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"Boil water" notices have become a distant memory for all of us. GWA continued to maintain compliance with the safe drinking water act. According to the U.S. EPA, your water remains the cleanest and safest it has ever been.

beyond clear.

Welcome to the new GWA...



# **MESSAGE FROM THE GOVERNOR**Felix P. Camacho

### Hafa Adai!

We applaud the Guam Waterworks Authority for improving our water and wastewater systems and providing our community with safe, reliable water service.

GWA and its employees have made great progress upgrading our infrastructure, providing clean water to our homes and businesses, and safely disposing of our wastewater.

In addition to major physical improvements, the water utility is making other changes to safeguard our water supplies now and for future generations. GWA is working to improve not just well pumps and treatment plants, but the management of Guam's freshwater resources. Better training programs for employees, policies to help keep our water clean, and careful management of development will help ensure the long-term safety and security of our water supplies.

We would like to congratulate GWA for its continuing commitment to our island and our people. We expect even greater achievements from GWA and look forward to more progress as we work together to improve the quality of life on Guam for all our people.

On behalf of the people of Guam, Un Dankalo' na Si Yu'us Ma'ase! Sinseru yan Magåhet,

Felix P. Camacho I Maga' Låhen Guåhan Governor of Guam



### **MESSAGE FROM THE CCU**

## Tom C. Ada, Gloria B. Nelson, Simon A. Sanchez, Benigno M. Palomo

Buenas todos,

FY 2006 was another year of progress.

In December 2005, more than \$104 million was deposited into GWA coffers from the first ever bond sale by GWA. This money is being used to begin the reconstruction and modernization of your water and wastewater systems. Badly needed projects are now in design or construction including:

Santa Rita Tank and transmission system (\$3 million)
Hagåtña Sewage Treatment Plant (\$10 million, completed February 2007)
Hagåtña and Dededo sewage outfalls (\$18 million)
Ugum Water Treatment Plant upgrade (\$8 million)
Automated Meters (\$15 million)
Sinajana Transmission Line (\$1 million)
Water Resource Master Plan (\$5.4 million)

More projects are being planned to improve the system with this Bond money. The reconstruction and modernizing of our aging water and wastewater systems has started.

GWA continued to maintain compliance with the Safe Drinking Water Act. Your water remains the cleanest and safest it has ever been, according to U.S. EPA. "Boil Water" notices have become a distant memory for all of us.

GWA hired additional professional engineers. And GWA employees continued to achieve more certifications to improve the way they manage and operate the system.

And shortly after the end of FY 06, GWA entered into its first public-private-partnership. GWA signed a three-year agreement with Veolia Water for the operation and management of our wastewater system. This agreement provides our employees with additional management, training and financial resources to continue to improve service.

There remain many challenges facing GWA. The turnaround of an organization and the modernizing of its systems cannot occur overnight.

The Commission wishes to thank all ratepayers for their support and sacrifice. We also want to recognize the outstanding effort of our employees and management. GWA's employees are more committed than ever to providing ratepayers the best service.

While there remains much room for improvement, we take pride in how much has been achieved since the CCU and new management took over in 2003. We look forward with confidence that GWA will continue to improve each day.

Biba GWA. Biba Taotao Guam Si Yu'us Ma'ase, CCU

# "I have enjoyed working with the community, Governor, legislature, PUC, GEDCA, CCU and staff in moving GWA to

# MESSAGE FROM THE GENERAL MANAGER David R. Craddick

Hafa Adai,

GWA issued its \$104.8 million in Revenue Bonds this year. The bond provided \$70.5 million in additional financing over the \$13.3 million already provided under the meter financing. The CCU and GWA have encumbered approximately \$1.2 million per week since the bond was issued in December 2005.

This was done while staff focus was split assisting in the preparation of the Water Resource Master Plan and reducing operating costs by about \$1 million per year by negotiating the purchase of a private water supply operation contract that had been in place since 1997. There is also a continuing effort to see if a wastewater operations contract will save ratepayers money while providing better service.

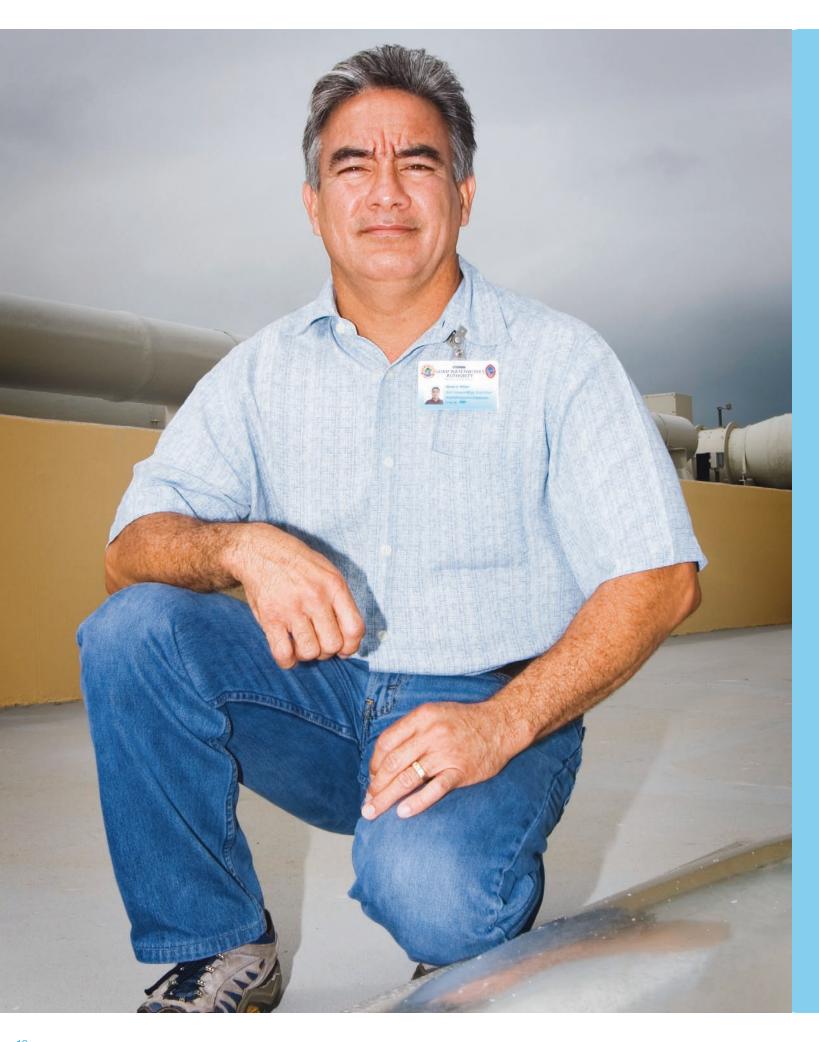
GWA now has a three-year history of American Water Works Association Performance Indicators. A major focus during the next year will be to move the agency to the national average in all nationally recognized performance areas while improving a few others that GWA monitors. GWA will also be looking toward the issuance of the next bond by continuing to get processes in place to get an investment grade bond rating.

Cost containment has been a challenge during this year of upward spiraling power costs and continued need to get an in-house CIP cost recovery process in place while trying to figure out who is in charge.

I have enjoyed working with the Community, Governor, Legislature, PUC, GEDCA, CCU and Staff in moving GWA to new levels of community service and expectation.

Si Yu'us Ma'ase, David R. Craddick General Manager

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# PRODUCTION AND TREATMENT

### Mark Miller

Assistant General Manager [Production and Treatment]

### **ACCOMPLISHMENTS FY 2006**

- Completed repair/replacement of all operational deep well blow-off valves and controls thereby enabling automatic wasting of initial well start up water.
- 2. Restored operational status of deep well Y-4A, a deep well long considered "Hard Broke" after a decade of inactivity.
- 3. Water meters operational at all operating deep wells and springs thereby providing accurate water production data for the first time in the agency's history.
- 4. Greatly improved facilities, security and appearance and standardized paint scheme to assist in facility-type identification.
- 5. Completed electrical interlock systems at all operational deep wells to prevent nonchlorinated well water from entering the public drinking water supply system.
- 6. Contracted refurbishment of the Hagåtña Sewage Treatment Plant 95% complete
- 7. In-house refurbishment of the Northern District Sewage Treatment Plant 80% complete
- 8. Spill Prevention, Control and Countermeasures (SPCC) program initiated and slated for completion and compliance in fiscal year 2007.
- 9. Contracted, completed and closed out over 100 FEMA funded Small Projects.

### **GOALS FY 2007**

- Procure and subsequently complete the installation of Variable Frequency Drive units at all critical deep well facilities thereby sustaining operations during any electrical abnormalities that may occur. This will also provide superior motor protection as well.
- Complete division-wide and multi-agency interaction Standard Operating Procedures and MOUs.
- 3. Complete SPCC program and compliance actions
- 4. Commence pilot testing of SCADA system at various types of GWA facilities
- 5. Complete the installation of dual chlorine cylinders and auto switchover feed systems a all operational deep wells.
- 6. Contract, complete and close out remaining FEMA funded Large Projects

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# **COLLECTION AND DISTRIBUTION** Anthony P. Chargualaf Assistant General Manager [Collection and Distribution]

### **ACCOMPLISHMENTS FY 2006**

- 1. Installed emergency generators at each wastewater facility with Automatic Transfer switches.
- 2. Utilizing two purchased backhoes for the repair group and reducing the need for equipment rentals.
- 3. Installation of pressure switches at water booster stations.
- 4. Ongoing replacement and installation of PRVs throughout the distribution system.
- 5. Completion of one of two wastewater pump stations in Talofofo reducing the need for pump trucks to pump out sewer line. Second station is ongoing and will be completed this year.

### **GOALS FY 2007**

- 1. Implementation of Customer Service training to all employees of Collection and Distribution.
- 2. Reduce number of complaints from customers regarding leaks by replacing lines where a history of repairs have been made.
- 3. Build a team to repair/replace/maintain fire hydrants; a team to repair/replace/ maintain valves; a construction team for the replacement and upgrade of existing water lines.



### **HUMAN RESOURCES**

### **GWA's Human Resources Division (HRD) consists of the following:**

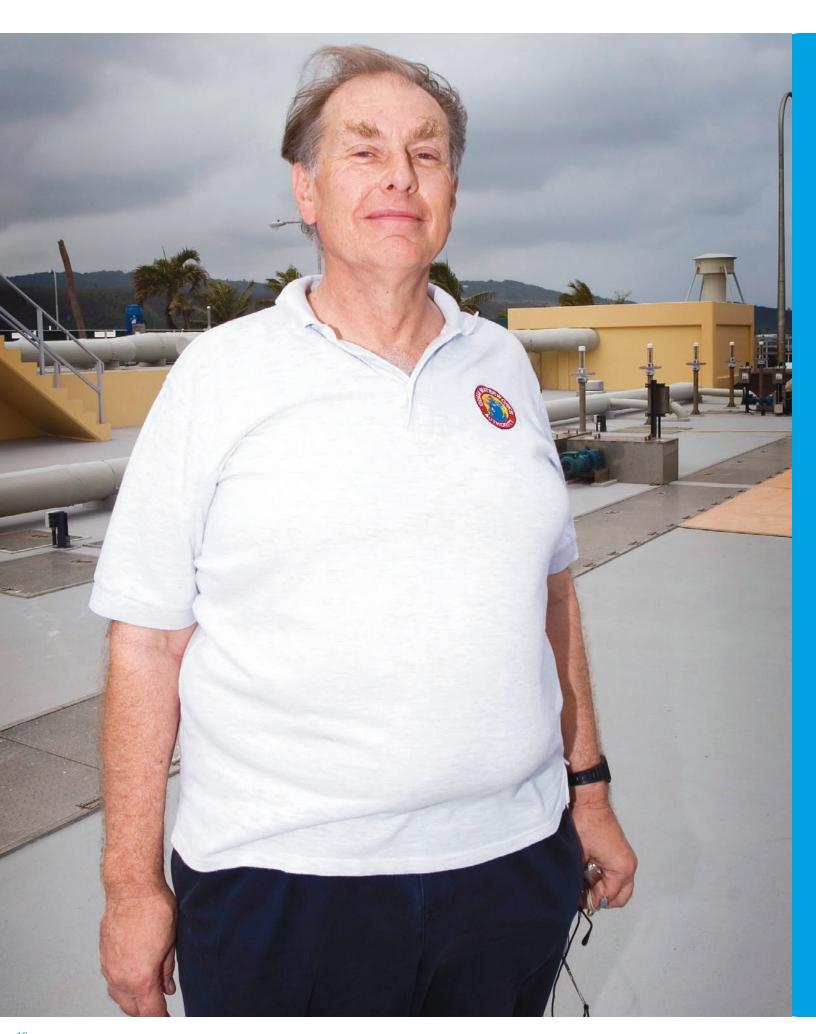
- Recruitment
- Records (Database) and Benefits
- Employee Management Relations (Guam Federation of Teachers Union
- Position Classification and Compensation
- Annual Training Plan

### **2006 Achievements**

- 1. Recruited seventeen new employees, of which three are in engineering, five in operations, five dispatch, one personnel and three in administration.
- 2. In Records and Benefits, HR has coordinated the Health and Life Insurance Open Enrollments for medical, dental and life insurance and has processed two rehires, three transfers, one separation (death) and five retirements.
- 3. Employee Management Relations has processed over twelve employee disciplines for various infractions, seventeen pre-employment drug tests and an EEO complaint.
- 4. In addition, several position classification and compensation actions have been processed
- 5. An ongoing compensation and benefit study is about 90 percent complete, expected implementation date: July 2007.
- A new Personnel Rules and Regulations have been approved through Public Law 28-159 for GWA's Certified, Professional and Technical positions.

### **2007 Goals**

- The development of a quarterly new employee orientation workshop. Completion date expected March 31.
- 2. Employee Handbook is being assembled; expected completion date: April 2007.
- 3. Conduct 100% audit on Classification Reviews and recommend where appropriate the reallocation of these positions.
- Finalize the Collective Bargaining Contract with GFT
- 5. Workers' Compensation and Independent Medical Evaluations (Duty Restrictions) Review
- Training Procure training instructors to conduct skills / technical training using Department o
   Interior (DOI) Grants.
- 7. Conduct Annual Random Drug Tests.



# **COMPLIANCE AND SAFETY** Paul Kemp Assistant General Manager [Compliance and Safety]

### **ACCOMPLISHMENTS FY 2006**

- 1. Negotiating amendment to the Stipulated Order with EPA.
- 2. GWA has met all compliance dates as set forth in the amended Stipulated Order.
- 3. Fourteen additional GWA personnel became certified in water treatment, water collection, water distribution and wastewater treatment. This means that while all the positions calling for certification under the SO have been filled by properly trained and experienced personnel; GWA has also achieved the desired staffing levels for all areas except for Wastewater Treatment where recruitment continues.
- 4. Santa Rita Spring Refurbishment and Transmission Line Project is underway. This will provide more reliability of water supply for people at higher elevations, especially in Santa Rita.
- 5. All additional stand-by generators required to protect GWA were inspected by GWA and GEPA and pronounced ready to use. This prevents water loss and sewage spills when the power goes
- 6. Water meter project is well under way, already showing the value of replacing the old inaccurate ones with new accurate ones. The project is about 25 percent complete and is beginning to show increased revenue from more accurate readings. [A side effect of the water meter upgrade is the discovery of a large number (about 3 percent of the island's population) of illegal connections to the water system.]
- 7. The Sinajana Water Transmission line project design was completed and submitted to EPA and GEPA for review. This project will provide more reliable water quantity and quality to Ordot, Sinajana and Agaña Heights.
- 8. GWA has reorganized its Engineering Department and added six new certified engineers to the
- 9. GWA has formed an active Safety Committee which has already implemented a number of safety training programs, as well as updated the personal safety equipment of the staff.
- 10. GWA has improved its safety record over its prior year.



# ENGINEERING Don Antrobus Chief Engineer

### **ACCOMPLISHMENTS FY 2006**

### Staffing:

Several key positions were added during 2006 including a licensed senior engineer in the water section, a licensed senior engineer supervisor for the wastewater section and a Geographical Information System (GIS) Manager. These new positions put GWA in a situation to better manage capital improvement projects and provide technical support to our operations teams.

### **CIP Projects:**

- 1. Master Plan: At the end of 2006, the final draft of the GWA master plan was submitted and approved by the Consolidated Commission on Utilities (CCU). The master plan has identified, prioritized and recommended nearly \$900 million in capital improvement projects over the next 20 to 25 years. We believe that these projects are necessary to maintain and improve the system and to protect the environment and public health. All rate payers are encouraged to review the plan which is available online at http://www.guamwaterworks.org/.
- 2. Chaot Wastewater Collection System Repair: The Chaot Project included the construction of about 400 feet of 36-inch diameter gravity wastewater collection main near the Route 4 Chaot River Bridge and the replacement of 1,000 foot 24-inch forcemain from the New Chaot Pump Station toward Hagåtña. The project was completed at a cost of \$700,000 through a legislative appropriation in PL 27-94. It corrected a bottle neck in the wastewater collection system that previously resulted in perennial wastewater spills into the Chaot River.
- 3. Leyang New Wastewater Collection System:
  This project installed approximately 7,562-feet of gravity wastewater collection mains and provided community sewer service to 99 existing homes along Blas Street, Leyang Road and its tributary streets. The project was constructed at a cost of \$2.8 million and was funded by a U.S. Environmental Protection Agency grant.
- 4. Hagatna Treatment Plant Renovation: The project cost \$10 million and was funded primarily by GWA revenue bonds with a small contribution from FEMA for road repair work. Construction efforts were completed at the end of 2006 initiating a start-up and testing period. In March 2007 the plant will be fully functional for the first time in a decade.

- 5. Northern Treatment Plant Renovation: A partial renovation of this wastewater treatment plant was completed in May 2006. The scope included renovation of the grit removal system and the repair of plant clarifiers and sludge pumping equipment. The project was completed for \$1.36 million and was funded as part of the Tumon Bay Infrastructure and Beautification Bond. At the completion of the project both plant clarifiers were made functional for the first time in many years.
- 6. Santa Rita Springs Transmission Line: The groundbreaking was held in August of 2006. The project is scheduled for completion in April 2007. Upon completion, the project will include the rehabilitation of the Santa Rita booster station and the installation of 2600 feet of 12-inch transmission line from the booster station to the existing Santa Rita storage tank. The project budget is \$1.2 million and is being funded by the U.S. EPA and GWA revenue bonds.

### Improvement Initiatives:

- 1. Geographical Information System: A GIS is a computer based database of information which is accessed through a geographical front door, that is a map. In the case of GWA, the system includes information on water and wastewater facilities such as pipelines, valves, meters, manholes, wells and treatment plants. Our GIS effort was launched as part of the Master Plan project which included the mapping of all system record drawings. There are gaps in the computerized data. To eliminate these gaps, we have launched a field data gathering effort that will continue over the next several years. Ultimately the GIS will improve our ability to manage access and share information and our ability to react to system events, such as line breaks, and minimize the impact on our customers.
- 2. Sustainable Water System Expansion: In 2006 GWA began an effort to implement and enforce existing rules and regulations regarding connection to and extension of the existing water distribution system. Indiscriminant approval of private developments and new service connections over many years has led to a distribution network that is both difficult and inefficient to operate and maintain and has negatively impacted our ability to provide consistent and adequate service in some areas.

- 3. Policy and Procedures: Developed a "Service Guidance Document" for homeowners and developers.
- 4. Operations Support: The engineering department is proactively working to improve and expand its role in technical support of operations departments.

### **GOALS FY 2007**

### Staffing:

- 1. A joint GWA/GPA effort will complete a job evaluation and compensation study.
- 2. Recruit for three senior engineering positions including Assistant Chief Engineer, Senior Engineer Supervisor for Water Section, and Senior Engineer Supervisor for Construction Management Section.
- 3. PL 28-159 provided GWA the authority to establish new position descriptions and compensation structures for certified technical and professional employees.

### **CIP Projects:**

- Wastewater Treatment Plant Outfalls: This project will construct new ocean outfall lines for both the Northern District and Hagatna Wastewater Treatment Plants. This is an \$18 million project that is being funded by revenue bonds. The contractor is expected to mobilize and begin construction in April/May 2007. Completion date is December 2008.
- 2. Hagåtña Main Wastewater Pump Station Renovation: This project will correct structural and operational deficiencies at the main wastewater pump station in Hagåtña. It is a \$500,000 project which is being funded by revenue bonds.
- 3. Santa Rita Route 5 Transmission Line: This project will construct approximately 9,500 feet of 12-inch transmission line from the intersection of Rte 5 and Rte 17 to the Santa Rita Booster Station. The project is estimated to cost about \$1.5 million and is being funded by legislative appropriation and GWA revenue bonds. Upon completion, the project will facilitate movement of water produced by GWA to Agat and Santa Rita in order to reduce dependency on Navy water sources. A bid opening is scheduled for February 2007 with a 365 day performance period.
- 4. Ugum Treatment Plant Renovation: This project will renovate the Ugum Treatment plant and address the Stipulated Order (S.O.) requirements. The refurbishment will include the conversion of existing conventional surface water plant to a micro-filtration system which will provide for more consistent operation through storm events. Pilot testing of proposed technologies was completed in

- 2006 by interested bidders. A bidder was selected and a contract will be awarded in early 2007. The project will cost \$8.4 million and will be funded by U.S. EPA (\$2.1 M) and GWA revenue bonds (\$6.3M). The project is scheduled for completion either the end of 2007 or early 2008.
- 5. Sinajana Transmission Line: This project will construct approximately 24,800 feet of 12 and 24-inch water transmission line between the Chaot and Hagåtña Heights water storage tanks and provide for the connection of 11 existing wells to the transmission line. The new pipeline will serve as a dedicated transmission line to the storage tanks and will provide for more efficient operation; consistent pressures; and better disinfection. The project is estimated to cost about \$6.5 million and will be funded by the U.S. EPA (\$4.5 M) and GWA revenue bonds (\$2 M). Construction completion for both phases is scheduled for summer 2008.
- 6. Storage Tank Inspections and Repair: This project will complete a comprehensive inspection of all GWA water storage reservoirs and complete minor repair work identified during inspection. The project is estimated to cost \$500,000 and will be funded by GWA revenue bonds. A project solicitation is scheduled for April 2007.
- 7. Agat Wastewater Collection System: This project will replace about 25,000 feet of existing wastewater collection line including manholes and sewer service laterals in Agat. The completed project will eliminate the inflow and infiltration of storm water and groundwater into the collection system. This will prevent system overflows and reduce the loading on the Agat Wastewater Treatment Plant. The project is estimated to cost about \$4.5 million and is being funded by the U.S. EPA. The project is scheduled to be bid in the first half of 2007.
- 8. Baza Gardens Wastewater Treatment Plant Facility Plan: A new wastewater treatment facility is proposed to replace the existing facility that is not in compliance with EPA permits. The facility's plan will include investigations, data gathering and analysis sufficient to determine all major design criteria. This project is estimated to cost about \$300,000 and will be funded by revenue bonds. The project will be completed in 2007.
- 9. Land Survey: This project will complete a boundary survey of all GWA real property requirements. Upon completion of the survey work, interest in the property shall be transferred to GWA. These properties are currently not included in an accounting of GWA assets. Accounting for these real property assets will improve GWA financial status and may facilitate more economical borrowing in the future.



### Staff Roster

Adams, Julie C. Aguon, Anthony Aguon, Benny T. Aguon, Edward A. Aguon, Peter F. Alano, Efren M. Anderson, Michael Antrobus, Don Apiag, Wilfred Aquiningoc, Kenneth J. Arceo, Bryan J. Arceo, Peter J. Arriola, Norma Marie Asperas, Jaime Asuncion, Raymond Balajadia, Teresita Ballendorf, Heidi Bell, Henry J. Benavente, Jose Bensan, Gloria Blas, Kenneth Q. Bolton, Eugene Borja, Ann D. Borja, Jeffrey Borja, Peter J. Brown, Larry C. Cabrera, Edward Calvo, Jude G. Canales, Raul A Castro, Eddie P. Castro, Peter B. Castro, Wilfred D. Chargualaf Jr., Anthony P. Chargualaf, Benny Chargualaf, Frankie Cheguina, Benny Craddick, David R

Crisostomo, Diane Garrido, Joseph Crisostomo, Patrick C. Gombar, Angelo Gozalo, Mary C. Crisostomo, Shelby Cruz, Alfred B. Guerrero, Doris Cruz, Andrew M. Guerrero, Eugene Guerrero, Ursula Cruz, Evelyn G Guerrero, Vince Cruz, Frank T. Gumataotao, Anthony Cruz, Franklin Gumataotao, Elias S Cruz, Grace R Gutierrez N'tasha Cruz, Henry A. Guzman, Peter A Cruz, Jesse Joseph Huntington II, Clinton W. Cruz, Jose B. Jardel, Victor Kemp, Paul J. Leon Guerrero Jr., Alejo B. Cruz, Loretta B. Cruz, Michelangelo Leon Guerrero, Jesse L Cruz, Peter T Leon Guerrero, LeRoy G. Cruz, Rose B. Lizama, Francis Cruz, Thomas Franklin Lujan, David F. Cruz, Vincent B. Lujan, Francis Lujan, Jesse C. DeSmith, Eireen Mafnas, Gilda M. Maguadog, Alvin Diaz, Frank R. Dimaranan, Elenita T Manglona, Jesse Manglona, Myko Dizon, Eliseo Q. Duenas Jr., Agustin B. Manibusan, Peter M Duenas, James B. Mansapit, Benny Esguerra, Danilo Estrada, Bruce Mendiola, Pedro Meno, Frankie R. Evangelista, Juan Fejeran, Gregory Meno, Michael J. Mercado, Sylvia Fejerang, Richard S. Finona, Teresita Mesngon, Ignacio Flores, George Miller, Mark G. Franquez, Michael Mundo, Raymond

Galino, Adelaida

Nangauta, James

Naputi, Raymond Natuel, Orlando Nauta, Franklin Nauta, Peter J. Onedera, Pauline Padrones, Peter Pangelinan, Jackie RF Pangelinan, John Pangelinan, Richard W Pangelinan, Vincent EC Parrish, James Pascua, Jocelyn Paulino Jr., Luis LG Paulino, Juan S Paulino, Manuel Paulino, Patrick L Pecson, Erdulfo Perez, Raymond Perez, Tina L. Quenga, Bill A. Quenga, Louvina Quichocho, Edward Quidachay, Jon U. Quinata, Anthony Quinata, Frankie Quinata, Pedro Quintanilla, George S. Quintanilla, Sandy Quitlong, Delfyn Ramos, Charles Raphael, Jane S. Reyes, Kathy MT Rios, Albert J. Rivera, David F. Roldan, Martin Sablan Patrick L

Sablan, Francis Sablan, Frank J. Sablan, Ledean Sablan, Michael Sablan, Patrick Salas, Frank G. Salas, Peter G. Salas, William Salayon, Ma. Teogenesa San Agustin, Bertha Lee San Agustin, Bertha Lee San Miguel, John D. San Nicolas, Jesus A. San Nicolas, Kin M. San Nicolas, Ronald Sanchez, Francis Sanchez, Frank Sanchez, John A. Sanchez, Patricia Sanchez, Zachery Santos Jr., Joaquin Santos Jr., Joseph M Santos, Glenn G Santos, Jose M. Satrunio, Marcelino Scroggs, Richard Shane, Julie R. Sharma, Winnie Sian-Denton, Carmer Siguenza, Patrick Sourgose, Peter Taimanglo, Eddie Taimanglo, Frankie Taitague, Anthony

Taitaque, Danny

Taitague, Frank Taitague, Garrick LG Taitano, Diana Tajalle, Kenneth Tallada, Zambales R Tayama, Diane M. Techaira, Michael Tobey, Vernon E. Topasna, Henry Topasna, Ron S. Torres Jr., Ely Torres, Brian K. Torres, David A. Toves, Rodney A Trevino, Patrick Tuitu'u, David Unchangco, Peter Untalan, Paul C. Uy, Melissa Marie Vibar, Raymond Vicente, Marietta Wall, Jerald Lee Wiegand, Randy Wilson, Jr., Carl Yanto, Berline E. Young, Claire N. Young, Doris J.