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APPENDICES



Key Statistics of Singapore

1. Singapore has changed significantly over its forty-three years of independence. The tables below track the key economic and social indicators and provide a snapshot of Singapore's journey. From a port with a small population of about 1.9 million and GDP¹ per capita of S\$4,668 (US\$1,525) in 1965, Singapore has developed into a dense city state with more than 4 million people and GDP per capita of S\$44,767 (US\$26,897) in 2005 (Table AI.1).

2. In tandem with economic and population growth, Singapore has also progressed in social and human development aspects such as health and education levels of its citizens (Table AI.1). Adult literacy rates have increased from about 70 per cent in the 1970s to 95 per cent today. The quality and standards of healthcare services have also improved, as shown by the reduction of infant mortality rates from 26.3 to only 2 per 1,000 live-births in 2005. Total life expectancy at birth for residents has increased from 64.5 to 79.7 years since 1965.

TABLE AI.1
Key Economic and Social Indicators of Singapore

Key Indicators	1965	1985	2005
Gross Domestic Product (GDP) (S\$ million)	8,807.5	51,254.0	194,371.3
Total Population (thousands)	1,886.9	2,736.0	4,341.8
GDP Per Capita (S\$)	4,667.7	18,733.2	44,767.4
Overall Unemployment Rate (%)	—	5.7*	3.1
Literacy Rate of Residents aged 15 years and over (%)	72.7**	85.7	95.0
Infant Mortality (per 1,000 live-births)	26.3	8	2
Total Life Expectancy at Birth (residents)	64.5	73.9	79.7

Notes: * Earliest data available is for 1986.

** Earliest data available is for 1970.

Source: Department of Statistics, Singapore, <<http://www.singstat.gov.sg/>>.

3. International Benchmarking:

(a) *Global Competitiveness Index*

The Global Competitiveness Report series produced by the World Economic Forum is widely regarded as the world's most comprehensive assessment of countries' competitiveness, providing a dataset on a broad array of competitiveness indicators for a large number of industrialized and developing economies. The World Economic Forum (WEF) ranked Singapore the 7th most competitive economy out of 131 countries under its Global Competitiveness Index (Table AI.2).

TABLE AI.2
Top 25 Ranking of Global Competitiveness Index (2007–2008)

Country/Economy	GCI 2007–2008		GCI 2006–2007
	Rank	Score	Rank
United States	1	5.67	1
Switzerland	2	5.62	4
Denmark	3	5.55	3
Sweden	4	5.54	9
Germany	5	5.51	7
Finland	6	5.49	6
Singapore	7	5.45	8
Japan	8	5.43	5
United Kingdom	9	5.41	2
Netherlands	10	5.40	11
Korea	11	5.40	23
Hong Kong SAR	12	5.37	10
Canada	13	5.34	12
Taiwan, China	14	5.25	13
Austria	15	5.23	18
Norway	16	5.20	17
Israel	17	5.20	14
France	18	5.18	15
Australia	19	5.17	16
Belgium	20	5.10	24
Malaysia	21	5.10	19
Ireland	22	5.03	22
Iceland	23	5.02	20
New Zealand	24	4.98	21
Luxembourg	25	4.88	25

Source: World Economic Forum, <<http://www.gcr.weforum.org/>>.

(b) *Human Development Index (HDI)*

The HDI, published every year by the Human Development Report since 1990, provides a broadened prism for viewing human development and well-being beyond economic growth. It provides a composite measure of three dimensions of human development: living a long and healthy life, being educated and with a decent standard of living. The HDI for Singapore in 2005 is 0.922, which translates to a rank of 25th out of 177 countries with data (Table AI.3).

TABLE AI.3
2005 Human Development Index Rankings for
High Human Development Countries

<i>HDI Rank</i>	<i>Country</i>	<i>HDI Value</i>	<i>HDI Rank</i>	<i>Country</i>	<i>HDI Value</i>
1	Iceland	0.968	21	Hong Kong, China	0.937
2	Norway	0.968	22	Germany	0.935
3	Australia	0.962	23	Israel	0.932
4	Canada	0.961	24	Greece	0.926
5	Ireland	0.959	25	Singapore	0.922
6	Sweden	0.956	26	Korea (Republic of)	0.921
7	Switzerland	0.955	27	Slovenia	0.917
8	Japan	0.953	28	Cyprus	0.903
9	Netherlands	0.953	29	Portugal	0.897
10	France	0.952	30	Brunei Darussalam	0.894
11	Finland	0.952	31	Barbados	0.892
12	United States	0.951	32	Czech Republic	0.891
13	Spain	0.949	33	Kuwait	0.891
14	Denmark	0.949	34	Malta	0.878
15	Austria	0.948	35	Qatar	0.875
16	United Kingdom	0.946	36	Hungary	0.874
17	Belgium	0.946	37	Poland	0.87
18	Luxembourg	0.944	38	Argentina	0.869
19	New Zealand	0.943	39	United Arab Emirates	0.868
20	Italy	0.941	40	Chile	0.867

TABLE AI.3 (continued)

<i>HDI Rank</i>	<i>Country</i>	<i>HDI Value</i>	<i>HDI Rank</i>	<i>Country</i>	<i>HDI Value</i>
41	Bahrain	0.866	56	Libyan Arab Jamahiriya	0.818
42	Slovakia	0.863	57	Antigua and Barbuda	0.815
43	Lithuania	0.862	58	Oman	0.814
44	Estonia	0.86	59	Trinidad and Tobago	0.814
45	Latvia	0.855	60	Romania	0.813
46	Uruguay	0.852	61	Saudi Arabia	0.812
47	Croatia	0.85	62	Panama	0.812
48	Costa Rica	0.846	63	Malaysia	0.811
49	Bahamas	0.845	64	Belarus	0.804
50	Seychelles	0.843	65	Mauritius	0.804
51	Cuba	0.838	66	Bosnia and Herzegovina	0.803
52	Mexico	0.829	67	Russian Federation	0.802
53	Bulgaria	0.824	68	Albania	0.801
54	Saint Kitts and Nevis	0.821	69	Macedonia (TFYR)	0.801
55	Tonga	0.819	70	Brazil	0.8

Source: Human Development Report, <<http://hdrstats.undp.org/indicators/1.html>>.

(c) *Mercer Quality of Living*

Mercer's Worldwide Quality of Living is an annual survey that measures livability of cities for expatriates based on factors that people consider representative of quality of living. Mercer's study is based on detailed assessments and evaluations of 39 key quality of living determinants, grouped in the following categories:

Political and social environment (political stability, crime, law enforcement, etc.)

Economic environment (currency exchange regulations, banking services, etc.)

Socio-cultural environment (censorship, limitations on personal freedom, etc.)

Health and sanitation (medical supplies and services, infectious diseases, sewage, waste disposal, air pollution, etc.)

Schools and education (standard and availability of international schools, etc.)

Public services and transportation (electricity, water, public transport, traffic congestion, etc.)

Recreation (restaurants, theatres, cinemas, sports and leisure, etc.)

Consumer goods (availability of food/daily consumption items, cars, etc.)

Housing (housing, household appliances, furniture, maintenance services, etc.)

Natural environment (climate, record of natural disasters)

In 2008, the top-ranked cities are mainly from the European Union, Canada and Australia. Singapore, at no. 32, was one of the few Asian cities that ranked among the top 50 (Table AI.4).

Note

1. All GDP data are based on 2000 market prices and U.S. dollar exchange rate of 3.0612 for 1965 and 1.6644 for 2005.

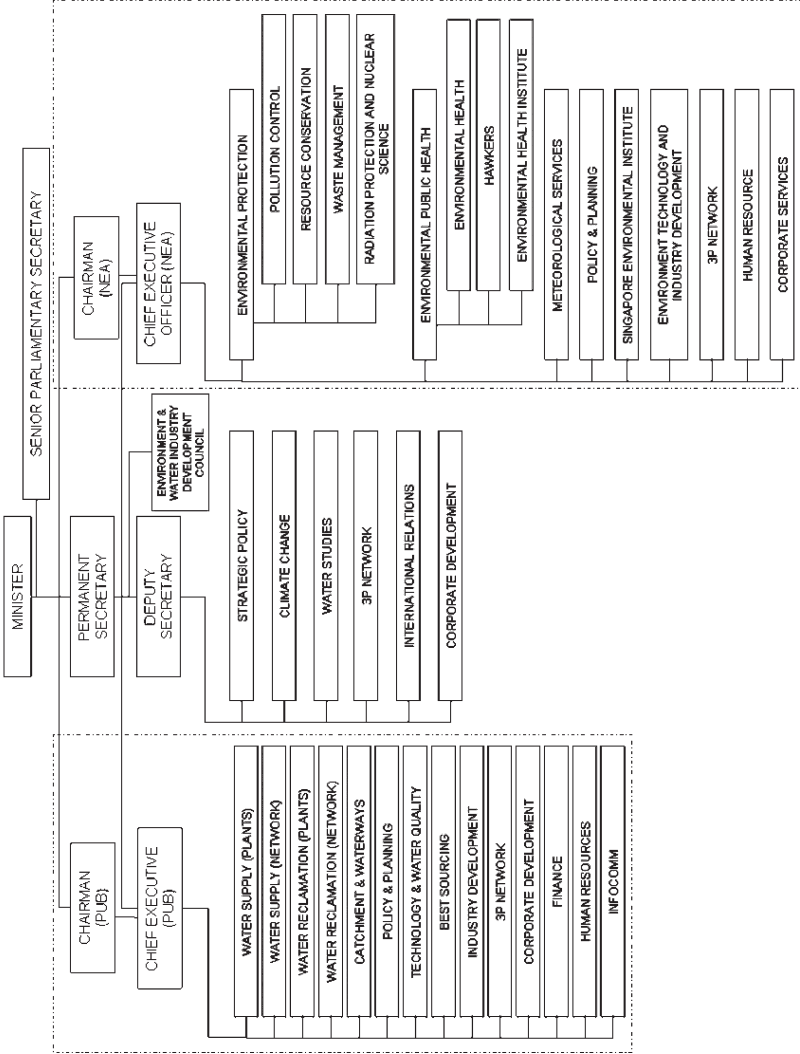
TABLE AI.4
Top 50 Cities: Quality of Living (Base City: New York, US (=100))

Rank 2008	City	Country	Index 2008	Rank 2008	City	Country	Index 2008
1	Zurich	Switzerland	108	25	Calgary	Canada	103.5
2	Vienna	Austria	107.9	27	Hamburg	Germany	103.4
2	Geneva	Switzerland	107.9	28	Honolulu, HI	United States	103.1
4	Vancouver	Canada	107.6	29	San Francisco, CA	United States	103
5	Auckland	New Zealand	107.3	29	Helsinki	Finland	103
6	Dusseldorf	Germany	107.2	29	Adelaide	Australia	103
7	Munich	Germany	107	32	Singapore	Singapore	102.9
7	Frankfurt	Germany	107	32	Paris	France	102.9
9	Bern	Switzerland	106.5	34	Brisbane	Australia	102.4
10	Sydney	Australia	106.3	35	Tokyo	Japan	102.2
11	Copenhagen	Denmark	106.2	36	Lyon	France	101.9
12	Wellington	New Zealand	105.8	37	Boston, MA	United States	101.8
13	Amsterdam	The Netherlands	105.7	38	Yokohama	Japan	101.6
14	Brussels	Belgium	105.4	38	London	United Kingdom	101.6
15	Toronto	Canada	105.3	40	Kobe	Japan	100.9
16	Berlin	Germany	105	41	Milan	Italy	100.8
17	Melbourne	Australia	104.8	42	Barcelona	Spain	100.6
17	Luxembourg	Luxembourg	104.8	43	Madrid	Spain	100.5
19	Ottawa	Canada	104.7	44	Washington, DC	United States	100.3
20	Stockholm	Sweden	104.5	44	Osaka	Japan	100.3
21	Perth	Australia	104.3	44	Lisbon	Portugal	100.3
22	Montreal	Canada	104.2	44	Chicago, IL	United States	100.3
23	Nurnberg	Germany	104.1	48	Portland, OR	United States	100.2
24	Oslo	Norway	103.7	49	New York City, NY	United States	100
25	Dublin	Ireland	103.5	50	Seattle, WA	United States	99.8

Source: Mercer, <www.mercer.com/qualityofliving>.

APPENDIX II

ORGANIZATIONAL STRUCTURE: MEWR AND ITS STATUTORY BOARDS



Environment Ministers and Permanent Secretaries; PUB and NEA Chairmen and Chief Executives

Environment Ministers

1. Lim Kim San	September 1972 to January 1975
2. E. W. Barker	January 1975 to February 1979
3. Lim Kim San	February 1979 to January 1981
4. Ong Pang Boon	January 1981 to January 1985
5. Dr Ahmad Mattar	January 1985 to June 1993
6. Mah Bow Tan	July 1993 to April 1995
7. Teo Chee Hean	April 1995 to January 1997
8. Yeo Cheow Tong	January 1997 to June 1999
9. Lee Yock Suan	June 1999 to September 2000
10. Lim Swee Say	October 2000 to August 2004
11. Dr Yaacob Ibrahim	August 2004 to date

Permanent Secretaries of the Environment Ministry

1. Lee Ek Tieng	September 1972 to March 1986
2. Cheong Quee Wah	April 1986 to June 1992

- | | |
|--------------------|-----------------------------|
| 3. Tan Guong Ching | July 1992 to March 1995 |
| 4. Tan Gee Paw | April 1995 to March 2001 |
| 5. Lam Chuan Leong | April 2001 to December 2003 |
| 6. Tan Yong Soon | January 2004 to date |

PUB Chairmen

- | | |
|---------------------------------|---------------------------------|
| 1. Fong Kim Heng | May 1963 to November 1963 |
| 2. Sir George E. N. Oehlers | November 1963 to July 1965 |
| 3. Dr Ong Swee Law | August 1965 to December 1970 |
| 4. Lim Kim San | January 1971 to September 1978 |
| 5. Lee Ek Tieng | September 1978 to December 2000 |
| 6. Chiang Chie Foo ¹ | January 2001 to April 2001 |
| 7. Tan Gee Paw | April 2001 to date |

NEA Chairmen

- | | |
|-----------------------|-------------------------|
| 1. Simon Tay | July 2002 to April 2008 |
| 2. Chew Gek Khim (Ms) | April 2008 to date |

PUB Chief Executives

- | | |
|---------------------------------|---------------------------------|
| 1. Lee Siow Mong | May 1963 to June 1965 |
| 2. Goh Teng Koon (AG) | June 1965 to July 1966 |
| 3. Kenneth Ying Doon Gin | July 1966 to September 1969 |
| 4. Z. K. Fiuczek (AG) | September 1969 to August 1970 |
| 5. Khong Kit Soon | August 1970 to March 1975 |
| 6. Wee Kian Kok (AG) | March 1975 to July 1978 |
| 7. Tay Sin Yan (AG) | July 1978 to August 1979 |
| 8. Lee Yong Siang | December 1979 to February 1995 |
| 9. BG Boey Tak Hap ² | February 1995 to September 1995 |
| 10. Ong Ho Sim | October 1995 to April 2000 |
| 11. Khoo Chin Hean ³ | April 2000 to March 2001 |
| 12. Khoo Teng Chye | December 2003 to date |

NEA Chief Executives

1. BG (NS) Lam Joon Khoi July 2002 to April 2005
2. Lee Yuen Hee May 2005 to date

Notes

1. In April 2001, PUB was restructured to become Singapore's national water authority, retaining its water supply functions and absorbing the sewerage and drainage departments from the Environment Ministry. The regulation of the electricity and gas industries, formerly undertaken by the PUB, was transferred to a new statutory board, the Energy Market Authority (EMA), formed under MTI. Chang Chie Foo was appointed Chairman of the EMA, while Tan Gee Paw was appointed Chairman PUB.
2. In October 1995, the electricity and piped gas undertakings of the PUB were corporatized. BG Boey Tak Hap was appointed the President and CEO of the newly formed company, Singapore Power Ltd.
3. Khoo Chin Hean was appointed Chief Executive of the newly formed EMA in April 2001. The PUB Chief Executive position for the period April 2001 to November 2003 was covered by Tan Gee Paw in his capacity as PUB's Executive Chairman.

Appendix **IV**

Milestones

Year	Milestone
1963	<ul style="list-style-type: none">• Public Utilities Board (PUB) formed as a statutory board under the Ministry of Trade and Industry (MTI)
1966	<ul style="list-style-type: none">• Industrial Water introduced with construction of the Jurong Island Water Works
1968	<ul style="list-style-type: none">• Annual “Keep Singapore Clean” Campaign launched• Environmental Public Health Act and Destruction of Disease-Bearing Insects Act enacted
1969	<ul style="list-style-type: none">• Expansion of Upper Seletar Reservoir and eight stream abstraction stations
1970	<ul style="list-style-type: none">• Formation of the Anti-Pollution Unit (APU) under the Prime Minister’s Office (PMO)• A smoking ban was first introduced in Singapore in omnibuses, cinemas and theatres, and progressively extended to other outlets over the years, e.g., air-conditioned restaurants and entertainment outlets.
1971	<ul style="list-style-type: none">• Clean Air Act passed• First hawker centre constructed• First “Water is Precious” Campaign launched

-
- 1972
 - Formation of the Ministry of the Environment (ENV)
 - First Water Master Plan
 - Bukit Timah Flood Alleviation Scheme Phase 1 completed
 - 1973
 - Decision to build Singapore's first incineration plant at Ulu Pandan
 - 1974
 - First water reclamation plant constructed at Jurong (decommissioned after fourteen months)
 - 1975
 - Water Pollution Control and Drainage Act passed
 - First estuarine reservoir with Kranji/Pandan Scheme completed
 - Upper Peirce Reservoir and Chestnut Ave Waterworks completed
 - 1976
 - Control of fuel quality for vehicles commenced with limits set for sulphur content in diesel
 - 1977
 - Singapore River clean-up launched
 - Trade Effluent Regulations introduced
 - 1979
 - Ulu Pandan Incineration Plant commissioned
 - Bedok WRP commissioned
 - 1980
 - Kranji WRP commissioned
 - 1981
 - Seletar WRP commissioned
 - Jurong WRP commissioned
 - Western Catchment Scheme completed (Sarimbun, Murai, Tengeh, and Poyan Reservoirs) and expansion of Choa Chua Kang Waterworks
 - First Water Conservation Plan
 - 1982
 - Singapore declared "malaria-free" by the World Health Organization
 - Pig farming and open duck rearing phased out from all water catchments

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- 1983
 - APU transferred from PMO to ENV
 - Water Catchment Policy introduced to control developments within unprotected catchments
 - 1984
 - Vehicular exhaust emissions standards introduced for petrol vehicles
 - Inter-agency Road Drainage Improvement Task Force established
 - 1986
 - Tuas Incineration Plant and Kim Chuan Transfer Station commissioned
 - Completion of Sungei Seletar/Bedok Scheme and Bedok Waterworks
 - 1987
 - Singapore River clean-up successfully completed
 - Last night soil bucket phased out
 - 1989
 - Licensing for General Waste Collectors introduced
 - Acceded to the “Vienna Convention on the Protection of the Ozone Layer”
 - Acceded to the “Montreal Protocol on Substances that Deplete the Ozone Layer”
 - 1990
 - First annual Clean and Green Week
 - Bukit Timah Flood Alleviation Scheme Phase 2 completed
 - 1991
 - Unleaded petrol introduced
 - Vehicular exhaust emissions standards introduced for diesel vehicles and motorcycles
 - Pollutants Standard Index (PSI) adopted to communicate air quality information to the public
 - Water Conservation Tax introduced
 - 1992
 - Senoko Incineration Plant commissioned
 - Lim Chu Kang dumping ground closed

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- 1993
 - Establishment of the Centre for Environmental Training (which later became the Singapore Environment Institute in 2003)
 - 1994
 - Code of Practice on Pollution Control published
 - Telemetric air quality monitoring and management system introduced
 - Development of Semakau Landfill approved by Cabinet
 - 1996
 - Refuse collection function corporatized
 - Sewer Rehabilitation Phase 1 commenced (August)
 - Acceded to the “Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal”
 - CFCs and halons consumption phased out
 - 1997
 - Water Pricing Restructuring
 - Singapore 100 per cent served by modern sanitation system
 - Ratified the United Nations Framework Convention on Climate Change (UNFCCC)
 - Singapore hosted the first ASEAN Ministerial Meeting on Haze
 - 1998
 - Leaded petrol phased out
 - Control of Vectors and Pesticides Act passed to replace the Destruction of Disease-Bearing Insects Act
 - 1999
 - Lorong Halus dumping ground closed and Semakau landfill commenced operations
 - First tender called for provision of refuse collection services
 - Lifting of 1983 Water Catchment Policy’s urbanization cap and population density limit
 - NEWater Study commences

- Commencement of DTSS Phase I
 - Water Pollution Control and Drainage Act repealed and relevant powers streamlined into Sewerage and Drainage Act and Environmental Pollution Control Act
- 2000
- Emissions cap on major SO₂ emitters imposed (phased implementation)
 - Tuas South Incineration Plant commissioned
 - NEWater demonstration plant at Bedok commissioned
- 2001
- Hawker Centres Upgrading Programme launched
 - National Recycling Programme launched
 - PUB reconstituted to become Singapore's National Water Agency and transferred from MTI to ENV
 - Sewer Rehabilitation Phase 2 commenced
- 2002
- National Environment Agency (NEA) formed as a statutory board under ENV
 - Environmental Health Institute formed
- 2003
- PM Goh launched NEWater to the public
 - NEWater Factories at Bedok and Kranji begin operations
 - Ratified the ASEAN Agreement on Transboundary Haze Pollution
- 2004
- ENV renamed Ministry of the Environment and Water Resources (MEWR)
 - Decision taken to adopt DBOO approach for construction of Singapore's fifth incineration plant
 - Third NEWater Factory at Seletar begins operations
 - Reservoirs opened for recreational activities
 - WaterHub formed
- 2005
- Ultra low sulphur diesel introduced
 - First Desalination Plant commissioned

-
- 2006
 - Environment and Water Industry Development Council formed under MEWR
 - Euro IV standards adopted for new diesel vehicles
 - Private Sewer Rehabilitation Programme commenced
 - Sewer Rehabilitation Phase 3 commenced
 - Acceded to the Kyoto Protocol of the UNFCCC
 - ABC Waters programme launched

 - 2007
 - Clean and Green Week rebranded as Clean and Green Singapore
 - Voluntary Packaging Agreement launched for food and beverage industry
 - PUB wins the Stockholm Industry Water Award
 - Ulu Pandan NEWater Factory commissioned
 - Reservoir Integration Scheme completed
 - Energy Efficiency Master Plan launched

 - 2008
 - Inaugural Singapore International Water Week
 - Formation of the Inter-Ministerial Committee on Sustainable Development
 - Kim Chuan Water Reclamation Plant phased out

Environment and Water Regulations and Standards

Environment and water as well as public health issues in Singapore today are overseen by the Ministry of the Environment and its two statutory boards – the National Environment Agency (NEA) and the Public Utilities Board (PUB). In law, a statutory board is an autonomous government agency established by an act of Parliament that specifies the purpose, rights, and powers of the body. The NEA and PUB have been formed under the National Environment Agency Act and the Public Utilities Act respectively.

The National Environment Agency Act outlines the functions, duties, and powers of the NEA. The functions and duties of the NEA include monitoring, reducing, and preventing pollution, ensuring high standards of public cleanliness through the supervision of cleansing services and the prevention of littering, ensuring high standards of public health through vector control and research on vector-borne diseases as well as licensing food outlets, managing and regulating refuse collection and disposal, promoting resource efficiency, and the provision of meteorological services.

NEA administers the Environmental Protection and Management Act (EPMA), which provides a comprehensive legislative framework for the control of environmental pollution and the promotion of resource conservation. The EPMA was

previously known as the Environmental Pollution Control Act (EPCA). The EPCA was amended and renamed the EPMA on 1 January 2008 to provide for additional provisions on the protection and management of the environment and resource conservation. The EPCA came into operation on 1 April 1999 and consolidated previous separate laws on air, water, and noise pollution, and hazardous substances control. In addition, NEA administers legislations under the Hazardous Waste (Control of Export, Import and Transit) Act, which governs hazardous waste. NEA also administers the Environmental Public Health Act (EPHA) and the Control of Vectors and Pesticides Act). Together, these Acts provide the legislative framework for ensuring high standards of public health and cleanliness. The EPHA covers areas such as public cleansing, refuse disposal, industrial waste, food establishments and hawker centres, and sanitary conditions.

The Public Utilities Act outlines the functions, duties, and powers of the PUB in relation to water. The functions and duties of the PUB include providing an adequate supply of water, regulating the supply of piped water for human consumption, supplying industrial and treated used water, and operating the public sewer systems and storm water drainage systems.

PUB administers the Sewerage and Drainage Act which provides for and regulates the construction, maintenance, improvement, operation, and use of sewerage and land drainage systems. The Act also regulates the discharge of used water and trade effluent.

Singapore Statutes are available at the Singapore Government Statutes Online website <<http://statutes.agc.gov.sg>>.

The details of the regulations under each Act are as follows.

ENVIRONMENTAL PROTECTION AND MANAGEMENT ACT

- Environmental Protection and Management (Boundary Noise Limits for Factory Premises) Regulations

- Environmental Protection and Management (Control of Noise at Construction Sites) Regulations
- Environmental Protection and Management (Fees for Licences) Regulations
- Environmental Protection and Management (Hazardous Substances) Regulations
- Environmental Protection and Management (Trade Effluent) Regulations
- Environmental Protection and Management (Vehicular Emissions) Regulations
- Environmental Protection and Management (Composition of Offences) Regulations
- Environmental Protection and Management (Air Impurities) Regulations
- Environmental Protection and Management (Ozone Depleting Substances) Regulations
- Environmental Protection and Management (Energy Conservation) Regulations
- Environmental Protection and Management (Prohibition on the Use of Open Fires) Order
- Environmental Protection and Management (Registrable Goods) Order

HAZARDOUS WASTE (CONTROL OF EXPORT, IMPORT AND TRANSIT) ACT

- Hazardous Waste (Control of Export, Import and Transit) Regulations
- Hazardous Waste (Extend Meaning of Hazardous and Other Wastes – Indonesia) Notification 2005
- Hazardous Waste (Extend Meaning of Hazardous and Other Wastes – Malaysia) Notification 2005
- Hazardous Waste (Extend Meaning of Hazardous and Other Wastes – Philippines) Notification 2005

- Hazardous Waste (Extend Meaning of Hazardous and Other Wastes – Thailand) Notification 2005

ENVIRONMENTAL PUBLIC HEALTH ACT

- Environmental Public Health (Burning of Joss Sticks and Candles) Regulations
- Environmental Public Health (Registration of Environmental Control Officers) Regulations
- Environmental Public Health (Public Cleansing) Regulations
- Environmental Public Health (Licence Fees) Regulations
- Environmental Public Health (Funeral Parlours) Regulations
- Environmental Public Health (Crematoria) Regulations
- Environmental Public Health (Cooling Towers and Water Fountains) Regulations
- Environmental Public Health (Cemeteries) Regulations
- Environmental Public Health (Swimming Pools) Regulations
- Environmental Public Health (Toxic Industrial Waste) Regulations
- Environmental Public Health (General Waste Collection) Regulations
- Environmental Public Health (Notice to Attend Court) Regulations
- Environmental Public Health (Corrective Work Order) Regulations
- Environmental Public Health (Food Hygiene) Regulations
- Environmental Public Health (Composition of Offences) Rules 2003
- Environmental Public Health (Employment of Environmental Control Officers) Order
- Environmental Public Health (Qualifications of Environmental Control Officers) Notification

CONTROL OF VECTORS AND PESTICIDES ACT

- Control of Vectors and Pesticides (Composition of Offences) Regulations
- Control of Vectors and Pesticides (Prescribed Form) Regulations
- Control of Vectors and Pesticides (Registration, Licensing and Certification) Regulations

PUBLIC UTILITIES ACT

- Public Utilities (Reservoirs and Catchment Areas) Regulations
- Public Utilities (Composition of Offences) Regulations
- Public Utilities (Tariffs for Water) Regulations
- Public Utilities (Water Supply) Regulations

SEWERAGE AND DRAINAGE ACT

- Sewerage and Drainage (Composition of Offences) Regulations
- Sewerage and Drainage (Trade Effluent) Regulations
- Sewerage and Drainage (Application Fees) Regulations
- Sewerage and Drainage (Sanitary Appliances and Water Charges) Regulations
- Sewerage and Drainage (Sanitary Works) Regulations
- Sewerage and Drainage (Sewage Treatment Plants) Regulations
- Sewerage and Drainage (Surface Water Drainage) Regulations

The legislations and regulations administered by NEA and PUB allow for the Singapore environment to measure up to the desired performance standards. The table below summarizes the standards which are tracked by NEA and PUB across the key environmental and water areas.

<i>Area</i>	<i>Standards</i>
Air Quality	Sulphur Dioxide (24-hour and Annual)
	Nitrogen Dioxide (Annual)
	Carbon Monoxide (1-hour and 8-hour)
	Ozone (8-hour)
	Particulate Matter 10 (24-hour)
	Particulate Matter 2.5 (24-hour and Annual)
	Lead (Quarterly average)
Environmental Health	No. of local dengue cases per 100,000 population
	No. of malaria cases (local and imported)
	No. of food outlet-related food poisoning outbreaks per 1,000 food outlets
	No. of licensed food outlets
	Total no. of hawker centres
	No. of upgraded hawker centres
Solid Waste Management	Percentage of population with access to waste collection services
	Waste generated (Total)
	Waste recycled (Total)
	Waste incinerated (Total)
	Waste landfilled (Total)
	Domestic waste disposed (Total and per capita)
	Non-domestic waste disposed (Total)
	Remaining landfill lifespan
Water Sustainability	<u><i>Water Resource Management</i></u>
	Drinking water (% access)
	Adequate sanitation (% access)
	Drinking water quality (meeting WHO standard)
	Unaccounted for Water

	<i>Water Supply and Demand</i>
	No. of raw water reservoirs in Singapore
	No. of desalination plants
	Sales of potable water in Singapore (domestic and non-domestic)
Water Sustainability	No. of NEWater plants
	Sale of NEWater
	Sale of Industrial Water
	Volume of used water treated
	Domestic water consumption per capita
	<i>Environment and Water Industry</i>
	Economic value add by water industry
	Employment in water industry
Climate Change and Energy Efficiency	Absolute carbon dioxide emissions
	Carbon intensity
	Energy intensity
	Electricity generated from Natural Gas
	Number of approved projects in EASe ¹
	Household electricity use per capita

Note

1. The Energy Efficiency Improvement Assistance Scheme (EASe) is a co-funding scheme administered by the NEA to encourage companies in the manufacturing and building sectors to carry out detailed studies on their energy consumption and identify potential areas for energy efficiency improvement.