







MWA 50 Years of Happiness















Development of production and transmission of water supply

For stability of the water supply system in response to an increase in water consumption need in the future.

Excellent Services

For enhancement of customer services to make them fast and easy for the public.

Creation of innovations to meet the water consumers' needs

For building confidence in response to water consumer expectation.

Activities for communities and societies

For improvement in quality of life as well as raising awareness on the value of water.

Health promotion

For creation of networks and promotion of activity participation leading to healthy life.



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Metropolitan Waterworks Authority (MWA)

is a state enterprise under the Ministry of Interior.

It started its operation on 16 August 1967 under the Metropolitan Waterworks Authority Act B.E. 2510 (AD 1967) with an obligation to provide raw water sources for waterworks activities, including producing, distributing and selling treated water in Bangkok, Nonthaburi and Samutprakarn, and running other businesses related or beneficial to the waterworks.

The Government's Statement

of Direction for **State Enterprises**

is comprised of 3 levels

Overall Policy for State Enterprises

To be a mechanism which drives economic strategy and society of the nation based on effective operation in accordance with good governance principles.

Policy for State Enterprises in Public Utilities Sector

To satisfy basic needs, promote improvement of citizens' quality of life and develop immovable property for the best benefits.

Policy for MWA



Vision

"To be a high performance water supply organization with excellent corporate governance and reach international standard"



Mission



- Develop organization growth and sustainability
- Implement water safety plan according to WHO standard by assuring the stability of water resource production and transmission
- Deliver professional water supply service to reach and balance stakeholder needs
- Improve people's quality of life by expanding water services and societal responsibility all over Thailand

Values

QWATER

Q - Quality

W - Willingness

A - Achievement

T - Team

E - Excellent Service

R - Respect to Transparency







Message from the Chairman





At present, the urban area is expanding from the city center of Bangkok Metropolis to suburban areas. The city with skyscrapers and condominiums tends to be rapidly growing continuously whereas the service areas of Metropolitan Waterworks Authority (MWA) remain the same. Therefore, MWA must take up the challenge to improve its services continuously and control the water quality to meet the international standard despite the limitation of raw water resources.

To find the solution under good corporate governance, the MWA Board of Directors has administered and driven the management of knowledge, technology, and innovation as it was awarded Asia Pacific Entrepreneurship Awards (APEA) 2017 for State-owned Enterprise, SOE Awards for Honorable Mention for Outstanding Innovation on the 'Kraithong' Robot, SOE Awards for Outstanding Social and Environmental Activities on the water system from Rinluang School to Mae Klong, and the 25th Silver Conch Awards for CSR Communication Project on conserving water for drought resilience and raising awareness of water access and value.

On occasion of the 50th anniversary of the MWA, we determine to provide water service for people in Bangkok, Nonthaburi, and Samut Prakan and make them happy by carrying out five major activities that include 1) *Development of waterworks supply and distribution* to establish the stability of waterworks system and meet the demand of tap water used in the future; 2) *Excellent services* to improve the convenience and immediate action; 3) *Innovation for water users' demand* to make them feel confident and respond to their needs; 4) *Operating waterworks system for community and society* to raise the quality of life and people's awareness of water use and value; and 5) *Strengthening people's health* to build up health networks and encourage people to take part in health activities. These activities will help promote MWA to be "a high performance water supply organization with excellent corporate governance and reach international standard".

Our Emys

Mr. Vullop Phringphong Chairman, MWA Board of Directors

Message from the Governor





The Metropolitan Waterworks Authority (MWA) has administered waterworks service for more than a century, or according to the history of the MWA, it was established about 103 years ago. The strength and capability of providing services have been shown by all the MWA activities. The next step of the MWA service improvement is based on the operation framework integrated with targeted directions; that is, the 4th Issue of MWA's Strategic Management Planning (B.E. 2560-2564), the 12th National Economic and Social Development Plan (B.E. 2560-2564), the 20-Year National Strategy Plan (B.E.2560-2579), and the driving of the nation following Thailand 4.0 strategy. In this regard, innovations and digital technology will be used to monitor the development mechanism to enhance the stability, wealth, and sustainability of Thailand as declared by the national government.

The MWA activities have been continuously developed in different phases. The present phase, the 9th Bangkok Water Supply Improvement Project has been ranged from B.E. 2560-2565, is aimed at establishing the stability of waterworks in production quantity, and tap water system in the western connected to the eastern regions, including the expansion of water services increasingly and continuously developed in the marginal lands. The budget of this project is approximately over 42,750 million baht. There are two significances of this project as follows:

- First, MWA has invested a large sum of money whereas water tariffs have remained the same for more than 18 years to help consumers save money on water bill. In other words, it's taking a lot of effort on MWA to provide all dimensions of waterworks service.
- **Second,** it is seen that MWA is a transparent organization with corporate governance by joining the Integrity Pact, the project MWA cooperates with private sectors, proposed contractors, and observers, in all procedures. This project aimed at preventing and suppressing corruption in all aspects in order for MWA to become one of the sustainable role model organizations that support Thai society, work with integrity without corruption.

The MWA tasks in the next phase are more challenging in its own organization and in cooperation with other organizations to expand networks based on the Water Resources Management Act. Meanwhile, it is the organization that provides waterworks service in correspondence with the MWA vision "To be a high performance water supply organization with excellent corporate governance and reach international standard". In addition, MWA has determined to improve the waterworks service continuously and consider the benefit of Thai people to be the most significant.





Organization Structure

Workforce Structure

As of 30 September 2017, Metropolitan Waterworks Authority has employed 5,403 staff members, of which 4,385 are employees and 1,018 are contract workers. The total expenditure on human resources was 2,805.95 million baht consisting of 2,590.73 million baht for expenditure on employee and 215.22 million baht for expenditure on contract workers.

	Workforce (Person)			
Operation Line	2017			
	Employee	Contract Worker	Total Staff	
1. Governor	285	81	366	
2. Deputy Governor (Administration)	283	69	352	
3. Deputy Governor (Finance)	165	16	181	
4. Deputy Governor (Eastern Services)	1,233	291	1,524	
5. Deputy Governor (Western Services)	960	198	1,158	
6. Deputy Governor (Engineering and Construction)	355	53	408	
7. Deputy Governor (Water Production and Transmission)	880	282	1,162	
8. Deputy Governor (Planning and Development)	99	17	116	
9. Deputy Governor (Information Technology)	125	11	136	
Total	4,385	1,018	5,403	

For Fiscal Year 2017, MWA had total staff of 5,403 persons while having tap water consumers for 2,328,598 meter connections which is considered approximately as a ratio of 431 consumers to 1 staff.

The Number of Personnel and The Ratio of **Customer to One Staff Member**



As of 30 September 2017

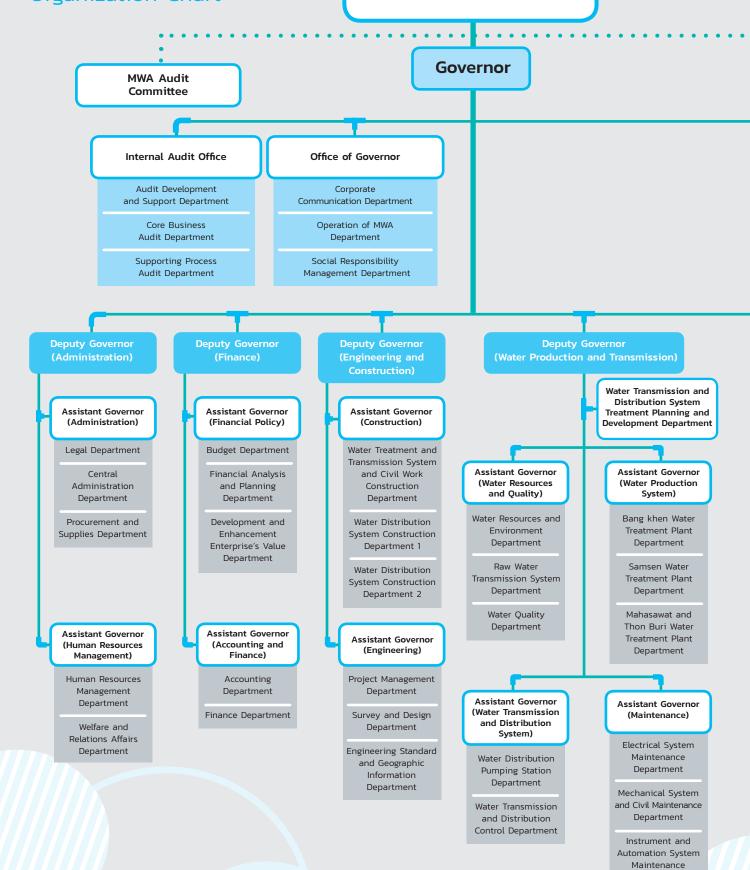
	Total Expenditure on Human Resources (Million Baht)								
Operation Line		Employee		Co	ntract Work	er		Total	
	2017	2016	2015	2017	2016	2015	2017	2016	2015
1. Governor	214.57	192.72	179.24	15.71	15.34	14.45	230.28	208.07	193.68
2. Deputy Governor (Administration)	181.85	178.61	177.80	12.34	13.45	14.17	194.19	192.06	191.97
3. Deputy Governor (Finance)	111.55	109.78	107.20	2.94	2.93	2.89	114.49	112.71	110.09
4. Deputy Governor (Eastern Services)	674.03	652.82	638.77	63.39	72.04	77.22	737.42	724.86	715.99
5. Deputy Governor (Western Services)	558.68	567.23	555.92	48.85	57.46	58.12	607.53	624.70	614.04
6. Deputy Governor (Engineering and Construction)	133.96	184.13	180.72	9.51	9.56	9.50	143.47	193.69	190.22
7. Deputy Governor (Water Production and Transmission)	545.95	505.09	502.35	59.41	57.20	61.11	605.37	562.29	563.46
8. Deputy Governor (Planning and Development)	76.05	71.21	66.82	1.20	1.21	1.16	77.25	72.43	67.98
9. Deputy Governor (Information Technology)	94.08	87.66	83.37	1.87	1.85	1.91	95.95	89.51	85.28
Total	2,590.73	2,549.26	2,492.19	215.22	231.05	240.52	2,805.95	2,780.31	2,732.71

As of 30 September 2017

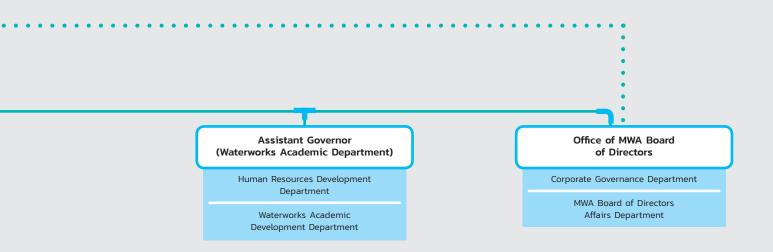
Remark: Employee expenditure information is based on Report on Total Human Resource Expenditure classified by the operation line for 12-month periods ending on 30 September 2017. Contract worker expenditure information is based on Expenditure Report of Cost Center ZCOR 060, Accounting Department for 12-month

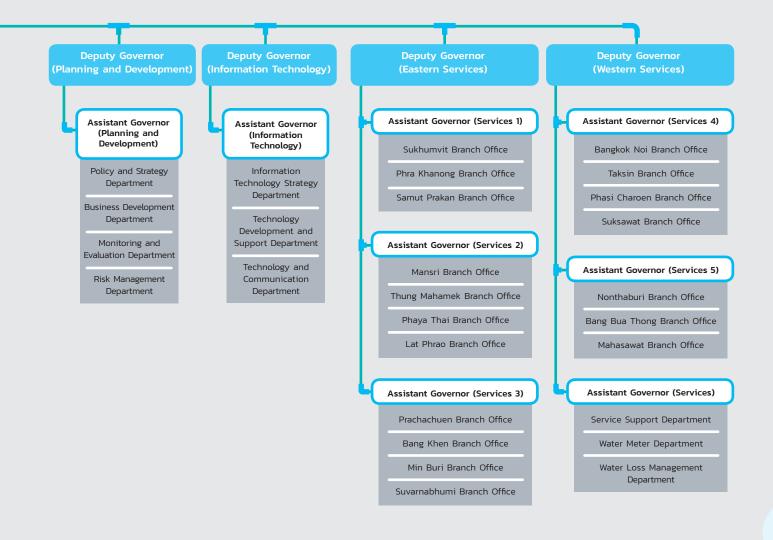
MWA Organization Chart

MWA Board of Directors



Department





MWA Board of Directors

As of 31 December 2017



- Mr. Vullop Phringphong Chairman
- 2 Mr. Prinya Yamasamit Director and MWA Governor
- Professor Suwatana Chittaladakorn, Ph.D. Independent Director
- Mr. Bowon Vongsinudom Independent Director

- Mr. Wanchai Lawattanatrakul Independent Director
- **Assistant Professor Teekawuth Potapirom** Independent Director
- **Vice Admiral Nadaecho Kerdchoochuen** Independent Director



- 8 Associate Professor Chanin Tinnachote, Ph.D.
 Independent Director
- 9 Mr. Royol Chitradon, Ph.D.
 Independent Director
- Mr. Nattakit Tangpoonsinthana, Ph.D.
 Independent Director
- Mr. Chaichana Mitrpant, Ph.D.
 Independent Director

- Mr. Thongplew Kongjun, Ph.D.
 Independent Director
- Mr. Somsak Suwansujarit
 Independent Director
- Mr. Nisit Jansomwong
 Director
- Mrs. Siriporn Luangnual
 Director

Board of Directors

Mr. Vullop Phringphong

Position: Chairman and Independent Director

Age: 63

Education / Training:

- · Bachelor of Arts (Political Sciences), University of Delhi, India
- Master of Arts (Political Science), Bowling Green State University, USA
- Chief District Officers Program (Class 31), Institute of Administration Development, Department of Provincial Administration
- High Level Senior Administration Program (Class 32), Institute of Administration Development, Department of Provincial Administration
- National Defence College of Thailand (Class 49)
- Capital Market Academy (Class 14)
- Certificate of Director Certification Program (DCP 170), Thai Institute of

Work Experience

- · Chief District Officer of Rayong Province
- Director of Local Finance Bureau, Department of Local Administration
- Deputy Director-General, Department of Local Administration
- · Governor of Phrae Province
- · Governor of Samut Sakhon Province
- Deputy Permanent Secretary, Ministry of Interior
- Director-General, Department of Local Administration
- Member of National Reform Steering Assembly
- · Director of Provincial Electricity Authority
- · Director, as the representative from Ministry of Interior, Sports Authority of
- The Representative of Thai Government to the ASEAN Ministerial Meeting on Rural Development and Poverty Eradication (AMMRDPE) at Bandar Seri Begawan, Brunei Darussalam
- The Representative of Thai Government to the Ministerial Meeting on Poverty Alleviation under Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) at Kathmandu, Nepal
- The Representative of Thai Government to the Loan Negotiation with World Bank according to the Urban Development at Washington, D.C., USA

Present Positions:

- · Independent Director of Metropolitan Waterworks Authority
- Senior Advisor to the National Land Policy Committee
- Select Committee in Civil Service Commission about Human Resources System Development

Mr. Nisit Jansomwong

Position: Director

Age: 55

Education / Training:

- Bachelor of Arts (Political Science) (First-Class Honors, Gold Medal), Chulalongkorn University
- Master of Arts (Political Science) (Excellent honors), Chulalongkorn University
- Certificate of District Chief Program (Class 41) Institute of Administration Development
- Certificate of New Public Management (Class 2) Office of the Civil Service Commission
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executive, (Class 11), King Prajadhipok's Institute
- Certificate of The Joint State-Private Course (Class 23), National Defence College of Thailand
- Advanced Certificate Course in Justice Administration (Class 3), Office of Justice Affairs
- Advanced Certificate Course in Politics and Elections Development (Class 4), Office of The Election Commission of Thailand
- Certificate of Senior Budget Administrator (Class 2), Bureau of the Budget

- · Head of Plan and Develop the Staffing System Group, The Secretariat of
- Head of Social Work Group, Executive Office of the Cabinet, The Secretariat of the Cabinet
- Specialists in Strategic Development and Management Systems, Management System Development Group, The Secretariat of the Cabinet
- Director, Bureau of Strategic Development and Special Policy Monitoring, The Secretariat of the Cabinet
- Director General, Office of Policy and Planning, Office of the Permanent Secretary for Defence
- Governor of Samutprakarn Province
- Deputy Director General, Community Development Department
- Director, Center for Recovery Management System Office of the Prime Minister
- Advisor to Provincial Administration Integrity
- Deputy Director, Office of Thai Women Empowerment Funds, Office of the Prime Minister
- · Chief of Inspector for Interior, Office of the Inspector for Interior
- · Governor of Prachuapkhirikhan Province
- Governor of Ratchaburi Province
- · Governor of Phuket Province
- · Governor of Nonthaburi Province

Present Positions:

- Director of Metropolitan Waterworks Authority
- Deputy Permanent Secretary for Interior

Professor Suwatana Chittaladakorn, Ph.D.

Position: Independent Director

Age: 63

Education / Training:

- Bachelor of Engineering (Irrigation Engineering), Kasetsart University
- Master of Engineering (Irrigation Engineering), Kasetsart University
- · Doctor of philosophy (Irrigation Engineering), Utah State University, USA
- Good Governance for State Enterprise / Public Organization Directors & Executives Program (Class 13), King Prajadhipok's Institute

Work Experience:

- Vice-Chairman of the Sub-committee for Water Resources Management Reform, National Reform Council (NRC)
- Advisory Committee for Water Resources Management Policy Setting, Economic Department, National Council for Peace and Order (NCPO)
- · Advisory and Chairman of the Sub-committee for Water Resources Engineering, the Engineering Institute of Thailand under H.M. the King's Patronage (EIT)
- Advisory and member of the Civil Engineering Committee, the Engineering Institute of Thailand under H.M. the King's Patronage (EIT)
- · Member of the Expert Committee for Consideration of the Environmental Impact Assessment Analysis-Report for Government and Public-Private Partnership Transportation Projects, Nation Environmental Board
- Department Head, and the Chairman of Steering Committee for the Special Graduate . Program, Department of Water Resources Engineering, Faculty of Engineering, Kasetsart University

Present Positions :

- Independent Director of Metropolitan Waterworks Authority
- Special Expert in Department of Water Resources Engineering, Faculty of Engineering, Kasetsart University

Mr. Bowon Vongsinudom, Ph.D.

Position: Independent Director

Age: 63

Education / Training:

- · Bachelor of Engineering (Chemical Engineering), Chulalongkorn University
- · Master of Engineering (Chemical Engineering), Chulalongkorn University
- Master of Business Administration (Management), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Director Accreditation Program (DAP) 76/2008, Thai Institute of Directors
- Director Certification Program (DCP 209), Thai Institute of Directors Association
- Certificate of The Joint State-Private Course (Class 17), National Defence College of Thailand

Work Experience:

- · President and Chief Executive Officer, PTT Aromatics and Refining Public Company Limited Subsidized by PTT Public Company Limited
- President and Chief Executive Officer, PTT Global Chemical Public Company Limited Subsidized by PTT Public Company Limited
- · President, PTT Phenol Public Company Limited Subsidized by PTT Public Company
- · Director, Thai Listed Companies Association
- Executive Vice President in Division of Chief Operations Officer, Downstream Petroleum Business Group, PTT Public Company Limited

Present Positions:

- Independent Director of Metropolitan Waterworks Authority
- · Chairman of Prima Marine Public Company Limited
- Chairman of Thai British Security Printing Public Company Limited
- Chairman of PTT Phenol Company Limited
- · Chairman of UAC Global Public Company Limited
- Independent Director of State Railway of Thailand
- · Director of Thai Vegetable Oil Public Company Limited
- Director of WP Energy Public Company Limited
- Director of ASEAN Potash Chaiyaphum Public Company Limited
- · Director of Bangkok Industrial Gas Company Limited
- Vice Chairman of The Federation of Thai Industries (Industrial Promotion and Support)

Mr. Wanchai Lawattanatrakul

Position: Independent Director

Age: 61

Education / Training:

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University
- Master of Engineering (Water Resources Development), Asian Institution of Technology
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executive (Class 6). King Prajadhipok's Institute
- Diploma of the Joint State Private Sector Course (Class 19), National Defence College

Work Experience:

- Chief of Planning and Policy Section, Provincial Waterworks Authority
- · Vice President, Planning and Business Development Department, Eastern Water Resources Development and Management Public Company Limited
- Senior Vice President, Planning and Business Development Department, Eastern Water Resources Development and Management Public Company Limited
- · Chief Executive Officer, Eastern Water Resources Development and Management Public Company Limited
- Director, Global Water Systems Corporations Company Limited
- · Director, Universal Utilities Company Limited
- Director, EGCOM TARA Company Limited
- Director, Eastern Hobas Pipes Company Limited
- · Director, Metropolitan Waterworks Authority
- Vice Chairman of Water Supply and Distribution Project Planning and Monitoring Subcommittee, Ministry of Natural Resources and Environment
- Director, Industrial Estate Authority of Thailand
- Director and Academic Committee. Thai Waterworks Association
- Director, Thailand Water Resources Association

Present Positions:

- Independent Director of Metropolitan Waterworks Authority
- · Director and Audit Committee, SPCG Public Company Limited

Mr. Royol Chitradon, Ph.D.

Position: Independent Director

Age: 64

Education / Training:

- Bachelor of Science (Mathematics), Prince of Songkla University
- · Master of Science (Applied Mathematics), Mahidol University
- Dr. rer. nat. in Informatics, Informatics Institute, Innsbruck University, Austria

Work Experience :

- Honorary Advisor of Committee on Agriculture and Cooperatives, The Senate
- Deputy Executive Director of National Electronics and Computer Technology Center
- Chief of Project, Thailand Integrated Water Resources Management System according to His Majesty the King's Initiative
- Director of High Performance Computing Research and Development Division, National Electronics and Computer Technology Center Assistant Professor in Department of Computer Science, Faculty of Computer Science,
- Kasetsart University
- Director, Hydro and Agro Informatics Institute (Public Organization)
- Director and Secretary, National Hydroinformatics and Climate Data Integration, Office of the Prime Minister
- Committee of Integrated Water Monitoring and Solution Extraordinary Commission, The National Legislative Assembly Committee of Research and Development Project on Landslide Prevention and Protection
- in Steep/Slope Highlands according to His Majesty the King's Initiative, Chaipattana Foundation Center
- Committee of Thailand-China Cooperation in Water Resources Management, Ministry of Science and Technology
- Committee of Policy and Information Technology Development, The Thai Red Cross Society
- Committee of Water Management in Bangkok Metropolitan Region according to His Majesty the King's Initiative
- Committee of the Director Board for Water Resource Management: Monkey Cheek Water Retention, Chaipattana Foundation Center

Present Positions

- Independent Director of Metropolitan Waterworks Authority
- Director of Provincial Waterworks Authority
- Director and Secretary of Hydro and Agro Informatics Institute (Public Organization)
- Director of National Water Resources Board, Office of the Prime Minister
- Director of Thailand Institute of Justice (Public Organization)
- Director and Secretary of Utokapat Foundation Under the Royal Patronage of His Majesty
- President of Northern Institute of Vocational Education in Agriculture, Ministry of Education

Mr. Nattakit Tangpoonsinthana, Ph.D.

Position: Independent Director

Age: 53

Education / Training:

- Bachelor of Communication Arts (Mass Communication), Chulalongkorn University
- Master of Arts (Communication), University of North Texas, USA
- Master of Business Administration, University of North Texas, USA
- Doctor of Mass Communication (Television Administration), Chulalongkorn University
- Certificate of Director Certification Program (DCP 209), Thai Institute of Directors
- Certificate of Good Governance for State Enterprise / Public Organization Directors & Executives Program (Class 14), Public Director Institute, King Prajadhipok's Institute

- Account Director of Lintas Worldwide Advertising Company Limited (Thailand)
- Associate Director of Flagship Company Limited
- Marketing Director in Marketing and Sales Division, Wangthong Group Public Company Limited
- Associate Director in Marketing and Sales Division, Samart Corporation Public
- Lecturer in Department of Mass Communication, Faculty of Communication Arts, Chulalongkorn University
- Chief Marketing Officer, Thai Samsung Electronics Company Limited
- Advisor in Public Relations to Ministry of Commerce and Ministry of Labour
- Advisor to Minister of Science and Technology
- Advisor to Deputy Minister of Agriculture and Co-Operatives

Present Positions

- Independent Director of Metropolitan Waterworks Authority
- Executive Vice President in Marketing Line, Central Pattana Public Company Limited

Assistant Professor Teekawuth Potapirom

Position: Independent Director

Age: 63

Education / Training:

- Bachelor of Engineering (Civil Engineering), Kasetsart University
- Master of Science (Ocean and Fisheries Engineering), Kagawa University, Japan
- Good Governance for State Enterprise / Public Organization Directors & Executives Program (Class 13), King Prajadhipok's Institute

Work Experience

- Lecturer in Department of Fishery Management, Faculty of Fisheries, Kasetsart University
- Assistant Professor in Department of Water Resources Engineering, Faculty of Engineering, Kasetsart University
- Advisor to Deputy Minister of Transport
- Committee of Experts to report an analysis of the environmental impacts of transportation projects with public sector or private
- Advisor to Committee in Water Resource Engineering. The Engineering Institute of Thailand under H.M. King's Patronage
- Chairman, Master of Water Resources Engineering Special Program, Faculty of Engineering, Kasetsart University

Present Positions:

- Independent Director of Metropolitan Waterworks Authority
- Working Committee of Problem Solution at Maesui Dam, Chiang Rai
- Advisor to Committee in Water Resource Engineering, The Engineering Institute of Thailand Under H.M. King's Patronage
- Specialized Lecturer in Department of Water Resources Engineering, Faculty of Engineering, Kasetsart University

Mr. Chaichana Mitrpant, Ph.D.

Position: Independent Director

Age: 44

Education / Training:

- · Bachelor of Engineering, Rice University, USA
- Master of Science, University of Michigan, USA
- · Doctor of Engineering, University of Duisburg Essen, Germany
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executive (Class 20), King Prajadhipok's Institute
- Certificate of Good Governance for State Enterprise / Public Organization Directors & Executives Program (Class 14), Public Director Institute, King Prajadhipok's Institute
- Certificate of National Security Management for Senior Executives (Class 7), National Intelligence Agency
- Certificate of Executive Development Program in 2017 (Class 9), Ministry of Finance
- Certificate of Director Certification Program (DCP 199), Thai Institute of Directors

Work Experience

- Executive Director, Information Technology Infrastructure Security Unit, National Electronics and Computer Technology Center
- Chief, Cyber Forensic and Investigation Unit, National Electronics and Computer Technology Center
- Director, Radio Frequency Identification Program,
- National Electronics and Computer Technology Center
- Chief, Research and Applied Encryption, National Electronics and Computer Technology Center
- Assistant Researcher, Network Technology Laboratory
- National Electronics and Computer Technology Center

Present Positions:

- · Independent Director of Metropolitan Waterworks Authority
- Deputy Executive Director, Electronic Transactions Development Agency (Public Organization)

Mr. Thongplew Kongjun, Ph.D.

Position: Independent Director

Age: 56

Education / Training:

- Bachelor of Engineering (Civil Engineering), College of Technology and Vocational Education (Thewet Campus)
- Master of Engineering (Irrigation Engineering), Kasetsart University (Kamphaengsaen Campus)
- Doctor of Engineering (Irrigation Engineering), Kasetsart University (Kamphaengsaen Campus)
- Advanced Certificate Course in Management of Public Economics for Executives, The College of Politics and Governance, Class 11, King Prajadhipok's Institute
- Advanced Course in Governing Office, Class 63, Interior College, Prince Damrong Rajanuphap Institute
- Diploma in the National Defence Course, Class 59, National Defence College

Work Experience :

- Director, Irrigation Development Institute, Royal Irrigation Department
- Director, Hydrology Division, Royal Irrigation Department
- Director, Water Management and Hydrology, Royal Irrigation Department
- Deputy Director General, Royal Irrigation Department

Present Positions:

- Independent Director of Metropolitan Waterworks Authority
- Deputy Director General, Deputy Director General for Maintenance, Royal Irrigation

Mr. Somsak Suwansujarit

Position: Independent Director

Age: 62

Education / Training:

- · Bachelor of Arts (Political Science), Chiang Mai University
- Master of Public Administration (M.P.A), National Institute of Development
- Master of Arts (Politics Science). Thammasat University
- · Advanced Certificate Course in Public Administration and Law for Executives, King Prajadhipok's Institute
- Certificate of The Joint State-Private Course, National Defence College of Thailand (Class 48)
- · Certificate of Administration and Administrator Development, Graduate Research Institute of Policy Studies, Japan

Work Experience

- Chief District Officers of Waeng Noi District, Khon Kaen Province
- · Chief District Officers of Long District, Phrae Province
- · Chief District Officers of Chaing Kham District, Phayao Province
- Chief District Officers of Tapan Hin District, Phichit Province
- Director, Technical Service and Planning Division, Department of Provincial Administration
- Director, Provincial Administration Bureau, Department of Provincial Administration
- Vice Governor of Nakhon Ratchasima Province
- Deputy Permanent Secretary, Department of Disaster Prevention and Mitigation
- Vice Governor of Phayao Province
- · Governor of Nan Province
- Governor of Nong Bua Lam Phu Province
- Deputy Director General, Department of Provincial Administration
- Governor of Si Sa Ket Province
- Governor of Kalasin Province
- · Governor of Khon Kaen Province
- Chief of Inspector for Interior, Office of the Inspector for Interior
- Governor of Rayong Province

Present Position:

• Independent Director of Metropolitan Waterworks Authority

Associate Professor Chanin Tinnachote, Ph.D.

Position: Independent Director

Age : 55

Education / Training:

- Bachelor of Engineering (Survey Engineering), Chulalongkorn University
- Master of Science (Integrated Map and Geo-Information Production), International Institute for Aerospace Survey and Earth Sciences (ITC), The Netherlands
- Doctor of Engineering (Remote Sensing and Geographic), Asian Institute of Technology
- Certificate of Director Certification Program (DCP 201), Thai Institute of Directors · Certificate of Advanced Audit Committee Program (AACP 18), Thai Institute of
- Directors
- Good Governance for State Enterprise / Public Organization Directors & Executives Program (Class 13), Public Director Institute, King Prajadhipok's Institute
- Certificate of Environmental Governance for Executive Officer (EGEO 4), Department of Environmental Quality Promotion
- Risk Management Program for Corporate Leaders (RCL 1), Thai Institute of Directors
- Driving Company Success with IT Governance (ITG 2), Thai Institute of Directors
- Financial and Fiscal Management Program for Senior Executive (Class 4), The Comptroller General's Department

Work Experience:

- Director of Surveying and Mapping Society of Thailand
- · Director of Geo-Informatics and Space Technology Development Agency (Public Organization)

Present Positions

- · Independent Director of Metropolitan Waterworks Authority
- Director of Eastern Water Resources Development and Management Public Company Limited
- Professor in Survey Engineering, Faculty of Engineer, Chulalongkorn University

Vice Admiral Nadaecho Kerdchoochuen

Position: Independent Director

Age: 63

Education / Training:

- · Bachelor of Science, Royal Thai Naval Academy
- · Civil Affairs School, Directorate of Civil Affairs
- Command and General Staff College
- Naval War College
- Certificate of Director Certification Program (DCP 209), Thai Institute of Directors
- Certificate of Internal Audit's Challenge in Value Adding, Federation of Accounting Professions under the Royal Patronage of His Majesty the King

- · Assistant Chief of Staff Sub-Division Deputy Chief of Defence Forces
- · Counselor Working Group to the Prime Minister
- Naval Senior Advisor to Royal Thai Marine Corps

Present Positions

- Independent Director of Metropolitan Waterworks Authority
- · Early Retired Officer of Office of the Permanent Secretary for Defence

Mrs. Siriporn Luangnual

Position: Director

Age: 58

Education / Training:

- · Bachelor of Business Administration, Ramkhamhaeng University
- Master of Business Administration, Pittsburg State University, USA
- Directors Certification Program: DCP Class 72/2006
- National Defence College, The National Defence Course Class 55/2012
- Leader Program, Capital Market Academy (CMA-18) (2014)
- Top Executive Program in Commerce and Trade (TEPCoT) Class 8 (2015)
- Director Certificate Program Update (DCPU) Class 3/2015, Thai Institute of Directors
- Chief Information Officer: CIO 26 (2015)
- The Executive Program in "Energy Literacy for a Sustainable Future" TEA Class 7, Thailand Energy Academy (2015)

- · Director, Ratchaburi Power Company Limited
- Director, TOT Public Company Limited
- Director and Chairman of the Audit Committee, ASEAN Patash Mining Public Company
- Director, Erawan Hotel Public Company Limited
- Director, Government Housing Bank
- Deputy Director, The State Enterprise Policy Office

Present Positions:

- Director of Metropolitan Waterworks Authority
- · Director of Ratchaburi Electricity Generating Company Limited
- · Director of TOT Public Company Limited
- Advisor on Finance, Office of the Permanent Secretary, Ministry of Finance

Mr. Prinya Yamasamit

Position: Director and MWA Governor

Age : 57

Education / Training:

- Bachelor of Engineering (Civil Engineering), King Mongkut's Institution of Technology
- · Master of Engineering (Irrigation Engineering), Chulalongkorn University
- Non-Revenue Water Management (Leakage Control), Japan International Cooperation Agency (JICA)
- High Level Metropolitan Administrator Program (Class 9), Bangkok Metropolitan Administration
- Senior Executive in Urban Development Administration Program (Metropolitan Class 4), Navamindradhiraj University
- Leadership Succession Program (LSP) (Class 6) Institute of Research and Development for Public Enterprises

Work Experience

- · Deputy Governor (Engineering and Construction)
- Administrative Director of Metropolitan Waterworks Authority Club (Administrative Vice Chairman)
- Director of Wastewater Management Authority

Present Positions:

- · Director of Metropolitan Waterworks Authority
- · Governor of Metropolitan Waterworks Authority

Executives

As of 31 December 2017



Mr. Prinya Yamasamit

Governor

Education

- Bachelor of Engineering (Civil Engineering), King Mongkut's Institute of Technology
- Master of Engineering (Sanitary Engineering), Chulalongkorn University
- Certificate of Non-Revenue Water Management (Leakage Control), Japan International Cooperation Agency (JICA)

- Assistant Governor (Construction)
- Deputy Governor (Engineering and Construction)



Mr. Chalit Kaewsai

Deputy Governor (Administration)

Education

- Bachelor of Arts (Political Science), Ramkhamhaeng University
- Master of Science (Industrial and Organizational Psychology), Kasetsart University
- Certificate of Air War College Course Class 42, Air War College

Work Experience

- Human Resources Management Department Director
- Assistant Governor (Administration)



Miss Pajaree Salimee

Deputy Governor (Information Technology)

Education

- Bachelor of Science (Mathematics), Ramkhamhaeng University
- Chief Information Officer Program, Ministry of Information and Communication Technology (MICT)
- Certificate of Thailand and the ASEAN Economic Community, King Prajadhiphok's Institute

Work Experience

- MWA Board of Directors Agenda Department Director
- Assistant Governor (Information Technology)



Mr. Kavee Areekul

Deputy Governor (Engineering and Construction)

Education

- Bachelor of Engineering (Civil Engineering), Khon Kaen University
- Master of Business Administration (Business Administration), Kasetsart University
- National Defense College of Thailand (Class 58)

Work Experience

- Assistant Governor (Services 2)
- Deputy Governor (Eastern Services)



Mrs. Lawan Chatrungchewan

Deputy Governor (Planning and Development)

Education

- Bachelor of Business Administration, Chiang Mai University
- Master of Business Administration (Management Science), Sukhothai Thammathirat Open University
- Certificate of "Senior Strategist for Anti-Corruption" NACC

- Assistant Governor (Office of MWA Board of Directors)
- MWA Expert (Level 10)



Mr. Somboon Sunanthapongsak

Deputy Governor (Water Production and Transmission)

Education

- Bachelor of Engineering (Civil Engineering), Khon Kaen University
- Bachelor of Business Administration (Construction Management), Sukhothai Thammathirat Open University
- Master of Business Administration, Chulalongkorn University
- Director Certification Program (Class 234), Thai Institute of Directors Association

Work Experience

- Assistant Governor (Services 5)
- Deputy Governor (Western Services)



Miss Supannee Karunkittikun

Deputy Governor (Eastern Services)

- Bachelor of Arts (Communication Arts), Chulalongkorn University
- Bachelor of Economics, Sukhothai Thammathirat Open University
- Master of Arts (Communication Arts), Chulalongkorn University
- Curriculum of the 5th Metropolitan Development Training Course of Executive, Institute of Metropolitan Development

Work Experience

- Assistant Governor (Services 4)
- Assistant Governor (Services 1)



Mr. Jumroen Tantiwongwat

Deputy Governor (Western Services)

- Bachelor of Engineering (Mechanical Engineering), Technical and Vocational Education Thewet College Campus
- Master of Engineering (Mechanical Engineering), King Mongkut's University of Technology North Bangkok
- Advance Certificate Course in Promotion of Peaceful Society, King Prajadhiphok's Institute

Work Experience

- MWA Expert (Level 10)
- Project Management Office Director



Miss Suree S. Srisuwan

Deputy Governor (Finance)

- Bachelor of Accountancy, Bangkok University
- Financial and Fiscal Management Executive Program, Ministry of Finance

- Assistant Governor (Services 1)
- Assistant Governor (Services 3)



Mr. Thamrong Buranatrakul

MWA Expert (Level 10)

Education

- Bachelor of Engineering (Civil Engineering), Khon Kaen University
- Bachelor of Business Administration (Construction Management), Sukhothai Thammathirat Open University
- Master of Engineering (Environmental Engineering), Chulalongkorn University
- The Civil Service Executive Development Program : Visionary and Moral Leadership, Civil Service Training Institute

Work Experience

- Lat Phrao Branch Office Manager
- Assistant Governor (Water Transmission and Distribution System)



Mr. Chaiwat Vorapeboonpong

MWA Expert (Level 10)

Education

- Bachelor of Science (Chemistry), Mahidol University
- Certificate of Environmental Governance for Executive Officer, King Prajadhiphok's Institute
- Certificate of "Senior Strategist for Anti-Corruption" NACC

Work Experience

- Assistant Governor (Water Resources and Quality)
- Assistant Governor (Services 5)



Mrs. Aphorn Phusap

MWA Expert (Level 10)

Education

- Bachelor of Accountancy, University of the Thai Chamber of Commerce
- Certificate of Thailand and the ASEAN Economic Community, King Prajadhiphok's Institute

- Finance Department Director
- Assistant Governor (Financial Policy)

Executives

As of 31 December 2017





Line of Governor

Miss Busagon Procks-anocha Assistant Governor (Internal Audit Office)

Miss Sutisa Naksen Assistant Governor (Waterworks Academic Development)

Mrs. Sranya Sinamphet 03 Assistant Governor (Office of Governor)

Miss Suwara Thawitchasri Assistant Governor (Office of MWA Board of Director)





Line of Deputy Governor (Administration)

Miss Chawewan Uthaipibool Assistant Governor (Administration)

02 Mrs. Sutanya Srisuriyachan Assistant Governor (Human resource Management)





Line of Deputy Governor (Finance)

- Mrs. Phannarat Panchua Assistant Governor (Financial Policy)
- **Mrs. Obhoon Sawetavong** 02 Assistant Governor (Accounting and Finance)









Line of Deputy Governor (Eastern Services)

- Miss Tassanee Lerksantivong Assistant Governor (Services 2)
- Miss Suttiluk Yodpayung Assistant Governor (Services 3)
- 03 Mr. Prasopsuk Somprasong Assistant Governor (Services 1)







Line of Deputy Governor (Western Services)

- **O1 Mrs. Kritsana Tangchitwattanakorn**Assistant Governor (Services 5)
- **O2** Mr. Raksak Suriyaharn
 Assistant Governor (Services 4)
- O3 Mr. Marnus Changnoi
 Assistant Governor (Services)



Line of Deputy Governor (Engineering and Construction)

- **O1 Mr. Komkrit Dinnakorn na ayutthaya**Assistant Governor (Engineering)
- **O2 Mr. Banjong Vongsa**Assistant Governor (Construction)





Line of Deputy Governor (Water Production and Transmission)

- Mr. Wichai Arayasettakron Assistant Governor (Water Production System)
- Mr. Rangsun Sumpowthong Assistant Governor (Water Resources and
- Mr. Udomdet Wichaisutthikul Assistant Governor (Maintenance)
- Mr. Maitri Kaewsaengtham Assistant Governor (Water Transmission and Distribution System)







02



04



Line of Deputy Governor (Planning and Development)

Mr. Suthirug Buchagul Assistant Governor (Planning and Development)



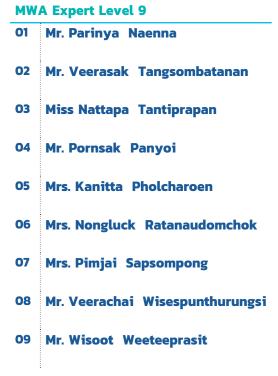
Line of Deputy Governor (Information Technology)

Mr. Kittipong Apichaichankit Assistant Governor (Information Technology)



























Department Directors and Equivalents

(As of 31 December 2017)

Line of Governor

Miss Prapai Kampangkeaw Audit Development and Support Department Director Mr. Seree Metharwanitpong Core Business Audit Department Director Mrs. Jutharat Somjitiranukit Social Responsibility Management Department Director Mr. Sinut **Sinittarnon** Operation of MWA Department Director Mrs. Umpaisri **Thanthumwong** Supporting Process Audit Department Director **Miss Wannee** Wuttiwongsumpun MWA Board of Directors Affairs Department Director Miss Usa Chaivanichpol Human Resources Development Department Director Mrs. Rachirach Uthayo Corporate Communication Department Director Mrs. Suchada **Nakyoy** Auditor Level 8 **Miss Nattava Bunkerd** Corporate Governance Department Director Waterworks Academic Development Department Director Mrs. Sunisa **Piyasuwan**

Line of Deputy Governor (Administration)

Mr. Mongkol	Kerkkittikul	Procurement and Supplies Department Director
Mrs. Apinya	Rotchanahatsadin	Human Resources Management Department Director
Mrs. Suwanna	Parkros	Central Administration Department Director
Mr. Suntorn	Thonggumnerd	Welfare and Labor Relations Affairs Department Director
Mrs. Tatrapa	Kanjanasint	Legal Department Director

Line of Deputy Governor (Finance)

Mrs. Montira	Rerkpiyasarp	Budget Department Director
Mrs. Wasana	Nakpiphatkul	Accounting Department Director
Miss Jinda	Chantatamma	Finance Department Director
Mrs. Pattharaporn	Pattharasikarin	Financial Analysis and Planning Department Director
Mrs. Sukontip	Ngarmwacha	Development and Enhancement Enterprise's Value Department Director

Line of Deputy Governor (Eastern Services)

Mr. Washirawit	Powichit	Samut Prakan Branch Office Manager
Mrs. Payom	Srianan	Min Buri Branch Office Manager
Mr. Kittipat	Uthikamporn	Phaya Thai Branch Office Manager
Miss Suchima	Jantrapai	Prachachuen Branch Office Manager
Mr. Archawan	lm-erbtham	Suvarnabhumi Branch Office Manager
Miss Amphai	Phanayuwattana	Mansri Branch Office Manager
Mrs. Duangjit	Suvanphatep	Lat Phrao Branch Office Manager
Miss Duangkamol	Rienpuech	Bang Khen Branch Office Manager
Mr. Piyapong	Srisomboon	Phra Khanong Branch Office Manager

Mr. Phichet Wongphitak Thung Mahamek Branch Office Manager

Mr. Luanchai Kanjanasint Sukhumvit Branch Office Manager

Line of Deputy Governor (Western Services)

Mr. Sukit **Ekatikomkit** Taksin Branch Office Manager Mr. Suthep **Eapakorn** Suksawat Branch Office Manager Mr. Saharat **Porkaew** Mahasawat Branch Office Manager **Miss Sompit** Nawapornchai Nonthaburi Branch Office Manager Mrs. Thimaporn Wimonanupong Water Meter Department Director Mr. Sarawut Bangkok Noi Branch Office Manager **Boonwong** Mr. Supichete **Tavorntaveevong** Water Loss Management Department Director **Miss Sirikul** Bang Bua Thong Branch Office Manager **Topikul** Mrs. Leewan **Tankrittiwat** Service Support Department Director Mr. Chaivaporn Phasi Charoen Branch Office Manager Rattanatanangpong

Line of Deputy Governor (Engineering and Construction)

Water Distribution System Construction Department 1 Director Mr. Manit **Panaim Miss Widchuda** Liamsanguan Project Management Department Director Water Treatment and Transmission System and Civil Work Mr. Sayan Namngern Construction Department Director Water Distribution System Construction Department 2 Director Mr. Adisak Pranverapaiboon Engineering Standard and Geographic Information Department Mr. Wison Midtrapanon Director Mr. Chana **Pongpothakul** Survey and Design Department Director

Line of Deputy Governor (Water Production and Transmission)

Mr. Nithikriang **Onthuam** Water Resources and Environment Department Director Bang khen Water Treatment Plant Department Director Mr. Montri Longtee Sunkumnurd Instrument and Automation System Maintenance Department Mr. Sathaporn Director Mr. Somchai **Thongma** Mahasawat and Thon Buri Water Treatment Plant Department Director Mr. Chlermkiat Luangaram Raw Water Transmission System Department Director Mr. Tanit Kluenkloy Mechanical System and Civil Maintenance Department Director Mr. Phairot Water Distribution Pumping Station Department Director Sonsap Water Quality Department Director Mrs. Nisapas Wongpat Mr. Sermsak Water Transmission and Distribution Control Department Jansam Director Mr. Thaveesak **Ngarmwacha** Water Transmission and Distribution System Treatment Planning and Development Department Director Mr. Pornsak Samornkraisorakit Samsen Water Treatment Plant Department Director Mr. Amnat **Pakros** Electrical System Maintenance Department Director

Line of Deputy Governor (Planning and Development)

Miss Anchalee Musigatham Risk Management Department Director

Miss Kornvilai Yeawyasat Monitoring and Evaluation Department Director

Miss Yutirat Khampheeraphan Business Development Department Director

Miss Suwaree Chiawchanlikit Policy and Strategy Department Director

Line of Deputy Governor (Information Technology)

Mrs. Maytawee Suchartlumpong Technology and Communication Department Director

Mrs. Pitsawast Phapsuwan Technology Development and Support Department Director

Mrs. Nongnuch Wongkalasin Information Technology Strategy Department Director

MWA Expert Level 8

Miss Punnee Chithan

Miss Siriwan Klancharoen

Mrs. Siwilai Kitpitak

Miss Kanyarach Nantanawikul

Miss Sumon Tanteeratam

Mrs. Kritsana Boonlers

Mrs. Suntaree Akepanidtaworn

Mr. Wira Srisakunworathai

Mrs. Nantasinee Chinapandhu

Mr. Sanit Kongsomchitra

Miss Sunan Patipanvat

Mr. Thanapong Kausangunsilp

Mr. Sutthisak Lapprasert

Mrs. Yaovaluk Darmprasertkul

Mrs. Boonbundal Boonchuwit

Mrs. Kanya Sonsap

Miss Kanlaya Wichachoocherd

Mr. Prawit Sangsukcharoen

Mr. Somsak Passananon

Mrs. Wantanee Chumpoo

Mr. Tinnapas Kongkhanoy

Mr. Dollachet Klahan

Mr. Paripan Pinsurong

Executives during the Year 2017 (Retired on 1 October 2017)

Mr. Thanasak Watanathana Governor

Mr. Somsak Poothongchairit Deputy Governor (Planning and Development)

Mr. Kongkiat Charoenboonwan Deputy Governor (Water Production and Transmission)

Mrs. Phusadee Khomthong Deputy Governor (Information Technology)





MWA Moving towards the Future

Financial Factors Affecting MWA Operation

MWA has been in operation for more than half a century until 2017, which was the 50th anniversary of its operation. Since the enactment of the MWA Act B.E. 2510, MWA had faced crises and obstacles before standing at a stable financial position, and has been growing continuously with efficient corporate management. Financial factors, either foreign debts or cash flow used for operations or investment were crucial for the organization operation.

MWA has long-term debt obligation in Yen with Japan International Cooperation Agency, comprising 2 loan agreements – Agreement No. TXXIV-4 and Agreement No. TXXXII-1. Risk management has been implemented for the former, and the latter is under risk monitoring process, accounting for 10.06% of the debts. Compared with 13.52% of the debts in fiscal year 2016, there was a slight decrease, which was partly due to a decrease in debt obligations according to principal repayment, and another significant factor was a stronger value of the Thai Bath compared with that of the Japanese Yen.

The fluctuation of exchange rates has both positive and negative effects on the MWA operation. During the past year, the Baht was getting stronger continuously compared to Yen. In October 2016, the average exchange rate of Baht and Yen was at 34.17 baht per 100 Yen, and continuously became stronger at 30.32 Baht per

100 Yen in September 2017. However, the stronger value of Baht in the previous year made some advantages to MWA because the Yen debts converted to Baht caused the total debts to decrease, so did the cash flow payments.

However, according to MWA, the risk management of foreign currency loans was to be operated in accordance with the guidelines of Public Debt Management Office, Ministry of Finance by Cross Currency Swap (CCS), that was to compare conversion cost of foreign currency debt into Baht with domestic loan costs in Thai Baht. It was found that the loan agreement with risk monitoring had more CCS costs; therefore, the appropriate methods used for risk management included refinance and prepayment. Due to MWA's sufficient liquidity, the prepayment was chosen, and its operation is underway and expected to be completed by 2018.

In addition, a cash flow estimate is another factor affecting MWA. At present MWA is implementing the Ninth Bangkok Water Supply Improvement Project which was approved by the cabinet on 4 October 2016, with a total project cost of 42,750 million baht deriving from income sources of 19,750 million baht and a domestic loan of 23,000 million baht. Nonetheless, a large-scale project implementation will result in higher payflow involving project costs and loans interest. Despite the fact that the current interest rate policy remains low, it may be necessary to get a loan in the future, and the interest rates may fluctuate. Therefore, MWA focuses on taking into account appropriate financing sources in terms of management and financial costs.

Important Financial Information

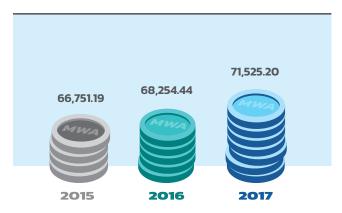
	2017	2016	2015
Financial Status (Million Baht) Current Assets	17,343.60	14,873.51	13,564.03
Total Assets	71,525.20	68,254.44	66,751.19
Current Liabilities	4,899.36	4,932.38	4,853.63
Total Liabilities	12,493.35	12,435.90	12,051.58
Equity	59,031.85	55,818.54	54,699.61
Performance Results (Million Baht) Total Revenues	19,893.67	20,074.23	19,917.22
Total Expenses	12,378.39	12,904.55	12,767.25
Net Profit	7,515.28	7,169.68	7,149.97
Financial Ratios Net Profit Margin Ratio (%)	38.44	36.43	36.52
Rate of Return on Assets (%)	10.51	10.50	10.71
Rate of Return on Equity (%)	12.73	12.84	13.07
Debt Equity Ratio (Times)	0.21	0.22	0.22
Current Ratio (Times)	3.54	3.02	2.79
Average Collection Period (Days)	27	28	28

Total Assets

(Million Baht)

Total Revenues

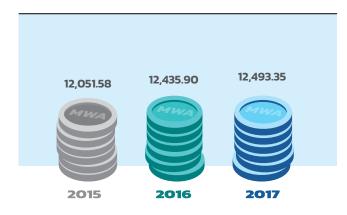
(Million Baht)





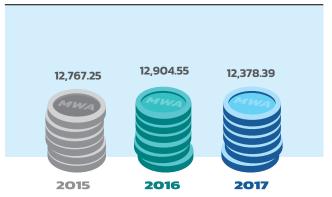
Total Liabilities

(Million Baht)



Total Expenses

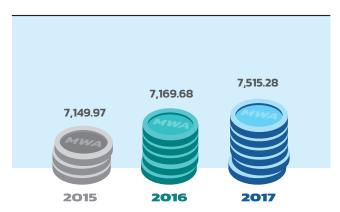
(Million Baht)



Equity (Million Baht)



Net Profit (Million Baht)



Industrial Conditions and Future Tendency



Water supply is a basic factor to move forward the industrial sector. Based on the previous statistical data, water demand was likely to fluctuate according to economic conditions. During the year 2017, the world economy has expanded in many countries, for example, the United States, China, Japan and European Union, resulting from an increase in private employment and investment. This has been the driving force for many sectors in the domestic economy, particularly agriculture, export, tourism and service to grow well in line with the global economic recovery, resulting in a continuous growth in production volume for export in the industrial sector.

In Fiscal Year 2018, it is expected that Thailand economy tends to expand continuously due to the major driving force of economic support from the government and exports of goods and services anticipated to improve. According to Bank of Thailand's report, Thailand economy in 2018 is expected to grow by 3.7% from the government's investment in construction of public transport infrastructure including electric train networks expansion plans, major intercity highways expansion plans and air transport expansion plans, etc. In addition, other private investment and foreign investment in the Eastern Economic Corridor Project (EEC) as well as e-commerce businesses are significant factors which will lead to further investment such as production, storage and distribution of goods and so forth.

Due to the data indicating that the economy has continued to grow, the demand for water will accordingly increase in line with the global and Thailand economic expansion. In particular, it is expected that the industrial sector will expand its productive capacity to meet rising demand. MWA therefore anticipates that the overall future demand for water is likely to increase in consequence of the urban expansion and industrial growth. However, there are still some risk factors which may affect the MWA's future operations such as climate change, natural disasters, government policies, water resource management and international politics. As a result, MWA has prepared itself by developing a plan to accommodate the situation according to both current and future economic situation. Furthermore, MWA has adjusted its management system to maintain organization efficiency in order to enhance water supply services for public satisfaction and to complement quality of life of the people as well as encourage the country to be developed and become prosperous, stable and sustainable.

Major Plans and Projects

Pro ject	Project Period	Project Cost (Million Baht)	Implementation Results to the Fiscal Year 2017 (Percentage)
1. The Seventh Bangkok Water Supply Improvement Project Expansion of the production capacity of Bangkhen and Mahasawat Water Treatment Plants for another 400,000 cubic meters per day each; construction of Bang Phli and Min Buri Pumping Stations; construction of transmission tunnels; and distribution pipelines for 1,000 kilometers in total.	1999-2020	25,177.3	94.47
2. The Eighth Bangkok Water Supply Improvement Project Expansion of the production capacity of Bangkhen and Mahasawat Water Treatment Plants for another 400,000 cubic meters per day each; construction of reservoirs at Ratburana and Petchkasem Pumping Stations; procurement and installation of raw water pumps, transmission pumps and distribution pumps; construction of pipelines and other related operations.	2008-2020	7,494.0	85.07
3. The Ninth Bangkok Water Supply Improvement Project Expansion of production capacity of Mahasawat Water Treatment Plants for another 800,000 cubic meters per day; enhancing efficiency of the distribution system by constructing of transmission tunnels and Bangmod Water Distribution Pumping Station as well as expanding reservoirs; construction of pipelines and other related operations.	2017-2022	42,750.0	Started construction of pipelines according to the first contract in September 2017
4. Enhancement of Water Pumps Performance for Master Pipeline Project Construction and improvement of the new pipelines for the assigned areas of MWA 18 branches in total.	2016-2021	4,300.0	6.08
5. Pipeline System Improvement Project for Water Distribution Stability Water distribution pipeline improvement to reduce water loss and increase MWA overall pipeline network efficiency.	2012-2020	2,042.4	26.95
6. Untreated Water Transmission System Project for Stability and Permanent Flood Prevention Improvement of untreated water transmission system on the Eastern part which is the untreated water sources for Bangkhen water treatment plant, Samsen Water Treatment Plant and Thonburi Water Treatment Plant, from the areas of Bangkhen Water Treatment Plant To Samlae Pumping Station in order to enhance water transmission potential and permanently protect flooding along the untreated water canals.	2013-2019	1,939.0	12.35
7. Service Area Coverage Expansion Project to All Communities Expansion of service area coverage to the total area of urban communities under MWA's responsibility, where supply water is not available.	2015-2018	700.0	23.87

Future Policies and Plans



Adhering to the concept "Your Smiles Make Our Day Shine", MWA is committed to developing quality of water supply and services as well as enhance its capability to become a high performance organization (HPO) with international recognition. MWA emphasizes good corporate governance management, social responsibility, development of learning organization, and creation of professional plumbing innovations. Furthermore, MWA focuses on the integration of information technology in the organization which is intended to become SMART MWA, and balanced responses to all stakeholders' needs and expectations, under the 4th Issue of MWA's Strategic Management Planning (2017-2021) in order to achieve the goal of being awarded a management award for excellence - Thailand Quality Class (TQC) – in five years.

The operations under the 4th Issue of MWA's Strategic Management Planning are based on the principle "S-link for MWA Sustainability Growth" consisting of S1: Sustainability – create sustainability with a stable and long term growth direction for both income and organization structure; S2: Stability - strengthen stability and develop stable production and distribution systems; **S3**: **Sufficiency** – create sufficiency, improve products and services to meet stakeholders' needs equally in both quantity and quality, and reduce social disparity; and S4: Sanitary – promote public and consumers' hygiene, raise and maintain the quality of water production and distribution to meet international standards. As a result, MWA has set its future policies and plan in compliance with the following strategies.

Strategy 1 Creating the growth and sustainability of the organization concentrates on creating income, social and environmental sustainability, consisting of the following projects.

- Process Development and Potential Building in the Additional Business Project aims to make more income by developing new business from utilization of customer base, and MWA's Brands of water supply businesses.
- Enhancement of Good Corporate Governance Project aims to be recognized by all stakeholders as a transparent and corruption-free organization which supports being a high performance organization by good corporate governance principles.

- Digital Service Development Project aims to provide more channels using digital services to meet customers' needs as well as electronic payment systems based on the government policies.
- Development of the Organization's Main Process by Research and Development (R&D) and Innovation Project aims to encourage conducting research and development in all processes of water supply businesses in order to enhance the organization's main capabilities internationally and encourage to apply developed knowledge in MWA's business management.

Strategy 2 Implementing a water safety plan and creating stability in raw water – production – distribution systems focuses on improving quality of water, particularly water safety and creating water supply stability, consisting of the following projects.

- Water Safety Plan

 Project is intended to improve MWA

 operations in accordance with WHO's

 plans by making use of good production practices
 and risk management principles in water quality
 management as well as the water supply chain from
 raw water sources to water consumers.
- The Ninth Bangkok Water Supply Improvement Project aims to expand the production capacity of Mahasawat Water Treatment Plant for another 800,000 cubic meters per day; construct Bangmod water distribution pumping station; expand reservoir capacity in 5 water distribution pumping stations; install distribution pumps; construct a transmission tunnel with a length of 44 kilometers in order to boost stability of water supply transmission and distribution pumping management to meet the increasing water supply demand in the next 10 years. The project cost is about 42,750 million baht.
- Water loss and water pressure management aims to reduce water loss and systematically stabilize the water loss and water pressure in the organization.

Strategy 3 Responding to stakeholders' needs emphasizes professional development of water supply works to meet all MWA's stakeholders' needs in a balanced way, consisting of the following projects.

- Service Excellence Enhancement Project aims at responding to customers' needs and expectations along with finding solutions to customers' complaints efficiently; boost water users' satisfaction and assurance; enhance commitment to service and encourage confidence in MWA's Brand.
 - Building Relationships with customers enhancement project aims to enhance good relationships with

the key accounts in order to maintain the overall image of customers' satisfaction and boost opportunities to make more income from additional businesses.

Strategy 4 Promoting the people's quality of life to gain full access to water supply emphasizes water supply services covering the main responsible areas as well as thorough expansion of relevant businesses and social activities, consisting of

- Service area coverage expansion project aims to provide thorough services with sufficiency and stability by laying pipelines to expand service coverage to the total areas of urban communities.
- Participation in proactive social and community development project aims to develop countrywide communities and finding solutions to social problems by taking into account the main resources and expertise of the business to create economic and social value at the same time.

Additionally, MWA is still committed to operating with good governance principles for all areas of development and paying attention to quality of water equally from the production – transmission – distribution systems to homes and other places in order to create optimal advantages to all parties for a sustainable growth by adhering to good governance in accordance with the MWA's vision and support the country development to stability, prosperity and sustainability.

The 4th Issue of MWA's Strategic Management Planning

MWA has established its continuous and clear operational framework by setting a goal aiming at a High Performance Organization (HPO) internationally recognized within its strategic timeframe, or in year 2021. Additionally, MWA also realizes the importance of safe water supply delivery in accordance with Water Safety Plan.

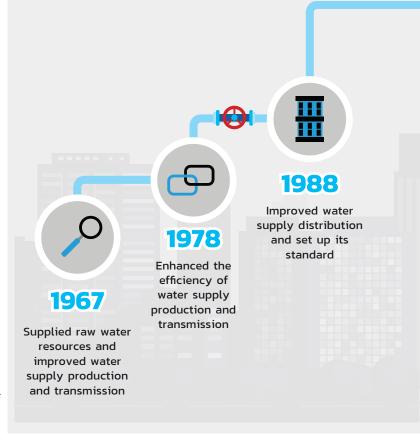
The 4th Issue of MWA's Strategic **Management Planning** stipulates 4 strategies as follows

Strategy 1 Create corporate growth and sustainability. The strategic objectives include increasing income from core and additional businesses as well as enhancing corporate management to become an internationally recognized organization.

Strategy 2 Pursue the water safety plan and build stability in the systems of raw water, water production and water distribution. The strategic objectives focus on improving quality of water supply, particularly its safety, and enhancing stability in raw water, water production and distribution.

Strategy 3 Respond to stakeholders' needs. The strategic objective is to create more satisfaction to customers and all stakeholders.

Strategy 4 Promote the people's accessibility to water supply consumption. The strategic objectives aim to expand water supply service area coverage and conduct more social activities in the area of MWA's responsibility.









2012 - 2016

Emphasized the enhancement of the management efficiency in order to gain recognition at international standard as a leading ASEAN's waterworks organization

management process of production and distribution in order to enhance the efficiency, focusing on customers, employees and information technology

2008

Improved

2017 2021

Implemented Water Safety Plan to deliver safe water and improved operation to be an HPO with international standard (TQC) and good governance

1998

Enhanced the efficiency of distribution and service, uplifted raw water resource supply, production and transmission, conducted proactive marketing, and built up satisfaction to the customers.



Performance Results

Analysis of Financial Statements

Despite economic challenges, slow investment and a fall in the private sector's consumption during the mournful period, MWA still made a total net profit of 7,515.28 million baht which was higher than that of the previous year by 345.60 million baht. The growth of profit was due to an increase in water income, the main of all income, and a decline in total expenses.

Performance Results of Income

which was lower than the previous year by 180.56 million increasing water income was from condominiums, flats, baht, accounting for 0.90% as shown in the table below. dorms, and government offices of which the average

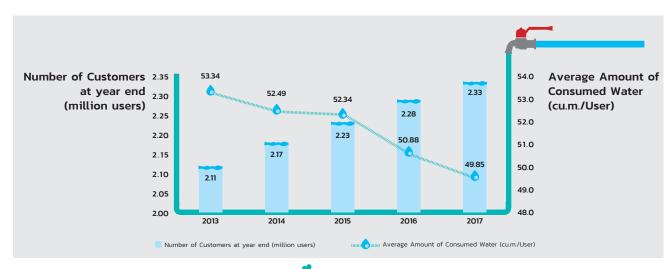
List	2017	2016	Increase (Decrease)
Operating Income	19,551.01	19,681.09	(130.08)
Water	16,784.93	16,763.67	21.26
Services	955.41	934.91	20.50
New connections	339.51	391.58	(52.07)
Extra Income	792.92	809.14	(16.22)
Other Operating Income	678.24	781.79	(103.55)
Other income	342.66	393.14	(50.48)
Total	19,893.67	20,074.23	(180.56)

The operating income was 19,551.01 million baht 15 years. which was lower than that in the previous year by 130.08 million baht, consisting of

million baht, higher than the previous year by 21.26 million and a fall in profits of other long-term benefits estimated baht since the quantity of water sales was 2.63 million according to Principles of Actuarial Science.

MWA's total income was 19,893.67 million baht cubic meters higher than that in the previous year. The water consumption had continually declined in the Unit : million baht previous year.

- The income derived from new connections was 52.07 million baht lower than that in the previous year due to fewer new connections and lower average new connection fees.
- The extra income was 16.22 million baht lower than the previous year, resulting from a decrease in revenue from the government sectors' plumbing work and a decline in the income from other services, such as installation and relocation of fire hydrants.
- The other operating income was 103.55 million baht lower than the previous year, mostly caused by a decrease in the income from plumbing work with external agencies and a decline in the revenue from donation of pipes due to an MWA's review on water distribution pipelines and extended their useful life from 10 years to
- The other income was 342.66 million baht which was 50.48 million baht less than the previous year owing • Water income, the main income, was 16,784.93 to a decrease in the income derived from pipeline transfers



Performance Results of Expense

MWA had a total expense of 12,378.39 million baht, lower than the previous year by 526.16 million baht, or 4.08% as shown in the table:

Unit: million baht

List	2017	2016	Increase (Decrease)
Operating Expense	12,404.85	12,774.79	(369.94)
Raw materials and Supplies	2,590.21	2,506.30	83.91
Employee Benefits	3,472.53	3,381.13	91.40
Depreciation and Amortization	4,286.68	4,829.02	(542.34)
Other Operating Expenses	2,055.43	2,058.34	(2.91)
Other Expenses	(76.59)	73.30	(149.89)
Financial Costs	50.13	56.46	(6.33)
Total	12,378.39	12,904.55	(526.16)

The Operating Expense was 12,404.85 million baht, which was 369.94 million baht or 2.90% lower than that in the previous year, consisting of:

- The expense for raw materials and supplies was 83.91 million baht higher than that in the previous year. Due to the fact that MWA responded to water consumer's needs to enhance their quality of life, water pressure was continually adjusted to higher levels, which resulted in more power consumption. In addition, variable electricity (Ft tariff) has been risen up since May 2017, causing higher power expenses. Furthermore, higher expenditure was caused by more repairs of leaking and broken pipes and more use of chemicals due to high turbidity and organic matter contamination of raw water in the eastern canals.
- The expense for depreciation and amortization was 542.34 million baht lower than that in the previous year due to lower pipe depreciation. Since MWA made a review on the residual value of assets and their useful life, and extended the useful life of water distribution pipes from 10 to 15 years.
- Other expenses and financial costs were 156.22 million baht lower than that in the previous year due to more profits from higher currency exchange rates as well as lower interest rates.

Financial Status

Unit: million baht

1.5-4	As of	As of	Increase	(Decrease)
List	30 Sep 2017	30 Sep 2016	Amount	Percentage
Assets	71,525.20	68,254.44	3,270.76	4.79
Liabilities	12,493.35	12,435.90	57.45	0.46
Equity	59,031.85	55,818.54	3,213.31	5.76

Statements of Cash Flows

Unit: million baht

List	2017	2016	Increase (Decrease)
Net cash flow from operating activities	10,037.06	10,507.25	(470.19)
Net cash flow used in investing activities	(6,027.35)	(7,933.70)	1,906.35
Net cash flow used in financing activities	(4,566.73)	(6,248.53)	1,681.80
Net increase (decrease) in cash and cash equivalents	(557.02)	(3,674.98)	3,117.96
Cash and cash equivalents at the beginning of the year	1,276.41	4,951.39	(3,674.98)
Cash and cash equivalents at the end of the year	719.39	1,276.41	(557.02)

Loan Liabilities

Unit: million baht

Loan Liabilities	2017	2016	2015
Domestic Loan (Ministry of Finance did not serve as the guarantor)	-	-	-
Foreign Loan (Ministry of Finance served as the guarantor)	1,466.555	1,927.143	1,790.019
Total	1,466.555	1,927.143	1,790.019

Approved Budget

Unit : million baht

Approved Budget	2017	2016	2015
Operating Budget	8,011.3	7,706.6	7,868.7
Capital Budget	4,704.9	4,249.2	4,638.7
Total	12,716.2	11,955.8	12,507.4

Remittance to Ministry of Finance

Unit : million baht

Remittance to Ministry of Finance	2017	2016	2015
Remittance to Ministry of Finance	4,309.98	6,106.45	4,118.00

Organization Management



Risk Management

The MWA executives and employees are aware of the importance of risk management and participate in integrative risk management in order that the organization is able to achieve its goals as summarized below.

Water Sanitation: Enhancement and Maintenance of Water Ouality Based on International Standards

The MWA has been continuously and concretely implementing the Water Safety Plan Project in collaboration with World Health Organization (WHO). In addition to inspection and assessment of The Water Safety Plans, WHO also provided some training on water management and identification of hazards and dangerous incidents, probably leading to poor quality of water, from the raw water pumping stations of treatment plants to distribution stations and water consumers as well. This was intended to achieve goals according to Mission No. 2 of the 4th Issue

of MWA's Strategic Management Planning and also meet Goal No. 6 of Sustainable Development Goals (SDG) of the United Nations, which aims to ensure that all people have access to safe and affordable drinking water.

Quantity and Quality of Raw Water Supply

In spite of less severe droughts compared to the previous year situation, MWA still operated the center for solving water crisis problems in order to efficiently distribute water supply to the people in its responsible areas. MWA used an integrative approach to solve water crisis problems, closely monitored water situation and regularly examined quality of water in the rivers, as well as cooperated with other agencies related to water management in managing risks in order to prevent the effects caused by salinity intrusion into MWA's eastern raw water stations.

Stability in Production, Transmission and Distribution Systems of Water Supply

MWA invested in the Ninth Bangkok Water Supply Improvement Project B.E. 2560-2565 (2017-2022) to develop sustainability and stability in the systems of raw water, water production, water transmission and water distribution to build up stable existence to deal with future crises promptly. Additionally, a rehearsal of emergency action plan was organized in case of power failure, and Business Continuity Plans (BCP) of significant procedures from the raw water system to services for water consumers have been set to ensure that MWA can continue its operation and continuously provide services for water supply users despite a crisis confrontation.

MWA, however, has realized the importance of an optimal use of water resources in accordance with the goals of the 4th Issue of MWA's Strategic Management Planning. Risk management was carried on to increase efficiency in water loss reduction by improvement in technology for detecting and fixing distribution and main pipelines as well as use of In-pipe technology to locate plumbing leaks.

Internal Control

It has been 50 years since MWA started its production, transmission, and distribution of water supply in the areas of Bangkok, Nonthaburi and Samut Prakan to enable people to consume clean water based on International Standards of World Health Organization. Nevertheless, the organization often operates under changing circumstances, faces uncertainties leading to risks or factors that may cause it neither to achieve targets nor to meet objectives, affecting its operation, corporate image and reputation.

MWA is aware of those problems, it therefore pays great attention to internal control which is a good governance's mechanism. The internal control guidelines are accordingly set for personnel practices based on international standards of The Committee of Sponsoring Organizations of The Treadway Commission

(COSO) which complies with regulations of State Audit Commission B.E. 2544, as mentioned below.

- 1. All agencies shall develop internal control system according to the main tasks' structure and characteristics in accordance with
 - MWA Strategic Management Plans
- Corporate Governance Policies and MWA Codes of Ethics
- Internal Control Standards based on State Audit Commission's Regulations on Internal Control Standards B.E. 2544

Besides, the Control Self Assessment (CSA) shall be conducted once a year and in case of changing circumstances in order to ensure an adequately suitable internal control.

- 2. All agencies shall review, improve, and update practice guidelines and work manuals in accordance with CSA and also upload non-confidential manuals to MWA's Intranet for dissemination of information to relevant and interested persons.
- 3. The Head of each agency shall inform the implementation of internal control to affiliated personnel and strictly monitor their practices.

In addition to the implementation of internal control guidelines, in fiscal year 2017, MWA improved other activities to increase internal control efficiency as well as protect and lessen risks arising from changing situations then adjusted them to an acceptable level.

The activities are as follows:

• Used a work manual review as a part of department executives' performance assessment criteria on Missions and Responsibilities of Internal Control: "A Review and/or Improvement of Work Manuals" with the purpose of enhancing and updating the working procedures to be used as the same guidelines for the whole organization as well as promoting internal control to be a part of corporate culture.

• Improved a summary form (Por Yor 2) "Summary Report of Assessment and Improvement of Internal Control" by requiring each agency to add process indicators/in-process indicators according to the performance assessment criteria of the agencies related to the work system in the summary form so that the agency would consider the relation of performance results according to the process indicators and in-process indicators and the suitability of control in the relevant internal control systems.

According to the implementation of fiscal year 2017, the Internal Audit Office had reviewed internal control operations of all agencies. The result of audit rating was at "Satisfactory" level (overall internal control system was adequate). All agencies completed control self assessment (CSA) according to the plan within the scheduled time; additionally, the control activities were adequate to lessen risk factors to an acceptable level.

In fiscal year 2018, MWA is committed to continuously supporting internal control as a part of corporate culture by encouraging its staff to join internal control activities besides regular activities of the main missions, including a roadshow on risk management and internal control. This aims to make personnel realize the importance of internal control, maintain effective and efficient internal control practices, and build public confidence in MWA's high potential organization with good governance, international standard water supply services and sustainable development.

Internal Audit

MWA highlights the importance of internal audit and requires the Internal Audit Office to directly report to MWA's Audit Committee. It is also a main tool to assure MWA's Audit Committee, the Governor, and the executives that MWA's internal control system, risk management and corporate good governance are effective and efficient to accomplish corporate goals and objectives and create value for MWA to make it strong and sustainable.

Internal Audit Plan

The Internal Audit Strategic Plan (fiscal years 2017-2021) and The Internal Audit Plan (fiscal year 2017) have been developed in accordance with the 4th Issue of MWA's Strategic Management Planning. The risk assessment principles were applied as a tool to prioritize and select activities for internal auditing based on MWA's criteria for significant risks as well as the policies and expectations of the MWA Audit Committee, the Governor, and senior executives so that the auditors' practices would conform to MWA's operational policies, goals and objectives.

Internal Audit Execution and Reporting

The internal audit plan was made in detail by collecting basic information to consider risk factors, internal control or other significant abnormalities and apply them to set objectives, internal audit execution framework and the audit program for every auditing activities. The audit reporting and suggestions/solutions were passed to the audited units and executives to further improve their operational practices.

Value Creation

The audit management focuses on assurance and consulting in order to create value to the Metropolitan Waterworks Authority. In fiscal year 2017, MWA completed its audit program as well as the audit work, covering risky factors and corruption indication, assigned by the executives. Furthermore, the auditors used data analytics to analyze and screen unusual data before auditing as well as an emphasized integrated audit which covered the whole process auditing of the organization's main tasks including financial reporting process, water production, MWA income collection, Water Safety Plan Project, plumbing system management, water loss management, safety health and environment, and energy management, etc.

Quality Maintenance of the Internal Audit

An external assessment by qualified and independent examiners were required to assess internal audit whether it conformed to the internal audit definition, code of ethics, as well as international standards for professional performances in comparison with international data base – Global Audit Information Network. Other internal audit activities included annual review and improvement of internal practice

manuals, work quality inspection by senior auditors, satisfaction assessment by inspection body (IB), internal auditors' self-assessment, and assessment by conformity assessment committee. Finally, all assessment results were analyzed to improve the efficienct execution of internal auditors.

Auditor Compensation:

Office of the Auditor General was the auditor for the Metropolitan Waterworks Authority in the accounting year 2017, with a charge of 2.5 million baht.











Corporate Social and Environmental Responsibility



MWA has been carrying out the Corporate Social Responsibility (CSR) in compliance with ISO26000 and adopting the good governance and transparency policy to the organization's core operation, that is, to sufficiently provide water supply with internationally accepted standards for customer ultimate satisfaction. The MWA CSR Policy has been set to create a distinct operation framework and raise awareness of building good relationship and collaboration with the stakeholders from all sectors as well as to generate benefits to the public and community living in harmony.

Furthermore, MWA is highly aware of implementing CSR in-process to bring about efficiency, effectiveness and sustainability in operation. The social responsibility report is conducted annually to present and analyze the organization's CSR performance which will be used as operation guidelines for the following years and reported to the stakeholders accordingly.

From the commitment to promote corporate social and environmental responsibility, MWA has won the Outstanding Enterprise 2017 Award for Social and Environmental Responsibility from the MWA Plumbing system for School Project (from Rinluang to Mae Klong).

The MWA Plumbing System for School from Rinluang to Mae Klong is a water supply model project for school, responded to the royal speech addressed by H.M. King Bhumibol Adulyadej. It was connected to the MWA Watershed Forest Conservation Project to honor His Majesty King Bhumibol at Ban Rinluang Community, Chiang Mai Province (to conserve raw water resource for water supply production in the east of Bangkok) carried out from 2012 to 2016 and expanded to Mae Klong river basin – one of the



main MWA water resources in the west. This project subsidized the budget of water supply system for the Mae Klong river basin-based schools inaccessible to clean water supply. In 2017, the project was run in Kanchanaburi Province for 5 schools including Wat Mai Poumcharean School, Ban Khao Musi School, Ban Wangphai School, Ban Puprom School and Ban Hintang School. The MWA Project was also operated in Mae Hong Son Province at Romklao Pangtong School under the Royal Project. Since the project started in 2016, MWA has subsidized development of supply water system for a total of 18 schools, and a team of school staff was also formed to help maintain the system. Furthermore, the project has assisted in providing knowledge for students and community people with regard to the most efficient way to consume water as well as the conservation of natural and water resources for sustainable development. Additionally, the networks of water resource conservation were expanded by fostering relations with the government and private sectors' agencies in the province, such as local government agencies in Kanchanaburi, Department of Groundwater Resources, TEAM WORK Foundation, Thiensurat Public Company Ltd., UHM Co., Ltd., Thai Pipe Industry Co., Ltd., Labour Union of MWA, and the Project "MWA Shares a Smile for the Society". This resulted in the MWA cooperation networks to raise social awareness and conservation of water resources.

The project mentioned above was a part of the MWA operations for corporate social and environmental responsibilities. Other MWA projects and activities were held as follows:

The MWA Plumber for People Project aims to provide corporate core knowledge and expertise of water pipe system maintenance, water pipe and equipment repair techniques to the general public with no limitation on genders and education levels together with offering plumber suits and plumber tool box for basic waterworks tasks. There were both theoretical and practical trainings with free of charge. In addition, the activity "CSR Quality Water for Quality Life" was organized for the trained people as volunteers to apply their knowledge and skills to a real situation by repairing the waterworks system in several locations such as temples, schools and communities. These volunteers were supervised by the MWA employees. The knowledge, skills and experience they have gained from the training will provide them an extra career opportunity or minimize their household expenses in repairing and maintaining waterworks system. Moreover, the trained volunteers will be self-reliant and also assist others in their community. More importantly, the basic knowledge for fixing water pipes and water equipment can help reduce the water loss caused by leaking or broken pipes. In 2017, there were 180 participants of 6 beginning level sessions and 58 participants of 2 advanced level sessions, or 238 trainees in total. From March 2014 to September 2017, there were 991 participants who were able to pass the training course

evaluation from all over the country (28 sessions of the beginning level and 4 of the advanced levels). In addition, 26 CSR events of Water for People were held in 36 places. Furthermore, other than providing people knowledge and opportunity, MWA felt more proud that the trainees could build on what they had learned; for example, they created innovations for plumbing works and won the MWA innovation award. Besides, they developed themselves to become the trainers and provided learning opportunity for others. Their self-potential discovery made them proud of being useful to their families and communities and had the awareness of water resource conservation.

The MWA Watershed Forest Conservation Project Following the Royal Path of HM King Rama IX is a continuous project of the MWA Watershed Forest Conservation to honor His Majesty King Bhumibol (2012-2016). In the first year of the project (2017), MWA held the following activities:

- 1. Organized a forestation activity in Pua District, Nan Province, covering the upstream area of Nan River, which is a main water resources of MWA water production. A total of 5,000 trees were planted, accounting for over 5,000 tonnes of carbon absorption (life span of a single tree can capture and store carbon for 1 - 1.7tonnes on average).
- 2. Improved and developed water supply system for 4 schools and communities including Momjoajarernjai (Jittrapong) School, Ban Cheiwjan School, Palaewluangwittaya School, and Ban Namyao School, which benefited over 2,000 people in 4 communities.
- 3. Constructed check dams in collaboration with Electricity Generating Authority of Thailand (EGAT) in the area of Bhumibol Dam, Sirikit Dam, Srinakharin Dam and Vajilalongkorn Dam. With cooperation of 153 volunteers, 532 check dams were completely constructed for conservation and development of water resources in areas of Chao Phaya and Mae Klong River Basins as well as expansion of water resources conservation networks covering the large tributaries, the Ping, Wang, Yom, Nan Rivers and Mae Klong River Basin. More than 40 organizations signed a memorandum of understanding (MOU) of water

resources development and conservation with Electricity Generating Authority of Thailand (EGAT), resulting in the formation of MWA volunteer groups. The number of volunteer members has been increasing in operation. Currently, the networks consist of 1,103 members (as of October B.E. 2560).

The activity "Water Conservation Camp" organized activities to educate students in 16 schools, including three events for 12 schools in Mae Klong River basin's area, and one event for 4 schools in Chao Phaya River basin's area, Nonthaburi Province.

Demand Side Management (DSM) is the MWA campaign to raise people's awareness of the water value and water saving to change their water consuming behavior. The project has also encouraged water saving devices or innovations, particularly the water saving devices with MWA's efficiency label.

Inspection to make sure that the fire hydrants are available in condition at over 20,000 spots to help extinguish any possible case of fire in order to reduce the loss of life and property of the people, etc.

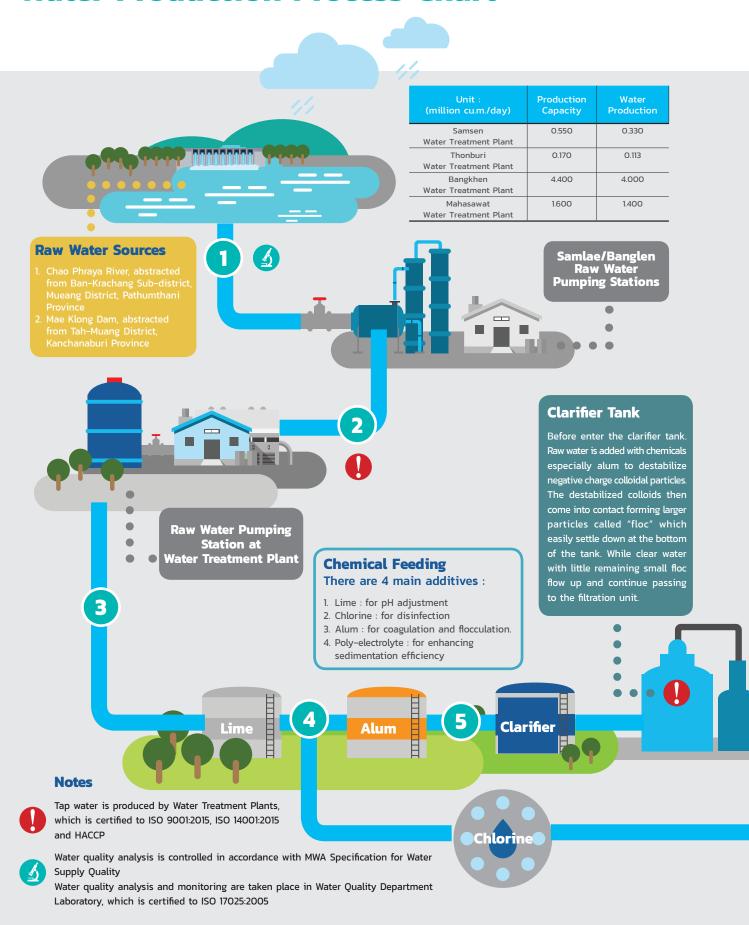
Implementation of Global Reporting Initiative (GRI) in disclosing information for sustainable development and reporting of performance outcome concerning social responsibility (SR) covering 3 dimensions of information in positive and negative aspects of economy, society and environment based on the Global Reporting Initiative (GRI) which is the sustainability guideline for international organizations. Furthermore, the GRI procedures could be utilized for an integrated sustainability as a part of the corporate strategies.

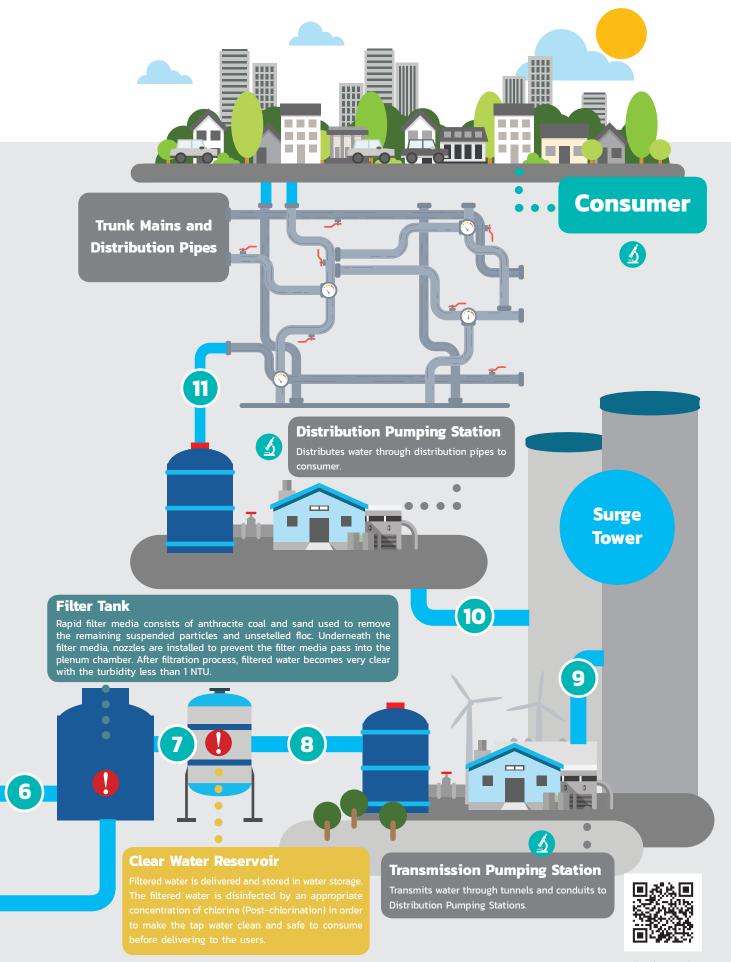
MWA is aware of the importance of CSR with determination to continue its operation. Moreover, it is ready to take part in enhancing the sustainability of community and society while upholding the corporate key mission to supply basic public utility which is "water supply" with international standard quality, to serve all lives. The tap water must be clean and safe as stated in the corporate key principle, "Quality Water for Quality Life".

Service Performance of Branch Offices

	6		Massa	W-4	Wate	Water Consumption		
Branch Office	Service Area	Customer	New Connection	Water Production	Water Sales	Other	Total	Pipe Length
	Sq.km.	Connection	Connection	Million cu.m.	Million cu.m.	Million cu.m.	Million cu.m.	Km.
Region 1	485.18	455,852	15,016	497.81	337.41	3.87	341.28	6,956.789
Sukhumvit	94.70	122,359	3,269	145.64	103.98	0.65	104.63	1,939.205
Phra Khanong	119.43	144,128	4,653	150.73	93.96	1.97	95.93	2,265.968
Samut Prakan	271.05	189,365	7,094	201.44	139.47	1.25	140.72	2,751.616
Region 2	226.36	392,912	4,261	477.31	327.39	4.55	331.94	5,551.955
Phaya Thai	60.91	88,220	967	156.10	93.51	1.63	95.14	1,412.017
Thung Mahamek	31.86	72,240	450	91.48	62.33	0.78	63.11	737.843
Mansri	35.81	69,648	466	125.85	87.53	1.49	89.02	835.859
Lat Phrao	97.78	162,804	2,378	103.88	84.02	0.65	84.67	2,566.236
Region 3	744.61	491,229	17,967	365.09	269.14	6.16	275.30	8,382.81
Prachachuen	77.87	113,733	1,969	85.66	62.90	0.58	63.48	1,606.265
Bang Khen	81.49	120,439	3,849	73.45	51.12	1.41	52.53	1,776.718
Min Buri	279.21	150,940	5,741	80.03	64.59	2.50	67.09	2,723.726
Suvarnabhumi	306.04	106,117	6,408	125.95	90.53	1.67	92.20	2,276.098
Region 4	520.89	584,083	11,851	498.20	288.51	11.34	299.85	7,779.039
Bangkok Noi	112.02	133,309	1,844	124.62	66.82	2.38	69.20	1,923.916
Taksin	113.41	154,145	2,457	126.39	79.96	2.37	82.33	1,901.568
Phasi Charoen	128.33	164,212	3,151	123.20	73.60	3.88	77.48	1,721.789
Suksawat	167.13	132,417	4,399	123.99	68.13	2.71	70.84	2,231.767
Region 5	441.39	404,522	16,232	225.42	157.69	2.50	160.19	6,005.312
Nonthaburi	91.96	127,411	2,048	87.66	66.58	1.32	67.90	1,833.804
Bang Bua Thong	193.16	129,496	6,455	59.89	41.85	0.32	42.17	2,037.896
Mahasawat	156.27	147,615	7,729	77.87	49.26	0.86	50.12	2,133.612
Grand Total	2,418.43	2,328,598	65,327	2,063.83	1,380.14	28.42	1,408.56	34,675.904

Water Production Process Chart





Water Production Process





Pipeline Length and Equipment

As of 30 September 2017

Type and Diameter Size (mm.)	ST	SCP	RCP	CI	PC-ST
Tunnel and Conduit					
3,400	10.367				6.582
3,200	40.846				
3,000	16.286				
2,800	0.070				17.624
2,500	11.980				5.331
2,300	19.497				1.755
2,000	36.801				2.623
1,500	7.289				
Total in Transmission System	143.135	0.000	0.000	0.000	33.915
Trunk Main					
1,800	12.540	0.676			
1,500	85.409	11.055	10.322		
1,200	140.208	14.778	1.963		0.354
1,000	525.278	11.399	32.204	12.937	4.533
900	29.273			20.386	3.128
800	472.232	0.115	0.144	8.822	5.180
700	40.659			11.001	8.121
600	156.482		0.009	15.815	8.382
500	35.644			19.470	13.862
Total in Trunk Main	1,497.725	38.023	44.642	88.430	43.560
Distribution Pipe					
400	37.886			6.242	
300	250.165			2.297	
250	1.981			0.351	
200	102.536			2.488	
150	117.629			0.265	
100	4.746			1.193	
Total in Distribution Pipe	514.942	0.000	0.000	12.835	0.000
Total in Transmission and Distribution System	2,155.802	38.023	44.642	101.266	77.475

Pipe Length (kn	Pipe Length (km.) Classified by Type							
PC	AC	DI	PVC	GI	HDPE	Total		
						16.949		
						40.846		
						16.286		
7.500						25.193		
0.841						18.152		
						21.252		
5.530						44.954		
						7.289		
13.871	0.000	0.000	0.000	0.000	0.000	190.921		
						13.216		
						106.786		
		0.013				157.316		
						586.351		
					1.265	54.051		
		0.423			7.769	494.684		
						59.781		
	3.786	2.704			0.210	187.388		
	3.090					72.066		
0.000	6.876	3.140	0.000	0.000	9.244	1,731.639		
	122.565		108.015		0.161	274.869		
	1,370.230		4,168.090		14.147	5,804.930		
	20.250		1.332		1.11.1	23.914		
	496.698		4,129.722		7.289	4,738.733		
	1,004.854		8,375.882	27.907	39.679	9,566.215		
	369.025		11,700.849	236.184	32.688	12,344.684		
0.000	3,383.622	0.000	28,483.889	264.091	93.964	32,753.344		
13.871	3,390.498	3.140	28,483.889	264.091	103.208	34,675.903		

Notes: Length of distribution pipeline excluding service pipe (1/2" - 3" size)

Fire Hydrant 150 mm. size 29,448 units

Gate Valve 136,297 units

Butterfly Valve 2,662 units





B Comments

Activities in 2017

- 1. MWA Academic Fun Fest 2017
- Marathon: You Smiles Make Our Day
- 3. MWA Establishment Day

- 8. MWA Forum: Quality Water for Quality Life
- 10. Opening Ceremony: MOI 5 State-owned







Good Corporate Governance

Good Corporate Governance Policy

The MWA Board of Directors has strictly adhered to the good corporate governance principles in operating the business and has developed a clear CG Policy since 2006 in accordance with Corporate Governance Principles and Guidelines for State Enterprise 2009 and the Stock Exchange of Thailand (SET) Corporate Governance Principles. The CG policy has been adopted as the core framework in promoting efficient operations based on moral, ethics and responsibility towards society and environment, resulting in the corporate success and sustainable growth.

MWA Good Corporate Governance

The MWA Good Corporate Governance consists of 6 principles, which are used as a guideline for management and operation to create organizational stability and equitable treatment of stakeholders as follows:



The Rule of Law

MWA has a set of clear and fair rules and regulations and fair implementation with equitable treatment of all parties concerned. The authority refrains from any action that suggests double standard. At the same time, it ensures that its operations are within the framework of rules and regulations and timeframe and that there is no abuse of authority power. Respect on rights and freedom is always valued at MWA while rules and regulations are always updated to reflect the current situation.



MWA strictly adheres to operation virtue in order to be role model for the society as well as supports and encourages people's self-development to create a society of integrity, sincerity, toleration, discipline and honesty together with refraining from corrupted activities and working in collaboration with all employees in preventing corrupted acts in the organization.



Transparency

MWA ensures transparent administration and operations in all areas, including clear and transparent work process, audit process, and straightforward, accurate, transparent and timely disclosure of information beneficial to public.



Participation

MWA offers equal opportunity for employees to participate in the administration and management recommendation, decision making and resource allocating which matters to the business operation, employees and employers. It also provides information, gives recommendations, takes employee's opinions into account and allows them to participate in planning, plan execution and stakeholders' control.



Accountability

MWA is aware of its right and duties and stresses an importance of being responsible, attentive and enthusiastic in solving problems as well as willing and prepared for audit and evaluation. This truly reflects its responsibility towards stakeholders and accountability for operational consequences.



Efficiency & Effectiveness

MWA adheres to efficient and effective management, optimization of existing resources for the best benefits of the organization, quality and competitive products and services, and social and environmental responsibility. Key performance indicators are set and the performance appraisal is conducted by a recognized independent organization or persons.

MWA has strictly adhered to the good corporate governance principles in operating its business and encouraged concrete actions in anti-corruption. For example, to follow the slogan, "MWA Operation with Transparency and Corporate Governance", the MWA senior executives have issued the MWA policies on Corporate Good Governance, integrity, transparency, suppressing any corruption and whistle blowing. In addition, the Office of Corporate Governance Commission was established to encourage the MWA personnel to take part in preserving the MWA benefits and strengthening the MWA to become a transparent, sustainably anti-corrupted organization. Concerning this issue, the MWA Prevention and Suppression of Corruption Center was established in response to the National Strategy on anti-corruption and the governmental policies towards good governance. Additionally, the networks in collaboration with the Anti-corruption Center of the Ministry of Interior were formed to drive the policies and measures. The MWA Prevention and Suppression of Corruption Center is located at the MWA Information Center on the first floor of the MWA Head Office. Any corruption and unethical behaviors can be reported through various channels such as telephone, facsimile, Internet and Intranet system, etc.

Structure of Board of Directors

According to the Metropolitan Waterworks Authority Act, B.E. 2518, the Board of Directors shall consist of the chairman and no fewer than 9 but no more than 13 directors, and the Governor is a director by position. The Board of Directors shall be appointed by the Cabinet and stay in the office for three

years. (If a director leaves the office, a replacement shall be appointed and the person shall stay in the office for the remaining period of the term of the director replaced).

The present Board of Directors comprises 15 directors (as of 31 December 2017)

- 8 are from Directors' Pool
- 12 are independent directors

All of them have the knowledge and experience that benefit the MWA, and come from different backgrounds, such as engineering, business administration, law, political science, and information technology, etc. This complies with the Metropolitan Waterworks Authority Act B.E. 2510 and good corporate governance principle.

Board of Directors and Executives Checks and Balances

Pursuant to the Metropolitan Waterworks Authority Act B.E. 2510 and the good corporate governance, duties of the Board of Directors and the Management are clearly separated. The Board of Directors is responsible for formulating policy, overseeing the operations of MWA and monitoring the performance and appraising the Governor. The Governor is responsible for managing and overseeing the operations of MWA to ensure that the authority performs its duties as required by laws and regulations as well as the policy formulated by the Board of Directors. The Governor shall report directly to the Board of Directors.

Leadership and Vision

- 1. The MWA Board of Directors, as a state delegate, regulates and formulates policies for general and risk management of the organization so as to achieve goals with optional efficiency in accordance with good corporate governance to build confidence in stakeholders in all sectors. The MWA operation is under the policies of Interior Ministry, the Cabinet, and Thailand 20-year Strategic Plan from which the following 7 policies were provided for the acceleration and sustainable development of the organization.
 - 1.1 Promote anti-corrupted acts along with good governance.
 - 1.2 Push forward the construction of M-WIT Learning Center.
 - 1.3 Seek for reserve raw water material.
- 1.4 Prepare for management personnel as well as professional progress.
- 1.5 Reduce water loss and monitor transmission pipelines, main pipelines and water transmission equipment.
 - 1.6 Enhance corporate image in order to boost public service.
 - 1.7 Integrate information technology into the working operation.
- 2. Several meetings and seminars with the executives were held for determining corporate strategies in order to add value to

the organization. For fiscal year 2017, the MWA Board of Directors participated in workshops, seminars and visits together with MWA executives as follows:

2.1 Participated in the workshop to review the 4^{th} Issue of MWA's Strategic Management Planning and Action Plans 2018 in compliance with current facts to respond to future changes. In addition, the implementation framework was set for sustainable development.

2.2 Joined the signing session to declare the intent of MWA committee, subcommittee and executive members under the concept of "Transparent MWA with Good Governance Heart".

2.3 Participated in the Competition Project "Kla Tham Dee" (Dare to do good deeds) arranged in the MWA Academic Fun Fest 2017 to encourage staff members to be more confident in developing a pilot project for better corporate culture.

2.4 Attended the opening ceremony of the 102nd Anniversary of Thailand waterworks, and introduced the area for construction of M-WIT Learning Center.

2.5 Participated in the MWA Risk Management Committee meeting to discuss guidelines for improvement and development of the canal at the raw water pumping station, Mahasawat Water Treatment Plant.

2.6 Welcomed the executive team from PUB, Singapore and participated in the Meeting "Sharing Session on Water Supply, Water Network Management, GIS and Sensor Network".

2.7 Participated in the meeting of moving forward the implementation of the 9th Bangkok Water Supply Improvement Project as Project Steering Committee.

2.8 Participated in the working group meeting on the establishment of the MWA Integrated Operation Center to monitor water loss management. The meeting focuses on water loss reduction including the management of suitable water pressure, the inspection and changes of main pipelines, the budget management of systematic main pipelines repairs, etc. for more speedy and efficient management of water loss.

2.9 Monitored and visited the Expansion Project of Water Supply Coverage in the communities of Samut Prakan Province to bring optimal benefits to water consumers based on the Ministry of Interior's Policy "Relieving the suffering, promoting the happiness".

2.10 The meeting for acknowledgement of policies for "MWA 50 Years of Happiness" and led MWA staff members to declare intent for work collaboration under the concept "Enhancing the happiness, upgrading life quality, and take further steps for the people"

2.11 Attended an off-site meeting at MWA Bangbuathong Branch Office to listen to the report on the implementation and monitoring of Customer Information System (CIS) Project, the progress of Information Technology Action Plan, fiscal year 2017 supporting the 4th Issue of MWA's Strategic Management Planning B.E. 2560-2564 (2017-2021), the integration of information technology systems to develop linkage of internal and external information systems of the organization.

2.12 Attended a lecture on water production technology MIEX using ion exchange resins with magnetic properties to eliminate organic substances in the water purification to obtain clean water with European and American standards. The participants discussed technical knowledge and experiences to consider the suitability and necessity in applying this technology and how to improve it for further use to increase water production efficiency.

2.13 Participated in policy of MWA volunteer groups to join upstream community, generating the development of the community and its environment. Moreover, the human development was emphasized to be used as a community development approach.

2.14 Participated in a meeting to continue collaboration with Far Eastern University in research and development, local waterworks training as well as social and environmental responsibilities.

2.15 Attended the opening ceremony of the Academic Seminar and the 2017 Annual General Meeting of Thai Waterworks Association. Some activities were arranged, such as a special lecture entitled "Human Resource Management: H.R. Crisis", and a discussion forum entitled "Encouragement of Private Sector's Investment in State-Owned Enterprises: Water and Polluted Water".

2.16 Attended the 7th Conference on National Water Resources Engineering entitled "Development for Sustainable Global Environment and Water Resources" held by the Engineering Institute of Thailand Under H.M. The King's Patronage.

3. Participated in MWA Academic Fun Fest 2017: Do what the King did, follow the King's path of work with good governance and development" which combined three great events involving SR Day, CG Day and KM & RDI Day and also a special lecture by Dr. Sumet Tantivejkul, Secretary to Chaipattana Foundation.

Meetings

The MWA Board of Directors scheduled meeting for the entire calendar year in advance. Meetings were scheduled for at least once a month, on every last Tuesday of the month. Extraordinary meetings may also be scheduled as necessary. The Office of MWA Board of Directors, as Secretary, prepared and distributed meeting invitations, agendas and documents to the Board of Directors. In fiscal year 2017, the Board of Directors regularly convened 10 ordinary meetings. (Details of attendance of each director are on page 86-87 of the Annual Report)

There were some additional workshops and practical seminars with the executives to set the direction of strategic operation and future operating plans for MWA. The Board of Directors received the agenda and document approximately seven days prior to the meeting, so there was sufficient time for studying the matters.

In every Board of Directors meeting, the directors had the opportunity to express their opinions openly and independently. Directors who might have conflict of interest on a particular agenda had to leave the meeting room until consideration ends. For instance, in appraising the performance of the MWA Governor, the Governor left the room. The minutes of meeting were taken and the opinions and observations of the directors were recorded in writing. The minutes which had already approved were kept for review by directors and concerned persons.

In addition, the Board of Directors invited the Deputy Governors to attend the meeting to provide information useful for the Board of Directors' consideration and to acknowledge the given policies directly so as to put them into practices accurately and promptly. Exceptions applied for some agenda where the Board of Directors convened without the presence of the management to maintain full independence.

The Appointment of Committees and **Subcommittees**

In fiscal year 2017, the MWA Board of Directors appointed 11 committees and subcommittees to help screen significant projects on behalf of the Board of Directors. Details of the composition and scope of responsibility of each committee and subcommittee are on page 81-85 of the annual report. Besides, some important subcommittees have prepared charters of duty and responsibility which comply with the MWA's good corporate governance policy.

Remuneration of the MWA Board of Directors, **Committees and Subcommittees**

1. Remuneration

- 1.1 The Board of Directors shall receive monthly remuneration and meeting allowances as follows:
- Directors shall receive remuneration not more than 10,000 baht per month. If a director stays in office for less than a full month, the remuneration shall be paid on a pro rata basis.
- The Chairman shall receive two times the amount received by a director (20,000 baht per month);
- Meeting allowance of not more than 10,000 baht per month/person is given to directors who attend the meeting only. The meeting shall not exceed once a month.
- 1.2 A director appointed as a director of committee/ subcommittee/ working committee shall receive meeting allowance per meeting at the rate equal to MWA directors for meeting attended. Each director shall not receive allowances for more than two committees and not more than once per month per committee.
- 1.3 Members of the MWA Audit Committee shall receive remuneration as audit directors at a fixed monthly rate equal to meeting allowance of MWA Board of Directors.
- 1.4 Members of Corporate Affairs Committee shall receive meeting allowances per meeting at the rate of not more than 3,000 baht per person only when attending the meeting.
- 1.5 The Chairman shall receive 25% higher meeting allowance than a director (12,500 baht) and the Vice Chairman shall receive 12.5% higher meeting allowance than a director (11,250 baht). The directors shall be responsible for the income tax.
- 1.6 The directors shall attend at least 60% of the meeting throughout his/her term in that fiscal year.

2. Bonus

The Chairman and Directors are entitled to bonus in accordance with the regulations of the Cabinet. Bonus allocation will be made after the review and approval of the Office of the Auditor General of Thailand and approval by the State Enterprise Policy Office (SEPO). The net profit will then be allocated as bonus to Directors under the following conditions:

2.1 SEPO bonus rate allocated in accordance with the net profit as follows:

Net Profit (Million Baht)	Bonus (Baht/Person)		
Not more than 100	3% of net profit but not more than 60,000 baht		
100 - 300	65,000		
More than 300 - 500	70,000		
More than 500 - 700	75,000		
More than 700 - 1,000	80,000		
More than 1,000 - 2,000	90,000		
More than 2,000 - 5,000	100,000		
More than 5,000 - 8,000	110,000		
More than 8,000 - 11,000	120,000		
More than 11,000 - 13,000	130,000		
Every additional 2,000	Additional 10,000		

The Chairman and the Vice Chairman shall receive 25% higher bonus than the Directors.

2.2 State Enterprise which can allocate bonus for employees when there is net profit for allocation shall allocate bonus to the Directors based on appraisal results as follows:

Appraisal Result (Score)	Bonus Allocation Received by the Director (Baht/Person/Year)			
5.00 (Excellent)	Bonus base + 100% of base			
4.50	Bonus base + 75% of base			
4.00 (Very Good)	Bonus base + 50% of base			
3.50	Bonus base + 25% of base			
3.00 (Good)	Bonus base			
2.50	Bonus base – 25% of base			
2.00 (Fair)	Bonus base – 50% of base			
1.50	No bonus			
1.00 (Poor)	No bonus			

Criteria

Bonus allocation shall be made only after the MWA remits the accrued remittance to the Ministry of Finance or obtains approval from the State Enterprise Policy Office to pay in installment at fixed schedule.

The net profit calculation for bonus allocation shall be indicated by the State Enterprise Policy Office, Ministry of Finance.

The Directors receiving bonus shall be responsible for the income tax. In the accounting year, if the Director is absent from the meeting for more than 3 months, bonus allocation shall be paid according to these criteria:

More than 3-month absence, but not more than 6 months, the bonus shall be decreased by 25%

More than 6-month absence, but not more than 9 months, the bonus shall be decreased by 50%

More than 9-month absence, the bonus shall be decreased by 75%

Remuneration of Governor and Executives

• The MWA Governor is appointed through a recruitment process. The contract term is four years. The Governor receives remuneration as considered and approved by the Board of Directors, depending on his/her knowledge, capability, responsibility and the MWA's ability to pay within the remuneration framework.

The Governor, Mr. Thanasak Watanathana (Contract period from 5 November 2013 – 1 April 2017) received fixed remuneration of 453,606.68 baht per month in fiscal year 2017 along with other benefits as stated in the employment contract. The Governor's Performance Appraisal Subcommittee considered the Governor's performance and resolved that the Governor passed all the appraisal and performance criteria. As a result, the Governor receives the remuneration in accordance with the appraisal result of 1,020,615.00 baht per year.

The current Governor, Mr. Prinya Yamasamit (contract period from 19 April 2017 to 11 August 2020) received fixed remuneration of 315,000.00 baht per month in fiscal year 2017 along with other benefits as state in the employment contract. The Governor's Performance Appraisal Subcommittee considered the Governor's performance and resolved that the Governor passed all the appraisal and performance criteria. As a result, the Governor

received the remuneration in accordance with the appraisal result of 637,875.00 baht per year and additional fixed monthly remuneration from October 2017 of 327,757.50 baht per month.

• Remuneration of top executives (Deputy Governors and Equivalents) is pursuant to the Ministry of Labor's salary structure (46.5 levels). The remuneration of Deputy Governors and Equivalents is no more than 113,520 baht. There are also other benefits, both in financial and non-financial terms, including entertainment allowance, bonus, car allowance and other benefits according to the MWA regulations.

Unit: Million baht

Remuneration	2017	2016	2015	Change 2017 – 2016 Increase (Decrease)	
				Million Baht	Percentage
Remuneration of Governor	4.78	5.79	7.75	(1.01)	(17.44)
Remuneration of Deputy Governor and Equivalents	20.93	20.47	31.15	0.46	2.25
Total	25.71	26.26	38.90	(0.55)	(2.09)

Director Development and Self-Assessment of MWA Board of Directors

The MWA Board of Directors is aware of the importance of training courses which help develop the directors' knowledge and skills useful for the MWA operation improvement and its future growth. In 2017, the directors attended training courses and seminars as follows:

- 1. Attended the opening ceremony of the Academic Seminar and the 2017 Annual General Meeting. There was a special lecture: "Human Resource Management: H.R. Crisis" and a discussion forum: "Encouragement of Private Sector's Investment in State-owned Enterprises".
- 2. Attended the 7th Conference on National Water Resources Engineering "Development for Sustainable Global Environment and Water Resources" held by the Engineering Institute of Thailand Under H.M. The King Patronage.
- 3. Participated in a workshop to review The 4th Issue of MWA's Strategic Management Planning and the Action Plan 2018 in order to adjust strategies in compliance with current

facts to respond to future changes. In addition, the implementation framework was set for sustainable development.

- 4. Participated in a meeting to discuss approaches for improvement and development of the canal at the raw water pumping station, Mahasawat Water Treatment Plant.
- 5. The MWA Board of Directors and executive members as project steering committee, participated in the meeting for accelerating the 9^{th} Bangkok Water Supply Improvement Project.
- 6. The MWA Chairman of Board of Directors chaired a meeting of the working committee for Establishment of MWA Integrate Operation Center.
- 7. Participated in a meeting to monitor water loss management, discussed implementation of water loss reduction involving the management of suitable water pressure, the inspection and change of main pipelines, and the budget management of systematic main pipelines repairs, etc. in order that this would be able to result in fast and efficient loss water management.
- 8. The MWA Board of Directors, MWA executive members and representatives of Samut Prakan provincial administrative organization visited and monitored expansion project of water supply service coverage for all communities in Samut Prakan Province to bring highest benefits to water customers based on the Ministry of Interior's policy "Relieving the suffering, promoting the happiness".
- 9. Attended a lecture on water production technology MIEX using ion exchange resins with magnetic properties to eliminate organic substances in the water purification to obtain clean water with European and American standards. The participants discussed technical knowledge and experiences to consider the suitability and necessity in applying this technology and how to improve it for further use to increase water production efficiency.

Directors Orientation

In fiscal year 2017, based on the cabinet's approval in the meeting on 26 September 2017, a total of 14 MWA chairman and its directors were appointed. Nine directors were appointed to replace those whose three-year terms ended on 20 July 2017. Two were appointed to replace the chairman and a director who resigned from their positions, and three directors were appointed to replace those who resigned before the termination of their terms on 8 December 2017. The secretary to the board of directors, therefore, provided the newly appointed directors with the following related information and documents in order to inform them about the MWA operation.

- 1. MWA Board of Director's Manual
- 2. MWA Act and MWA Regulations
- 3. The 4th Issue of MWA's Strategic Management Planning.
- 4. Action Plan Fiscal Year 2017
- 5. MWA Annual Report for 2016
- Report on Assets and Liabilities Form, submitted to the National Anti-Corruption Commission (within 30 days after being appointed to the office)
- 7. Independence Certification Form and Report on Conflict of Interest Form
- Report on disclosure of securities and connected transactions of the MWA Board of Directors Form

Board of Directors Performance Appraisal

The MWA Board of Directors undergoes two types of appraisal which are self-assessment and board evaluation. In fiscal year 2017, the evaluation was done on 3 March 2017, and the overall performance result of the entire Board of Directors is 63.92 points (out of 69), equivalent to 92.63%, which is excellent. For the Board of Directors' Self-Assessment, the performance result is 57.57 points (out of 60), equivalent to 95.94% which is excellent.

The 3 assessed aspects with the lowest results were included in the MWA Committee's action plans after the review and consideration of the MWA Committee. In addition, the main Committee and Subcommittee, such as the Audit Committee, the Risk Management Subcommittee,

the Relations Affairs Committee, and the CG and CSR Subcommittee also conducted both types of assessment. The results from the appraisal were used for further improvement of their performance competency.

Conflict of Interest Management

The MWA Board of Directors emphasizes the importance of prudent, transparent and verifiable conflict of interest management. Criteria and directions on conflict of interest management have been included in Management Policy and Good Governance Policy, requiring the directors, executives and employees to unveil significant information to prevent direct and indirect conflict of interest between employees and the MWA. Conflict of interest is reported on a specified form to the higher level supervisor at the end of the fiscal year. During the fiscal year, if there is any issue that is suspected to involve conflict of interest, the matter shall be immediately brought to superiors' attention. The Audit Office is responsible for preparing summary of conflict of interest report of the entire organization. In fiscal year 2017, the Board of Directors, Subcommittees and the MWA employees complied with the conflict of interest reports and no conflict of interest was found.

With respect to the connected transactions which may cause conflict of interest and may lead to transfer of the organization's benefits, there will be inspection of the procurement process of direct and indirect interest between bidders, either natural person, juristic person, or central market in order to find any administrative relation, investment relation, or cross-management and investment. According to the Internal Audit Office's review of relations between the contractors and MWA employees who involved in the procurement process, no conflict of interest of related issue was found in 2017.

Details of Important Securities Held by Directors and Related to MWA and Connected Transactions to MWA

MWA has prepared a form for disclosure of securities (shares) and connected transactions for the Board of Directors to disclose to the public. The information as of 30 September 2017 can be summarized as follows:

Name	Shareholding in juristic person related to core	Related juristic person	in othe	lirector/top r state ente ristic perso	•	
Chairman and Independent Director	business		Chairman	Director	Executive	
1. Mr. Vullop Phringphong	-	-	-	А	-	
Director and Independent Director						
2. Prof. Suwatana Chittaladakorn, Ph.D.	-	-	-	-	-	
3. Mr. Bowon Vongsinudom	-	-	В	С	D	
4. Mr. Wanchai Lawattanatrakul	-	-	-	Е	-	
5. Mr. Royol Chitradon, Ph.D.	-	-	-	F	G	
6. Mr. Nattakit Tangpoonsinthana, Ph.D.	-	-	-	-	Н	
7. Asst. Prof. Teekawuth Potapirom	-	-	-	-	ı	
8. Mr. Chaichana Mitrpant, Ph.D.	-	-	-	-	J	
9. Mr. Thongplew Kongjun, Ph.D.	-	-	-	-	K	
10. Mr. Somsak Suwansujarit	-	-	-	-	-	
11. Assoc. Prof. Chanin Tinnachote, Ph.D.	-	-	-	L	-	
12. Vadm. Nadaecho Kerdchoochuen	-	-	-	-	-	
Director, Representative of Ministry of Fin	ance					
13. Mr. Nisit Jansomwong	-	-	-	-	М	
14. Mrs. Siriporn Luangnual	-	-	-	N	-	
Director and Governor						
15. Mr. Prinya Yamasamit	-	-	-	-	-	

Remarks: The MWA has no subsidiaries or associates

A: Experts, National Land Policy Committee Extraordinary Member, Civil Service Commission on Human Resource Development

B : Chairman, Prima Marine Public Company Limited Chairman, Thai British Security Printing Public Company Limited Chairman, PTT Phenol Company Limited Chairman, UAC Advance Polymer & Chemicals Company Limited

C : Director, State Railway of Thailand Director, Thai Vegetable Oil Public Company Limited Director, WP Energy Public Company Limited Director, ASEAN Potash Chaiyaphum Public Company Limited

Director, Bangkok Industrial Gas Company Limited

D: Deputy, The Federal of Thai Industries

E: Director and Audit Committee, SPCG Co., Ltd. (Public)

F: Director, Provincial Waterworks Authority Director Secretary, Hydro and Agro Informatics Institute (HAII) (Public Organization)

Director, Department of Water Resources, The Prime Minister's Office

Director, Thailand Institute of Justice (Public Organization)

Director and Secretary, Utokapat Foundation Under Royal Patronage of H.M. The King

G: Council Minister, Northeastern Vocational Institute of Agriculture, Ministry of Education

H: Executive Vice President, Marketing Department Central Pattana PCL

I : Working Committee, Problem-Solving Project of Mae Suai Dam, Chiang Rai Province

J : Deputy Director, Electronic Transactions Development Agency (Public Organization)

K: General Director, Department of Royal Irrigation

L : Director, Eastern Water Resources Development and Management PCL

M: Deputy Permanent Secretary, Ministry of Interior

N: Director, Ratchaburi Electricity Generating Holding PCL Director, TOT Limited (Public)

Definitions

- 1. Securities holding (shareholding) in a juristic person related to the core business: shareholding of MWA directors in a juristic person related to the core business of MWA in the percentage exceeding 10 percent of the total shares with voting rights.
- 2. Juristic persons related to MWA directors: a juristic person which has or is likely to have a transaction activity related to MWA where the spouse, minor child/adopted child of the MWA directors has control over on one of the following cases: holding shares with voting rights exceeding 50 percent of all voting rights; or having controlling power in the majority of votes in shareholders meeting; or having controlling power in the appointment or removal of at least half of all directors.

MWA Code of Ethics

To express the intention on transparent operation with moral principles and responsibility towards stakeholders, the MWA Board of Directors thus set the MWA Code of Ethics in accordance with MWA regulation No. 133 on ethics of MWA Governor and Employees B.E. 2552 dated 28 December 2009. The MWA Code of Ethics has been issued to ensure that all stakeholders receive fair treatment and it has been distributed to all to be used as practice guidelines for directors, executives, employees and contract operators. If there are proofs of a violation case, or the Code of Ethics are not followed, the MWA disciplinary action shall be taken. In fiscal year 2017, MWA made a review on the MWA Code of Ethics for its operation including ethical standards for the MWA committee, MWA subcommittee, MWA consultants, MWA Governor and employees as well as report on violation or in case Code of Ethics are not followed.

Relationship between the Board of Directors and Stakeholders

The MWA Board of Directors has realized an importance of the stakeholders including the government, employees, customers, business partners as well as social responsibility as a whole. Therefore, MWA has laid out practice guidelines issued in the MWA Code of Ethics, the Good Governance Operational Policy and also in the Corporate Social and Environment Responsibility Operation as well. The responsibility guidelines for stakeholders are as follows:

1. Responsibilities to Government

- 1) Following the government policies, or the regulatory agencies, and reporting the operational performance and situations regularly, completely and truthfully.
- 2) Performing duties with honesty, morality, and good conscience.
- 3) Managing resources of the organization to optimize its utilization.
- 4) Developing the organization towards sustainable growth.

2. Responsibilities to the Customers

- 1) Providing quality products and services with international standards and reasonable prices as well as considering an efficient service as a key factor.
- 2) Treating all customers equally with fairness, transparency, service mind, courtesy, and good human relation as well as responding to customers' needs and expectation.
- 3) Developing information technology to expand more channels of service, such as water connection requests and bill payments, etc.
- 4) Setting the operation standards by taking customer benefits as the first priority, for instance, installations of new plumbing pipelines to expand service coverage for people to gain more access to water supply.
 - 5) Managing customer complaints effectively.

3. Responsibilities to the Partners and/or Creditors

- 1) Strictly complying with all conditions agreed upon with partners and/or creditors.
- 2) Protecting stakeholders' benefits, for example, in case of failing to follow the agreed conditions, the partners and/or creditors must be informed in advance in order to find solutions immediately.
- 3) Promoting fairness and equality among all partners and/or creditors as well as transparent and auditable operations.
- 4) Complying with the MWA's Prevention and Anti-Corruption Policy by "No giving, receiving, and providing any dishonest benefits to partners and/or creditors."

4. Responsibilities to Employees

1) Providing fair compensation and welfare to employees and setting a clear code of conduct as well

as prioritizing the occupational health and safety and maintaining good working environment of the employees.

- 2) Promoting the development of employees' knowledge and skills to create performance potential as well as encouraging their professional advancement.
- 3) Managing the development of human resources by considering employees' benefits with morality and equality.
- 4) Promoting employees to strictly follow the Good Governance Principle as well as comply with ethical principles and MWA Code of Ethics.
- 5) Adopting a policy to encourage employees to fight against corruption as well as supporting the activities which promote employees to abide by MWA rules and regulations.

5. Social responsibility

- 1) Operating business with community social and environmental responsibilities and attaching importance to safety, quality of life and the conservation of natural resources.
 - 2) Promoting an effective use of energy.
- 3) Realizing quality of life in the communities of MWA service areas as well as the areas surrounding water treatment plants and raw water canals and the water resource areas for water production (the Chao Phraya and the Mae Klong River basins) which are the main areas in the country by creating well-being communities and societies.
- 4) Considering the business operation which may affect the environment, starting from the beginning to the end of the operation process, including construction of water treatment plants and raw water canals, construction of transmission and distribution systems, installation of main pipelines, and maintenance of pipelines systems.
- 5) Selecting technology used in the production process and the waste disposal process as well as drawing attention to research and development of innovations to promote an effective use of energy.

In 2017, the operation in promoting relationship with the stakeholders are as follows:

Government: MWA pursued the Government and the Ministry of Interior's policies in the following activities :

• Participated in the "International Anti-Corruption Day" event held in collaboration with Office of the National Anti-Corruption Commission and several sectors - Government Network, State Enterprises, Private and Civil Society – under the concept "Be honest as HM King Bhumibol taught. Do good deeds for the nation" in order to stimulate all sectors' awareness not to accept corrupted acts and moving forward to the vision "Let's Thais clean Thailand against corruption"

- Donated 1,000,000 baht to subsidize the operation of Siriraj Museum and make landscape in the fortress' base area of Wang Lang (The Rear Palace) to commemorate Krom Phra Rajawang Boworn Sathan Phimuk, and also donated 1,000,000 baht to help flood victims in the south under the Project "Thai people and government join hands to relieve southern flood-affected victims"
- Responded to the Ministry of Interior's policy by participating in the Project "Relieving the suffering, promoting the happiness, and keeping the smiles of Thai people" (mobile province) – at the multi-purpose court, Sports Authority of Thailand, Samut Prakan.
- Participated in Conservation of National Water Resources Week and the World Water Day 2017 with an acknowledgement of Government policy for water resource management held by Department of Water Resources, Ministry of Natural Resources and Environment in remembrance of His Majesty King Bhumibol Adulyadej "Father of Water Resource Management".
- Responded to the government policy by rewarding the employees and contract workers who participated in "Exercise for Good Health" activity for 10 times. The activity was held every Wednesday to meet the government's need in encouraging people to continuously exercise every Wednesday, and that also complied with The 4th Issue of MWA's Strategic Management Planning - "Development of Quality of Personnel's Work Life Project".
- Participated in the event, "235 Year of Rattanakosin City under Royal Benevolence" with the cooperation of 6 agencies including Ministry of Interior, Ministry of Culture, Ministry of Communication, Ministry of Commerce, Ministry of Energy, and Ministry of Industry, and joined the ceremony to honor the grace of Chakri Dynasty's Kings. Furthermore, merit makings were organized at the royal monasteries relating to the Kings of Chakri Dynasty. These activities were in line with the Government policies in integrating of all sectors' operations to promote Thai traditions.

- Participated in the meeting to move forward and monitor the Ministry of Interior's policies, in fiscal year 2017 in which General Anupong Paochinda, Minister of Interior, and Mr. Suthee Makboon, Deputy Minister of Interior delivered policies and guidelines for accelerating and monitoring the government policies and Ministry of Interior's major missions with significant agendas involving administration within a framework for the country reform, national strategies and creation of reconciliation, protection and glorification of national core institutions, functional operations, and acceleration of area operations.
- Participated and observed a rehearsal of IDMEx 2017 in which Mr. Suthee Makboon, Deputy Minister of Interior presided over. The rehearsal practice was for disaster prevention and mitigation integrated by agencies from all sectors in order to develop capable teamwork of disaster prevention and mitigation in Thailand and enhance the staff's potential to cope with all levels and categories of disaster as well as develop their skills in applying international standard mechanism, which is a part to move forward a government's main policy under the agenda "Safety Thailand".
- Responded to the government policy in providing fast and easy-to-access services for people through the service centers called **Government Easy Contact Center: GECC 2017.** All 18 GECC centers met the required standard and thus have been certified. This was a new step to upgrade MWA customer services in a more standardized system and help provide effective and trustworthy service centers for people, leading to development of one-stop services.
- Responded to the government policies by participating in "Thai people join hands to grow trees for Thailand" the project assigned by The Cabinet to Ministry of Interior, Ministry of Natural Resources and Environment and relevant agencies to encourage people from all sectors together to plant and conserve trees in 77 provinces in remembrance of His Majesty King Bhumibol Adulyadej and Her Majesty Queen Sirikit.
- Responded to the government policy by joining in signing a three-party M.O.U. with Office of National Anti-Corruption Commission (NACC), State-Enterprise Policy Office (SEPO) and 54 state enterprise agencies for pushing forward the national strategy on Prevention and Suppression of Corruption Phase 3 (2017-2021), presided by Police General Watcharapol Prasornrajkit, President of NACC. In addition, Mr. Somkid Jatusripitak, Deputy Prime Minister delivered a policy on "increasing efficiency in

state enterprise management with transparency and professionalism" to all agencies. Also, the MWA participated in the anti-bribery declaration of the state and private sectors, "Government and private sectors joins hands to move Thailand's business forward without bribery" led by General Prayuth Chan O-cha, Prime Minister.

Customers: Committed to improve the quality of clean water services for all consumer service areas, facilitated customers at every step of services, and solved problems for the public. The activities organized for customers are as follows:

- Offered 50% discount for installation of a new registered connection from the normal (5,000 Baht) to special price (2,500 Baht) under the following conditions: The applicant shall be the house owner by law with his/her name in the house registration; the house shall be for residing not for a commercial purpose; the applicant shall not be a former customer who has been cancelled distribution of water; the water meter has a diameter of ½ inch; the distance from main pipeline to the water meter is not exceeding 20 meters.
- Opened a customer service center of Suksawat MWA Branch Office (Suksawat Smart Project), Pra Padaeng District Office. The services included water bill payments and other one-stop services, such as transfers of water consumption ownership, and requests for new registered connections, etc., and the services were provided for customers in all areas. The office hours of the center are from 9.00 to 14.00 hours, on Mondays and Thursdays. In the near future, however, the service hours will be extended in accordance with official time to enable customers to easily get more access to services apart from the 18 MWA Branch Offices.
- Organized Kick Off activities "MWA 50 Years of Happiness". Several activities were held throughout the year to make customers happy via 5 performances as follows:

 1. Development of water production and supply for building stability of the water supply system in response to an increase in water consumption need in the future;

 2. Excellent services by enhancing customer services to make them fast and easy for the public;

 3. Innovations to meet the needs and expectation of water consumers;

 4. Activities held for communities and societies to improve quality of life and build people's awareness on the value of water; and 5. Health promotion for creating network and enhancing participation in activities leading to healthy life.

- Organized an event on the Children's Day 2017 under the concept "the Land of Happiness; Following the King's Philosophy" not only to make them joyful but also to raise the awareness on national unity, rights, duties, self-responsibility and responsibility for public as well as compliance with regulations and moral principles.
- Provided the services to the public at the onestop service government center, the Mall Ngamwongwan, Nonthaburi. The center is open every day from 10.30 to 18.00 hours (including official holidays)
- Organized the "MWA Volunteer Activity" by collecting garbage around the Grand Palace in commemoration of His Majesty King Bhumibol Adulyadej, and to express mournfulness to him. 50 MWA volunteers participated in the activity. 2,000 boxes of food and 6,000 bottles of water were prepared and distributed to people who attended the ceremony in the areas around the Grand Palace and Sanam Luang.
- Provided outdoor services for new installation fee payments and new connection requests at a vehicle parked at Wat Klong Mon. This was an easy way to contact MWA without traveling to the branch office. The proactive service was very satisfying to the service and resulted in MWA's good image.
- Set up the "Renovating Front Office to Win a Customer's Heart" is the MWA service; the new-styled front office for water bill payment and request. This service is part of elevating the service level for public to the so-called one stop service that is more convenient for the customers with trust and satisfaction.
- Offered free bottled water to government sectors and people throughout the year. The recipients were Thailand National Defence College Association under royal patronage, Advanced Security Management Program, Ratburana Rescue Center, Rajburana Hospital, the temple Wat Yansangvararam Mahavihara in Chonburi, southern flood-affected victims and Border Patrol Police.
- Provided a field customer service at Samut Prakan. The project on water bill payment and outdoor **service** is the pilot project for the customers' convenience, as a means to satisfy the customer better in the marginal land.
- Volunteered in doing good deeds to honor HM King Bhumibol by giving free refreshing facial cleansing cloths, coffee, drinking water, and steamed dumpling to people who were travelling to the late King Bhumibol's

funeral ceremony at Sanam Luang. The volunteer also collected garbage around the Grand Palace to make merit for the late King Bhumibol.

- Donated the amount of 500,000 baht to the Donation Center for the southern people suffered from flood
- Set up a field customer service center for new clients and install the water meter as soon as the customer makes a payment at Khlong Yai Lee Community in Samut Prakan. This center provided rapid service and reduced red tape. As it took time for the community people to travel to apply for the installation of water meter, the MWA sent its staff from every operation line to provide a one-day service, starting from the process of application, payment, to the installation of water meter. This service is to elevate the level of public service.
- Set up the activity "MWA meets people" This activity includes a field customer service, waterworks system service, application service, basic water pipe maintenance and repair service, and survey on the customer's satisfaction for improving services, and water use campaigns to raise people's awareness of water resource value and a worthwhile water use.
- Set up the activity to serve Thais in "Thailand's Best Local Product" under the project "Performance and selling provincial and state products" at Khlong Phadung Krung Kasem Floating Market where the MWA activities were publicized, including worthwhile water use campaigns, playing games to win prizes, and giving souvenirs to the activity participants.

Partners/creditors: The MWA procurement notice is administered transparently based on the MWA regulations. The MWA partners are treated well based on the corporate good governance principle. In this regard, the project on the Ninth Bangkok Water Supply Improvement Project, "Starting a mega project on enhancing happiness and raising moral awareness" was conducted in cooperation with the MWA partners to define the administration scope of pipeline construction and production construction, enhance strength, and improve stability in waterworks system of production, distribution, and transmission. This project is aimed at expanding water production capability of Mahasawat Water Treatment Plant to meet the needs of customers in the future. The water tunnel to connect another route of the eastern side and the western side of Bangkok was planned to construct for six years (2017-2022) with the budget of 42,750 million bath. On 21 January

2017, the meeting to start the project on the MWA procurement following the integrity pact under the projects of the Ninth Bangkok Water Supply Improvement Project and Untreated Water Transmission System Project for Stability and Permanent Flood Prevention. Throughout these projects, MWA is able to declare its intent to be an organization operating its work under good governance principle based on the government anti-corruption policy. In addition, it is able to enforce fair competition and promote the transparent procurement which can be investigated. Twenty observers from the Office of the National Anti-Corruption Commission (Thailand) and the Comptroller General's Department, Thailand (CGD) participated in the meeting, listened to the MWA proposal plan, and offered suggestions about implementation based on the integrity pact.

Staff members: To improve their potentials in all areas and make them happy at work, the activities were provided for the MWA employees. For example, there were an alms-giving for monks every first Friday of each month, a project on dhamma practice and teachings on important Buddhist holidays and festivals, a training/talk on the philosophy of sufficiency economy, an activity called doing good deeds for society, the 'dare to do good deeds' contest, and a workshop for the Good Governance Committee, a talk to disseminate knowledge for employees and contract workers to motivate them to work successfully, and the MWA Healthy & Friendly Day.

The mechanism for all stakeholder groups to report problems is established as follows:

Within the organization:

- Employees' complaints, requests, and creative, sharing ideas can be posted on the MWA Intranet, intra. mwa.co.th, and its webboard on intra.mwa.co.th.
- Employees' complaints can be made directly to their trustworthy supervisors at all levels and Office of the MWA, or the MWA Board of Directors
- A comment box of integrity for anti-corruption complaints received through at the MWA Anti-corruption Center on the first floor of the Head Office of the MWA. Tel. 0-2504-0123 ext. 1608 and Fax no. 0-2500-2518, or E-mail address: anticor@mwa.co.th, Intranet: Receive complaints under 'Corruption and Misconduct' or by post: Good Governance, MWA; 400 Prachachuen Road, Tungsonghong Subdistrict, Laksi District, Bangkok 10210

Outside the organization:

- The MWA Information Center for staff and public in-person contact or by phone
- Website: www.mwa.co.th and go to the webboard for complaints, or via e-mail to the MWA Governor for 24 hours at the e-mail address: mwagov@mwa.co.th MWA Call Center 1125 for public complaints; 24-hour advice and answers by stationed staff. The Call Center is connected online to the branch offices and to MWA scientists in case there are complaints regarding water quality.
- Clean Water Clinic via the website www.mwa. co.th, Clean Water Clinic blog http://cwc.mwa.co.th/ and email address: waterclinic@mwa.co.th. The Clean Water Clinic is an academic center providing information on water for health and giving advice to consumers for their better health and hygiene.
- Damrongdhama Hotline 1567 and Office of the Permanent Secretary Hotline 1111 complaints received through these two hotlines are immediately transferred to MWA Call Center 1125. There is also Damrongdhama Center of the MWA Information Center located on the first floor, MWA Head Office.
- MWA Anti-corruption Center (complaints/clues) Website: https://www.mwa.co.th/main.php? filename=anticor
- Comment/suggestion/idea boxes are provided at the branch offices and work units. The comments received are useful for the MWA operational improvement.
- Complaints can be lodged both in person and in writing directly to the MWA, or through other government agencies such as the Office of the Ombudsman Thailand, or through mass media.

Disclosure of Information and Transparency

The MWA Board of Directors stresses the importance of disclosure of information and operational transparency by conforming to the principle "Disclosure is Obligation; Concealment is Exception". Besides, the MWA Information Committee has been appointed since 1999 to promote good corporate image through accurate, complete and timely disclosure of information which allows all stakeholders to have easy access to the information. The information disclosure includes both financial and non-financial information through various channels including:

- Annual Report
- The MWA Sustainable Development Report

- The MWA Website: www.mwa.co.th
- Radio and television programs
- Bulletins, pamphlets and brochures
- Newspapers
- Tap Water Journal
- Annual press conference by the MWA governor to announce past operational performance and future policies to the public or press conference through the interview in case of crisis such as drought
 - Information Center
 - Announcement for tender procurement
- Smartphone Application: MWA e-Service and MWA onMobile
 - Social Media: Facebook, Line

Good Governance and Social and Environmental Responsibility

The MWA Board of Directors has set a significant policy for MWA to be managed under Good Governance along with Corporate Social & Environmental Responsibility (CSR). This policy has been assigned to the Corporate Good Governance (CG) and Corporate Social and Environment Responsibility (CSR) Subcommittee to determine the strategies, goals, and action plans on good governance and CSR. In fiscal year 2016, the main activities were as follows:

- 1. Formulating a good governance strategy as one of the key strategies under the MWA action plans. During fiscal year 2016, the MWA had submitted the Transparency Index Improvement and Development Plan as a competition entry under the project "State Enterprise with Development to Excellence in Operational Morality and Transparency Development Planning" from which the MWA had received 3 awards from the Office of the National Anti-Corruption Commission including 1) An excellence award for corruption-free work operation from the establishment plan of MWA good governance council; 2) A complimentary award for corporate integrity culture from the project called Kla Tham Dee (Dare to do good deeds); and 3) A role model award for participating in promotion of good governance and anti-corruption in the organization, offered to Mr. Prinya Yamasamit, MWA Governor.
- 2. Establishing the Compliance Unit which was appointed by the MWA Board of Directors to study any new laws, regulations, and criteria related to the Board of Directors, executives, and employees so that they

could be analyzed and defined as practical guidelines for overall organization. Moreover, the guidelines derived from the study were posted on the MWA CG Website to generate total understanding among officials in the organization.

- 3. Appointing an anti-corruption and enhancement of ethics committee to be in charge of developing action plans in order to accelerate and regulate the concerned units to implement the action plans for protecting and suppressing corruption and misconduct as well as to corporate in promoting work ethics of MWA's employees and contract workers.
- 4. Applying for a membership of organization networks including Foundation for a Clean and Transparent Thailand and Transparent Thailand Foundation in order to collaborate with each other to fight against corruption in the country.
- 5. Appointing a working group to review and improve the MWA good governance manual which was completed in 2017. The manuals were distributed to the governor, executives and employees who also signed an MWA agreement for acknowledgement of the manual and further practice.
- 6. Simplifying work policies to make them easy and understandable for all concerned individuals to put into practice, for instance, the Good Governance policy, the Anti-corruption Policy, and the Witness and Whistle Blower Protection Policy.
- 7. Setting up the announcement on guidelines for reducing the MWA discretion on the Anti-Corruption Policy, creating the poster for summarizing the result of using the guidelines, and sending circular letters to inform the MWA executives and staff to follow the guidelines. They must consider four questions before taking action. If they cannot answer either one of these, they should not do it. The following actions they must not perform are as follows: 1) Is the action against the laws and regulations?; 2) Is the action against integrity?; 3) Does the action cause damage to the organization and himself/herself?; 4) Is the action able to disclose to others?
- 8. Having established the MWA Good Governance Council under the concept, "Transparent MWA with Good Governance Heart" and organizing a roadshow event to disseminate knowledge on the Good Governance Council for the MWA executives and employees of all operation lines.
- 9. Setting up the body of knowledge on Good Governance and disseminating it to all staff members to have awareness of applying the CG principle in implementation by means of Journals of CG MAG, CG Delivery, articles on CG published in Nam Kok (Tap Water) Journal, CG answer-to-question

games, and CG Mee Dee (having something good). This information is publicized monthly on the MWA CG website.

- 10. Organizing the event on MWA CG Day to raise the employees' awareness of Good Governance principle in operations and move forward to becoming the transparent and corruption-free organization under the concept "Following the idea of creative work initiated by Good Governance King Bhumibol. Three important days: CG Day, SR Day and KM Day were integrated in the event in which the exhibition to honor King Bhumibol (Rama 9) was held. The were also the exhibition of the MWA 9 divisions, a sufficiency flea market, a special talk on "Following the idea of creative work initiated by Good Governance King Bhumibol" by Dr. Sumet Tantivejkul, Secretary-General of Chaipattana Foundation, and the "Dare to do good deeds" contest.
- 11. Providing Tonkla Dhammapiban (Yong Blood for Good -Governance), a training course for personnel to upgrade their positions and improve their work performances including administering a post-test after training.
- 12. Providing employees and contract workers training courses on good governance, ethics, and anticorruption such as the course "Following Royal Guidance of His Majesty King Bhumibol on Sufficiency Economy" "Happy Bank with Happy Life," and "Conflict of Interest of Individuals and Public based on public law, Sections 100 and 103"
- 13. Assessing work performances on corporate governance within organization by evaluating the knowledge, attitude and behavior, and exposure to social media for good governance of the MWA employees and contract workers.

- 14. Participating in the project on Integrity & Transparency Assessment (ITA) organized by the National Anti-Corruption Commission (NACC). The MWA has earned a very high score on integrity and transparency.
- 15. Setting up the transparency index within organization to be used as a division-level Key Performance Indicator (KPI).
- 16. Organizing a study visit on the effective complaint system of organization to the Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand, in order to collect the case study data and save the data at the central database for improving and integrating all types of complaint system
- 17. Promoting ethical activities by organizing the following:
- An alms-giving activity on the first Fridays of each month on the occasion of important Buddhist holidays and festivals, a 'Wai Phra' (paying homage to monks) and dhamma practice on Buddhist days, and dhamma teachings.
- Doing good deeds for society such as giving 200 Nong Tan Jai handmade dolls for Ban Rajvithi orphanage for girls in Bangkok, donating cloth bags to the pharmacy department of Wat Bot Hospital, Wat Bot District, Phitsanulok to support the hospital project on medicine cloth bag campaign for the Wat Bot Hospital patients, and donating belongings and foods to help flood victims in the south especially the residents of Bang Saphan District in Prachuap Khiri Khan Province.

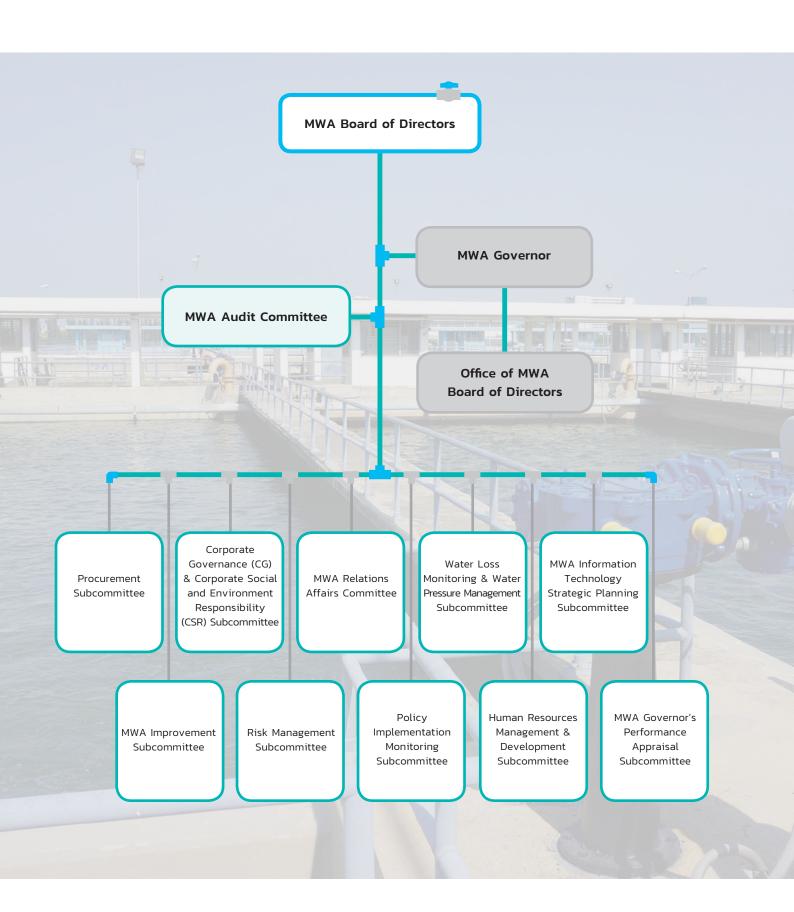
Please visit the MWA CG activities via the MWA website: www.mwa.co.th







MWA Board of Directors Structure



Appointment of Committees and Subcommittees

30 September 2017

1. Procurement Subcommittee

1. Mr. Wanchai	Lawattanatrakul	Chairman	6. MWA Governo	r	Member
2. Mrs. Siriporn	Luangnual	Vice Chairman	7. Mr. Montri	Srisakul	Member
3. Mr. Kidditada	Charusakul	Member	8. Mr. Sakol	Leenothai	Member
4. Mr. Pairoj	Sattayasansakul	Member	9. Ms. Soontraluc	:k Petchkoon*	Member
5. Mr. Surasak	Satawiriya	Member	10. Ms. Ratchanee	e Saelim*	Member
6. Mr. Piched	Niamnud	Member	11. Mrs.Nuanchan	Parkatt*	Member
7. Mrs. Duangjai	Tanticharatchai	Member	12. Mr. Supot	Lappratthana	Member
8. Ms. Kanatwatda	a Supap	Member	13. Ms. Oranuch	Vinusit	Member
9. Mr. Decha	Mekvilai	Member	14. Ms. Jirika	Nutalay	Member
10. Ms. Jantana	Techasirinugool	Member	15. Mr. Luechai	Deethawon	Member
11. Deputy Govern	nor (Administration)	Member	16. Deputy Governor		Member
12. Deputy Govern	nor	Member	(Planning and Development)		
(Engineering ar	nd Construction)		17. Chairman of L	17. Chairman of Labour Union of MWA	
13. Assistant Gove	rnor (Construction)	Secretary	18. Assistant Gove	18. Assistant Governor	
14. Director of Project Ass		Assistant Secretary	(Planning and Development)		
Management Department			19. Director of Policy A		Assistant Secretary
15. Director of Procurement Ass		Assistant Secretary	and Strategy Department		
and Supplies Department			*the representatives fro	ocial Development Board	

Procurement Subcommittee is responsible for screening the authorization requests for procurement and work contracts; approving changes in procurement and work contracts within the confines of power of the MWA Board of Directors prior to submission to the MWA Board of Directors; and following up, counseling the solution in procurement or construction contracts administration and monitoring the implementation of contracts as seemed appropriate.

2. MWA Improvement Subcommittee

1.	Mr. Bowon	Vongsinudom	Chairman
2.	Mr. Wanchai	Lawattanatrakul	Vice Chairman
3.	Mr. Nattakit	Tangpoonsinthana, Ph.D.	Member
4.	Assoc.Prof. Chanin	Tinnachote, Ph.D.	Member
5.	Mrs. Siriporn	Luangnual	Member

MWA Improvement Subcommittee is responsible for establishing the MWA management strategies and annual action plan; allocating budget in line with the MWA action plan as well as all aspects of operation plans ranging from water production to waterworks system; providing consultation towards service management and investment along with approving financial management, financial analysis report and financial status; managing and controlling investment budget in accordance with the action plan; providing guidelines on concerned MWA business operation to enhance revenues; establishing procedures and benchmarks for continual monitoring and assessing the MWA performance in order to achieve the objectives and targets of the organization; contemplating and amending law, regulations, agreements and contracts within the management sector for greater flexibility in practice.

3. Corporate Governance (CG) & Corporate 4. Risk Management Subcommittee Social and Environment Responsibility (CSR) Subcommittee

1. Mr. Nattakit Tan		Tangpoonsinthana, Ph.D.	Chairman				
2.	Mrs. Siriporn	Luangnual	Vice Chairman				
3.	Mr. Somsak	Suwansujarit	Member				
4.	MWA Governor		Member				
5.	Gen. Ruj	Kasiwut	Member				
6.	Ms. Piyawan	Lamkitcha	Member				
7.	Mr. Ruangchai	Sapnirund	Member				
8.	Mr. Krishna	Boonyachai	Member				
9.	Mr. Peerapong	Klinla-or, Ph.D.	Member				
10.	Mr. Kriengkrai	Suebsumpan	Member				
11.	Mr. Sakkasem	Niyomvanich, Ph.D.	Member				
12.	Mr. Bandit	Tungprasert	Member				
13.	Mr. Padungkiat	Au-arayamontri	Member				
14.	Assistant Gover	nor	Member				
	(Office of MWA	Board of Directors)					
15.	Chairman of La	bour Union of MWA	Member				
16.	Assistant Govern	or (Office of Governor)	Secretary				
17.	Director of Corp	oorate	Assistant Secretary				
	Governance Department						

Corporate Governance (CG) and Corporate Social and Environment Responsibility (CSR) Subcommittee is responsible for establishing; scrutinizing and approving good governance action plan and corporate social and environment responsibility plan in accordance with any changes occurred and with international guidance; monitoring the operation status; suggesting the direction of business ethics including working procedures for directors, managers, employees; and staff members providing advice to the MWA Board of Directors where there is a conflict regarding organization benefits; setting policy and public relation strategy to each of stakeholder groups; considering and approving the MWA annual public relation plan; monitoring business operation in order to cultivate MWA's good image as well as reliability within public sector and setting guidance for the museum administration as well as allocating the supporting budget.

1.	Asst.Prof. Teekawuth	Potapirom	Chairman					
2.	Mr. Bowon	Vongsinudom	Vice Chairman					
3.	Prof. Suwatana	Chittaladakom, Ph.D.	Member					
4.	MWA Governor		Member					
5.	Selected Representativ	e	Member					
	from Royal Irrigation De	partment						
	(Mr. Sanya Saengpumpe	ong)						
6.	Ms. Vorrachaya	Latthayaporn	Member					
7.	Mr. Therdthum	Wongkalasin	Member					
8.	Mr. Vichian	Udomratanasilpa	Member					
9.	Assoc. Prof. Patcharaporn	Suwanvitaya	Member					
10.	. Asst.Prof. Sampan	Hunpayon	Member					
11.	. Assoc.Prof. Prawit	Suraneeranat	Member					
12.	. Mr. Wisit	Wongwiwat	Member					
13.	. Mr. Yongyuth	Arpaichiratana	Member					
14.	. Deputy Governor		Member					
	(Planning and Developr	ment)						
15.	. Deputy Governor		Member					
	(Water Production and 7							
16.	. Assistant Governor	Secretary						
	(Planning and Development)							
17.	. Director of Risk Manage	ment	Assistant					
	Department		Secretary					

Risk Management Subcommittee is responsible for providing recommendation and support in formulating risk management policies, risk management process, approving, identifying, analyzing, and assessing risks and risk management plan; providing recommendation for establishing business stability and continuity; ensuring all preventive measures in the waterworks system in order to tackle any potential crisis; supervising and monitoring the implementation of risk management policy, plan and process; screening and reviewing risk management report and establishing the culture and communication of appropriate risk management in the organization.

5. MWA Relations Affairs Committee

Mr. Somsak Suwansujarit Chairman

Employer's Representatives:

1. Deputy Governor (Administration) Member 2. Assistant Governor Member

(Waterworks Academic Development)

3. Assistant Governor (Financial Policy) Member

4 Assistant Governor (Services 1) Member

5. Assistant Governor (Construction) Member

6. Assistant Governor Member

(Water Production System)

Member 7. Assistant Governor

(Planning and Development)

8. Assistant Governor Member

(Information Technology)

9. Assistant Governor Member

(Human Resource Management)

Employee's Representatives:

1.	Acting Sub Lt. Chaiyuth	Member						
2.	Mr. Sompop	Pranswatdi	Member					
3.	Mr. Pravech	Chamchalerm	Member					
4.	Mr. Wanna	Sreesod	Member					
5.	Mr. Jaktree	Mesombut	Member					
6.	Mr. Marut	Puekpong	Member					
7.	Acting Lt. Ruengsil	Kotchanin	Member					
8.	Mr. Paiwong	Leelakan	Member					
9.	Mrs. Supranee	Soloh	Member					
Dir	Director of Welfare and Secretary							
Lal	Labor Relations Affairs Department							

MWA Relations Affairs Committee has a duty under the Article 23 of the State Enterprise Labor Relations Act B.E. 2543 (AD 2000); providing opinions on improving the effectiveness of the state enterprise operations as well as promoting and developing labor relations; making compromise and ending conflicts within the state enterprise; amending work regulations for the benefits of the state enterprise employers and employees; providing counseling to solve employees or the labor union's problems and complaints related to disciplinary punishment and providing consultation to improve the employment situation.

6. Audit Committee

1. V.adm. Nadaecho Kerdchoochuen Chairman

2. Asst.Prof. Teekawuth Potapirom Member

3. Mr. Thongplew Member Kongjun, Ph.D.

4. Assistant Governor Secretary

(Internal Audit Office)

Audit Committee is responsible for reviewing the MWA's operation for its compliance with regulations, rules, guidance, Cabinet's resolution, and announcements or orders relevant to the state enterprise operations; reviewing the accuracy and credibility of financial report; monitoring the sufficiency and effectiveness of internal control system, good governance process, and risk management process; monitoring and ensuring the MWA's good internal audit system and examining the independence of the internal audit unit.

7. Policy Implementation Monitoring **Subcommittee**

1.	Mr. Royol Chitradon , Ph.D.		Chairman					
2.	Mr. Wanchai	Lawattanatrakul	Vice Chairman					
3.	3. Mr. Thongplew Kongjun, Ph.D.		Member					
4.	V.adm. Nadaecho	Kerdchoochuen	Member					
5.	5. Mr. Somdee Kachayangyean		Member					
6.	Mr. Wiwatchai	Member						
7.	Assistant Gover	Member						
	(Water Product	ion System)						
8.	Assistant Gover	nor (Administration)	Member					
9.	Assistant Gover	nor (Engineering)	Member					
10	. Assistant Govern	or (Services)	Member					
11	. Assistant Govern	Secretary						
	(Office of MWA Board of Directors)							
12	12. Director of MWA Board Assistant Secretary							

Policy Implementation Monitoring Subcommittee is responsible for monitoring the implementation of policies formulated by the government; supervising ministries, and the MWA Board of Directors; following up the implementation of Water Supply Improvement Project, expense disbursement and other major projects and reporting to the MWA Board of Directors on a monthly basis.

of Directors Affairs Department

Pressure Management Subcommittee

1. Prof. Suwatana Chittaladakom, Ph.D. Chairman						
2. Asst.Prof. Teekawuth		Potapirom	Vice Chairman			
3.	Mr. Chaichana	Mitrpant, Ph.D	Member			
4.	Assoc.Prof. Chanin	Tinnachote, Ph.D.	Member			
5.	MWA Governor		Member			
6.	Mr. Taiwhut	Khankaew*	Member			
7.	Mr. Vicha	Nilpetploy	Member			
8.	Mr. Sompop	Sucharit, Ph.D.	Member			
9.	Asst.Prof. Sitang	Pilailar, Ph.D.	Member			
10.	Mr. Vitaya	Intachit	Member			
11.	Mr. Somchai	Chai-anuraks	Member			
12.	Deputy Governor		Member			
	(Western Services)					
13.	Deputy Governor		Member			
	(Eastern Services)					
14.	Deputy Governor		Member			
	(Engineering and Co	onstruction)				
15.	Assistant Governor		Member			
	(Water Transmission	n and Distribution S	System)			
16.	Assistant Governor	(Services)	Secretary			
17.	17. Director of Integrated Water Assistant Secretary					
Loss Management Technology Department						
*Sel	ected Representative fro	m Bangkok Metropolitai	n Administration			

Water Lost Monitoring and Water Pressure Management Subcommittee is responsible for developing strategies for the effective water loss reduction; considering the water loss and water pressure management plan as well as ensuring the achievement of the plans; accelerating the operation of the water loss management; screening and allocating budget for water loss management activities; providing recommendations on the use of advanced technology on water loss management.

8. Water Loss Monitoring and Water 9. Human Resources Management & **Development Subcommittee**

	•					
1.	Mr. Nisit	Jansomwong	Chairman			
2.	Prof. Suwatana	Chittaladakorn, Ph.D.	Vice Chairman			
3.	Mr. Nattakit	Tangpoonsinthana, Ph.D	Member			
4.	MWA Governor	Member				
5.	Ms. Rasa	Kanchanasai	Member			
6.	Mrs. Nongphanga	Boonpak	Member			
7.	Pol.Maj.Gen. Sompong	Chingduang	Member			
8.	Mr. Seubphong	Buranasirin	Member			
9.	Mr. Somsak	Poothongchairit	Member			
10.	Deputy Governor (Ad	Member				
11.	Deputy Governor		Member			
	(Planning and Develo	opment)				
12.	Mr. Chaiwat	Vorapeboonpong	Member			
	MWA Expert (Level 1	.0)				
13.	Assistant Governor		Member			
	(Waterworks Academ	nic Development)				
14.	Chairman of Labour	Union of MWA	Member			
15.	Assistant Governor		Secretary			
(Human Resource Management)						
16.	Director of Human R	esources	Assistant			
Development Department Secretary						
17.	Director of Human R	esources	Assistant			
	Management Depart	ment	Secretary			

Human Resources Management and Development Subcommittee is responsible for formulating human resource management and human resource development policies and strategies that systematically support each other; considering administrative structure, employee's salary and organizational administration structure in the form of Business Unit (BU); providing advices to optimize human resource management and development; formulating policies and directions for the management of the MWA Waterworks Academy in order to achieve the international recognition and standards; formulating policies; promoting and encouraging waterworks research, development and innovations at an international level and governing and monitoring human resource management and development activities.

10. MWA Information Technology Strategic 11. MWA Governor's Performance Appraisal **Planning Subcommittee**

1.	Assoc.Prof. Chanin	Chairman		
2.	Mr. Chaichana	Mitrpant, Ph.D	Vice Chairman	
3. Mr. Royol Ch		Chitradon, Ph.D.	Member	
4.	MWA Governor		Member	
5.	Assoc.Prof. Asanee	Kawtrakul, Ph.D	Member	
6.	Asst.Prof. Phongcha	i Nilas, Ph.D	Member	
7.	7. Dr. Khanat Kruthkul		Member	
8.	8. Mr. Jirasak Kananukul		Member	
9.	Mr. Maythapolnun	Athimethphat	Member	
10	. Mr. Apinetr	Unakul	Member	
11. Deputy Governor			Member	
	(Engineering and Co	nstruction)		
12	. Deputy Governor		Member	
	(Western Services)			
13	. Deputy Governor		Member	
	(Information Techno	ology)		
14	. Deputy Governor		Member	
	(Water Production a			
15	. Assistant Governor	Secretary		
	(Information Techno			
	. Director of Technol	Assistant Secretary		
13 14 15	(Western Services) Deputy Governor (Information Technol Deputy Governor (Water Production a Assistant Governor (Information Technol	Member Member Secretary		

MWA Information Technology Strategic Planning Subcommittee is responsible for providing recommendation and in-depth IT information; directing and formulating IT strategies in order to promote good corporate governance on IT management; monitoring IT administration in order to report the MWA Board of Director on a quarterly basis and counseling the strategic information technology to MWA Board of Directors and executives.

Development and Support Department

Subcommittee

1.	Mr. Somsak	Suwansujarit	Chairman
2.	Mr. Nisit	Jansomwong	Vice Chairman
3.	Mr. Wanchai	Lawattanatrakul	Member
4.	Mrs. Siriporn	Luangnual	Member
5.	Deputy Govern	or	Secretary
	(Planning and [
6.	Assistant Gover	Assistant Secretary	

(Office of MWA Board of Directors)

The MWA Governor's Performance Appraisal Subcommittee is responsible for the MWA Governor's performance appraisal and subjecting to approval of the MWA Board of Directors as well as conducting performance appraisal within the specified period.

Meeting Attendance and Remuneration of Board of Directors, Committees and Subcommittees

No.	o. Name–Surname		Position	Board of Directors	Risk Management Subcommittee	MWA Audit Committee	MWA Governor's Performance Appraisal Subcommittee	MWA Relations Affairs Committee	Procurement Subcommittee	MWA Improvement Subcommittee	MWA Information Technology Strategic Planning Subcommittee
				(10 Meetings)	(9 Meetings)	(10 Meetings)	(3 Meetings)	(9 Meetings)	(9 Meetings)	(9 Meetings)	(9 Meetings)
1	Mr. Chareon	Passara	Chairman	7/7							
2	Mr. Vullop	Phringphong	Chairman	9/10		9/10					
3	Vadm. Nadaecho	Kerdchoochuen	Director	10/10		10/10					
4	Gen. Veerun	Chantasatkosol	Director	10/10			3/3	9/9	9/9		
5	Prof. Suwatana	Chittaladakorn, Ph.D.	Director	10/10	8/9		3/3				
6	Mr. Bowon	Vongsinudom	Director	10/10	9/9					9/9	
7	Asst. Prof. Teekawuth	Potapirom	Director	10/10	9/9	9/10					
8	Mr. Nattakit	Tangpoonsinthana, Ph.D.	Director	8/10						3/9	
9	Assoc.Prof. Chanin	Tinnachote, Ph.D.	Director	10/10						9/9	9/9
10	Mr. Somsak	Suwansujarit	Director	9/10			3/3				
11	Mrs. Siriporn	Luangnual	Director	9/10					6/9	5/9	6/9
12	Mr. Royol	Chitradon, Ph.D.	Director	6/10							4/8
13	Mr. Wanchai	Lawattanatrakul	Director	10/10					7/8		
14	Mr. Nisit	Jansomwong	Director								
15	Mr. Chaichana	Mitrpant, Ph.D.	Director								
16	Mr. Thongplew	Kongjun, Ph.D.	Director								
17	Mr. Thanasak	Watanathana	Director	6/6	5/6					5/6	6/6
18	Mr. Prinya	Yamasamit	Director	4/4	2/3					3/3	3/3

Corporate Governance (CG) & Corporate Social and Environment Responsibility (CSR) Subcommittee	Policy Implementation Monitoring Subcommittee	Water Loss Monitoring and Water Pressure Management Subcommittee	S.Sahamitr Working Group	MWA Governor Recruitment Committee	Governor's Remuneration Consideration Subcommittee	Human Resources Management & Development Subcommittee	Meeting Allowance from All Committees (Baht)	Fixed Remuneration (Baht)	Bonus (Baht)	Total Remuneration (Baht)
(9 Meetings)	(9 Meetings)	(9 Meetings)	(1 Meeting)	(2 Meetings)	(2 Meetings)	(9 Meetings)				
							87,500.00	165,161.29	206,250.00	458,911.29
	9/9		1/1				298,951.61	106,451.61	165,000.00	570,403.22
	9/9						290,564.52	106,451.61	165,000.00	562,016.13
				2/2			325,000.00	106,451.61	165,000.00	596,451.61
		9/9			2/2	9/9	325,000.00	106,451.61	165,000.00	596,451.61
				2/2			313,750.00	106,451.61	165,000.00	585,201.61
		9/9					330,201.61	106,451.61	165,000.00	601,653.22
9/9				2/2		8/9	282,500.00	106,451.61	165,000.00	553,951.61
		8/9			2/2		315,000.00	106,451.61	165,000.00	586,451.61
6/9	7/9			2/2		6/9	275,000.00	106,451.61	165,000.00	546,451.61
				2/2			245,000.00	106,451.61	77,458.34	428,909.95
	7/8						170,000.00	90,967.73	0.00	260,967.73
	6/8						230,000.00	90,967.73	0.00	320,967.73
							0.00	1,666.67	0.00	1,666.67
							0.00	1,666.67	0.00	1,666.67
							0.00	1,666.67	0.00	1,666.67
6/6		6/6				6/6	180,000.00	70,000.00	165,000.00	415,000.00
3/3		3/3				3/3	110,000.00	36,451.61	0.00	146,451.61
							3,778,467.74	1,523,064.47	1,933,708.34	7,235,240.55

Remarks: No.12-13 Appointed by Cabinet as MWA Director on 18 October 2016

No.1 Resigned from Chairman, MWA Board of Directors on 9 May 2017
 No.4 Started Acting Chairman, MWA Board of Directors on 30 May 2017
 No.2-13 Completed MWA Director's Term of Office on 20 July 2017

No.2 Appointed by Cabinet as Chairman, MWA Board of Directors on 26 September 2017

No.3, 5-16 Appointed by Cabinet as MWA Director on 26 September 2017
 No.17 Completed MWA Governor's Term of Office on 31 March 2017
 No.18 Appointed by Cabinet as MWA Governor on 11 April 2017,

and resigned from MWA Employee to take over the position on 19 April 2017

Compliance with Official Information Act B.E. 2540

The Official Information Act B.E. 2540, Section 9 states that a state agency shall provide official information for public inspection in accordance with the rules and procedure based on criteria and methods set by the Board of Official Information. According to the Announcement of Official Information Commission on 24 February 1997, all government agencies shall arrange a place for people to easily access and study official information. The Office of Official Information Commission names that place "Official Information Center".

MWA therefore established MWA Information Center in 1999 to comply with the Act which allows people to examine the agency's transparency and search for information they need. The MWA Information Center is located on the first floor of the MWA Head Office and operates under the responsibility of Corporate Information and Communication Appraisal Section, Corporate Image Management and Communication Planning Division, Corporate Communication Department.

MWA Performance in 2017

Based on the command launched by General Prayuth Chan o-cha, the Prime Minister in the Annual Academic Seminar of the Announcement of Official Information B.E. 2540 on Thursday, 17 March 2016 at Santi Maitri Building, Government House. The year 2017 was named "the Year of Official Information". All state agencies and government sectors shall establish their own official information centers, and they shall be driven to display official information for people who have rights to know and for the government sector's transparency. In 2017, the performance outcome of MWA Information Center are as follows:

Improvement of MWA Information Center

The internal landscape of MWA Information Center was adjusted to make it accessible and convenient for visitors and users. All files and operation manuals were updated. In addition, the three-year Action Plan B.E. 2561-2563 (2018-2020) was formulated to set clear framework development for efficient operation. In the past one year, the number of the visitors and users can be reported as follows:

- 16 users visiting Physical Information Center
- 5,495 viewers visiting Electronics Information Center's website
- 3 persons requesting for particular information (based on Section 11 of the Act)
- 45 phone calls and 1 email for other information service channels.

Meetings of MWA Information Center Committee

In 2017, MWA Information Center Committee had a total of 5 meetings for considering several topics, for instance, the MWA regulations on MWA informationin 2017, system management criteria and the Committee's information services, MWA announcement on the fees charged for requests for duplicate documents or duplicate documents with certification, the preparation of MWA Information Center's action plan, and the dissemination of information in the Center as stated in the Official Information Act B.E. 2540, etc.

Trainings held in 2017 on Official Information Act B.E. 2540

On 9 June 2017, MWA held a training session on "knowledge about Official Information Act B.E. 2540" for 80 employee representatives from MWA branch offices in order to promote understanding of rights to access official information and protection in accordance with the Act. This was also intended to prepare MWA staff members for establishment of an information center at each MWA branch office according to the Action Plan of the Center. The training was held at the Administration Building, Bangkhen Water Treatment Plant, MWA Head Office. Ms. Powana Rerkrai, Analysts of Special Plans and Policies from Office of the Official Information Commission, Office of the Permanent Secretary, the Prime Minister's Office was the guest speaker.

Study visit and Seminar Participation

On 26 June 2017, the MWA Information Center Committee and the MWA Information Center's staff visited the Information Center of the Expressway Authority of Thailand (EXAT) in order to apply acquired knowledge as guidelines to improve the MWA Information Center.

In addition, the MWA staff were allowed to participate in seminars and trainings arranged by Office of the Information Commission which included:

1) Workshop on Establishment of an Official Information Center, held on 22 February 2017 at Rajavinit School. After the training, the participants had to take the test on knowledge and understanding about the Official Information Act, B.E. 2540 on 1 March 2017 at the Office of the Permanent Secretary, Government House.

ช่องทางสอบถามข้อมูลและติดตามข่าวสาร ศูนย์ข้อมูลข่าวสารของการประปานครหลวง Website : www.mwa.co.th Webpage ศูนย์ข้อมูลข่าวสาร กปน. หือยู่ : 400 ถ.ประชาชื่น แขวงทุ่งสองห้อง

เขตหลักสี่ กรุงเทพฯ 10210

E-mail: corpima@amwa.co.th

MWA CALL CENTER 1125 | www.mwa.co.th | f MWA.CO.TH

2) The Seminar on Transparency Standard of Information and Transparency Index in Government Agency Using Electronic Information System, organized on 4 September 2017 at Trang Hotel, Bangkok.

3) The Seminar on the Announcement of Official Information Act B.E. 2540 and receiving certificates for participants who passed the training and test regarding the matters about Official Information Act B.E. 2540, administered on 15 September 2017 at Government House, Santi Maitri Building.





Reports and Financial Statements

Report of the Audit Committee

MWA passed a resolution at the meeting No. 5/2016 on 19 May 2016 to appoint the Audit Committee of the MWA consisting of

- 1. Vice Admiral Nadaecho Kerdchoochuen as the Chairman
- 2. Assistant Professor Teekawuth Potapirom as the member
 - 3. Mr. Vullop Phringphong as the member

Assistant Governor (Internal Audit Office) acts as the Secretary of the Audit Committee. The Audit Committee had appointed Mrs. Wilai Chatthanrassami as the Committee's Financial Accounting Specialist and the Committee Secretary. However, the term of office for the MBA Board of Directors ended on 20 July 2017, resulting in the termination of the MWA Audit Committee on 21 July 2017.

Therefore, a new Audit Committee Board was appointed by the resolution of the MWA Board of Directors' Meeting No. 8/2017 on 5 October 2017. The committee comprises three directors including

- 1. Vice Admiral Nadaecho Kerdchoochuen as the Chairman
- 2. Assistant Professor Teekawuth Potapirom as the member
 - 3. Mr. Thongplew Kongchan as the secretary

In fiscal year 2017, the Audit Committee held a total of 10 meetings in which the committee members had discussions and exchanges of opinions with top executives, internal auditors and the delegates from the Office of the Auditor General. The summary of their working practices run in accordance with the scope of duty specified by the MWA Board of Directors as well as the Ministry of Finance's regulations under the section of Audit Committee and Internal Audit Office for state enterprises 2012, Manual on State Enterprise's Internal Audit, Ministry of Finance, and the Audit Committee Charter is as follows:

1. Financial Reports reviewed the quarterly and annual financial reports; disclosed important information to ensure that the financial statements were presented sufficiently and timely; complied to the standards of

financial report and accounting in order to ensure the accuracy and credibility of the MWA's financial report; examined changes in significant accounting estimates as well as all items presented in the financial statements to ensure that they are beneficial to the users.

- **2.** Internal Control reviewed the efficiency, effectiveness and adequacy of the internal audit system by considering the audit results of the Internal Audit Office and the Office of Auditor General of Thailand delegates. In addition, the performance results were quarterly reported regarding the internal audit as well as important errors and solutions to the Board of Directors to encourage top executives to implement an adequate and efficient internal control system.
- 3. Risk Management reviewed the result of performance based on the MWA risk management plan of fiscal year 2017. In this regard, the risk management of all operation lines was monitored to ensure that the risk management plan was effective in controlling or mitigating any threats to achievement of the organization's goal to an acceptable level. Moreover, the efficiency, effectiveness, and appropriateness of the risk management process were examined constantly and suggestions were provided to the in-charged division for improvement.
- 4. Compliance with Relevant Laws, Rules and Regulations monitored: The management team was monitored and questioned. The audit results of the Internal Audit Office was inspected to ensure that MWA strictly complies with the laws, rules and regulations.
- 5. Governance and Auditing Development reviewed the operation of the Internal Audit Office according to the Annual Audit Plan as well as the audit results by providing suggestion and monitoring the progress of solutions in accordance with the significant issues in the audit report. The Internal Audit Office also approved the Internal Audit Charter, a review of the Annual Audit plan, and the manual on State Enterprise's Internal Audit 2017; reviewed the suitability of Internal Audit Office's human resources, along with other resources of the Office involving appointment

and rotation of the auditors as well as promoting them to improve their knowledge and skills to obtain a professional certification in internal audit and encouraged them to hire professional consultants for internal audit assessment and development.

6. Audit Committee's Quality Control: The Audit Committee had reviewed and improved the Audit Committee Charter. The performance assessment includes the Committee in general and self-assessment in response to the best practice of State Enterprise Policy Office, under the Ministry of Finance.

In conclusion, in fiscal year 2017, the Audit Committee considered that MWA strictly and continuously adhered to good governance principles, and generated the accurate financial reports based on the generally accepted financial reporting and accounting standards. There were effective risk management and effective internal control system, and all units had performed correctly in compliance with the related laws and regulations.



Vice Admiral Nadaecho Kerdchoochuen The MWA's Chairman of the Audit Committee

Report on the Board of Directors' Responsibility for Financial Report

The Board of Directors of the Metropolitan Waterworks Authority (MWA) is responsible for financial statement by directing the preparation of financial statement in accordance with the generally accepted accounting standards. There is an adequate disclosure of significant information in the Notes to the Financial Statement, and the statement shall be certified by the Office of the Auditor General.

The Board of Directors has appointed the MWA Audit Committee comprising independent directors to supervise the auditing, review the financial statement and the internal control with efficiency, ensure the accounting records to be accurate, fully adequate, and punctual, and also prevent fraud and irregular conduct.

The MWA Board of Directors has considered that the financial status, performance results, and changes in equity and cash flow have been reported in the MWA financial statement accurately in the subject matters under generally accepted accounting standards.

> (Mr. Vullop Phringphong) Chairman, MWA Board of Directors

Auditor's Report

To The Board of Directors of Metropolitan Waterworks Authority

Opinion

The Office of the Auditor General of Thailand has audited the financial statements of Metropolitan Waterworks Authority, which comprise the statements of financial position as of September 30, 2017, the statements of income, the statements of comprehensive income, the statements of changes in equity and the statements of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In The Office of the Auditor General of Thailand's opinion, the above mention financial statements present fairly, in all material respects, the financial position of Metropolitan Waterworks Authority as at September 30, 2017, and their financial performance and their cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Basis for opinion

The Office of the Auditor General of Thailand conducted the audit in accordance with Thai Financial Reporting Standards on Auditing. The Office of the Auditor General of Thailand's responsibilities under those standards is further described in the Auditor's Responsibilities for the Audit of the financial statements section of the Office of the Auditor General of Thailand's report. The Office of the Auditor General of Thailand is independent of the Company in accordance with the State Audit Standards issued by the State Audit Commission and the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions under the Royal Patronage of his Majesty the King that are relevant to the Office of the Auditor General of Thailand's audit of the financial statements, and has fulfilled other ethical responsibilities in accordance with these requirements. The Office of the Auditor General of Thailand believes that the audit evidence obtained is sufficient and appropriate to provide a basis for the Office of the Auditor General of Thailand's opinion.

Other information

The management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the financial statements and the auditor's report thereon. Management expect to provide the annual report to the Office of the Auditor General of Thailand after the date of this auditor's report.

The Office of the Auditor General of Thailand's opinion on the financial statements does not cover the other information and the Office of the Auditor General of Thailand will not express any form assurance conclusion thereon.

In connection with the audit of the financial statements, the Office of the Auditor General of Thailand's responsibilities is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistence with the financial statements or the Office of the Auditor General of Thailand's knowledge obtained in the audit, or otherwise appears to be materially misstated.

When the Office of the Auditor General of Thailand reads the annual report, if the Office of the Auditor General of Thailand concludes that there is a material misstatement therein, the Office of the Auditor General of Thailand is required to communicate the matter to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the management is responsible for assessing the Company's ability to continue as a going concern, disclosing, matters related to going concern and using the going concern basis of accounting unless the management either intends

to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibility for the Financial Statements

The Office of the Auditor General of Thailand's objectives obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes the Office of the Auditor General of Thailand's opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Thai Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Thai Standards on Auditing, the Office of the Auditor General of Thailand exercises professional judgment and maintain professional skepticism throughout the audit, including:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence that is sufficient and appropriate to provide a basis for the Office of the Auditor General of Thailand's opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concludes on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists

related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If the Office of the Auditor General of Thailand concludes that a material uncertainty exists, the Office of the Auditor General of Thailand is required to draw attention in the Office of the Auditor General of Thailand auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the Office of the Auditor General of Thailand's opinion. The Office of the Auditor General of Thailand's conclusions are based on the audit evidence obtained up to the date of the Office of the Auditor General of Thailand auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

• Evaluates the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

The Office of the Auditor General of Thailand communicates with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that the Office of the Auditor General of Thailand identifies during the Office of the Auditor General of Thailand's audit.

> (Signed) Suwimol Dechanukulkij (Miss Suwimol Dechanukulkij) Director of Financial Audit Office No.13

(Signed) Pranee Kirirat (Mrs. Pranee Kirirat) Technical Expertise of the Auditor General Acting Director-in-charge

> Office of the Auditor General December 29, 2017

Financial Statements and Notes to the Financial Statements

Financial Statements

Statements of Financial Position

As Of September 30, 2017

	<u>Notes</u>	2017	Unit : Baht 2016
ASSETS			
Current assets			
Cash and cash equivalents	5.2,7.1	719,392,754	1,276,412,675
Current investments	7.2	15,019,179,937	12,024,075,486
Trade accounts receivable	5.3,7.3	508,112,392	469,964,295
Accrued revenue of water sales, meter fees	and 7.4	853,723,406	869,439,077
Inventories and supplies	5.4,7.5	161,730,772	170,972,586
Other current assets	7.6	81,455,843	62,647,828
Total current assets	_	17,343,595,104	14,873,511,947
Non-current assets			
Long-term Investment		1,120,000,000	750,000,000
Property, plant and equipment	5.5 ,7.7	47,751,523,336	46,245,870,228
Intangible assets	5.6,7.8	236,362,635	263,823,424
Works under construction	5.7,7.9	4,843,705,297	5,897,435,060
Advance payment	7.10	185,754,975	179,324,458
Other non-current assets	_	44,259,041	44,470,936
Total non-current assets	_	54,181,605,284	53,380,924,106
Total assets	=	71,525,200,388	68,254,436,053

The accompanying notes are an integral part of these financial statements.

	<u>Notes</u>	<u> 2017</u>	Unit : Baht <u>2016</u>
LIABILITIES AND EQUITY			
Current liabilities			
Trade accounts payable		1,219,779,240	1,249,746,580
Current portion of long-term loans	7.11	209,507,854	244,659,741
Accrual remittance to the Ministry of Finance	7.12	1,749,000,000	1,714,000,000
Other current liabilities	7.13	1,721,069,420	1,723,973,773
Total current liabilities		4,899,356,514	4,932,380,094
Non-current liabilities	_	_	
Long-term loans	7.11	1,257,047,125	1,682,483,750
Employee benefit obligations	7.14	1,619,826,256	1,628,026,362
Customers' guarantee deposits		1,633,850,218	1,597,615,946
Deferred revenues	7.15	2,733,016,039	2,308,741,567
Other non-current liabilities	7.16	350,249,225	286,645,486
Total non-current liabilities	<u>-</u>	7,593,988,863	7,503,513,111
Total liabilities		12,493,345,377	12,435,893,205
Equity	<u>-</u>	_	
Capital	7.17	8,386,847,139	8,386,847,139
Unapporpriated retained earnings		50,645,007,872	47,431,695,709
Total equity	-	59,031,855,011	55,818,542,848
Total liabilities and equity	-	71,525,200,388	68,254,436,053

The accompanying notes are an integral part of these financial statements.

(Signed) Prinya Yamasamit (Signed) Wasana Nakpiphatkul (Mr. Prinya Yamasamit) (Mrs. Wasana Nakpiphatkul) **Director of Accounting Department** Governor

			Unit : Baht
	<u>Notes</u>	<u>2017</u>	<u>2016</u>
			(Restated)
Operating revenues			
Water sales		16,784,925,837	16,763,673,836
Water meter fees		955,409,244	934,911,288
Tab water connection fees		339,508,423	391,574,941
Work contract revenues		792,923,170	809,138,107
Other operating income		678,242,679	781,792,034
Total operating revenues		19,551,009,353	19,681,090,206
Operating expenses			
Changes in inventories of finished goods and work in progress		(9,744)	207,020
Work performed by the entity and capitalized		(80,649,280)	(30,354,892)
Raw materials and consumables used	7.18	2,590,205,493	2,506,300,106
Directors remuneration	7.19	20,355,404	21,354,345
Employee benefit expenses		3,472,532,950	3,381,125,806
Depreciation and amortization expenses	4.1	4,286,688,470	4,829,024,093
Other operating expenses	7.20	2,115,725,805	2,067,129,148
Total operating expenses		12,404,849,098	12,774,785,626
Profit from operating		7,146,160,255	6,906,304,580
Other revenues and expenses			
Interest income		230,121,640	209,269,211
Other revenues		112,541,915	183,874,458
Other expenses		(10,964,452)	(2,561,431)
Gains (losses) on foreign exchange rate	7.21	87,548,122	(70,739,649)
Total Other revenues and expenses		419,247,225	319,842,589
Profit before finance cost		7,565,407,480	7,226,147,169
Finance costs		(50,128,014)	(56,465,343)
Profit for the year		7,515,279,466	7,169,681,826
The accompanying notes are an integral part of these financial statements			

Statements of Comprehensive Income

For The Years Ended September 30, 2017

			Unit : Baht
	<u>Note</u>	<u>2017</u>	<u>2016</u>
			(Restated)
Profit for the year		7,515,279,466	7,169,681,826
Other comprehensive income			
Items that will not be reclassified to profit or loss in subsequent	periods		
Actuarial Gains (Losses)	7.14	49,158,456	53,435,331
Total comprehensive income for the year		7,564,437,922	7,223,117,157

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Equity

For The Years Ended September 30, 2017

Unit : Baht

	Initial	Government	Total Capital	Unappropriated	Total
	Capital	Budget		retained	equity
				earnings	
Balance as of October 1, 2015	1,192,708,301	7,194,138,838	8,386,847,139	46,312,767,645	54,699,614,784
The effect of changes in accounting errors			-	(2,514,189,093)	(2,514,189,093)
Balance after Adjustment	1,192,708,301	7,194,138,838	8,386,847,139	43,798,578,552	52,185,425,691
Remittance to Ministry of Finance	-	-	-	(3,590,000,000)	(3,590,000,000)
Total comprehensive income for the year	-	-	-	7,223,117,157	7,223,117,157
Balance as of September 30, 2016	1,192,708,301	7,194,138,838	8,386,847,139	47,431,695,709	55,818,542,848
Balance as of October 1, 2016	1,192,708,301	7,194,138,838	8,386,847,139	47,431,695,709	55,818,542,848
The effect of changes in accounting errors	-	-		(607,125,759)	(607,125,759)
Balance after Adjustment	1,192,708,301	7,194,138,838	8,386,847,139	46,824,569,950	55,211,417,089
Remittance to Ministry of Finance	-	-	-	(3,744,000,000)	(3,744,000,000)
Total comprehensive income for the year		<u> </u>		7,564,437,922	7,564,437,922
Balance as of September 30, 2017	1,192,708,301	7,194,138,838	8,386,847,139	50,645,007,872	59,031,855,011

The accompanying notes are an integral part of these financial statements.

For The Years Ended September 30, 2017

	<u>2017</u>	Unit : Baht 2016 (Restated)
Cash flows from operating activities:		
Profit for the year	7,515,279,466	7,169,681,826
Adjustment of net income to cash received (paid)		
From operating activities		
Depreciation	4,222,803,895	4,766,025,967
Amortization - intangible assests	63,827,465	62,941,016
Amortization	57,110	57,110
Doubtful accounts	3,209,504	3,220,627
(Gains) losses on foreign exchange rate	(153,136,449)	129,596,574
Gains from disposal of assets	(2,847,927)	(2,080,460)
Gains from disposal of obsolete materials and supplies	(16,960,252)	(19,931,098)
Finance costs	50,128,014	56,465,343
Interest income	(230,121,640)	(209,269,211)
Revenues from donated assets	(323,292,919)	(408,362,153)
Employee benefit obligations	2,293,237	(29,388,867)
Other revenues	(12,824,099)	(24,621,510)
Operating income before changes in operating assets and liabilities	11,118,415,405	11,494,335,164
Operating assets (increase) decrease		
Trade accounts receivable	(41,206,937)	46,152,397
Accrued revenue of water sales, meter fees and raw waters	15,715,671	26,869,376
Inventories	185,589,542	98,352,046
Other current assets	10,489,355	(12,837,111)
Other non-current assets	4,120	(35,439,760)
Operating liabilities increase (decrease)		
Trade accounts payable	(1,280,568,046)	(1,201,862,490)
Other current liabilities	(103,711,791)	(2,921,464)
Provision for employee benefits	38,665,113	(648,927)
Customers' guarantee deposits	36,234,272	45,282,690
Other non-current liabilities	63,603,739	46,960,482
Bonus paid to Board of Directors and Employees from last year	(6,162,777)	3,003,574
Net cash from operating activities	10,037,067,666	10,507,245,977

 ${\it The\ accompanying\ notes\ are\ an\ integral\ part\ of\ these\ financial\ statements}.$

	<u>2017</u>	Unit : Baht 2016 (Restated)
Cash flows from investing activities		
Current investment increase	(2,995,104,450)	(5,005,907,913)
Long - term investment increase	(370,000,000)	(550,000,000)
Interest received	200,824,270	230,709,319
Proceeds from disposals of property, plant, and equipment	33,080,238	54,875,859
Proceeds from disposal of obsolete materials and supplies	17,012,044	19,992,003
Payments of fixed assets acquisition	(2,913,164,068)	(2,683,365,736)
Net cash used in investing activities	(6,027,351,966)	(7,933,696,468)
Cash flows from financing activities		
Proceeds from borrowings	10,762,676	143,591,916
Repayment on borrowing	(216,867,167)	(228,729,089)
Cash paid for interest expenses	(50,651,130)	(56,940,246)
Remittance to Ministry of Finance	(4,309,980,000)	(6,106,450,000)
Net cash used in financing activities	(4,566,735,621)	(6,248,527,419)
Net increase(decrease) in cash and cash equivalents	(557,019,921)	(3,674,977,910)
Cash and cash equivalents at the beginning of the year	1,276,412,675	4,951,390,585
Cash and cash equivalents at the ending of the year	719,392,754	1,276,412,675

 ${\it The\ accompanying\ notes\ are\ an\ integral\ part\ of\ these\ financial\ statements}.$

1. GENERAL INFORMATION

Established and Objective

Metropolitan Waterworks Authority (MWA) is the state enterprise under the Metropolitan Waterworks Authority Act, B.E. 2510 (1967) and its amendment with objectives as follows,

- 1.1 To survey and provide raw water sources and acquire raw water for use in the waterworks.
- 1.2 To produce, supply and distribute treated water in the Bangkok Metropolis, Nonthaburi and Samut Prakan provinces and control the standard of the private waterworks system in such areas.
 - 1.3 To engage in other related business or beneficial to MWA.

The head office is located at 400 Prachachuen Road, Laksi, Bangkok, 10210

2. BASIS OF PREPARATION AND PRESENTATION OF THE FINANCIAL STATEMENTS

The financial statements have been prepared in accordance with Thai Generally Accepted Accounting Principles under the Accounting Act, B.E.2543 being these Thai Financial Reporting Standards issued under the Accounting Profession Act, B.E. 2547 and presents its financial statements in compliance with the notification of the Department of Business Development "Definition of the abbreviated components required in the financial statements" B.E. 2554

3. New financial reporting standards

3.1 Financial reporting standards that became effective in the current year

MWA has adopted the revised and new financial reporting standards issued by the Federation of Accounting Professions which become effective for fiscal years beginning on or after 1 January 2016. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards, with most of the changes directed towards revision of wording and terminology, and provision of interpretations and accounting guidance to users of standards. The adoption of these financial reporting standards does not have any significant impact on the financial statements.

3.2 Thai Financial Reporting Standards (TFRS) not yet effective

The Federation of Accounting Professions issued a number of the revised (revised 2016) which is effective for fiscal years beginning on or after 1 January 2017. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards. The MWA's management believes that the revised and new financial reporting standards and accounting treatment guidance will not have any significant impact on the financial statements when it is initially applied.

4. CHANGES IN ACCOUNTING ESTIMATES

For fiscal year 2017, MWA has reviewed and changed accounting estimates to reflect current conditions, formats and facts increasingly as follows:

4.1 Changes in estimation of useful lives of non - current assets as follows:

- Meters in water treatment plants decrease useful lives from 10 years to 7 years.
- Meters in areas increase useful lives from 5 years to 7 years.
- Distribution pipes increase useful lives from 10 years to 15 years.

These changes that effect to the estimated depreciation for the fiscal year 2017 decrease approximately Baht 714.57 million.

4.2 Changes in estimation of accrued revenue of water sales and meter fees.

In quarter 1 of the fiscal year 2017, MWA has reviewed and changed the estimated accrued revenue of water sales and meter fees to reflect the seasonal water consumption behavior. Previously, it was calculated from water consumption from the last reading date to reporting date by estimated from water consumption average per day of the latest month to the following month backwards 3 years.

Since January 2017 onwards, MWA has additionally adjusted estimation of accrued revenue of water sales and meter fees from quarter 1. It was estimated from water consumption average per day of the following month backwards for 3 years and the latest month to reflect current fact increasingly by consider current water consumption which is the water usage's new statistic of increased and decreased water consumption exceedingly.

5. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

5.1 REVENUES AND EXPENSES RECOGNITION are recognized on accrual basis.

5.2 CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash on hand, deposits held at call with banks but do not include deposits with banks which are held to maturity, and other short-term highly liquid investments with maturities of three months or less from the date of acquisition and without restriction of use and that are subject to an insignificant risk of change in value.

5.3 TRADE ACCOUNTS RECEIVABLE AND ALLOWANCE FOR DOUBTFUL ACCOUNTS

Trade Accounts receivable are stated at original invoice amount less allowance for doubtful accounts. Allowance for doubtful accounts computed from percentage of the outstanding balance of trade accounts receivable except trade accounts receivable from government agencies and state enterprises. The estimation has been based on the Ministry of Finance regulation regarding the accounting and finance of state enterprises B.E. 2548 as follow:

Outstanding period	Percentage of Allowance for Doubtful Accounts
Over 6 months - 1 Year	50
Over 1 Year	100

5.4 INVENTORIES

Inventories are valued at the lower of cost price or net realizable value, Consist of:

5.4.1 Materials and suppiles use in MWA's operation such as pipes, water meter and chemical are valued at cost moving average method.

For disposal obsolete materials, materials awaiting for checking and material awaiting to exchange will have an allowance for loss with the same amount.

Obsolete materials by dismantling of assets valued at book values.

5.4.2 Finished Goods comprises of drinkable bottle cost moving average method.

5.5 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are stated at cost on the date of acquisition or the completion of constructions, less accumulated depreciation. The cost of assets includes the acquisition price and other necessary expenses in making them ready to operate.

Depreciation of plant and equipment is calculated by reference to their costs on a straight-line basis over the estimated useful lives as follows: -

	Useful lives (Years)
Land improvement	30
Building and factory	30
Machinery and equipment	5, 7, 10, 20, 25
Pipe and tunnel	10, 15, 25, 35
Meter	5,8
Office equipments	5
Vehicles	5,8

Donated assets recorded with deferred revenue and recognized to revenue throughout the useful lives.

5.6 INTANGIBLE ASSETS

Intangible assets are the right to use the digital data map and the computer software presented at cost deducted by accumulated amortization expense. Amortization is charged to the income statement on a straight-line basis according to the 5-20 years estimated useful life of assets.

5.7 WORKS UNDER CONSTRUCTION

All costs related directly to qualifying assets, and its assets under construction are recorded as works under construction. When the construction is completed and prepare the assets for its intended use, its cost will be transferred to property, plant and equipment.

5.8 BORROWING COSTS

Borrowing costs are interest expense, finance charges and exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest costs ,which related to qualifying assets, and its assets under construction less any income earned on the temporary investment of such borrowings are capitalized as part of the constructions cost. When constructions are completed, such borrowing costs will be recorded as the expenses.

5.9 FOREIGN CURRENCY TRANSACTIONS

Transactions in foreign currencies are translated into Thai Baht at the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the end of reporting period are translated into Thai Baht at the exchange rates prevailing at that dates as referred to the average buying or selling rate notified by the Bank of Thailand. Foreign exchange gains and losses resulting from the currency adjustment are recognized as revenue and expense.

5.10 EMPLOYEE BENEFITS

Recognition and measurement

5.10.1 Short-term employee benefits are recognized in profit and loss as expenses when incurred.

5.10.2 Post-employment benefits

Defined contribution plans

MWA and its employees have established MWA provident fund in accordance with the Provident Fund Act B.E. 2530 (1987) and registered on June 2, 1997.

The fund is separated from assets of MWA and managed by asset management company and will be paid to employees upon termination of employment in accordance with the rules of the fund.

The MWA contributes to the fund on a monthly basis at a rate of 9% of salaries for members having 1-10 years of service, 10% for members having 11-20 years of service and 11 % for members having more than 20 years of service. Contributions are recognized in profit and loss as expenses when incurred.

Defined benefit plans

MWA has established MWA pension fund on October 28, 1976 for the purpose of providing its employees with retirement benefits. The MWA contributes to the fund on a monthly basis at the rate of 10% of salary of MWA pension fund members .

The obligation under the defined benefit plan is determined based on actuarial techniques, using the Projected Unit Credit Method, in order to determine present value of the obligation, current service cost and past service cost. These are recognized as a liability in statements of financial position and expenses in profit and loss. Actuarial gains and losses arising from post-employment benefits are recognized in statements of comprehensive income when incurred.

5.10.3 Other long-term employment benefits

The obligation under the defined benefit plan is determined based on actuarial techniques, using the Projected Unit Credit Method, in order to determine present value of the obligation, current service cost and past service cost. These are recognized as a liability in statements of financial position. Expenses and actuarial gains and losses arising from post-employment benefits are recognized in profit and loss.

6. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of financial statement in conformity with generally accepted accounting principles requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income, and expenses. Actual results may differ from these estimates. The significant judgements and estimate is as follow:

6.1 PROPERTY, PLANT, EQUIPMENT AND DEPRECIATION

In determining depreciation of plant and equipment, the management is required to make estimates of the useful lives and residual value of the plant and equipment and to review estimate useful lives when there are any changes.

6.2 ACCRUED REVENUE OF WATER SALES, METER FEES

Unbilled revenue in quarter 1 of the fiscal year 2017, MWA has reviewed and changed the estimated accrued revenue of water sales and meter fees to reflect the seasonal water consumption behavior. Previously, it was calculated from water consumption from the last reading date to reporting date by estimated from water consumption average per day of the latest month to the following month backwards 3 years.

6.3 LITIGATION

MWA has contingent liabilities as a result of litigation. The management has used judgment to assess of the results of the litigation and believes that no loss will result. Therefore no contingent liabilities are recorded as at the reporting date.

7. ADDITIONAL DATA

7.1 CASH AND CASH EQUIVALENTS comprised of:

		Unit: Million Baht
	<u>2017</u>	<u>2016</u>
Cash on hand	2.00	2.07
Savings and current account	690.55	1,262.72
Cash in transit	26.84	11.36
Fixed deposit account (not over 3 months)		0.26
Total	719.39	1,276.41

$\textbf{7.2 CURRENT INVESTMENTS} \ comprised \ of:$

Current investment as of September 30, 2017 and 2016 amounting to Baht 15,019.18 million and Baht 12,024.08 million. MWA has followed to the regulations of the Ministry of Finance regarding accounting and finance of state owned enterprise B.E. 2548 (2005).

7.3 TRADE ACCOUNTS RECEIVABLE comprised of:

		Unit: Million Baht
	<u>2017</u>	<u>2016</u>
Water utilities bills receivable	520.41	498.96
Less Undue output taxes water utilities	33.64	32.46
Total water utilities bills receivable	486.77	466.50
Water connection fees receivable	30.86	12.35
Total trade accounts receivable	517.63	478.85
Less allowance for doubtful accounts	9.52	8.89
Total	508.11	469.96

As at September 30, 2017 and 2016, the water utility bills receivable were shown as follows:

Unit: Million Baht

		<u>2017</u>		<u>2016</u>				
Aging period	<u>Private</u>	Public	T-4-1	Private	Public	T-4-1		
	sector	<u>sector</u>	<u>Total</u>	sector	<u>sector</u>	<u>Total</u>		
1 - 6 months	210.21	258.35	468.56	201.10	249.08	450.18		
Over 6 months – 1 year	2.01	7.52	9.53	1.96	6.39	8.35		
Over 1 year	8.50	0.18	8.68	7.90	0.07	7.97		
Total	220.72	266.05	486.77	210.96	255.54	466.50		

7.4 ACCRUED REVENUE OF WATER SALES, METER FEES comprised of:

	Unit :	Million Baht
	<u>2017</u>	<u>2016</u>
Private sector	753.02	761.29
Public sector	100.70	108.15
Total	853.72	869.44

7.5 INVENTORIES comprised of:

	Unit	: Million Baht
	<u>2017</u>	<u>2016</u>
Finish goods	0.46	0.48
Materials and Supplies	161.78	175.05
Material in transit	3.45	(4.56)
<u>Less</u> allowance for obsolete inventories	3.96	
Total	161.73	170.97

7.6 OTHER CURRENT ASSETS comprised of:

	Unit :	Million Baht
	<u>2017</u>	<u>2016</u>
Accrued interest receivable	77.56	48.26
Prepaid expense	0.03	0.06
Contractual rights (cross currency swap)	-	11.39
Other assets	3.87	2.94
Total	81.46	62.65

7.7 PROPERTY, PLANT AND EQUIPMENT details as follows:

Unit: Million baht

		<u>Cc</u>	<u>ost</u>		Accumulated Depreciation				Property,Plant
	Oct 1, 2016	Additions	Write off	Sep 30, 2017	Oct 1, 2016	Depreciation	Write off	Sep 30, 2017	and Equipment
									Sep 30, 2017
Land	4,284.29	-	(0.01)	4,284.28	-	-	-	-	4,284.28
Building and									
improvements	18,244.72	1,162.46	(24.14)	19,383.04	11,465.11	495.81	(21.28)	11,939.64	7,443.40
Machineries and									
equipments	10,687.97	1,006.83	(272.45)	11,422.35	8,203.54	492.29	(263.69)	8,432.14	2,990.21
Pipes	82,775.94	2,992.67	(156.72)	85,611.89	52,136.68	2,744.91	(148.68)	54,732.91	30,878.98
Meters	4,160.92	479.60	(275.89)	4,364.63	2,786.09	255.11	(259.05)	2,782.15	1,582.48
Office -									
equipments	1,761.68	119.78	(73.05)	1,808.41	1,171.21	218.46	(72.40)	1,371.27	491.14
Vehicles and									
transport	324.07	4.33	(21.39)	307.01	231.09	16.22	(21.33)	225.98	81.03
Total	122,239.59	5,765.67	(823.65)	127,181.61	75,993.72	4,222.80	(786.43)	79,430.09	47,751.52

Property, plant and equipment, amounted to Baht 127,181.61 million, as of September 30, 2017, included fully depreciation assets Baht 33,352.75 million, which have the carrying amount Baht 68.41 million.

Unit: Million baht

2016

		<u>C</u>	<u>ost</u>		Accumulated Depreciation				Property,Plant
	Oct 1, 2015	Additions	Write off	Sep 30, 2016	Oct 1, 2015	<u>Depreciation</u>	Write off	Sep 30, 2016	and Equipment
									Sep 30, 2016
Land	4,284.29	-	-	4,284.29	-	-	-	-	4,284.29
Building and									
improvements	18,201.33	83.67	(40.28)	18,244.72	11,034.67	458.33	(27.89)	11,465.11	6,779.61
Machineries and									
equipments	10,527.21	391.67	(230.91)	10,687.97	7,989.11	439.72	(225.29)	8,203.54	2,484.43
Pipes	80,431.71	2,606.87	(262.64)	82,775.94	48,972.44	3,409.81	(245.57)	52,136.68	30,639.26
Meters	3,926.25	452.86	(218.19)	4,160.92	2,742.91	247.99	(204.81)	2,786.09	1,374.83
Office -									
equipments	1,518.18	315.18	(71.68)	1,761.68	1,047.80	194.59	(71.18)	1,171.21	590.47
Vehicles and									
transport	349.28	9.00	(34.21)	324.07	249.72	15.58	(34.21)	231.09	92.98
Total	119,238.25	3,859.25	(857.91)	122,239.59	72,036.65	4,766.02	(808.95)	75,993.72	46,245.87

Property, plant and equipment, amounted to Baht 122,239.59 million, as of September 30, 2016, included fully depreciation assets Baht 33,063.19 million, which have the carrying amount Baht 51.94 million.

7.8 INTANGIBLE ASSETS

Intangible assets presented at cost deduct by accumulated amortization expense. Amortization is calculated by straight-line method basis according to estimated useful life of assets, details as follows:

Unit: Million baht

<u>2017</u>

			Cost Accumulated amortization						
	Oct 1, 2016	Additions	Written off	Sep 30, 2017	Oct 1, 2016	Amortization	Written off	Sep 30, 2017	<u>Intangible</u>
									assets Sep
									30, 2017
Rights to use the									
digital data map	212.47	7.95	(4.74)	215.68	158.62	8.77	(4.74)	162.65	53.03
Software									
	1,169.74	28.41	(34.23)	1,163.92	959.77	55.05	(34.23)	980.59	183.33
Total	1,382.21	36.36	(38.97)	1,379.60	1,118.39	63.82	(38.97)	1,143.24	236.36

Unit: Million baht

			Cost	Cost Accumulated amortization					
	Oct 1, 2015	Additions	Written	Sep 30, 2016	Oct 1, 2015	Amortization	Written off	Sep 30, 2016	Intangible
			<u>off</u>						assets Sep
									<u>30, 2016</u>
Rights to use the									
digital data map	235.03	-	(22.56)	212.47	164.49	16.02	(21.89)	158.62	53.85
Software									
	1,123.62	47.02	(0.90)	1,169.74	913.74	46.92	(0.89)	959.77	209.97
Total	1,358.65	47.02	(23.46)	1,382.21	1,078.23	62.94	(22.78)	1,118.39	263.82

7.9 ASSETS UNDER CONSTRUCTION details as follows:

Unit: Million baht

			<u>201</u> 7		
	Oct 1, 2016	Additions	Borrowing cost	Transferred	Sep 30, 2017
				to assets	
The Seventh Bangkok water Supply					
Improvement Project	345.89	282.73	-	(306.88)	321.74
The Eighth Bangkok water Supply					
Improvement Project	2,288.82	103.95	1.17	(1,717.52)	676.42
The Ninth Bangkok water Supply					
Improvement Project	-	42.31	-	-	42.31
Normal Capital Expenditure	3,262.73	3,466.33		(2,925.83)	3,803.23
Total	5,897.44	3,895.32	1.17	(4,950.23)	4,843.70

Unit: Million baht

			<u>2016</u>		
	Oct 1, 2015	Additions	Borrowing cost	Transferred	Sep 30, 2016
				to assets	
The Seventh Bangkok water Supply					
Improvement Project	209.16	396.73	-	(260.00)	345.89
The Eighth Bangkok water Supply					
Improvement Project	2,386.42	220.32	2.54	(320.46)	2,288.82
Normal Capital Expenditure	2,809.23	2,977.10		(2,523.60)	3,262.73
Total	5,404.81	3,594.15	2.54	(3,104.06)	5,897.44

7.10 Advance Payment

Advance payment as of September 30, 2017 and 2016 amounting to Baht 185.75 million and Baht 179.32 Million, respectively have paid according to the conditions in the agreement. The contractor has to submit Thai Government's bond or a guarantee issued by a local bank in accordance with Rules of Metropolitan Waterworks Authority (Volume 100) on Procurement B.E.2537 (1994) and Government Procurement and Supplies Management Act B.E. 2560 (2017)

7.11 LONG – TERM LOANS details as follows:

							Un	it: Million baht
	201	7	201	<u>6</u>			Repayment	Condition
Loan facility	<u>Foreign</u>	Thai Baht	<u>Foreign</u>	Thai Baht	Annual Interest rate	Number of	The First	The Last
	currency	equivalent	currency	equivalent	(percent per annum)	installment	repayment date	repayment date
Japanese Yen currency (Unit: million Yen)								
1. Yen 11,706.00 million loan	1,960.27	588.33	2,240.30	777.48	1.70	37	Sep 20, 2006	Sep 20, 2024
2. Yen 4,098.00 million loan	2,735.64	821.04	3,091.28	1,072.80	0.80	21	Aug 20, 2014	Aug 20, 2024
3. Yen 364.00 million loan	190.54	57.19	221,49	76.86	0.01	21	Aug 20, 2014	Aug 20, 2024
Total long-term loans	4,886.45	1,466.56	5,553.07	1,927.14				
Less Total current portion	698.06	209.51	704.99	244.66				
Long-term loans - net	4,188.39	1,257.05	4,848.08	1,682.48				

BOT average selling Foreign Exchange Rate As of Sep 30, 2017 1 JPY = 0.300127 THB As of Sep 30, 2016 1 JPY = 0.347041 THB Movements in the long-term loans account are summarized below;

	Uı	nit: Million baht
	<u>Foreign</u>	Thai Baht
	<u>currency</u>	<u>equivalent</u>
Japanese Yen currency		
Balance as of October 1, 2016	5,553.07	1,927.14
Additional borrowings	34.92	10.76
Losses on foreign exchange rate	-	(225.76)
Repayment	(701.54)	(215.58)
Balance as of September 30, 2017	4,886.45	1,466.56

7.12 ACCRUED REMITTANCE TO THE MINISTRY OF FINANCE

In this fiscal year, the Ministry of Finance has prescribed MWA to delivers a remittance to the Ministry of Finance 45% of the net income before provision of bonus expense, which delivering twice a year.

Movements in the Accrual remittance to the Ministry of Finance account are summarized below;

	ι	Unit : Million Baht
	<u>2017</u>	<u>2016</u>
Balance as of October 1	1,714.00	1,704.00
Increase during the period		
- Additional of the year 2015	-	2,526.45
- The first half of the year 2016	-	1,876.00
- The second half of the year 2016	-	1,714.00
- Additional of the year 2016	600.98	-
- The first half of the year 2017	1,995.00	-
- The second half of the year 2017	1,749.00	-
Remittance to the Ministry of Finance		
- The second half of the year 2015	-	(1,685.70)
- Additional of the year 2015	-	(2,544.75)
- The first half of the year 2016	-	(1,876.00)
- The second half of the year 2016	(1,714.00)	-
- Additional of the year 2016	(600.98)	-
- The first half of the year 2017	(1,995.00)	
Balance as of September 30	1,749.00	1,714.00

The outstanding balance of remittance to the Ministry of Finance as of the second half of the year 2017 amount Baht 1,749.00 million.

7.13 OTHER CURRENT LIABILITIES comprised of:

	Unit:	Million baht
	<u>2017</u>	<u>2016</u>
Accrued interest payables	3.32	3.85
Accrued public utilities	127.78	107.49
Accrued expenses	47.34	93.40
Accrued expense on value added taxes	54.68	51.79
Accrued withholding taxes	11.33	12.05
Accrued bonus expense	804.83	806.97
Accrued raw water	22.54	23.46
New connection and job contract out revenues received in advance	241.12	427.20
Cross currency swap obligation	80.90	-
Outstanding cheques	10.72	8.36
Other liabilities	316.51	189.40
Total	1,721.07	1,723.97

7.14 EMPLOYEE BENEFIT OBLIGATIONS

Post-employment benefits comprised of:

7.14.1 Defined contribution plan

MWA and its employees have established MWA provident fund in accordance with the Provident Fund Act B.E. 2530 (1987) and registered on June 2, 1997.

The fund is separated from assets of MWA and managed by asset management company and will be paid to employees upon termination of employment in accordance with the rules of the fund.

The MWA contributes to the fund on a monthly basis at a rate of 9% of salaries for members having 1-10 years of service, 10% for members having 11-20 years of service and 11 % for members having more than 20 years of service.

7.14.2 Defined benefit plan

7.14.2.1 Post-employment benefits plan comprised of 4 projects as follows:

The pension fund is employee benefits pension fund will receive on retirement without fault, which is equal to the product of working age, with a yearly salary of the last month.

The MWA contributes to the fund on a monthly basis at the rate of 10% of salary of MWA pension fund members.

The remuneration on retirement preferences

Employee benefits are notification of State Enterprise Labor Relations Commission's minimum standards of employment conditions in state-owned enterprises, 2010. Employee retired which work more than 15 years. Benefits are equal to the wage rate of the last 300 days.

The annual leave project that has not been exercised is employee benefits retirement and the annual leave is not exercised. Benefits are equal to the number of days that have not been exercised. Up to 45 days of the final wage rate.

The project of the awards age 60 years or retirement A project of the awards when employees age 60 years or retirement.

$7.14.2.2\,\underline{Other\,long\text{-}term\,employee\,benefits\,plan}\,A\,project\,of\,the\,awards\,when\,employees\,work\,25\,years.$

The MWA's liability for post-employment benefits is recognized in the statements of financial position, as follows:

Unit : Million baht

u		- /
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	Post-Employment Benefits				Other Lo	ng-term	
						Employee	Benefits
	Staff	Legal	<u>Unused</u>	Retirement	Total	25 years	Total
	Pension	<u>severance</u>	vacation	award		long-	
	<u>fund</u>	<u>plan</u>	<u>plan</u>			<u>service</u>	
						award	
At October 1, 2016	1,109.67	1,164.41	173.50	57.68	2,505.26	27.64	2,532.90
Service cost	42.61	78.10	11.69	5.43	137.83	3.02	140.85
Interest cost	12.51	22.86	3.40	1.39	40.16	0.62	40.78
Benefits paid	(96.12)	(78.63)	(11.77)	(3.15)	(189.67)	(1.17)	(190.84)
Actuarial (Gains) Losses	(10.11)	(38.20)	(5.69)	4.84	(49.16)	2.29	(46.87)
At September 30, 2017	1,058.56	1,148.54	171.13	66.19	2,444.42	32.40	2,476.82
Less Fair value of plan assets	856.99	-	-	-	856.99	-	856.99
Amount recognized in statement of financial position.	201.57	1,148.54	171.13	66.19	1,587.43	32.40	1,619.83

Unit: Million baht

	Post-Employment Benefits				Other Lo	ng-term	
						Employee	Benefits
	Staff	Legal	<u>Unused</u>	Retirement	Total	25 years	<u>Total</u>
	Pension	<u>severance</u>	vacation	award		long-	
	<u>fund</u>	<u>plan</u>	<u>plan</u>			<u>service</u>	
						award	
At October 1, 2015	1,160.88	1,155.31	170.99	140.72	2,627.90	55.18	2,683.08
Service cost	44.41	67.80	10.20	4.84	127.25	2.48	129.73
Interest cost	16.30	25.36	3.78	1.35	46.79	0.59	47.38
Benefits paid	(120.65)	(102.82)	(15.32)	(4.45)	(243.24)	(1.22)	(244.46)
Actuarial (Gains) Losses	8.73	18.76	3.85	(84.78)	(53.44)	(29.39)	(82.83)
At September 30, 2016	1,109.67	1,164.41	173.50	57.68	2,505.26	27.64	2,532.90
Less Fair value of plan assets	904.88				904.88		904.88
Amount recognized in statement of financial position.	204.79	1,164.41	173.50	57.68	1,600.38	27.64	1,628.02

Expenses recognized in the statements of comprehensive income, as follows:

Unit: Million baht

	Post-Employment Benefits				Other Lor	g-term	
						Employee	Benefits
	<u>Staff</u>	Legal	Unused	Retirement	<u>Total</u>	25 years	<u>Total</u>
	Pension	severance	vacation	<u>award</u>		long-	
	<u>fund</u>	<u>plan</u>	<u>plan</u>			<u>service</u>	
						award	
Statement of income							
Service cost	42.61	78.10	11.69	5.43	137.83	3.02	140.85
Interest cost	12.51	22.86	3.40	1.39	40.16	0.62	40.78
Return on plan assets	(10.35)	-	-	-	(10.35)	-	(10.35)
Actuarial (Gains) Losses	-		-	-	-	2.29	2.29
Total	44.77	100.96	15.09	6.82	167.64	5.93	173.57
Other comprehensive income							
Actuarial Gains (Losses)	10.11	38.20	5.69	(4.84)	49.16		49.16
Total	10.11	38.20	5.69	(4.84)	49.16	-	49.16

Unit: Million baht

	Post-Employment Benefits				Other Long-term		
						Employee	Benefits
	Staff	Legal	Unused	Retirement	Total	25 years	Total
	Pension	severance	vacation	<u>award</u>		long-	
	<u>fund</u>	<u>plan</u>	<u>plan</u>			<u>service</u>	
						award	
Statement of income							
Service cost	44.41	67.80	10.20	4.84	127.25	2.48	129.73
Interest cost	16.30	25.36	3.78	1.35	46.79	0.59	47.38
Return on plan assets	(15.69)	-	-	-	(15.69)	-	(15.69)
Actuarial (Gains) Losses						(29.39)	(29.39)
Total	45.02	93.61	13.98	6.19	158.35	(26.32)	132.03
Other comprehensive income				<u> </u>			
Actuarial Gains (Losses)	(8.73)	(18.76)	(3.85)	84.78	53.44		53.44
Total	(8.73)	(18.76)	(3.85)	84.78	53.44		53.44

Movements in the present value of the plan assets – Staff Pension fund, as follows:

Uni		

	<u>2017</u>	<u>2016</u>
Beginning Balance	904.88	971.58
Add Return on plan assets	10.35	15.69
Obligation payable from MWA.	37.88	38.26
Less Benefits paid	(96.12)	(120.65)
Ending Balance	856.99	904.88

Principal actuarial assumptions

Annual percentage (%)

Discount rate at 29 September 2017	1.13 - 3.50
Salary increase rate	7.50
Employee turnover rate	0.78

7.15 DEFERRED REVENUES comprised of:

Unit : Million baht

<u>2017</u>

	As of Oct 1, 2016	<u>Added</u>	Recognized as income	As of Sep 30, 2017
Water meter	477.01	163.94	(88.80)	552.15
Distribution Pipe	1,812.25	583.59	(231.38)	2,164.46
Other assets	19.48	0.04	(3.11)	16.41
Total	2,308.74	747.57	(323.29)	2,733.02

Unit: Million baht

	As of Oct 1, 2015	Added	Recognized as income	As of Sep 30, 2016
Water meter	405.71	142.40	(71.10)	477.01
Distribution Pipe	1,693.08	453.85	(334.68)	1,812.25
Other assets	21.92	0.14	(2.58)	19.48
Total	2,120.71	596.39	(408.36)	2,308.74

7.16 NON-CURRENT LIABILITIES comprised of:

	Unit:	Million baht
	<u>2017</u>	<u>2016</u>
Collective and metering representative deposits	20.51	20.70
Work guarantee (retention) and Contractor deposits	329.74	265.95
Total	350.25	286.65

7.17 CAPITAL

Capital, amounted to Baht 8,386.85 million, as of September 30, 2017, included initial capital Baht 1,192.71 million and government budget Baht 7,194.14 million.

7.18 RAW MATERIALS AND CONSUMABLES USED comprised of:

	Unit : Million ba		
	<u>2017</u>	<u>2016</u>	
Raw water	273.16	286.99	
Chemical	410.39	383.13	
Electricity utility	1,378.66	1,320.23	
Pipe and equipment for tap water installation	161.62	194.14	
Pipe and equipment for repair and maintenance	219.50	174.26	
Other raw material and consumables used	146.88	147.55	
Total	2,590.21	2,506.30	

7.19 REMUNERATION FOR DIRECTORS

The remuneration for directors for the year ended September 30, 2017 and 2016 amounting to Baht 20.36 million and Baht 21.35 million are expense of Director and MWA's Board of directors.

7.20 OTHER OPERATING EXPENSES comprised of:

	Unit : Million bah		
	<u>2017</u>	<u>2016</u>	
Contract out - tap water installation	82.02	82.68	
Contract out - inspection and improvement of distribution valve	29.19	23.27	
Contract out - leakage pipes survey and repair	332.46	265.55	
Contract out - other services	218.31	204.15	
Outsourcing expenditure	215.22	231.05	
Collective and metering representative expenses	123.61	123.57	
Repair and maintenance expenses	147.50	153.84	
Work contracts expenses	601.48	611.32	
Other operating expenses	365.94	371.70	
Total	2,115.73	2,067.13	

7.21 GAINS (LOSSES) ON FOREIGN EXCHANGE RATE comprised of:

	Unit: Million baht		
	<u>2017</u>	<u>2016</u>	
During period (realized)			
- From loans repayment	3.53	(1.33)	
- Foreign currency deposit	(69.12)	56.87	
- Other	-	3.32	
On September (unrealized)			
- From loans outstanding	254.49	(222.26)	
- Cross currency swap	(101.35)	92.90	
- Other		(0.24)	
Total	87.55	(70.74)	

8. DISCLOSURES OF FINANCIAL INSTRUMENT

MWA had entered into Plain vanilla cross currency swap agreement on March 17, 2006, to reduce the risk from exchange rate. Contract principle amount to Yen 11,706.00 million, utilized amount to Yen 5,180.74 million, to the MWA's Lender through 18.5 years contract which details as follows.

Swap contract notional receipt	5,180.74 million Yen
Swap contract interest receipt rate (per annum)	1.70
Swap contract exchange rate	1 JPY = 0.334 THB
Swap contract notional payment	1,730.37 million Baht
Swap contract interest payment rate (percent per annum)	5.759
As of September 30, 2017	
Outstanding Loan	1,960.27 million Yen
Remaining Tenor	7 Years
BOT Buying rate as at September 29, 2017	1 JPY = 0.292731 THB

9. ESTIMATE AND CONTINGENT LIABILITIES

$9.1\,\mathrm{THE}$ Contingent liabilities under consideration of the arbitration proceeding

9.1.1~MWA has engaged SG-STPE Joint Venture, contract no. E-RW/TR(BK)/(MS)-8(R) to furnish and install of pumping equipment with contract value amounting to Baht 274.05 million and Yen 407.64 million.

On September 10, 2015 the contractor has submitted a dispute to Thailand Arbitration Center, black case no.66/2015, demanding MWA to revoke the termination of contract, dated November 18, 2557, and to refrains the forfeit amounting Baht 134.21 million, and to assents the contractor return to work on the rest to finish, and to pays for the remaining cost of the work amounting Baht 54.81 million and settles to the spare parts that delivered amount Baht 5.05 million, and to pay total amount Baht 59.86 million for goods and spare parts that had delivered, ,in addition to suspend or revoke the order of the contractor abandoned the work.

On January 26, 2017 the contractor has additional submitted a dispute, demanding MWA to pay extra amounting Baht 56.61 million that include total amount Baht 116.47 million and Yen 81.53 million.

The first investigative appointment of plaintiff's witness and defendant is on December 1, 2017.

Currently this case is proceeding on The Arbitral Tribunal.

9.1.2 MWA has engaged ST power engineering corporation limited, contract no. S-BK-8 to provide and install of electric substation of Bang Khen water treatment plant with related work according to The eight Bangkok water supply improvement project which issued on May 25, 2011 with construction cost Baht 140.50 million.

On September 15, 2015 MWA has reserved right's notice to collect the delayed fine from ST power engineering corporation limited amount Baht 52.30 million.

On August 8, 2014 ST power engineering corporation limited has submitted a dispute to Thailand Arbitration Center, black case 77/2016, demanding MWA extended working period and considered to reduce delayed fine to 10 percent which damages amount Baht 36.51 million.

Currently this case is proceeding on The Arbitral Tribunal.

$9.2\,\mathrm{THE}$ Cases that MWA was filed the petition to objection the arbitral AWARD

9.2.1 Thames Water International Limited and Thames Water National Service Limited, claimed for compensation on disagreed unpaid success fees and incentive cost Baht 232.07 million, on March 22, 2006 Black case No.26/2006.

On June 23, 2008, the arbitral award ruled by The Arbitral Tribunal in the Red case no.44/2551 ordered MWA To pay compensation on disagreed unpaid success fees and incentive amounting of Baht 232.07 million together with interest at the rate of 7.5 percent per annum, calculated from the next date of MWA receipt of the said award until the total payment has been made.

On August 8, 2008, An attorney representing MWA filed a case through the Central Administrative Court requested the court to revoke such arbitral award, since its award was not unreasonable in compliance with the facts and law, which is material of the case.

On October 15, 2008, the company filed a petition with the Ratchada Civil court requesting issuance of judgment to enforce compliance with the arbitral award, but was later withdrawn the petition.

On June 27, 2012, the Central Administrative Court judgment to enforce compliance with the arbitral award.

On July 26, 2012, MWA submitted an appeal objecting of the Central Administrative Court judgment to the Supreme Administrative Court. The director of the Department of Administrative Litigation, Office of the Attorney General that should be invoked. The judgment of the court that the arbitral award within the scope of the arbitration agreement and the enforcement of the arbitral award is not like the facts and law.

Currently this case is depending to be consideration of the Supreme Administrative Court.

9.2.2 MWA has engaged Nawaratpatanakarn public company limited, contract no. G-MC-7D/2 to construct water tunnel and facilities with construction cost Baht 1,142.0 million.

On June 22, 2010 the contractor has submitted a dispute to the Office of the Arbitration Tribunal Board of Trade of Thailand, black case no.5/2010 claimed MWA for compensation on breach of contract amounted to Baht 145.27 million together with interest at the rate of 7.5 percent per annum, calculated from the day following the date of filing statements of claim until the total payment has been met.

On October 31, 2016, the arbitral award ruled by The Arbitral Tribunal ordered the respondent to pay amounting of Baht 8.00 million for the claimant within 60 days from the day following the date of acknowledgment of the arbitral award. If the period in question, the respondent hasn't paid all or part of it to the claimant, to pay interest at the rate of 7.5 percent per annum of the amount owed, calculated from the day following the due date until the total payment has been met.

On January 26, 2017 MWA filed a case through the Central Administrative Court requested the court to revoke such arbitral award.

Currently this case is depending to be consideration of the Central Administrative Court.

9.3 MWA was charged 18 cases of lawsuit, estimated total claims for compensation and damages amount of Baht 1,193.12 million, as follow:

- 9.3.1 The civil case claimed for compensation Baht 6.78 million, on contract default, which was considered in the Central Administrative Court.
- 9.3.2 The sixteen civil cases claimed for damages Baht 1,186.32 million. Four cases were in the Civil Court, one case was in the Appeal Court, five cases were in the Central Administrative Court considering, four cases were in the Supreme Administrative Court considering, and the other two cases were in the Supreme Court.

One of the two cases in the Supreme Court for damages amounting Baht 1,005.00 million, the Civil Court and the Appeal Court had made judgment ordered the dismissing the claimant.

9.3.3 The civil case claimed for damages amount Baht 0.02 million. This case was in the consideration of the Central Administrative Court.

10. ADJUSTMENT AND RECLASSIFICATION

MWA has adjusted statement of income and statement of cash flows for the year ended 30 September 2016.

Unit: Baht

Transactions	<u>Before</u> adjustment	<u>Adjustment</u>	<u>After</u> adjustment
Statement of income			
For the year ended 30 September 2016			
Other operating income	774,706,500	7,085,534	781,792,034
Other incomes	190,959,992	(7,085,534)	183,874,458
Statement of cash flows			
For the year ended 30 September 2016			
Gain on sales of asset	(9,165,994)	7,085,534	(2,080,460)
Revenues from donated assets	(401,276,619)	(7,085,534)	(408, 362, 153)

11. Approval of Financial Statements

These financial statements were authorized for issue by the Governor of MWA on December 29, 2017.

MWA onMobile

App for urbanist, everything about water supply





Information and Statistics

					Fiscal	Year				
General Statistics	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Water Production (million cu.m.)	1,765.7	1,736.5	1,735.9	1,715.8	1,763.6	1,804.5	1,797.8	1,835.1	1,965.9	2,063.8
Bangkhen Water Treatment Plant	1,157.9	1,206.2	1,173.2	1,125.6	1,178.7	1,120.8	1,163.4	1,152.9	1,290.9	1,404.5
Samsen Water Treatment Plant	177.8	180.0	170.4	165.5	148.5	134.5	124.5	137.9	129.7	120.7
Thonburi Water Treatment Plant	49.0	48.8	34.5	24.4	31.7	23.2	30.0	33.7	30.9	40.5
Mahasawat Water Treatment Plant	381.0	301.5	357.7	400.3	404.7	526.0	479.9	510.6	514.4	498.1
Total Water Consumption (million cu.m.)	1,250.6	1,250.3	1,281.9	1,282.4	1,317.3	1,361.0	1,377.2	1,406.3	1,406.3	1,408.6
Residence	568.4	595.1	612.0	605.2	619.0	636.5	646.9	657.8	653.8	656.8
Commerce, State Enterprise, Government Agency and Others	664.6	635.0	652.2	657.2	672.8	701.0	703.6	724.8	723.7	723.4
Public Water Supply and Others	17.6	20.2	17.7	20.0	25.5	23.5	26.7	23.7	28.8	28.4
Percentage of Water Consumption	70.83	72.00	73.85	74.75	74.69	75.42	76.61	76.63	71.53	68.25
Number of Customers at Year End (Connection)	1,859,573	1,920,155	1,964,591	2,017,531	2,060,446	2,113,674	2,171,371	2,226,707	2,281,058	2,328,598
Residence	1,403,770	1,508,481	1,548,997	1,596,473	1,634,774	1,682,540	1,733,655	1,784,541	1,835,430	1,878,888
Commerce, State Enterprise, Government Agency and Others	455,803	411,674	415,594	421,058	425,672	431,134	437,716	442,166	445,628	449,710
Small User (Connection)	1,830,390	1,889,308	1,932,707	1,984,720	2,026,853	2,079,269	2,136,214	2,190,943	2,244,815	2,292,106
Meter Diameter 1/2 ins.	1,161,182	1,197,565	1,223,407	1,254,311	1,277,707	1,307,769	1,338,653	1,367,682	1,394,915	1,421,764
Meter Diameter 3/4 ins.	612,200	633,593	650,120	670,140	687,810	708,826	733,475	757,753	783,235	802,913
Meter Diameter 1 ins.	57,008	58,150	59,180	60,269	61,336	62,674	64,086	65,508	66,665	67,429
Large User (Connection)	29,183	30,847	31,884	32,811	33,593	34,405	35,157	35,764	36,243	36,492
Meter Diameter 1 1/2 ins.	10,805	12,160	12,766	13,180	13,557	13,869	14,156	14,502	14,804	15,058
Meter Diameter 2 ins.	11,950	12,153	12,438	12,826	13,095	13,476	13,796	13,919	14,015	13,972
Meter Diameter over 2 ins.	6,428	6,534	6,680	6,805	6,941	7,060	7,205	7,343	7,424	7,462
Number of New Connections (Connection)	72,010	67,487	66,174	70,955	59,340	69,909	75,570	72,865	71,325	65,327
Average Water Consumption per Customer per Month (cu.m.)	56.03	54.13	54.07	52.81	52.76	53.34	52.49	52.34	50.88	49.85
Residence	34.91	33.61	33.23	32.05	31.90	31.94	31.54	31.13	30.08	29.44
Commerce, State Enterprise, Government Agency and Others	116.18	126.54	131.38	130.78	132.41	136.34	134.84	137.23	135.57	134.54
Average Water Tariffs per cu.m. (Baht)	12.03	11.94	11.96	11.96	11.90	12.01	12.00	12.02	12.02	12.01
Residence	10.02	9.95	9.96	9.96	9.86	10.00	10.01	10.01	10.03	10.03
Commerce, State Enterprise, Government Agency and Others	13.77	13.81	13.83	13.81	13.78	13.83	13.83	13.84	13.83	13.82
Number of Personnels at Year End (Person)	n/a	n/a	n/a	5,024	5,041	5,303	5,347	5,339	5,386	5,403
Number of Employees at Year End	4,083	4,081	4,076	4,046	3,962	4,195	4,185	4,246	4,326	4,385
Number of Contract Laborers at Year End	n/a	n/a	n/a	978	1,079	1,108	1,162	1,093	1,060	1,018
Ratio of Customers to One Employee (Connection)	n/a	n/a	n/a	402	409	399	406	417	424	431
Population in Responsible Areas at Year End (Person)	7,910,699	7,958,163	7,992,613	8,000,693	8,038,535	8,084,133	8,127,684	8,156,851	8,192,123	8,222,916
Number of Households in Responsible Areas at Year End (House)	3,234,978	3,338,498	3,446,740	3,530,814	3,633,356	3,742,515	3,868,216	3,958,491	4,099,437	4,210,444

e: 1.00 / 1.00					Fiscal	Year				
Financial Statistics	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Assets (Million Baht)	58,170.7	56,185.3	57,646.1	57,787.5	56,774.2	60,634.4	63,268.1	66,751.2	68,254.4	71,525.2
Current Assets	4,108.9	3,058.2	3,897.0	4,272.7	5,018.3	7,772.5	9,816.0	13,564.0	14,873.5	17,343.6
Non-Current Assets	54,061.8	53,127.1	53,749.1	53,514.8	51,755.9	52,861.9	53,452.1	53,187.2	53,380.9	54,181.6
Total Liabilities (Million Baht)	22,980.6	18,170.2	16,205.5	13,528.8	11,146.8	12,703.2	11,920.4	12,051.6	12,435.9	12,493.3
Current Liabilities	8,938.4	7,483.1	6,670.0	7,319.9	4,537.0	6,340.9	5,401.4	4,853.6	4,932.4	4,899.3
Non-Current Liabilities	14,042.2	10,687.1	9,535.5	6,208.9	6,609.8	6,362.3	6,519.0	7,198.0	7,503.5	7,594.0
Equity (Million Baht)	35,190.1	38,015.1	41,440.6	44,258.7	45,627.4	47,931.2	51,347.7	54,699.6	55,818.5	59,031.9
Total Revenues (Million Baht)	16,807.5	16,782.8	17,295.9	17,544.1	17,830.4	19,114.7	19,492.2	19,917.2	20,074.2	19,893.7
Operating Revenues	16,660.9	16,664.6	17,185.5	17,362.6	17,605.1	18,867.3	19,194.2	19,577.8	19,681.1	19,551.0
Water Charge and Monthly Meter Fees	15,593.6	15,656.2	16,107.1	16,110.9	16,406.3	17,122.3	17,292.0	17,735.2	17,698.6	17,740.3
New Connections	459.4	472.4	428.9	455.2	370.6	424.6	455.0	410.1	391.6	339.5
Other Operating Revenues	607.9	536.0	649.5	796.5	828.2	1,320.4	1,447.2	1,432.5	1,590.9	1,471.2
Non-Operating Revenues	146.6	118.2	110.4	181.5	225.3	247.4	298.0	339.4	393.1	342.7
Total Expense (Million Baht)	12,276.2	12,281.2	11,654.5	11,896.9	12,038.7	11,869.9	12,615.4	12,767.2	12,904.5	12,378.4
Operating Expenses	11,936.2	11,904.7	11,641.5	11,627.3	12,084.9	12,326.0	12,646.7	12,749.1	12,831.2	12,455.0
Direct Operating Expenses	6,273.1	6,408.0	6,666.4	6,981.8	7,259.4	7,832.2	7,907.8	7,983.4	7,945.7	8,118.2
Depreciation and Amortization	4,851.0	4,879.3	4,572.1	4,426.8	4,664.7	4,411.2	4,673.9	4,704.3	4,829.0	4,286.7
Finance Cost	812.1	617.4	403.0	218.7	160.8	82.6	65.0	61.4	56.5	50.1
Non-Operating Expenses	340.0	376.5	13.0	269.6	(46.2)	(456.1)	(31.3)	18.1	73.3	(76.6)
Other Expenses	180.3	115.9	68.3	72.0	2.0	28.8	5.3	2.5	2.6	10.9
(Profit) Loss on Foreign Exchange Rates	159.7	260.6	(55.3)	197.6	(48.2)	(484.9)	(36.6)	15.6	70.7	(87.5)
Net Income (Million Baht)	4,531.3	4,501.6	5,641.4	5,647.2	5,791.7	7,244.8	6,876.8	7,150.0	7,169.7	7,515.3
Rate of Return on Total Assets (%)	7.87	7.87	9.91	9.78	10.11	11.95	10.87	10.71	10.50	10.51
Rate of Return on Equity (%)	13.40	12.30	14.20	13.18	12.89	15.11	13.39	13.07	12.84	12.73
Net Profit Margin (%)	26.96	26.82	32.62	32.19	32.48	38.40	35.83	36.52	36.43	38.44
Assets Turnover (Times)	0.29	0.29	0.30	0.30	0.31	0.31	0.30	0.29	0.29	0.27
Current Ratio (Times)	0.46	0.41	0.58	0.58	1.11	1.23	1.82	2.79	3.02	3.54
Ratio of Liabilities on Total Assets (Times)	0.40	0.32	0.28	0.23	0.20	0.21	0.19	0.18	0.18	0.17
Debt Equity Ratio (Times)	0.65	0.48	0.39	0.31	0.24	0.27	0.23	0.22	0.22	0.21
Cost per Unit Sold (Baht)	9.55	9.50	8.69	8.74	8.72	8.15	8.62	8.55	8.65	8.31

Water Tariffs and New Connection Tariffs

	pe 1 dence	Type 2 Commerce, Government Agency, State Enterprise, Industry and Others			
Volume	Water Tariffs	Volume	Water Tariffs		
(cu.m.)	(baht/cu.m.)	(cu.m.)	(baht/cu.m.)		
0-30	8.50	0-10	9.50 (Not less than 90.00 Baht)		
31-40	10.03	11-20	10.70		
41-50	10.35	21-30	10.95		
51-60	10.68	31-40	13.21		
61-70	11.00	41-50	13.54		
71-80	11.33	51-60	13.86		
81-90	12.50	61-80	14.19		
91-100	12.82	81-100	14.51		
101-120	13.15	101-120	14.84		
121-160	13.47	121-160	15.16		
161-200	13.80	161-200	15.49		
Over 200	14.45	Over 200	15.81		

Remarks

- 1. The above water tariffs do not include VAT.
- 2. The average water tariff for bulk sale is as follows:
 - * Residence: 10.50 baht/cu.m.
 - * Others: 13.00 baht/cu.m.
- 3. Since 1 June 2004, the MWA has included the raw water charge at the rate of 0.15 baht/cu.m. This amount of money is remitted to Royal Irrigation Department.

New Connection Tariffs (Flat Rate) and Meter Fees

Unit : Baht

Meter Size	1/2"	3/4"	1″	1 1/2"	2″	3"	4"	6"	8″	12"
New Connection Fee	5,000	6,000	8,000	12,500	38,500	76,000	93,500	156,500	210,000	431,500
Deposit Fee	400	600	1,500	3,000	4,000	10,000	15,000	20,000	30,000	100,000
Monthly Service Charge	25	40	50	80	300	400	500	900	1,100	3,500

Remarks

1. Additional fee for pipe installation and equipment for the connection 20 meters away from the MWA main pipeline is as follows:

Pipe Size (mm.)	20	25	40	50	100	150	200	300
Cost per meter (baht)	355	386	452	997	1,981	2,160	2,364	3,017

2. The above fees do not include VAT.

Locations of MWA Offices



MWA Head Office

400 Prachachuen Road, Tungsonghong, Laksi, Bangkok 10210

Tel: 0-2504-0123 Fax: 0-2500-2582-3 E-mail: mwa1125@mwa.co.th

Sukhumvit Branch Office

1564/1 Sukhumvit Road, Phra Khanong, Khlong Toei, Bangkok 10260

Tel: 0-2331-0028-30 Fax: 0-2331-7533

E-mail: br07s00@mwa.co.th

Phra Khanong Branch Office

1564/1 Sukhumvit Road, Phra Khanong, Khlong Toei, Bangkok 10260

Tel: 0-2331-0028-32, 0-2331-1115

Fax: 0-2331-1061

E-mail: br13s00@mwa.co.th

Samut Prakarn Branch Office

27 Soi Bunsiri 4, Sukhumvit Road, Mueang, Samut Prakan 10270

Tel: 0-2384-1411-2, 0-2384-7647

Fax: 0-2384-3067

E-mail: br17s00@mwa.co.th

Phaya Thai Branch Office

1057 Vibhavadi Road, Chatuchak, Chatuchak, Bangkok 10900

Tel: 0-2537-8225 Fax: 0-2537-8227

E-mail: br03s00@mwa.co.th

Prachachuen Branch Office

2 Soi Soem Suk, Prachachuen Road, Chatuchak, Chatuchak, Bangkok

10900

Tel: 0-2585-7444, 0-2585-0319, 0-2585-3889, 0-2585-0490

Fax: 0-2586-0922 E-mail: br15s00@mwa.co.th

Bang Khen Branch Office

3 Chaeng Watthana Road, Anusawaree, Bangkhen, Bangkok 10220

Tel: 0-2552-1550-4 Fax: 0-2521-1176

E-mail: br16s00@mwa.co.th

Phasi Charoen Branch Office

454 Kanchanaphisek Road, Bangkhae Nuea, Bangkhae, Bangkok 10160

Tel: 0-2455-0055 Fax: 0-2454-5500

E-mail: br11s00@mwa.co.th

Bangkok Noi Branch Office

170 Moo 2 Kanchanaphisek Road, Plai Bang, Bang Kruai, Nonthaburi

11130

Tel: 0-2449-0011,0-2448-0461

Fax: 0-2449-0065

Service Center 258/4 Soi Charan Sanitwong 30/1, Ban Chang Lo,

Bangkoknoi, Bangkok 10700 Tel: 0-2411-3117,0-2411-2240

Fax: 0-2411-3117

E-mail : br01s00@mwa.co.th

Thung Mahamek Branch Office

9/2 Nang Linchi Road, Thungmahamek, Sathorn, Bangkok 10120 Tel: 0-2286-0172, 0-2286-0174-5, 0-2286-0177, 0-2286-0179

Fax: 0-2286-0153 E-mail: br05s00@mwa.co.th

Taksin Branch Office

71 Rama II Road, Soi 31, Bangmod, Jomthong, Bangkok 10150

Tel: 0-2427-6000 Fax: 0-2427-7772

E-mail : br02s00@mwa.co.th

Mansri Branch Office

1203 Nakhon Chaisi Road, Samsen Nai, Phaya Thai, Bangkok 10400

Tel : 0-2298-6700-24 Fax : 0-2298-6735 E-mail : br06s00@mwa.co.th

Suksawat Branch Office

71 Rama II Road, Soi 31, Bangmod, Jomthong, Bangkok 10150

Tel : 0-2427-7000 Fax : 0-2427-7772 E-mail : br14s00@mwa.co.th

Lat Phrao Branch Office

591 Soi Ramkhamhaeng 39 (Tepleela 1), Ramkhamhaeng Road,

Wang Thonglang, Bangkok 10310

Tel: 0-2934-4432-6 Fax: 0-2934-4815 E-mail: br12s00@mwa.co.th

Bang Bua Thong Branch Office

59 Moo 2, Bang Kruai-Sai Noi Road, Sanoeloy, Bangbuathong

Nonthaburi 11110 Tel : 0-2571-3982-7 Fax : 0-2571-1743

E-mail: br54s00@mwa.co.th

Min Buri Branch Office

133 Ramkhamhaeng Road, Saen Saeb, Minburi, Bangkok 10510

Tel: 0-2543-6500 Fax: 0-2543-6630 E-mail: br53s00@mwa.co.th

Mahasawat Branch Office

170 Moo 2 Kanchanaphisek Road, Plai Bang, Bang Kruai, Nonthaburi

11130

Tel: 0-2449-0129, 0-2448-0734

Fax : 0-2449-0088 E-mail : br23s00@mwa.co.th

Suvarnabhumi Branch Office

133 Ramkhamhaeng Road, Saen Saeb, Minburi, Bangkok 10510

Tel: 0-2543-6500 Fax: 0-2543-6648 E-mail: br55s00@mwa.co.th

Nonthaburi Branch Office

282 Nonthaburi Road, Tha Sai, Mueang, Nonthaburi 11000

Tel : 0-2589-0035-8 Fax : 0-2580-5964

E-mail: br04s00@mwa.co.th

Contact MWA

1. The MWA Call Center: providing information, dealing with complaints, receiving applications for services and coordinating with relevant organizations in problem-solving for complaints to the public or customers through the following:

- Hotline 1125, 24hrs
- E-mail: mwa1125@mwa.co.th
- Facebook: www.facebook.com/1125callcenter The MWA Call Center is responsible for responding to

the following:

- 1) Change of billing address
- 2) Change of type of customer
- 3) Change of customers' name / 9) Registration for SMS service address
- 4) Report on damaged water meter 10) Cancellation for SMS service
- 5) Report on defective water meter
- 6) Request for water meter size 12) Registration for VAT registration reduction
- 7) Services other than meter service
- 8) Other services concerning the water meter

- 11) Registration for waterworks service coverage expansion project
 - certificate (Form Phor.Phor* 20)

(*THE CERTIFICATE OF VALUE ADDED TAX REGISTRATION)

Once a customer contacts the MWA Call Center, his/her request is recorded in the Customer Relationship Management system (CRM) and a relevant organization is informed in order to take prompt action.

- 2. MWA Website (www.mwa.co.th): providing online services including new connection request, connection progress tracking, bill payment and information request, water usage calculation and complaint dealing.
- 3. All 18 MWA Branch Offices: providing the following services for customers in area of their responsibilities:
 - · Request for new connection within one day and cancellation of service
 - · Change of water meter
 - Change of customers' details
 - Water meter suspending service
 - Taking note of broken/leaking pipeline and proceeding repair
 - Water bill payment
 - Receiving other bill payment service under the MWA Easy Pay Project including AIS mobile phone payment (10 baht fees for each payment), KTC credit card payment (10 baht fees for each payment), Land and House Bank PLC's loan payment (free of charge), and electricity bill payment (free of charge)
- 4. One-Stop Government Service Center, Nonthaburi at Central Plaza Westgate, Central Plaza Chaengwattana, and The Mall Ngamwongwan provide customers' request services and receive water bill payment.

- 5. Suksawat Smart Customer Service Center at Phra Pra Daeng District Office and Phra Samut Chedi District Office, Samut Prakarn Province provide customers' request services and receive water bill payment.
- 6. MWA Clean Water Clinic under Water Supply Section, Water Quality Surveillance Division: providing suggestion and information about tap water quality. Tel. 02-981-7321 Fax. 02-981-7313 E-mail: waterclinic@mwa.co.th
- 7. MWA onMobile Application: allowing the user to report or send photos of damaged or leaking pipes. The Application will locate the exact area and notify the Maintenance Section of the MWA Branch for further action.

Channels for Payment

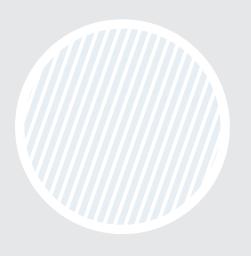
- 1. MWA Head Office and all 18 MWA branch offices, Special Collection Division, Evian Village and One-Stop Government-Service at Central WestGate shopping center, Central Plaza Chaengwattana, and The Mall Ngamwongwan
- 2. Suksawat Smart Customer Service Centers at Phra Pra Daeng District Office and Phra Samut Chedi District Office provide services for customers' requests and receive water bill payment.
- 3. "Drive Thru Payment" Service at the MWA Head Office and 8 MWA stations at the following MWA branches including Sukhumvit and Phra Khanong, Taksin and Suksawat, Nonthaburi, Prachachuen, Bang Khen, Phaya Thai, Min Buri, and Phasi Charoen (9 stations altogether)
 - 4. Payment via MWA Website (www.mwa.co.th)
 - 5. Payment via Internet Banking
 - 6. Payment by direct debit from bank account
- 7. Payment by debit from bank and company credit card
- 8. Payment through smartphone application services: MWA onMobile, mPAY, True Money, Kasikorn Thai Bank, AirPay, 2C2P, Government Savings Bank
- 9. Payment at counter services, e.g. banks' counter services, Metropolitan Electricity Authority (MEA), post offices, TOT counter services and Tesco Lotus, Big-C super centers
 - 10. Transfer payment via Banks' ATM

Channels currently in development

Online payment for payment service providers in order to receive overdue bills.

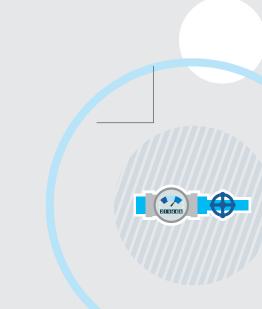








Annual Report 2017 Satisfaction Survey Metropolitan Waterworks Authority









Metropolitan Waterworks Authority (Head Office)

400 Prachachuen Road, Tungsonghong, Laksi, Bangkok 10210

MWA CALL CENTER 1125 MWA.CO.TH e-mail : mwa1125@mwa.co.th



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