGD	32,820,000	0	6,647,495	8,189,200	10,162,000	1,014,600
Proposed Sewerage Scheme to Serve Sungei Tengah Agrotechnology Park Area	50,360,000	0	480,797	769,000	833,000	7,310,500
Proposed Sewers in North Woodlands	350,600,000	0	1,009,084	6,728,400	16,952,900	32,162,900
Improvement to Sungei Pandan Kechil (West Coast Road to the Sea)	75,300,000	0	285,658	5,400,000	6,000,000	8,550,000
Proposed Sewerage Scheme to Serve Lim Chu Kang Area	192,370,000	0	0	384,500	473,300	3,348,200
Covering Up of Drains with Mesh Gratings at Heavy Leaf Shedding Locations (Phase 2)	6,600,000	0	1,341,271	1,207,200	1,207,300	127,500
Proposed Stormwater Retention Pond for Bidadari Estate	40,400,000	0	0	81,000	0	85,500
Impr to Changi Airport Diversion Drain-Outlet Drain 2 (Between Changi Coast Rd and Changi Airport Diversion Drain)	21,000,000	0	243,513	6,300,000	2,000,000	1,900,000
Fund for Rapid Response Mechanism (RRM) Approved Projects	6,000,000	0	440,006	1,604,700	760,000	2,090,000
Proposed Expansion of Sewerage Networks in Eber Road,Paterson Hill and Pasir Panjang Road Areas	12,880,000	0	47,422	192,200	192,200	555,400
Proposed Expansion of Sewerage Networks in Stevens Road Area	8,510,000	0	32,527	96,100	106,800	1,253,800
Proposed Expansion of Sewerage Networks in Merpati Road Area	12,090,000	0	19,674	96,100	96,100	1,634,000
Proposed Expansion of Sewerage Networks in Sengkang and Punggol Areas	212,100,000	0	0	432,500	585,300	14,463,900
Expansion of Sewerage Networks along LTA's Proposed Thomson-East Coast Line and North-South Expressway	40,500,000	0	0	72,100	339,100	854,400
Development of Hydrogeological Map of Singapore	14,630,000	0	0	4,218,300	4,200,000	4,180,000
Impr to Sungei Tampines (Tampines Avenue 7 to Tampines Expressway)	72,000,000	0	11,940	837,000	145,000	466,100
Engrg Svcs for Impr of Sungei Tongkang between AMK Avenue 3 and Sungei Punggol	8,400,000	0	0	3,114,900	252,000	781,300
Proposed Sewer along Tampines Road	2,136,000	0	0	397,400	1,308,300	203,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
Feasibility Study and Conceptual Design to Upgrade the Drainage Capacities at Poole and Wimborne Pumping Stations	530,000	0	0	80,100	34,900	331,200
Proposed Sewerage Infrastructure at Pulau Punggol Barat	115,900,000	0	0	108,000	115,300	5,456,900
Expansion of Sewerage Networks in Pasir Ris Drive 3/12 and Jalan Kembangan Areas and Demolition of Pasir Ris and East Co	18,900,000	0	0	45,000	261,700	1,484,500
Outlet Drains Improvement Programme	90,500,000	0	0	0	431,000	3,128,400
Phase 3 of the Active, Beautiful, Clean waters (ABC Waters) Programme	19,250,000	0	0	0	10,500	910,000
Construction of Sustainable Singapore Gallery	7,140,000	0	0	0	1,330,000	5,073,000
Replacement of Supervisory Control and Data Acquisition (SCADA) System at Marina Barrage	4,300,000	0	0	0	0	1,140,000
Proposed Expansion of Sewerage Networks at Yuan Ching Road	2,410,000	0	0	0	50,000	170,000
Deep Tunnel Sewerage System (DTSS) Phase 2- Land Cost	90,000,000	0	0	0	0	10,000,000
Deep Tunnel Sewerage System (DTSS) Phase 2- Construction Cost	4,450,000,000	0	0	0	4,114,900	41,210,100
Improvement to Airport Road Outlet Drain (Between Tai Seng Avenue to Pelton Canal)	13,300,000	0	0	0	0	183,200
Rapid Response Mechanism Year 3	1,750,000	0	0	0	0	285,000
Improvement to Old Roadside Drains in Batch 9 of the Estate Upgrading Programme (EUP 9)	59,700,000	0	0	0	0	363,900
Rehabilitation of Sewerage Network System – Phase 5	127,100,000	0	0	0	0	2,000,000
Upgrading of Sewage Pumping Installations	15,790,000	0	0	0	0	125,000
Reconstruction of Alexandra Canal Phase 1	104,200,000	92,513,561	4,025,202	90,000	800,000	95,000
Punggol Town Sewerage Scheme	90,000,000	61,241,655	336,949	192,200	405,900	10,700
Collector Drains 2 at Changi East Reclamation - Area "A"	98,000,000	23,735,385	26,299,613	9,720,000	2,000,000	9,500
National Environment Agency Programme						
New Projects	...	...	0	2,779,900	213,700	2,005,000
5-Year Programme(FY2011 - 2015) for the Redevelopment of Chua Chu Kang Cemetery	97,500,000	45,110,459	28,367,647	20,021,600	17,399,200	1,942,500
Development of New Market/Hawker Centre in Bukit Panjang Housing Estate	38,235,000	19,698,539	15,177,733	600,000	405,000	200,000
Devt of New Hawker Centres in Woodlands,Sengkang,Pasir Ris,Jurong West,Yishun and Sembawang Housing Estates	108,200,000	1,916,663	8,160,709	32,995,000	24,861,000	10,224,900
Development of Replacement Hawker Centre at Woodlands St 12 co-located with HDB	24,300,000	6,279	1,170,594	12,000,000	9,303,700	6,893,300
Consultancy and Professional Services for the Devt of New Crematorium at Mandai	11,710,000	0	248,160	3,600,000	2,970,400	4,000,000
Development of New Hawker Centres at Dawson and Bidadari	26,500,000	0	0	1,630,000	360,000	500,000
Claims and Registration Office and Expansion of Choa Chu Kang Crematorium	1,500,000	0	281,220	825,000	1,012,500	93,800
Development of Road Access to Tuas View Basin Site for IWMF and TWRP	140,000,000	0	3,210,003	40,000,000	15,090,500	27,000,000
Consultancy Svcs and Prelim Works for Devt of 4 Hawkers Centres at Fernvale, CCK, BP North and Anchorvale	5,800,000	0	0	0	0	210,000

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
Redevelopment of Choa Chu Kang Cemetery (CCKC) Phase 3 (Part 1)	64,720,000	0	0	0	450,000	18,399,400
Hosting of Mobile Xenon Monitoring Station	86,100	0	0	0	58,600	46,200
Completed Projects	...	...	41,019,118	27,909,200	12,399,800	0
GRANTS & CAPITAL INJECTIONS TO ORGANISATIONS	...	...	12,003,194	72,490,800	56,450,600	913,887,100
Public Utilities Board Programme						
New Projects	...	...	0	60,000,000	0	310,000,000
National Environment Agency Programme						
New Projects	...	...	0	0	43,864,100	602,130,000
Environment Technology Research Programme	21,000,000	11,617,848	2,644,529	2,135,600	1,653,400	675,600
Extension and Expansion of the Innovation for Environmental Sustainability (IES) Fund	2,000,000	0	27,946	440,000	315,100	162,000
Extension and Expansion of the Environment Technology Research Programme (ETRP)	6,000,000	0	0	800,000	365,100	219,500
Quieter Construction Fund	10,000,000	322,785	739,938	500,000	600,000	700,000
Completed Projects	...	...	8,590,780	8,615,200	9,652,900	0

Other Development Fund Outlays

Project Title	Total Project Cost	Actual Expenditure up to end of FY2014	Actual FY2015	Estimated FY2016	Revised FY2016	Estimated FY2017
OTHER DEVELOPMENT FUND OUTLAYS	...	...	\$0	\$0	\$0	\$9,865,100
LAND-RELATED EXPENDITURE	...	...	0	0	0	9,865,100
Public Utilities Board Programme						
Sewer Network for Changi East Area	149,800,000	0	0	0	0	3,997,800
National Environment Agency Programme						
New Projects	...	...	0	0	0	5,867,300

KEY PERFORMANCE INDICATORS

Desired Outcomes

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

Key Performance Indicators

Desired Outcome	Performance Indicator ¹	Actual FY2014	Actual FY2015	Revised FY2016 ²	Estimated FY2017
Clean and healthy environment	% of days in a year where Pollutant Standards Index (PSI) is in the "Good" & "Moderate" range	97.0 ³	87.5	99.0	96.0
	No. of air pollution incidents per million population ⁴	0.9	0.6	0.2	3.0
	No. of water pollution incidents per million population ⁵	0.6	0.7	0.5	3.0
	No. of local dengue (Dengue Fever and Dengue Haemorrhagic Fever) cases per 100,000 population	325.6	196.1	294.3 ⁶	130.0
	No. of food outlet related food poisoning outbreaks per 1,000 NEA-licensed food establishments	2.1	0.7	0.8	3.5
Access to clean water	% of tests meeting World Health Organisation (WHO) drinking water quality guidelines	100	100	100	100
Good environmental and water infrastructure and services	Total domestic waste disposed of per capita (kg/day/person)	0.87	0.86	0.84	0.84
	Accuracy of Nowcast (%) ⁷	90.4	91.5	91.0	91.0
	% of Unaccounted-for-Water	5.2	5.0	5.0	5.0
	No. of leaks per 100km of potable water mains per year	5.4	5.7	5.5	6.0
	Size of flood prone area (ha)	34.0	32.0	30.5	29.6
	No. of sewerage service disruptions per 1,000 km of sewer maintained per month	11.3	10.6	10.4	13.0
Shared environmental ownership and values	Per capita household water consumption (litres/day) ⁸	150 ⁹	151 ⁹	149 ¹⁰	148 ¹⁰
	Energy Consumption per dollar GDP: Improvement from 2005 levels (%)	26.1	NA ¹¹	15.4 (By 2017) ¹²	19.6 (By 2020) ¹²
Long term resource sustainability	Recycling rate (%)	60.0	61.0	61.5	62.0
	Total non-domestic waste disposed of (tonnes per day / \$billion GDP)	9.4 ¹³	9.1	9.3	9.0

¹ All data are reported on calendar year basis.

² Data for "Revised FY2016" column refers to projected figures for FY2016.

³ With the rollout of the new PSI reporting system in April 2014, the indicator has been revised to include both "Good" & "Moderate" PSI days. The performance for past years has been re-calculated based on the new system.

⁴ Pollution incidents only include substantiated air pollution cases which have significant impacts on the environment and/or public health.

⁵ Pollution incidents refer to substantiated water pollution cases which have resulted in significant water pollution in open drains and/or waterways.

⁶ Increased reporting due to enhancements in diagnostics and greater awareness are likely to have contributed to a higher baseline of notified cases. To account for this higher baseline, NEA is reviewing the target of this indicator.

⁷ Since Jan 2016, the Nowcast refers to a 2-hour forecast for 47 sectors across the island.

⁸ From 2016 onwards, the indicator has been revised from "Per capita domestic water consumption" to "Per Capita household water consumption", which refers to water consumption within household premises only (i.e. usage in purpose built dormitories and common areas excluded).

⁹ The actual performances in FY2014 and FY2015 based on the revised formula are 149.

¹⁰ The revised FY2016 and estimated FY2017 performances are based on the revised formula.

¹¹ Data for 2015 will be available in Q2 2017. The lag in reporting this indicator is due to the time taken by external organisations / agencies to provide their data to NEA.

¹² These are 3-year targets set by MEWR for the 2014-2016 and 2017-2019 periods based on steady progress to achieve the final target of 35% improvement by 2030, under the Sustainable Singapore Blueprint.

¹³ The figures were revised to take into account the rebasing of the national accounts by the Department of Statistics.

Key Performance Indicators

Desired Outcome	Performance Indicator ¹	Revised FY2016	Estimated FY2017
Advancement of Singapore's environment and water strategic and economic interests	Fulfil Singapore's obligations to regional and international environmental agreements and conventions	Ensured that international commitments are fulfilled to uphold Singapore as a responsible global environmental citizen. Ensured that international obligations are not inimical to Singapore with regard to our environmental and water interests.	Continue to ensure that international commitments are fulfilled. Continue to ensure that international obligations in the areas of environment and water are not inimical to Singapore.
	Advance Singapore's environment and water strategic and economic interests through bilateral relations and regional/international initiatives	Leveraged bilateral, regional and international platforms to strengthen global awareness on environmental, water and transboundary issues. Continued engaging key bilateral partners to pursue strategic interests in addressing environment, water and other transboundary issues. Pursued collaborations with partners to advance our interests on issues relating to environment and water. Profiled Singapore's narratives on promoting sustainable cities and water management.	Continue to leverage various platforms to strengthen global awareness on environmental, water and transboundary issues. Continue to engage bilateral partners in addressing environment, water and other transboundary issues. Continue to pursue collaborations with partners on environment and water issues. Continue to profile Singapore's efforts and achievements in sustainable cities and water management.