



Philippine Sanitation Alliance

Annual Report October 1, 2008 - September 30, 2009

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I. Executive Summary

The United States Agency for International Development (USAID) Philippine Sanitation Alliance (PSA) is a four-year program that works with public and private sector partners to reduce public health risks, protect biodiversity and other natural resources by developing and implementing stakeholder-driven sanitation initiatives. The PSA leverages substantial private and public sector investments in sanitation, increases capacity of local governments and water districts to address sanitation challenges, and increases public awareness and demand for improved sanitation services and willingness to pay user fees.

The PSA works in collaboration with fourteen city and water district partners and three industry sectors to develop pilot treatment facilities and replicate best practices nationwide through national association partners, as well as in the Asian region through international partners.

During fiscal year 2009, the PSA worked with its partners to provide more than 300,000 people with access to improved sanitation, leveraged more than \$2.4 million in cash and in kind investments in sanitation infrastructure and activities, and trained more than 500 people.

With technical assistance from the PSA, the Zamboanga City council drafted and passed an ordinance requiring all households, public and commercial establishments to have proper sewage treatment or septage management. The water district will add a user fee to the water bill and the city will hire private service providers to collect, treat and properly dispose of the septage. This program will improve access to sanitation for more than 271,000 people in its first phase, which will cover water district customers.

For the housing sector, the PSA worked with Gawad Kalinga to build anaerobic baffled reactors in 5 villages that serve 1130 people. Additional systems are in the design and construction phase. For the hospital sector, the PSA has provided assistance to Region IV-A of the Department of Health, which has built wastewater treatment plants for two hospitals in Calamba and Laguna and is working to build wastewater treatment plants for all of its hospitals in the region. Lorma Medical Center and Colleges, a private entity located in La Union Province, built a wastewater treatment plant with technical assistance from PSA in late 2008.

PSA assistance has also mobilized resources from 8 local governments to invest in wastewater treatment facilities for public markets and slaughterhouses.

During its second year of implementation, the PSA expanded its scope and size, adding additional water district partners in Calamba, Cebu, Davao, and Laguna, health and hygiene activities, indicators and targets; and increased its duration from three to four years. During the year, the program met or exceeded its indicator targets and is on track to meet the targets set for year 3.

II. Year 2 Results

The project has successfully met or surpassed the expected targets for the second year of program implementation for all program indicators.

1. Summary of Results for FY2009

Indicator	FY09 Results	FY09 Target	Project Target
1. Number of people in target areas with access to improved sanitation facilities as a result of USG assistance (disaggregated by gender).	120,656 Men 179,577 Women 300,233 Total	300,000	1,200,000
2. Number of feasibility and special studies/plans prepared	4	4	12
3. Amount of non-USAID financing mobilized for sanitation projects and facilities.	\$2,410,297	\$1,193,740	\$3,477,805
4. Number of people trained in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques, disaggregated by gender.	345 Men 180 Women 525 Total	400	1500
5. Number of people trained in child health and nutrition through USG-supported health area programs.*	44 men 143 women 187 total	100	1500
6. Increase in the percentage of mothers of children under five who can cite at least 2 measures to prevent diarrhea.	-	-	25%
7. Increase in the percentage of students who, while at school, observably wash their hands with soap and clean water after using the toilet to prevent diarrhea.	-	-	25%
8. Number of pollution and urban environment policies, laws, agreements or regulations implemented as a result of USG assistance.	1	1	5
9. Number of hygiene-related policies, laws, agreements or regulations implemented as a result of USG assistance.	-	0	2
10. Number of wastewater treatment	1	1	8

projects developed by PSA partners that reduce pollution to levels that meet the government's effluent standards.			
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2. Details of Results

Number of people with improved access to sanitation:

PSA met its target for improved access to sanitation for 300,000 people. These numbers have been achieved through multiple projects, with the largest being the Zamboanga City Septage Management Program, which will cover all the water district customers in Phase 1. These customers make up about 61% of the population in the urban barangays of the city. Other projects include wastewater treatment plants for eight local government-owned public markets and slaughterhouses, two public hospitals and one private hospital.

Number of feasibility and special studies/plans prepared:

The PSA prepared initial engineering designs for the Zamboanga City Public Market Wastewater Treatment Plant and the Sta. Ana Public Market Wastewater Treatment Plant. The PSA also prepared draft operation and maintenance manuals for the Dumaguete Septage Treatment Plant and the PS Farms Biodigester.

Amount of Non-USAID funding mobilized:

PSA enabled the mobilization of external funding from several sources, such as local government units (LGUs) and the private sector for the construction of wastewater treatment facilities and sanitation-related activities.

FY2009 Non-USAID Funding			
Private Sector	\$1,073,941	Cash	\$2,297,926
<u>Public Sector</u>	<u>\$1,336,356</u>	<u>In Kind</u>	<u>\$112,371</u>
Total	\$2,410,297	Total	\$2,410,297

Number of people trained in environmental policies, strategies, skills and techniques:

Over the course of the year, the PSA trained 525 people, 34% of whom were women (compared to 29% in FY08). Training included stakeholders from the public and private sectors.

Workshops where training was conducted included the following:

- Technology and Finance Workshop for the Hotel and Restaurant Sector
- Technology and Finance Workshop for LGUs
- National and city promotion workshops
- Septage management workshops for cities and water districts

Since the project target for this indicator has been achieved, AECOM will discuss increasing the target during the upcoming modification of the cooperative agreement.

Number of people trained in child health and nutrition:

The PSA organized a handwashing promotion event on Earth Day at the Coca-Cola Bottling Plant in Sta. Rosa for mothers and their small children. The participants were from the three barangays with the highest incidence of diarrhea. A promotion campaign was developed to raise awareness among these mothers that handwashing with soap can substantially decrease the incidence of diarrhea.

Number of environmental policies implemented:

With technical assistance from the PSA, the Zamboanga City council drafted and passed an ordinance requiring all households, public and commercial establishments to have proper sewage treatment or septage management. Implementation began with the signing of a Memorandum of Understanding between the city government and water district on their respective roles in implementing a city-wide septage management program. Numerous meetings were held to develop the details of the program.

Number of wastewater treatment projects that reduce pollution to acceptable levels:

Lorma Medical Center and Colleges, a private entity located in La Union Province, built a wastewater treatment plant with technical assistance from PSA in late 2008. Prior to this, the hospital was discharging approximately 100 cubic meters of high-strength wastewater per day. The treatment plant is now removing about 55 kg of biochemical oxygen demand (BOD) per day, which is a removal efficiency of 98.2%. The plant is currently discharging 3.3 mg/L of BOD, which complies with the government discharge standard of 50 mg/L of BOD.

III. Activity Highlights

The PSA project has undertaken numerous activities with its partners throughout the year to achieve the results mentioned above, and to move long-term projects forward, step by step. PSA staff and consultants also promoted improved sanitation by organizing local and national workshops and giving presentations at other organizations' conferences and workshops. Below are a few highlights of these activities.

1. Project Development

A. Zamboanga City Passes Septage Management Ordinance

On July 8, the Zamboanga City Council approved their septage management ordinance, officially entitled, "An Ordinance Establishing a Septage Management System in the City of Zamboanga." It was approved upon the second and final reading with a vote of 14 in favor and 3 opposed. The Zamboanga septage program represents a new model of cooperation between the city government, water district and the private sector. Under this program, the water district will collect fees, the city will enforce the ordinance, and the private sector will perform the desludging and septage treatment. "This is a win, win, win situation for all of us here in Zamboanga City" said Councilor Nuno, who spearheaded the drive for passage of the ordinance. "It is a very good first step in addressing our city's wastewater and environmental health issues," he added. Together, the partnership will collect, treat and dispose of septage from 43,000 homes and 3,600 commercial and institutional customers through scheduled septic tank desludging every 5 years.

Zamboanga, unlike many other cities in the Philippines, has several private sector companies engaged in septage collection and treatment. The city will issue contracts for desludging services to qualified operators and pay them based on the volume of septage delivered to the treatment facilities and the amount of septage treated. The public private partnership represents a business-friendly model for septage management that encourages environmentally compliant procedures, and rewards good operators with opportunities for business development.

The PSA also provided technical assistance to Zamboanga City to design a P4.6 million wastewater treatment plant for the public slaughterhouse. The assistance included detailed advice on the engineering design and participation in the pre-bid conference. The system was commissioned in September.

B. Dumaguete Constructs Septage Treatment Facility

PSA staff visited Dumaguete several times throughout the fiscal year to facilitate development and implementation of the city's septage management program. Meetings with the General Manager of the water district, City Mayor and his staff, and technical working group were held to discuss options for collecting the septage (purchasing trucks or contracting the private sector) and overseeing the collection and operating the treatment facility (city or water district). The Dumaguete City Mayor's Office and City Water District forged an agreement to jointly fund the construction of the septage treatment facility, which is currently under construction. Dave Robbins and Lito Santos worked with the city engineers on the final aspects of the site development plans and gave advice on the detailed design. Several promotion campaign workshops have been held, and draft materials have been developed to gain support of the public for the project and increase the willingness to pay user fees.

C. Metro Naga Water District Develops Septage Management Program

The PSA assisted the Metro Naga Water District in developing plans for a septage management program. Roundtable discussions, technical meetings and promotions workshops have been held. The project, estimated to cost P31.5 million consisting of the costs of land, construction and at least two vacuum trucks, will be funded from the water district's internal funds and borrowing from either LWUA or Land Bank. The water district authorized the use of P10 million for site development.

A two-day promotions workshop was held in Naga City on February 16 and 17, 2009 to start planning an intensive campaign that will promote septage management in Metro Naga. Fourteen participants from Naga City People's Council, Naga City Chamber of Commerce and Industry, Ateneo de Naga University, four municipalities that belong to the service area of the Metro Naga Water District, Naga City government and officers of the water district joined the workshop, which was facilitated by Andrea Echavez of the PSA. In the afternoon of February 17, Nene Narvaez presented the proposed cost recovery mechanisms of the septage management project to the water district officers and some board members.

D. Calamba and Laguna Water District Partner with PSA in Developing Septage Management Programs

On August 6, Calamba Water District Chairman of the Board Engr. Nestor Liquido and PSA Chief of Party Lisa Lumbao signed a Memorandum of Understanding (MOU) to develop a septage management and decentralized sewerage system to address the problem the area has

had with water-borne disease outbreaks. Several WD board members, WD officers and key city personnel from the Engineering Department witnessed the MOU signing.

On August 7, Laguna Water District General Manager Pantaleon Tabanao and mayors of the four municipalities in the district's service area signed an MOU with PSA to develop a comprehensive septage management program. Following the signing ceremony, staff of the water district and the Laguna municipalities of Bay, Calauan, Los Baños, Victoria and some of their municipal officers attended a brief action planning workshop. Among the activities planned out was the creation of a technical working group that will thereafter detail plans for the forthcoming stakeholders' workshop. On September 26 and 27, eight council members of the municipality of Los Baños, Laguna and two Laguna Water District engineers visited the septage treatment facilities of the cities of Bayawan and Dumaguete. The visit was facilitated by PSA and the local LGUs. The delegation appreciated the tour and committed to support the septage management program being initiated by the water district. The members also pledged to replicate the public market treatment plant in Los Baños as an LGU project.

On August 20, 2009 the Calamba Water District hosted an exploratory meeting with PSA consultants to discuss the plan of the WD to treat the city's domestic wastewater to protect the main water source located along the main road leading to Los Baños, Laguna. The spring is close to an informal settlement area presumed to be polluting the water source.

The water district presented a pre-feasibility study for the development of the following:

1. Component 1- construction of communal septic tanks for the communities within the 6-meter radius from Bucal Spring, the city's main water source; and
2. Component 2- septage management program for the communities beyond the 60-meter radius

On September 14, PSA led a stakeholders' workshop to develop and action plan for these projects.

E. Gawad Kalinga includes Wastewater Treatment in Green Kalinga

PSA has supported the Green Kalinga project of Gawad Kalinga, spearheaded by Ms. Bebet Gozun, by providing technical assistance on proper wastewater treatment. Gawad Kalinga has built anaerobic baffled reactors in 5 villages that serve 1130 people, and has several more in development. In one village they are also building a constructed wetland to perform the secondary treatment. PSA was also one of the exhibitors during the GK Expo at Fort Bonifacio on Saturday, October 11, 2008. Over 100,000 participants from all over the country representing various sectors went to the Expo to see displays, exhibits and demonstrations on how to ensure sustainability of Gawad Kalinga projects. Military personnel, religious groups and representatives from the US Embassy took interest in the PSA booth, which showed various low-cost technology options for wastewater treatment, including anaerobic baffled reactors, which are being installed in several GK communities.

F. Ateneo de Manila Signs up with BNS-BORDA for Wastewater Management

Last July 4, Ateneo de Manila University signed a Memorandum of Agreement (MOA) with PSA partner Basic Needs Services-Bremen Overseas Research and Development Association (BNS-BORDA) to prepare an engineering design for decentralized wastewater treatment system (DEWATS) facilities and piping connections for phase 1 of their wastewater management plan for the Katipunan campus. The MOA was signed at Ateneo in Quezon City by BNS-BORDA

representative Engr. Jonas Maronilla and Mr. Jose Santos, Vice-President for Finance and University Treasurer of Ateneo de Manila. Phase 1 will cover DEWATS for the new, main, and annex buildings of Rizal Library, Leong Hall (Social Science Building), Dela Costa Building, Faura Hall, and MVP-CSL Building. The combined DEWATS facilities are estimated to cost about P7 million. Ateneo will deliberate on the detailed engineering design and construction after the submission of the design by August or September and will consider phase 2 after the completion of phase 1.

G. Technology Assistance for the Commercial Sector in Iloilo City

Dave Robbins, PSA's Sr. Sanitation Advisor, presented the concepts of wastewater management to the Iloilo City Chamber of Commerce and Industry on August 24, 2009. The focus of the presentation was wastewater pretreatment systems for commercial entities including manufacturing, hotels, restaurants and resorts. The event was cosponsored by the Department of Tourism Political Affairs Division.

On August 28, 2009 the City Government of Iloilo, Environmental Management Bureau-Region 6 and PSA co-presented the Wastewater Treatment Technology Clinic for the Commercial Sector in Iloilo City, which was hosted by the Western Institute of Technology (WIT). The one-day technology clinic showcased appropriate technology interventions for the commercial sector; presented proposed and existing environmental policies governing wastewater generated by the commercial sector, provided opportunities to private service providers to be engaged by the commercial sector in Iloilo, and created awareness within the commercial sector on the need for sustainable sanitation. PSA consultants Jay Tecson and Lito Santos facilitated the sessions and made presentations.

Senior Sanitation Specialist Lito Santos conducted a follow-up session the next day, providing on-the-spot technology advice to Mang Inasal Commissary, which provides food to a national chain of restaurants, Days Inn Hotel, Iloilo Supermarket, and a new hotel development proposed by a certain Mr. Florete. He advised them on a range of issues, including hybrid wastewater treatment systems, site selection, retrofitting of existing sewage treatment plants, and rainwater harvesting.

H. Biogas System Helps Farm Owners Convert Hog Waste to Electricity

C TRADE, an American renewable energy corporation and member of the Philippine Sanitation Alliance (PSA), inaugurated a biogas to energy system at PS Farm in Lipa City, Batangas on November 15, 2008. The facility is one of four biogas digester systems recently constructed by C TRADE in Batangas using a build-operate-transfer financing scheme. Over 200 guests, including many farm owners, received information on biogas technology, and had the opportunity to meet one-on-one with regulatory compliance officials from the Department of Environment and Natural Resources (DENR) and Laguna Lake Development Authority (LLDA). LLDA also shared information on its Compliance Assistance Center for hog raisers, which has information available online and will soon open a center in Baras, Rizal. The PSA is also distributing information about biogas to energy systems through the Agricultural Sector Alliance of the Philippines (APAS), which is a party list group. The biodigester installed by C TRADE processes and treats animal waste, such as hog and chicken manure, in a concrete tank to produce biogas (methane). The biogas is collected in gas tanks and used to run electric generators that provide cheap electricity to the farm owner. Additionally, the waste sludge or solids that remain after digestion are dried and processed into organic fertilizer that are much cheaper than urea used for agricultural purposes. The remaining treated water is reused in the

farm for stall washing, generally reducing fresh water pumping and electricity costs by 50%. Once it obtains approval from DENR, C TRADE will apply for carbon credits for the sequestered methane, which is a potent greenhouse gas.

I. USAID Supports Promotions Campaign of PSA Cities and Partners

A four-day workshop on the 10-step promotion toolkit was held in Makati City from July 14 to 17. It was attended by PSA cities and partners who are currently developing promotions campaigns for sanitation-related projects. The participants include representatives from Santa Rosa City, Cagayan de Oro City, Dumaguete City, Naga City, Zamboanga City, Davao City, Cebu City, Laguna Province, and the Department of Health. The four-day workshop featured the 10-step promotion toolkit for local governments and water utilities developed through the assistance of the USAID Environmental Cooperation-Asia (ECO-Asia) project. The workshop was facilitated by international promotions specialist Lynne Cogswell who also authored the 10-step toolkit. The 10-step promotion toolkit was developed to assist local governments and water utilities employ a more rigorous and methodological approach in preparing local promotions plans to support water and sanitation initiatives. The workshop also included a site tour to Campaigns and Grey, one of the leading advertising agencies doing corporate social responsibility in the field of environment and health. The site visit provided the participants some examples of campaign materials used by national government, some NGOs, soap companies, and pharmaceutical companies. The workshop resulted in more detailed and focused promotions plans for PSA cities and partners and clear next steps for the local teams.

On July 20, Lynne Cogswell and Senior Project Coordinator Jay Tecson met with representatives of the Department of Health's Environmental and Occupational Health Office and the National Center for Health Promotion Office with consultants from the DOH-SUSEA team to discuss how DOH's promotion efforts can be realigned to focus on the most urgent sanitation issues and how other agencies and donors can support DOH promotions activities. A sharing session on September 1 has been suggested by DOH to develop a wider stakeholder forum that will contribute to a more programmatic approach to developing the national promotions plan for sanitation-related initiatives.

2. Hygiene Promotion

A. PSA Supports the First Global Handwashing Day

On October 15 and 16, PSA supported several successful events marking the first ever Global Handwashing Day (GHD). Simultaneous celebrations were held in the cities of Makati, Sta. Rosa, Meycauayan, Iloilo, and San Fernando (La Union), Muntinlupa, Malaybalay/Cagayan de Oro and in Basco, Batanes on October 15, while Marikina and Quezon Cities held their celebrations on October 16. The GHD aims to raise awareness on how poor hygiene practices can bring death and disease to people especially children. The GHD brought together civic organizations, local government units, national agencies and private sector business for the campaign.

School children were taught proper handwashing with soap and clean water, particularly before eating and after using the toilet, as one of the most effective and inexpensive ways to prevent diarrhea and respiratory diseases. DOH and city officials, together with representatives from PSA, reiterated the importance of handwashing with soap as each gave an inspirational message to the school children and guests. They asked the children to be the agents of behavioral change by taking the proper handwashing training home to their families and

friends. Schools were likewise urged to put soap in their bathrooms. Each city came up with different campaign materials like songs, mascots and games to make handwashing a fun activity for the children. The Lions Club in Sta. Rosa suggested a very novel idea to the city council by asking the members to pass an ordinance requiring all public schools, restaurants and buildings to put soap in their bathrooms to be used by the general public.

B. Linking Water, Sanitation and the Environment on Earth Day in Santa Rosa

The PSA celebrated Earth Day on April 22 in Sta. Rosa with US Ambassador Kristie Kenney, Coca-Cola Bottling Plant Philippines (CCBPI) CEO David Lyons, Santa Rosa City Mayor Arlene Arcillas-Nazareno, other officials, and a group of small children and their mothers. The event was a WASH (water, sanitation and hygiene) Day, in which Captain WASH taught the children proper handwashing, and the children answered questions about proper hygiene, played games and received WASH kits with soap and towels, Captain WASH comics and crayons. About 185 children and mothers from three barangays (Tagapo, Kaingin and Sinaljan) that have the highest incidence of diarrhea in the city participated in the event, which was held at the Coca-Cola Bottling Plant Training Center. A survey of 100 respondents from the three barangays was conducted prior to the event to assess current knowledge, attitudes and practices regarding sanitation and hygiene. This data will be used to design a promotions campaign to increase the practice of handwashing; this being the first event in the campaign. After the campaign is completed, another survey will be conducted to assess its effectiveness, and the incidence of diarrhea will also be tracked. During the Earth Day event, CCBPI Santa Rosa Plant Manager and President of the Save Silang-Santa Rosa River Rehabilitation Foundation Mr. Roderick Ticzon gave a presentation on the river council's work, and the MOU between Coca-Cola Export Corporation and PSA was formally signed, with Coca Cola pledging to support promotion campaigns on sanitation, including printing PSA information materials worth over P300,000. The PSA also contributed to the City's photo exhibit at SM Santa Rosa from April 19 to May 3 as part of the Earth Day Philippines' agreement with SM to support Earth Day.

Coca-Cola Bottlers Philippines CEO David Lyons, US Ambassador Kristie Kenney, and Santa Rosa City Mayor Arlene Arcillas-Nazareno teach the children proper hand washing technique during the celebration of WASH Day.

3. Biodiversity Protection

A. PSA links Biodiversity Conservation with Septage Management, Health and Hygiene

PSA staff Lisa Lumbao and Emi Navalta met with World Wildlife Fund-Philippines' Vice President for Sustainable Technologies Mr. Ed Tongson and Conservation International (CI) Philippines' Biodiversity Unit Leader Ms. Rose Grace Ambal on January 26 and 28 to get inputs on how to collect monitoring data for Key Biodiversity Areas affected by PSA activities. KBAs in PSA project sites include the following: Cagayan de Oro, Meycauayan, Santa Rosa, Zamboanga, Dumaguete, Naga, C TRADE partner farms in Batangas, Davao and Metro Cebu. During the meetings, key resources and informants (individuals and organizations) were recommended by WWF- and CI-Philippines, and government research institutions were identified as primary regular sources for baseline data. An initial matrix of government- and non-government organizations monitoring biodiversity in these sites has been developed by the PSA to facilitate data gathering for the project's short- and long-term research needs.

PSA Sites	Key Biodiversity Area	Trigger Species
Davao City	Davao Gulf	Cetaceans (humpback whales)
	Eastern part of Mindanao	Mangroves
Metro Cebu	Olongo	Sea birds
	Danajon Bank	Reef fishes, mangroves, corals
Zamboanga City	Sulu Archipelago	Sea turtles and reef fishes
Cagayan de Oro City	Bohol Sea	Cetaceans and whale sharks
	Macalajar-Gingoog-Butuan Bays	Sea turtles
C TRADE (biogas projects with piggeries that currently pollute Taal Lake)	Taal Volcano Protected Landscape	4 endemic restricted range trigger species: 1. <i>Hydrophis semperi</i> (sea snake); 2. <i>Gobiopterus stellatus</i> (fish); 3. <i>Rhinogobius flavoventris</i> (fish); 4. <i>Sardinella tawilis</i> (fish)
Sta. Rosa City	Laguna de Bay*	None identified yet, more research will be done

*Candidate KBA

The PSA aims to reduce the threats to biodiversity by (1) assisting private sector partners to build wastewater treatment facilities to reduce the amount of pollution entering water bodies that flow into KBAs; (2) assisting cities to develop city-wide action plans with short, medium and long term actions that, once fully implemented, will significantly reduce the amount of pollution entering water bodies that flow into KBAs; and (3) scaling up both private and public pilots to a nationwide scale through national associations to have a larger impact on biodiversity and health throughout the country.

4. Rotary-USAID Grants

A. San Fernando City Septage Management and Sewerage Project

The PSA developed a detailed concept note and application for a Rotary-USAID grant following numerous consultations with partners and community leaders in San Fernando, La Union. The Rotary District of San Fernando and the city government will be the main partners. The project will include development of a city-wide septage collection, treatment and disposal system, passage of a city ordinance, construction of a small decentralized sewerage system, and a promotion campaign. The project includes a business-friendly public private partnership where the private sector will collect the septage and the city will properly treat and dispose of it.

B. Pasig River System Improvement Project

The PSA has developed a detailed concept note and application for a Rotary-USAID grant to improve health and the environment in three areas of the Pasig River System: Sta. Ana and Paco in Manila, and Baesa in Quezon City. The project was developed to support the efforts of Kapit Bisig sa Ilog Pasig, which is working in Paco and Baesa. In Sta. Ana, the project will work with the Metro Manila Development Authority and the City of Manila to build a wastewater treatment plant for the public market, which currently disposes of its partially-treated wastewater directly in the Pasig River. The project will also develop a solid waste management plan and conduct hygiene promotion activities with public schools in Sta. Ana. In Paco and Baesa, the

project will support the wastewater treatment systems of Maynilad Water through solid waste management programs.

Although the Rotary grant project has not officially started, progress was already made as a result of the planning meetings that have been held to prepare the proposal. Sta. Ana Elementary School, which has more than 4,200 students, did not have any water on the upper floor bathrooms. The PSA put the Lola Grande Foundation, which will implement the Rotary grant activities in Sta. Ana, in touch with Manila Water to request assistance. A team quickly went to the school, declogged the water pipes, and now they have water on all floors of the school. The teachers and Parent-Teacher Association were very happy to have the problem solved so quickly. The next step is to check to see how many toilets and sinks in both the Sta. Ana Elementary School and the Fernando Amorsolo School need repair or replacement and to request Manila Water to install drinking water fountains. In Baesa, Maynilad Water began work to install a drinking water and handwashing station in the Lucas Pascual Public School and began organizing a celebration of Global Handwashing Day in collaboration with the PSA and the local Rotary Clubs and District 3780.

Following several meetings between PSA and Maynilad Water related to the Rotary grant proposal, Maynilad Water has decided to build an interceptor system and treatment plant to serve two neighborhoods in Paco near the Paco Estero and Pasig River. PSA staff encouraged Maynilad to build a treatment plant in the area to support the overall effort of Kapit Bisig sa Ilog Pasig, PSA and Rotary to improve the Pasig River system and to contribute to an improvement in Manila Bay. The interceptor system will collect wastewater from the existing drainage system that serves about 3,650 people. The treatment plant will have a capacity of 550 cu. m per day. PSA staff also visited Maynilad's pumping station in Tondo and encouraged Maynilad to convert it into a treatment plant. PSA will continue to advocate for this, especially given the Supreme Court mandate to reduce the amount of pollution entering Manila Bay.

5. National Replication

A. Cities Share Best Practices and Technology Design Approaches in Managing Domestic Wastewater

PSA organized a technology-finance workshop for LGUs last March 4-6 at Bethel Guesthouse, Dumaguete City. Entitled "Appropriate Technologies and Financing Options for Wastewater Management," the workshop aimed to assist LGUs in implementing the Clean Water Act. Ninety-two participants from local government units, water districts, and the League of Cities of the Philippines learned about technology and financing options for low-cost wastewater management. Resource speakers shared best practices and technology design approaches in managing domestic wastewater, including case studies and hands on estimates of project parameters for project design and financing, making cost estimates, and strategies for cost recovery. A highlight of the workshop was the site visits to the city's public market treatment plant, the constructed wetlands at Mapa GK Village Tanjay, Bayawan and the Silliman University Medical Center's wastewater treatment plant. The visits exposed participants to best wastewater management practices for public markets, hospitals and housing developments.

B. PSA Spreads Information through the League of Cities of the Philippines

The League of Cities of the Philippines, a PSA partner, held its 2nd LCP National Convention of Cities on February 17-19, 2009 in Mandaluyong City. It was attended by hundreds of participants from LCP's 120 member cities and featured numerous booths. PSA shared

information with the participants throughout the 18th and 19th at a booth shared with Envirokonsult, a partner company. PSA Project Manager Lisa Lumbao also made a presentation during the plenary session on the 19th. The presentation focused on opportunities for cities to improve their citizens' health, the economy and the environment through sanitation projects. Many city representatives visited the booth and got copies of the PSA sanitation technology info kit and other resource materials.

C. HRAP Raising Awareness among Hotels and Restaurants

The Philippine Sanitation Alliance in partnership with the Hotel and Restaurant Association of the Philippines (HRAP) hosted a workshop on October 3, 2008 at the Pan Pacific Hotel, Malate Manila. Entitled "Appropriate Technologies and Financing Options for Hotel and Restaurant Wastewater Management," the workshop aimed to increase the number of hotels and restaurants that incorporate full sewage treatment into their operations. The audience included about 100 hotel and restaurant owners and engineering staff, and officials from the Department of Tourism (DOT) and Department of Environment and Natural Resources (DENR) who came from the provinces and Metro Manila. Small group sessions focused on the barriers and proposed solutions for putting up a wastewater treatment facility. The participants recommended the following solutions to the barriers identified: conduct information campaigns through seminars and exhibits and a Pasig River tour on July 2, 2009; inclusion of wastewater management in the hotel and restaurant college curriculum; upload information on appropriate low-cost technologies on the HRAP website; hold dialogues with water service providers regarding the environmental fee being charged; stronger enforcement of wastewater regulations; and lobby Congress for funding. The following day, several participants joined site visits to wastewater treatment facilities at Puregold in Quezon City and Century Park Sheraton Hotel.

D. PSA Promotes Wastewater Treatment at Hospital Association Convention

PSA partner Philippine Hospital Association (PHA) hosted its 59th annual convention at the Manila Hotel November 26-28. The theme of the convention, "Taking the Big Leap" reflected the overall thrust of many of the topics presented, which were geared toward motivating hospital administrators to modernize their industry. This was especially applicable to the PSA talk on how hospital administrators can plan and implement wastewater treatment systems for their facilities. PSA Senior Sanitation Advisor Dave Robbins presented formulas for determining the size and cost of wastewater treatment systems based on the patient load of the hospital. He also presented pretreatment methods for food preparation and laundry services. The conference also provided an opportunity to celebrate the Memorandum of Agreement between the PSA and PHA, which was referenced in the PHA President's opening address and in the conference proceedings. The PSA also placed information materials in the conference kits. Over 1,000 PHA members were in attendance, representing a major information outreach by the PSA.

IV. Management and Finance

The project is on track in terms of overall management and expenditures. During the fiscal year the project was expanded: additional funding and one year of implementation were added as of April 30, 2009, with a corresponding increase in activities, indicators and targets. About half of the funds have been spent, and the project is halfway through its four years. During the fiscal year, the Rotary-USAID grant program was made available and a request for proposals was issued. AECOM developed proposals for two projects. No major delays or problems due to security were encountered during FY09.