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MINISTRY OF SUSTAINABILITY AND THE ENVIRONMENT

OVERVIEW

Mission Statement

To ensure a clean and sustainable environment, with resilient supplies of safe food and water for Singapore.

FY2022 EXPENDITURE ESTIMATES

Expenditure Estimates by Object Class

Code	Object Class	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022	Change Over FY2021	
	TOTAL EXPENDITURE	\$2,353,667,758	\$2,904,235,900	\$2,839,068,500	\$2,958,293,200	\$119,224,700	4.2%
	Main Estimates						
	OPERATING EXPENDITURE	\$1,646,137,536	\$1,848,743,600	\$1,906,668,600	\$1,988,856,700	\$82,188,100	4.3%
	<i>RUNNING COSTS</i>	<i>\$1,635,275,370</i>	<i>\$1,837,934,300</i>	<i>\$1,895,643,300</i>	<i>\$1,978,092,200</i>	<i>\$82,448,900</i>	<i>4.3%</i>
	Expenditure on Manpower	\$27,388,152	\$38,986,900	\$37,446,000	\$39,878,100	\$2,432,100	6.5%
1200	Political Appointments	1,083,264	1,991,100	1,991,100	2,042,100	51,000	2.6
1500	Permanent Staff	26,286,659	36,960,300	35,419,400	37,788,500	2,369,100	6.7
1600	Temporary, Daily-Rated & Other Staff	18,229	35,500	35,500	47,500	12,000	33.8
	Other Operating Expenditure	\$75,412,143	\$48,030,500	\$35,336,000	\$57,900,700	\$22,564,700	63.9%
2100	Consumption of Products & Services	71,495,216	36,897,600	28,180,400	49,306,700	21,126,300	75.0
2300	Manpower Development	321,095	729,900	691,900	630,900	-61,000	-8.8
2400	International & Public Relations, Public Communications	3,445,448	10,289,000	6,319,700	7,844,500	1,524,800	24.1
2700	Asset Acquisition	150,384	114,000	144,000	118,600	-25,400	-17.6
	Grants, Subventions & Capital Injections to Organisations	\$1,532,475,075	\$1,750,916,900	\$1,822,861,300	\$1,880,313,400	\$57,452,100	3.2%
3100	Grants, Subventions & Capital Injections to Statutory Boards	1,532,475,075	1,750,916,900	1,822,861,300	1,880,313,400	57,452,100	3.2
	<i>TRANSFERS</i>	<i>\$10,862,167</i>	<i>\$10,809,300</i>	<i>\$11,025,300</i>	<i>\$10,764,500</i>	<i>-\$260,800</i>	<i>-2.4%</i>
3600	Transfers to Institutions & Organisations	940,004	522,100	729,600	420,600	-309,000	-42.4
3800	International Organisations & Overseas Development Assistance	9,922,162	10,287,200	10,295,700	10,343,900	48,200	0.5
	OTHER CONSOLIDATED FUND OUTLAYS	\$0	\$50,800	\$19,000	\$34,000	\$15,000	78.9%
4600	Loans and Advances (Disbursement)	0	50,800	19,000	34,000	15,000	78.9

Code	Object Class	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022	Change Over FY2021	
	Development Estimates						
	DEVELOPMENT EXPENDITURE	\$707,530,222	\$1,055,492,300	\$932,399,900	\$969,436,500	\$37,036,600	4.0%
5100	Government Development	674,998,146	982,055,100	887,313,000	906,120,400	18,807,400	2.1
5200	Grants & Capital Injections to Organisations	32,532,076	73,437,200	45,086,900	63,316,100	18,229,200	40.4
	OTHER DEVELOPMENT FUND OUTLAYS	\$15,274,755	\$58,041,900	\$57,428,900	\$43,090,100	-\$14,338,800	-25.0%
5500	Land-Related Expenditure	15,274,755	58,041,900	57,428,900	43,090,100	-14,338,800	-25.0

Establishment List

Category/Personnel	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022
POLITICAL APPOINTMENTS	3	3	3	3
Minister	1	1	1	1
Senior Minister of State	1	1	1	1
Minister of State	1	1	1	1
PERMANENT STAFF	194	202	210	218
Accounting Profession (2008)	5	5	5	5
Administrative	6	6	8	8
Economist Service	4	4	4	4
Information Service (2008)	5	5	7	7
Management Executive Scheme (2008)	155	163	169	177
Management Support Scheme (2008)	16	16	14	14
Operations Support	3	3	3	3
OTHERS	5,518	5,598	5,807	5,583
National Environment Agency	4,326	4,319	4,496	4,270
Public Utilities Board	344	431	460	479
Singapore Food Agency	848	848	851	834
TOTAL	5,715	5,803	6,020	5,804

FY2021 BUDGET

The Ministry of Sustainability and the Environment (MSE)'s revised FY2021 total expenditure is \$2.84 billion. This is an increase of \$485.40 million or 20.6% compared to the actual FY2020 total expenditure. Of the total expenditure, \$1.91 billion or 67.2% is for operating expenditure and \$932.40 million or 32.8% is for development expenditure.

Operating Expenditure

The revised FY2021 operating expenditure of \$1.91 billion is \$260.53 million or 15.8% higher than the actual FY2020 operating expenditure of \$1.65 billion. The increase is largely due to the higher operating grants to the National Environment Agency (NEA) and the Singapore Food Agency (SFA).

Development Expenditure

The revised FY2021 development expenditure of \$932.40 million is \$224.87 million or 31.8% higher than the actual FY2020 development expenditure of \$707.53 million. The higher expected expenditure in FY2021 is mainly due to the resumption of works for projects which were impacted by the COVID-19 pandemic in FY2020.

Other Development Fund Outlays

The revised FY2021 other development fund outlays of \$57.43 million comprises Land-Related Expenditure for the development of drainage and sewerage networks in Changi East and NEA's exhumation projects at Choa Chu Kang.

FY2022 BUDGET

The total expenditure for MSE in FY2022 is projected to be \$2.96 billion, an increase of \$119.22 million or 4.2% from the revised FY2021 total expenditure. Of the total expenditure, \$1.99 billion or 67.2% is for operating expenditure and \$969.44 million or 32.8% is for development expenditure.

Operating Expenditure

The provision of \$1.99 billion for FY2022 operating expenditure represents an increase of \$82.19 million or 4.3% over the revised FY2021 operating expenditure. This is mainly due to higher operating grants to NEA and SFA. Out of the total operating expenditure, \$1.98 billion or 99.5% is for Running Costs and \$10.76 million or 0.5% is for Transfers.

The major share of the operating budget, \$1.22 billion or 61.2%, will go towards the National Environment Agency Programme. This is followed by the Public Utilities Board Programme with \$424.49 million or 21.3%, the Singapore Food Agency Programme with \$243.62 million or 12.2%, and the Administration Programme with \$103.79 million or 5.2%.

National Environment Agency Programme

NEA aims to promote and sustain a clean, green, and sustainable environment for Singapore. For FY2022, NEA is allocated an operating grant of \$1.22 billion. 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 FY2022, PUB is allocated an operating grant of \$424.49 million mainly for the operations and maintenance of drainage systems, the Active, Beautiful, Clean (ABC) Waters Programme, coastal protection, and water infrastructure projects.

Singapore Food Agency Programme

SFA's mission is to ensure and secure a supply of safe food for Singapore. For FY2022, SFA is allocated an operating grant of \$243.62 million to implement key programmes to strengthen the resilience of Singapore's food supply and strengthen food safety assurance in partnership with industry and consumers.

Other Consolidated Fund Outlays

Advances for FY2022 are projected to be \$0.03 million, catered for officers on overseas work trips.

Development Expenditure

Development expenditure in FY2022 is expected to be \$969.44 million, an increase of \$37.04 million or 4.0% from the revised FY2021 figure of \$932.40 million. The slightly higher expected expenditure in FY2022 is mainly due to the resumption of works for projects which were impacted by the COVID-19 pandemic.

Major PUB sewerage projects to be funded in FY2022 include: Deep Tunnel Sewerage System Phase 2 (\$641.60 million), Proposed Sewers in North Woodlands (\$21.95 million), Proposed Sewerage Infrastructure at Pulau Punggol Barat (\$16.85 million), Rehabilitation of Sewerage Network System Phase 5 (\$12.00 million) and Proposed Expansion of Sewerage Networks in Sengkang and Punggol Areas (\$11.32 million).

Major NEA projects to be funded in FY2022 include: Redevelopment of Choa Chu Kang Cemetery Phase 3 (\$19.00 million), Waste Resource Management Project (\$17.50 million) and Development of New Crematorium at Mandai (\$16.68 million).

Major SFA projects to be funded in FY2022 include: Consolidation of all food laboratory testing facilities in the proposed National Centre for Food Science (NCFS) (\$17.83 million) and 30 by 30 Express Grant (\$13.60 million).

Other Development Fund Outlays

The other development fund outlays of \$43.09 million for FY2022 relates to Land-Related Expenditure for the development of drainage and sewerage networks in Changi East and NEA's exhumation projects at Choa Chu Kang.

Total Expenditure by Programme

Code	Programme	Running Costs	Transfers	Operating Expenditure	Development Expenditure	Total Expenditure
L-A	Administration	97,778,800	6,010,500	103,789,300	4,183,100	107,972,400
L-G	Public Utilities Board	424,487,900	0	424,487,900	791,836,500	1,216,324,400
L-H	National Environment Agency	1,215,641,700	1,321,400	1,216,963,100	105,586,000	1,322,549,100
L-I	Singapore Food Agency	240,183,800	3,432,600	243,616,400	67,830,900	311,447,300
	Total	\$1,978,092,200	\$10,764,500	\$1,988,856,700	\$969,436,500	\$2,958,293,200

Development Expenditure by Project

Project Title	Total Project Cost	Actual Expenditure Up to end of FY2019	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022
DEVELOPMENT EXPENDITURE	...	...	\$707,530,222	\$1,055,492,300	\$932,399,900	\$969,436,500
<i>GOVERNMENT DEVELOPMENT</i>	...	...	674,998,146	982,055,100	887,313,000	906,120,400
Administration Programme						
Multi-Disciplinary Consultancy Services for Office Development	26,000,000	0	0	500,000	84,000	1,216,000
Minor Development Projects	...	...	627,440	3,037,200	4,496,000	2,967,100
Public Utilities Board Programme						
Relief Sewers within Marina Reservoir Catchment	8,000,000	5,183,734	0	190,000	90,000	97,000
New Projects	...	...	0	9,861,500	0	6,135,800
Active, Beautiful And Clean Waters Programme	101,980,000	91,259,263	387	254,600	254,600	5,000
Sewer Schemes to Serve Marina South and Pasir Ris/Tampines Areas and Phase Out Nee Soon Pumping Station	287,700,000	254,372,938	1,436,265	9,900,000	7,987,000	7,561,000
Relief and Replacement Sewers for Jalan Senang, Siglap and Jalan Leban Areas	4,500,000	3,005,577	0	17,000	0	7,000
Minor Development Projects	...	...	1,708,052	114,000	556,600	1,118,500
Sewer Extensions to Phase Out Sewage Treatment Plants Phase 2	47,800,000	23,164,239	2,214,539	6,192,700	5,301,000	463,000
Sewerage Development at Jurong Eastern Catchment and Jurong Lake District	184,200,000	170,601,733	763,349	1,207,200	1,064,000	556,000
Expansion of Sewerage Network in Geylang, Jalan Wangi, Woodlands Industrial Park	16,123,800	13,887,792	0	108,000	65,000	65,000
Expansion of Sewerage Networks in Siglap Road, Whampoa East/Towner Road and Kaki Bukit Areas and Upgrading of Mugliston Park Pumping Station	26,140,000	12,254,012	2,400,437	2,583,000	1,904,000	871,000
Expansion of Sewerage Networks in Jalan Rajah/Sungei Whampoa area	29,000,000	3,177,776	151,277	716,000	732,000	5,374,000
Proposed Expansion of Sewerage Network in Mandai Road Area	25,000,000	14,970,515	984,192	565,000	646,000	862,000
Proposed Expansion of Sewerage Network in Kranji Area	26,400,000	22,497,554	17,695	29,000	121,400	118,000
Expansion of Sewerage Networks in Mugliston Park, Buangkok Link and Ang Mo Kio Ave 5 Areas	53,000,000	40,893,681	1,160,953	1,217,000	1,256,000	1,038,000
Expansion of Sewerage Networks in Marina Central Area	35,200,000	8,691,759	9,146	215,000	308,200	355,000
Expansion of Sewerage Networks in Amber Road, Meyer Road and Playfair Road Areas	17,770,000	2,528,176	218,696	242,000	313,600	2,477,000
Implementation of 16 Projects under Phase 2 of Active, Beautiful and Clean Waters (ABC Waters) Programme	16,311,600	8,453,645	914,831	1,056,100	1,019,300	1,687,000

Project Title	Total Project Cost	Actual Expenditure Up to end of FY2019	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022
Expansion of Sewerage Networks in Sembawang Road and Sembawang Avenue Areas	26,977,000	20,305,378	1,783,628	504,000	224,000	524,000
Proposed Expansion of Sewerage Networks in Sophia Road and Middle Road Areas	6,120,000	295,821	70,652	50,000	39,000	641,000
DTSS Phase 2-Engineering Services for Feasibility Study/Preliminary Design and Programme Management	71,300,000	40,495,354	4,668,324	6,087,100	6,412,000	5,452,300
Expansion of Sewerage Networks in Loyang Avenue and Upper Changi Road East Areas	135,110,000	65,653,120	7,507,245	5,853,000	6,560,000	4,443,000
Expansion of Sewerage Networks in East Coast Road and Mountbatten Road Areas	14,610,000	2,049,597	969,004	2,403,900	2,207,800	3,619,000
Proposed Expansion of Sewerage Networks in Bukit Batok East Ave 3 Area	44,900,000	25,347,401	3,348,891	2,166,400	2,184,000	1,785,000
Proposed Sewerage Scheme to Serve Sungei Tengah Agrotechnology Park Area	50,360,000	22,561,582	1,326,363	385,600	344,600	162,000
Proposed Sewers in North Woodlands	387,500,000	91,830,672	14,497,704	25,749,000	17,199,000	21,947,000
Proposed Sewerage Scheme to Serve Lim Chu Kang Area	74,370,000	35,310,647	6,363,709	2,734,800	5,210,000	2,142,000
Proposed Expansion of Sewerage Networks in Stevens Road Area	8,510,000	2,660,544	247,014	113,800	114,000	114,000
Proposed Expansion of Sewerage Networks in Merpati Road Area	12,090,000	3,930,263	1,251,775	865,000	865,000	219,000
Proposed Expansion of Sewerage Networks in Sengkang and Punggol Areas	212,100,000	49,748,172	14,442,326	15,136,400	14,480,000	11,320,000
Expansion of Sewerage Networks along LTA's Proposed Thomson-East Coast Line and North-South Expressway	40,500,000	2,820,244	1,451,851	4,658,000	1,734,000	3,726,000
Proposed Sewerage Infrastructure at Pulau Punggol Barat	115,900,000	13,074,514	4,181,637	19,522,100	3,122,000	16,845,000
Expansion of Sewerage Networks in Pasir Ris Drive 3/12 and Jalan Kembangan Areas and Demolition of Pasir Ris and East Coast Parkway Pump Sumps	18,900,000	559,177	435,569	2,240,000	1,687,000	3,360,000
Phase 3 of the Active, Beautiful, and Clean Waters (ABC Waters) Programme	28,200,000	5,319,374	1,208,509	2,982,500	3,441,500	728,000
Deep Tunnel Sewerage System (DTSS) Phase 2-Land Cost	90,000,000	287,556	0	2,000,000	5,569,000	7,289,200
Deep Tunnel Sewerage System (DTSS) Phase 2-Construction Cost	4,198,000	887,921,091	471,582,504	638,260,700	689,353,300	628,856,500
Rehabilitation of Sewerage Network System - Phase 5	127,100,000	36,365,235	11,727,205	13,000,000	10,990,000	12,000,000
Upgrading of Sewage Pumping Installations	19,020,000	912,221	1,430,750	2,369,000	1,975,000	3,931,000
Engineering Services for the Proposed Sewers to Serve Tengah New Town	15,820,000	1,045,637	348	162,000	876,000	565,000
Proposed Sewer along Future Road in Punggol North	6,330,000	483,322	872,622	664,000	774,000	686,000
Engineering Services for the Proposed Expansion of Sewerage Network in Ang Mo Kio Avenue 3 and Phasing Out of Thomson Hill Pump Sump	13,740,000	198,164	12,655	96,000	445,000	1,714,000
Engineering Services for Proposed Expansion of Sewerage Networks in Senoko Way, Woodlands Avenue 6 and Upper Bukit Timah Areas	3,900,000	121,132	196,250	267,000	257,000	53,000
Engineering Services for Proposed Sewers in Tuas View Area	9,880,000	128,126	207,361	299,000	295,000	139,000
Renewal of Water Reclamation Network Supervisory Control and Data Acquisition System	7,740,000	0	116,130	493,000	510,000	4,919,000
Engrg Svcs for Expansion of Sewers in Bishan Park/Sin Ming Avenue/Tampines Road/Crane Road/River Valley Road Areas and Proposed Laying of Sewer at Bishan Park	4,410,000	0	0	906,000	305,000	30,000
Phase 4 of the Active, Beautiful, Clean Waters Programme	3,685,000	0	0	0	21,000	88,200
Rehabilitation of Sanitary Drain-Lines for Western Catchment	36,400,000	0	0	2,700,000	2,150,000	4,000,000
Improvement to Old Roadside Drains in Batch 10 of the Estate Upgrading Programme	122,830,000	0	0	100,000	400,000	3,000,000

Project Title	Total Project Cost	Actual Expenditure Up to end of FY2019	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022
Replacement of Mechanical & Electrical Equipment at Jurong Island Sewage Treatment Plants No.1 and 2	15,900,000	0	0	0	500,000	5,600,000
Renewal & Upgrading of Equipment at 8 Sewage Pumping Installations and additional Pumping Mains for Kallang Park Pumping Station and Mount Palmer Pumping Station	10,430,000	0	0	0	258,000	603,000
Professional Engineering Services for Site Specific Study for Climate Change Adaptation Measures at Southeast Coast of Singapore	25,500,000	0	0	0	1,615,200	5,748,200
Enhancement Works to Coarse Screen Shaft (CSS) at Changi Water Reclamation Plant (CWRP)	15,540,000	0	0	0	327,100	5,500,000
National Environment Agency Programme						
Minor Development Projects	...	...	1,328,248	100,000	2,890,000	88,000
New Projects	...	...	0	52,988,700	0	22,703,000
Development of New Hawker Centres at Woodlands, Sengkang, Pasir Ris, Jurong West, Yishun and Sembawang	108,200,000	80,759,205	2,206,063	6,561,600	4,411,300	5,609,300
Development of Replacement Hawker Centre at Woodlands St 12	24,300,000	18,364,227	5,068	1,241,100	458,400	3,272,300
Development of New Crematorium at Mandai	148,400,000	41,544,947	11,676,937	60,486,800	12,708,700	16,680,900
Development of New Hawker Centres at Dawson and Bidadari	26,500,000	8,720,406	1,525,112	4,328,200	3,616,600	1,536,600
Development of New Hawker Centres at Fernvale, Choa Chu Kang, Bukit Panjang North and Anchorvale	59,275,000	23,774,669	9,201,944	11,439,000	9,775,000	5,127,600
Redevelopment of Choa Chu Kang Cemetery (CCKC) Phase 3	135,940,000	53,119,443	2,588,133	32,056,700	18,300,000	19,000,000
Fitting-out Works for New Hawker Centre at Punggol Digital District	5,059,500	0	0	0	0	1,024,600
Productive Hawker Centres Programme	17,179,300	675,679	247,948	1,380,000	1,069,100	3,231,300
Development of New Hawker Centre at Bukit Batok West Avenue 6	1,217,000	0	0	0	0	243,400
Consultancy Services for NEA's Waste Resource Management Project	3,050,800	730	498,429	1,413,500	932,400	1,157,900
Consultancy Services for Funeral Parlour Complex	3,563,000	1,681	0	1,979,700	0	1,787,000
Development of a New Hawker Centre at Bukit Batok West Avenue 6	7,330,000	0	0	0	0	460,700
Services Diversion works for Funeral Parlour Complex	2,706,000	0	0	0	0	1,846,600
Development of Replacement Centre For Blks 79/82 Telok Blangah Drive Market and Food Centre	20,750,000	0	0	0	0	1,130,500
Reconfiguration Works at Jurong West Hawker Centre (JWHC)	5,562,000	0	0	0	10,000	4,384,000
Soil Investigation works for Funeral Parlour Complex	140,800	0	0	0	0	98,200
Singapore Food Agency Programme						
Development Works for Farm Sites in Lim Chu Kang and Sungei Tengah	25,597,500	4,476,622	2,277,455	1,400,000	2,654,000	12,058,800
Redevelopment of Landing Facility at Lim Chu Kang	7,567,300	83,384	564,658	4,280,000	7,355,000	1,226,900
Fire Safety and Other Improvement Works and Electrical Upgrading Works for Pasir Panjang Wholesale Centre (PPWC)	20,415,300	0	988,916	6,885,000	9,000,000	8,730,000
Completed Projects	...	...	79,381,950	4,741,200	5,489,300	0
<i>GRANTS & CAPITAL INJECTIONS TO ORGANISATIONS</i>	...	...	32,532,076	73,437,200	45,086,900	63,316,100
Public Utilities Board Programme						
Flood Model Development	7,270,000	0	0	1,510,000	1,465,600	1,005,000
Smart Drainage System Phase 2	1,065,720	0	0	0	0	291,800

Project Title	Total Project Cost	Actual Expenditure Up to end of FY2019	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022
National Environment Agency Programme						
New Projects	...	...	0	3,736,700	500,000	5,051,000
Establishment of the NEA Scheme for Technology Translation	4,600,000	1,336,013	1,172,597	865,000	497,600	165,600
Productive Hawker Centres Programme	10,094,700	0	0	1,139,600	1,424,500	1,835,400
Enhanced Measurement and Reporting Requirements and Preparation for Implementation of Carbon Pricing	1,027,200	961,045	0	64,200	0	64,200
Development of NEA Business Intelligence System	3,140,000	1,547,651	334,604	671,000	183,800	500,000
Enhanced Energy Efficiency Fund (E2F) – Energy Efficient Technologies	19,164,700	163,162	171,411	592,000	79,600	235,900
Implementation of Meteorological Service Singapore's capability building projects	1,025,000	0	126,426	2,478,000	25,300	341,900
Development of ONE ENV Mobile Application	2,159,400	113,245	263,565	163,400	927,000	170,300
Redefining Operations through Digital Reality	1,228,784	0	48,690	718,800	397,100	484,300
Integrated Programme to Combat Antimicrobial Resistance in Environment Sector	1,523,700	0	0	1,523,700	620,000	903,700
Strengthening Capability for Chemical Hazard and Pollution Monitoring and Control	6,516,300	0	1,291,990	637,400	3,687,500	1,200
Enhanced Energy Efficiency Fund (E2F) – Emissions Management Information System (EMIS)	7,700,000	0	0	0	0	1,107,800
Large-scale Field Trial of Wolbachia-Aedes Technology for Dengue Reduction	1,958,200	0	0	943,100	999,500	953,000
Automated Smoke and Flare Detection System	884,800	0	0	97,600	0	884,800
Hydrofluorocarbons (HFC) Mitigation Measures in Refrigeration and Air-Conditioning (RAC) Application	1,440,300	0	0	344,000	0	265,100
Capacity and Capability Building for Wastewater Surveillance and Environmental Mitigation of COVID-19 and other dangerous pathogens	12,142,500	0	1,077,823	0	3,495,800	139,100
Improving Ventilation and Indoor Air Quality for Public Health	2,107,900	0	0	0	1,943,500	164,400
Surge Capacity For National COVID-19 Wastewater Surveillance Programme	6,711,700	0	0	0	3,775,300	2,936,400
Singapore Food Agency Programme						
National Food Safety Ecosystem Digitalisation Plan	9,880,000	1,273,652	76,911	1,251,800	1,315,000	3,087,000
Monitoring and Prediction of Harmful Algae Blooms	1,660,000	0	257,613	441,300	236,300	205,000
Consolidation and Integration of NCFS Laboratory Facilities	29,450,000	0	656,022	10,965,600	10,965,600	17,828,300
Strategic Initiatives to Strengthen Singapore's Food Security	5,310,000	0	680,477	580,000	168,300	2,282,600
Food Safety Mobility Strategy	4,040,000	0	0	2,222,000	0	2,222,000
SFA's 30 X 30 Express Grant Call	31,130,000	0	4,479,743	16,372,200	8,500,000	13,600,000
Food Handlers Digital Data Hub	880,000	0	0	0	140,000	740,000
Agri-food Cluster Transformation (ACT) Fund	59,682,000	0	0	0	700,000	3,500,000
New Projects	...	...	0	17,150,000	10,000	2,350,300
Completed Projects	...	...	21,894,204	8,969,800	3,029,600	0

Other Development Fund Outlays

Project Title	Total Project Cost	Actual Expenditure Up to end of FY2019	Actual FY2020	Estimated FY2021	Revised FY2021	Estimated FY2022
OTHER DEVELOPMENT FUND OUTLAYS	...	...	\$15,274,755	\$58,041,900	\$57,428,900	\$43,090,100
<i>LAND-RELATED EXPENDITURE</i>	...	...	15,274,755	58,041,900	57,428,900	43,090,100
Public Utilities Board Programme						
New Projects	...	...	0	0	0	1,710,000
Sewer Network for Changi East Area	149,800,000	10,882,753	11,105,179	43,768,000	43,159,000	30,013,000
Drains at Changi East	0	112,088	359,240	5,000,000	5,000,000	4,700,000
National Environment Agency Programme						
Exhumation Programme Phase 5	13,150,000	3,836,020	60,907	31,700	44,900	30,000
Exhumation Programme Phases 6 and 7 and Related Works	30,810,000	8,465,935	3,493,597	8,173,000	6,728,200	5,147,000
Works Related to Facilities Affected by Exhumation Programme	357,000	19,877	0	258,000	171,000	1,900
Exhumation Programme Phase 8	5,756,700	0	0	811,200	1,603,300	807,000
Road Diversion Works at Eastern Part of Choa Chu Kang Cemetery (CCKC)	1,059,700	0	0	0	272,500	681,200
Completed Projects	...	...	255,832	0	450,000	0

KEY PERFORMANCE INDICATORS

Desired Outcomes

- A liveable and endearing home
- A smart, resilient and sustainable water system
- Food safety and security achieved sustainably
- A zero waste nation and circular economy
- Climate change resilience and transition to a low-carbon future
- Advancement of Singapore's strategic and economic interests relating to the environment, water and food

Key Performance Indicators

Desired Outcome	Performance Indicator ¹	Actual	Actual	Revised	Estimated
		FY2019	FY2020	FY2021 ²	FY2022 ³
A liveable and endearing home	% of days in a year where Pollutant Standards Index (PSI) is in the "Good" & "Moderate" range	97.0	100	95.0	95.0
	No. of local Dengue Fever cases per 100,000 population	275.4	620.4	104.3	NA ⁴
	No. of air pollution incidents per million population ⁵	0.0	0.2	0.9	2.0
	No. of water pollution incidents per million population ⁶	1.4	1.2	1.6	2.0
	Accuracy of Nowcast (%) ⁷	90.9	90.4	90.5	90.0
A smart, resilient and sustainable water system	% of tests meeting World Health Organisation (WHO) drinking water quality guidelines	100	100	100	100
	Distribution Losses	8.2	8.0	8.2	≤8.2
	No. of leaks per 100km of potable water mains per year	5.3	3.8	5.0	≤5.0
	No. of service disruptions per 1,000 km of sewers (monthly average over the year)	10.4	10.0	10.1	≤10.3
	Size of flood prone area (ha)	29.0	28.0	28.0	27.0
Food safety and security achieved sustainably	Per capita household water consumption (litres/day)	141	154	158	NA ⁸
	No. of the 5 most commonly consumed food items (fish, eggs, chicken, pork and leafy vegetables) that has less than 50% of supply from a single country	3/5 ⁹	3/5	3/5	3/5
	Foodborne illness cases related to foodborne outbreaks ¹⁰ per 100,000 population	21.6	7.8	≤ 28.2 ¹¹	≤ 38.8 ¹²
A zero waste nation and circular economy	Total domestic waste disposed of per capita (kg/day/person)	0.78	0.75	0.77	0.78
	Total non-domestic waste disposed of (tonnes per day/\$billion GDP)	8.9	8.2	8.5	8.8
	Recycling rate (%)	59	52	53	60
Climate change resilience and transition to a low-carbon future	Total Greenhouse Gas (GHG) Emissions (million tonnes of CO ₂ -equivalent; MtCO ₂ e) ¹³	52	NA ¹⁴	NA	NA

¹ All data are reported on a calendar year basis.

² Data for "Revised FY2021" column refers to projected figures for 2021.

³ Data for "Estimated FY2022" column refers to targets for 2022.

⁴ No target has been set for 2022, due to the dynamic nature of dengue transmission. NEA is reviewing the target for this indicator to better reflect NEA's performance in managing the dengue situation.

⁵ Pollution incidents only include substantiated air pollution cases which have significant impacts on the environment and/or public health.

⁶ Pollution incidents refer to substantiated water pollution cases which have resulted in significant water pollution in open drains and/or waterways.

⁷ Nowcast is a short-term forecast of 2 hours. Weather systems in the tropics are dynamic in nature and can develop and dissipate within a short span of time, typically around an hour.

⁸ No target has been set for 2022 as the COVID-19 situation remains fluid, with some restrictions set to remain in 2022. PUB is monitoring and studying the long-term impact of COVID-19 on household water consumption, and will review the Litres Per Capita per Day targets.

⁹ The three food items are fish, chicken and pork.

¹⁰ An outbreak is defined as ≥15 people affected by food poisoning incidents that have triggered One Health joint investigations.

¹¹ As of 31 Oct 2021, there are 6 reported foodborne outbreak incidents in the period from Aug 2021 to Oct 2021 that are pending conclusion of investigations. Depending on the outcome of the investigations, the performance from Jan 2021 to Oct 2021 will be in the range of 14.6 to 23.5. Using a linear projection based on 23.5 for the period from Jan 2021 to Oct 2021, the projected figure for 2021 is about 28.2.

¹² As this is a relatively new indicator, the target has been set by referencing the FY2018 actual figure of 38.8 per 100,000 population. SFA is monitoring the trend in foodborne illness outbreaks, and will benchmark against other urban cities before revising the target.

¹³ The GHG inventory is refined regularly, in accordance with the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories.

¹⁴ Data will be available in 2022, due to the lag time for external organisations/agencies to submit their data to NEA.

Desired Outcome	Performance Indicator ¹	Revised FY2021	Estimated FY2022
<p>Advancement of Singapore's strategic and economic interests relating to the environment, water and food</p>	<p>Fulfil Singapore's obligations to regional and international agreements and conventions</p>	<p>Ensured that international commitments are fulfilled.</p>	<p>Ensure that international commitments are fulfilled to uphold Singapore as a responsible global environmental citizen.</p>
		<p>Ensured that international obligations are not inimical to Singapore, with regards to our environmental, water and food interests.</p>	<p>Ensure that international obligations are not inimical to Singapore, with regards to our environmental, water and food interests.</p>
	<p>Advance Singapore's strategic and economic interests relating to the environment, water and food through bilateral, regional and international platforms</p>	<p>Engaged bilateral partners to pursue strategic interests in addressing environmental, water, food and other transboundary environmental issues.</p>	<p>Engage bilateral partners to pursue strategic interests in addressing environmental, water, food and other transboundary environmental issues.</p>
		<p>Pursued collaborations with international partners on environment, water and food issues.</p>	<p>Pursue collaborations with international partners on environment, water and food issues.</p>
		<p>Profiled Singapore's efforts and achievements in sustainable development, water management and food security.</p>	<p>Profile Singapore's efforts and achievements in sustainable development, water management and food security.</p>
		<p>Leveraged various platforms to strengthen global awareness on Singapore's environmental, water and food issues, including transboundary ones.</p>	<p>Leverage various platforms to strengthen global awareness on Singapore's environmental, water and food issues, including transboundary ones.</p>