

The Philippine Water Revolving Fund Support Program

Water Revolving Funds Study Tour Report

United States of America
September 15-22, 2007



This project is implemented by Development Alternatives, Inc. in association with:
The Community Group International LLC
Resource Mobilization Advisors
CEST, Inc.

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Overview

On September 17 -21, the Philippine Water Revolving Fund Support Program (PWRFS), a USAID supported project, organized a study tour of U.S. Water Revolving Funds (WRFs) for key senior government and private sector officers involved in water sector financing in the Philippines. The objective of the tour was to be able to dialogue with the institutional players and experts involved in the U.S. in order to have a deep and broad understanding of how WRFs work and to gain insights on how the WRF concept can be successfully adopted in the Philippines. The list of tour participants and the institutions they represented were the following:

Name of Participant	Institution	Institutional Mandate
Jun Paul Undersecretary of Finance	Department of Finance, Republic of the Philippines	DOF acts as guarantor for Official Development Assistance (ODA) loans coming from various multilateral and official bilateral sources.
Rolando Tungpalan Deputy Director General	National Economic & Development Authority Republic of the Philippines	Reviews and approves ODA loans.
Edgardo Garcia Chief Operating Officer	Development Bank of the Philippines	On-lends ODA loans to borrowers including water districts, local government units and private entities.
Mar Enecio Head of Program Development Department	Development Bank of the Philippines	On-lends ODA loans to borrowers including water districts, local government units and private entities.
Mario Quitariano Deputy Administrator	Local Water Utilities Administration	Acts as a de facto regulator of water districts. On-lends ODA loans and provides technical assistance to water districts.
Liduvino Geron Vice President	Land Bank of the Philippines	On-lends ODA loans to water districts and local government units.
Lydia Oriol President	LGU Guarantee Corporation	Acts as a guarantor of LGU and water district projects for private financing institutions.

The tour participants were able to meet with heads and/or senior officers of the following institutions:

Institution	Institutional Mandate
U.S. Agency for International Development Development Credit Authority	Provides partial credit guarantees to enable private sector participation in developmental projects.
Maryland Water Quality Financing Administration	Manages three revolving funds namely: i) Water quality ii) Drinking Water iii) Bay Restoration. Main mandate is to provide below-market rate loans to local water authorities and communities.
New Jersey Environmental Infrastructure Trust	Mandate is to provide lowest cost funding possible to water utilities and communities.
New York State Environmental Facilities Corporation	Mandate is to promote environmental quality by providing low-cost capital and expert technical assistance to municipalities, businesses and State agencies for environmental projects in New York State
Passaic Water Valley Commission	Produces, buys, distributes and sells water to municipalities and other utilities. Created by State law allowing municipalities to join together to

Institution	Institutional Mandate
Hawkins Delafield and Wood	buy and operate waterworks system. Acts a financial advisor that reviews statutes, resolutions, structures and collection procedures for a bond issuance.
Moody's Investor Service	Provides credit ratings to bonds issued by the State Revolving Funds.
Bear Stearns	Intermediates the sale of securities from the SRF Agency to public investors thru competitive sale or thru a negotiated sale process.
Massachusetts Water Pollution Abatement Trust*	Manages the Clean Water SRF Loan program which lends to LGUs and communities at low interest rates.

**Meeting attended solely by Mr. Edgardo Garcia, Chief Operating Officer of the Development Bank of the Philippines. Presentation on the Massachusetts revolving fund is shown in Annex E.*

At the end of the tour, a brainstorming session was held on September 21, 2007 at Albany, New York where the participants were able to discuss their thoughts on how the various models of US Revolving Funds can be adopted in the Philippines and the accompanying institutional reforms needed to successfully undertake a similar revolving fund (See Annex A). This was followed by a de-briefing session in Manila on October 25, 2007 at the head office of the Development Bank of the Philippines.

The post-tour meetings among the participants indicate a greater appreciation of the level of efforts and resources needed to address the Philippine's problem of meeting the Millennium Development Goal target of reducing the number of Filipinos without access to clean water and sanitation services. A case in point is the proposal from the Department of Finance to ask for a national budget allocation to provide funds for a water project development facility, a lending which will jumpstart the financing of pre-feasibility and feasibility studies of water projects. There is also a proposal to ask for a budgetary allocation for a reserve fund to capitalize a similar water revolving fund and to increase monetary allocation to the Local Water Utilities Administration so it can better perform its mandate of providing technical assistance to less than creditworthy water utilities and LGUs.



The U.S. Study Tour Participants meet with New York Bond Counsels: Top row from left: Miss Joy Jochico (U.S.A.I.D. Cognizant Officer), Liduvino Geron (Landbank of the Philippines), Brad Johnson (PWRFSFP Consultant), Del McCluskey (Development Alternatives Inc.), Bruce Van Dusen (Hawkins, Delafield and Wood), Mario Quitariano (Local Water Utilities Administration), Jun Paul (Department of Finance), Edgardo Garcia (Development Bank of the Philippines). Second Row from left: Lydia Oriol (LGU Guarantee Corporation), Rolando Tungpalan (National Economic and Development Authority), Alma Porciuncula (PWRFSFP).

Organization and Operation of Water Revolving Funds in the US (Maryland, New Jersey and New York) September 17 – 21, 2007

The Philippine Water Revolving Fund is being established to leverage scarce public resources with private sector funds and provide a sustainable financing mechanism for water and wastewater infrastructure. The PWRF's design draws inspiration from the US State Revolving Funds (SRF) as well as similar initiatives in other countries. The US experience however, given its longevity, breadth and depth of experience, has proven a substantial source of information and lessons learned. Although none of the US-SRF models can be directly adopted in the Philippines, they provide many parallels in terms of fund development and implementation. Moreover, the success stories of the US-SRFs, in terms of leveraging public with private funds, cost-effective credit delivery, excellent credit ratings, and ability to provide low cost financing to both large and small utilities can provide our group of senior representatives from the Philippine government and private sector with lessons and approaches they may elect to test in the Philippines.

A. Objectives

The objective of the study tour was to broaden and deepen the knowledge of participants on water revolving funds. In particular the study tour aimed to:

1. Impart to participants lessons from the experiences of three US states in establishing water revolving funds (Maryland, New Jersey and New York)¹;
2. Impart lessons from one water utility on how it successfully aggregated the services of several utilities under one umbrella organization;
3. Enable participants to discuss with US experts key areas of concern related to:
 - a. The design of the PWRF and the policy environment in which it will operate;
 - b. Institutional governance and organization/operation of the PWRF; and
 - c. Its long-term evolution to mobilizing capital from the domestic bond market;
 - d. The use of subsidies to lower the cost of financing for projects;
 - e. How to support project development.
4. With the insights gained, facilitate the exchange of ideas among the key implementers in determining the way forward for PWRF's development, mobilization of resources and support for expanding investment in safe water and effective sanitation services.

As a result of this tour, we will identify enhancements to the current structure and implementation plan of the PWRF; and cull the lessons learned that will inform the formulation of the long-term financing mechanism of the PWRF.

B. PWRF Current Structure and Long-term Direction

1. Current PWRF Structure

Policy Framework: anchored on EO 279 policy to shift financing of the sector from ODA to market-based sources; hence market terms are espoused

Financing arrangement: generally a co-financing arrangement using JBIC funds re-lent through DBP and own funds of PFIs. Approved modifications include: pure PFI financing with option for

¹ One of the participants had the chance to also meet with the Massachusetts state revolving fund.

a stand-by credit line; quasi-wholesale lending of JBIC funds to PFIs subject to counterpart funds from the PFIs; and lending to private developers using JBIC funds, subject to minimum 20% equity contribution and subject to a 25% cap on the overall PWRF loan portfolio

Credit enhancements: third party credit risk guarantee by LGUGC, backed up by a USAID-DCA co-guarantee and a liquidity mechanism through a stand-by credit line from DBP and MDFO to refinance PFI loans.

Source of financing: JBIC loan under DBP's balance sheet and PFIs' internal funds

GOP Support: sovereign guarantee of JBIC loan to DBP and commitment to level playing field for PWRF through rationalization of credit programs

Market Development: PFIs are showing keener interest in lending to the sector; however investment decision is still largely influenced by LGUGC guarantee

Project Development: thin pipeline of well prepared and bankable projects; no project preparation fund available in the market

2. Long-term Direction

Objectives: The long term financing mechanism of the PWRF aims to generate highest leverage of private resources, market acceptance, affordability of financing to borrowers, sustainability and effective and efficient administrative structure.

Financing Arrangement: presently the thinking is to transition the PWRF direct lending mechanism to a capital market-based scheme such as securitization or pooled bond financing

C. Principal Insights Gained from the Study Tour

1. Clear Policy and Legal Framework

The US, through the Clean Water Act and the Drinking Water Act established strict environmental and health standards for drinking water quality and waste water. These laws, while primarily ensuring water quality also include provisions on source protection, capacity building of operators, financing and public information. Project implementation is driven by the requirement of the federal law to meet environmental and health standards; and facilitated by affordable financing programs provided through the water revolving funds. The Federal Government has given the States considerable flexibility in designing each State's program. Several models are used but a consistent feature of each program, are that the financing is priced and technical assistance prioritized based on the water sector's development objectives and targets.

GRP's objectives in the water and sanitation sector are embodied in the Medium Term Philippine Development Plan, which adopts the MDG target, as well as in the Clean Water Act. However, there is no explicit link between these objectives and the financing program for the sector.

Question:

- Who in the Philippine Government should take the lead in a concerted effort to ensure these objectives are met and link these objectives with the financing program for the sector? The EO 279 Oversight Committee was tasked to prepare a financing program for water supply and sanitation. In the light of the injunction on EO 279, will DOF assume take the initiative?

2. Long-Term Capitalization of the WRF

Each SRF visited has and continues to receive capitalization grants from Federal and State governments. Each SRF has used this grant financing to leverage additional funding for water and wastewater projects. For example, the Maryland Water Quality Financing Administration has loan portfolio totaling \$1.2 billion of which \$149 was raised through bonds. The New York Environmental Facilities Corporation has raised more than \$6.0 billion through bonds and the New Jersey Environmental Infrastructure Trust about \$4.0 billion through bonds.

While each State has a SRF, they have taken different approaches to their operations and capitalization. States either use a direct loan or leveraged funding approach. In some States, like Maryland, the Federal and State grants are directly lent to municipalities and water utilities to finance projects (Direct Loan Model). Other states have started with direct loans, and then used the repayments from these loans as collateral for bonds that provide additional funding (Cash Flow Model - i.e. New Jersey), while other states have used the grants to capitalize a reserve fund that they use to guarantee bonds (Reserve Fund Model – i.e. New York).

In all SRFs visited, the staff identified the multi-year grant support from the Federal and State governments as a key element of their success. Having this source of annual appropriations coming to each State has significantly increased private sector investor confidence and willingness to purchase bonds issued by the SRFs to mobilize private sector funds. Each State selected its particular model based on what resources they already had available and what they believed would give their local investors the greatest comfort. We also learned that each SRF visited has adapted their system over time, highlighting the need to be able to adjust the system's design as the WRF gains experience.

Questions:

- Can the Philippine Government provide a long-term commitment of support water and wastewater financing, i.e., annual contributions to capitalize the WRF? Would these be provided over several years? Would these funds be provided as grants? If not, how will the WRF get capitalized?
- We heard that some states in the US have borrowed funds to capitalize a reserve. Would the Philippine Government be willing to borrow ODA funds for this purpose and mobilize additional capital through bonds?
- Could a WRF require a matching grant contribution from a province or municipality (i.e. a 20% match) to the size of project to be financed to provide more flexibility in pricing projects?

3. Financing Projects

The main objective of all three SRFs we visited is to maximize the number of projects financed and thereby maximize the environmental and health impact. In all three states the SRFs accomplish this by providing below-market financing as an incentive to stimulate project development and implementation. Access to Federal and State grants has enabled these SRFs to either directly lend or blend grants with money raised in the capital market to provide low interest loans.

3.1 Structuring credit to meet project/local community requirements.

The SRFs we visited judge each project on its own merits. The main criteria they use focus on whether the local government/community/utility can repay the loan. While the NJ EIT requires all borrowers that receive funding through a bond to be credit rated, the NY EFC does not (only 60% are rated). They do require that local governments or utilities demonstrate that the loan can be repaid through fees or general obligations. In all three SRFs visited, the SRF has the flexibility to structure the loans, through interest rate adjustments or by extending tenors, to meet the project's ability to repay.

Note: Drawing from this example, the Philippines could avoid the distinction of water utilities as credit worthy, semi-creditworthy, pre-creditworthy and non-creditworthy, and allow each project to be judged on the ability of the utility to repay the loan.

Questions:

- Clearly, the GRP does not have the resources to subsidize all utilities. However, there is need to do so for some of the small and fledgling utilities. How will the subsidies be allocated? How will GRP prevent the moral hazard of subsidies becoming disincentives for utilities to becoming creditworthy?
- Will the WRF provide funding to both public and private sector systems?

3.2 Strengthening the domestic capital market

Leveraging of funds through the domestic capital market in the US is facilitated by a deep and sophisticated bond market, as well as incentives for municipal and SRF bond buyers in the form of tax exemptions.

Question:

- Can the GRP, DOF in particular commit to address barriers to growth of the Philippine bond market or at least, initially provide incentives for water bonds? PFIs claim that the key incentives are: tax exemption, agri-agra eligibility, reserve requirement eligibility, allowing PFIs to serve as depositories for LGUs and GOCCs.

3.3 Authority to mobilize funds from the capital market

In both New Jersey and New York, the SRFs each had the authority to raise capital by issuing bonds. The final institutional base for the PWRF should also have this authority to facilitate the eventual transition to bond financing for projects.

Question:

- As currently structured, does the PWRF have the ability to mobilize capital through bonds?

4. Supporting Project Development

Each SRF visited had mechanisms in place to support project development. For example, Maryland's Department of Environmental Quality can provide limited technical assistance to help communities, identify problems and solutions, and to review final designs. The MWQFA finances this technical assistance from the 5% administration fee it charges each borrower on outstanding loan balances. New York and New Jersey provide municipalities and utilities with low cost, short-term loans for project planning, design and construction. These loans are folded into long-term loans once the project is completed. In addition, NJ sets aside 2% of its Federal and State Grant funds for Safe Drinking Water to help small, disadvantaged communities develop new projects. These funds are channeled through non-profit organizations. In all cases, the SRFs reimburse municipalities and utilities for project feasibility studies, design and construction costs as costs are incurred. The SRFs manage reimbursements quickly so the municipalities can pay vendor bills on time.

In addition to project development assistance, the SRFs also indicated that they or other state agencies provide advice and assistance to weak or poorly performing municipalities and utilities to improve their financial operations or modify the proposed project so they will qualify for funding under the SRF or other state programs.

Questions:

- Will GRP consider a SRF model of providing short-term loans for feasibility study preparation and project design?
- Can government provide soft financing for project preparation from the budget?
- Can the GRP lower the guarantee and forex fees of GFIs' ODA loans for project preparation to lower the cost of funds?

5. Institutional Organization and Governance

Generally, most financial intermediaries established to mobilize private sector financing for local infrastructure projects are government owned. Bond banks and pooled financing institutions in the United States are predominately state agencies or public authorities credited by state enabling legislation. The overall objective of these institutions is to provide low cost financing, not to generate profits. The three SRFs visited all fit this model.

- SRFs all operate semi-independent departments with oversight provided by independent boards of directors.
- SRFs have the ability to raise capital through the issuance of Bonds.
- They recover costs but profits are not their objective.

5.1 Governance

Two of the SRFs visited are governed by an independent Board of Directors. Maryland was the exception. It operates as a semi-independent office in the Department of Environment Protection and has been given special authority to issue bonds. Both New Jersey and New York SRFs are

governed by seven member boards. New Jersey's Board consists of three members appointed by the Governor, three members that represent State agencies (Departments of Environment and Community Affairs, and the State Treasurer), and the Executive Director the NJEIT. In New York, the seven member board consists of four members appointed by the Governor and three State officials – the State Commissioners for the Environment and for Health and the Secretary of State. In all three States visited, the SRFs operate as independent entities, but integrate their operations with those of other state agencies.

5.2 Need for Transparent Resource Allocation

In the US, the laws that provided the authorization to create the SRFs also outlined two requirements that have proven very effective at limiting political interference in funding decisions. The first is that each SRF must prepare an *Intended Use Plan* each year that lists every project submitted by local governments for funding and each project's score according to a well defined scoring system. The second is the establishment of this scoring system. While each state we visited had a slightly different approach to scoring projects, they all adhered to specific principals such as:

- Expected environmental impact
- Water quality improvement
- Public benefit
- Whether the local government is being ordered to make improvements in their water or wastewater systems,
- Number of people benefited

The IUP identifies and prioritizes the projects according to their scores, and establishes the cut off line for funding. Those projects above the line will be funded while those below can either seek their own funding or apply the following year. This system allowed the SRFs we visited to provide funding to the highest priority projects. The SRFs visited emphasized that they were not required to lend funds to non-creditworthy projects.

Questions:

- What is the best long-term institutional arrangement for an independent PWRF?
- How can the Philippine Government provide the WRF with the operational independence to make funding decisions based on a transparent prioritization process and to minimize political interference in resource allocation decisions?

5.3 Organization of the WRF

The SRFs visited all possess relatively small staffs compared to the volume of projects they finance. For example, the Maryland Water Quality Financing Administration has a staff of 22 people and the New Jersey Environmental Infrastructure Trust has a staff of 14. They achieve this efficiency by drawing upon the technical capacity of other state environmental and health agencies for technical review and supervision of wastewater and water projects. All the SRFs visited charge fees to cover their costs of operations. In all cases, they charge loan origination and management fees based on a percentage of the outstanding loan balance each year. In addition, both New York and New Jersey allocate 4% of the Drinking Water grants for their administration charges.

Questions:

- How will the PWRF administration be organized?
- How will the PWRF cover its administrative costs?

5.4 Access to Technical Expertise

The three SRFs visited all access engineering expertise to review proposed projects and oversee project construction and completion. How they access this assistance differed with each State. For example, the MWQFA can access engineers from within the Department of Environmental Quality. In New Jersey, the NJEIT must contract for project review and supervision from the Department of Environmental Protection, while in NY, the NYEFC has engineers on its staff to carry out these functions. This requirement needs to be considered for the design of the PWRF.

Questions:

- How will the PWRF access engineering expertise to review projects and oversee/verify project construction? Can LWUA perform this role?
- How will services be priced?

6. Need for both enforcement of regulations and incentives to stimulate project development.

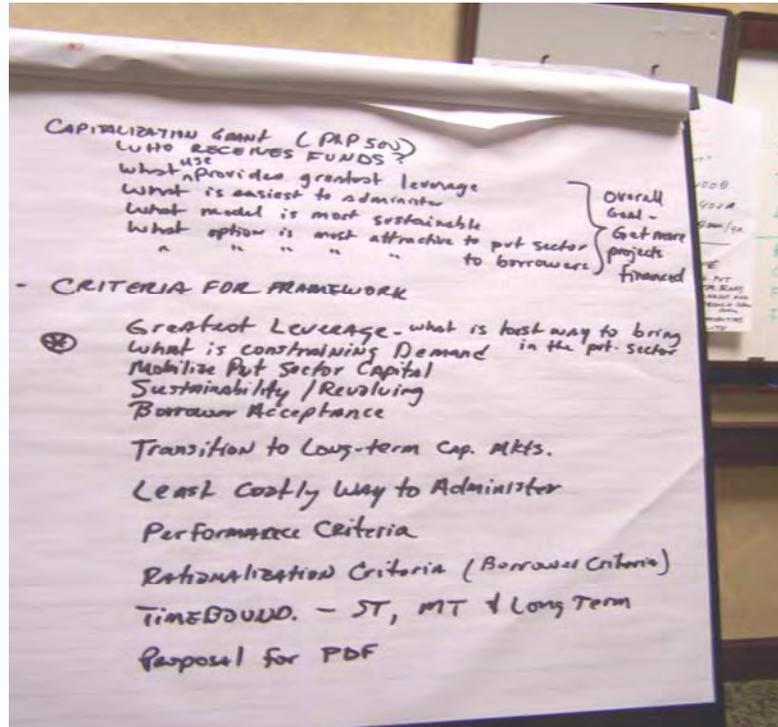
The US SRF experience has shown the necessity of having both regulations and financial incentives. Regulations were important at the beginning of the program and remain an important tool for States. The regulations encompass both environmental and health objectives. States have used environmental and health regulations to require communities to build wastewater collection and treatment facilities and to upgrade drinking water systems.

Questions:

- Can the DENR and the DOH enforce current regulations and require LGUs and water utilities to provide services that meet national standards for wastewater treatment and drinking water quality.
- What agency will enforce regulation of water utilities in terms of achieving 100% service coverage and quality at par with performance and environmental standards set?

Annex A

Summary of Discussions and Agreements of the Study Tour Group² (Wrap-up Session: September 21, 2007; Albany New York)



Notes during the wrap up session at Albany New York at the end of the tour.

- I. **"In the Philippines, the regulatory environment is not driving water and sanitation infrastructure investments."**
 - a. The study tour participants observed that unlike in the US, the Philippines does not have strong enforcement of regulation that will compel investments in water and sanitation projects. While there are ample laws (i.e. Clean Water Act, Water Standards, LGU Code etc) enforcement is weak.
 - b. Under existing conditions, there is a bigger opportunity to influence demand through attractive financing packages. At the same time, these loans can be used to promote better performance (i.e. full cost recovery conditions, environmental compliance).

- II. **"Differentiate strategies for water supply vis a vis sanitation"**
 - a. There is a huge difference in effective demand between water supply and sanitation projects. For practical purposes, the two must be treated differently with regard to what the role of environmental regulation should be. For sanitation, 'sticks' will have

² Messrs. Edgardo Garcia and Rolando Tungpalan were not able to join the wrap-up session.

a bigger role to play. But for water, there is a huge demand for water at the household level, and that it would be relatively easier to move projects on water supply both from a utility perspective (i.e. households and commercial establishments will always demand for water) and a financial viability point of view (e.g. consumers are more willing to pay for potable water than for wastewater treatment).

III. “What are possible ‘sticks’ to push more projects in the water supply sector?”

- a. The group agreed that no institution is monitoring and rating the quality of service and service area coverage of a WD. A question was raised on whether this should be LWUA as the issuer of the franchise or NWRB, which has been designated as the economic regulator for all water utilities.
- b. One possible stick that can be used is the franchise agreement between LWUA (which awards it) and the WDs. LWUA will review the franchise issued to see if there are any provisions on coverage expansion. However, if at all LWUA can at all exert pressure for WDs to expand coverage; funds for financing the expansion should be made available.
- c. Another area where LWUA can influence WDs is the loan agreement which can include sanctions and covenants.
- d. LWUA and DOF agreed to meet to find what sticks to use in order to have more water supply projects done.

IV. “Possible ways to lower cost of capital for water projects”

- a. Usec Jun Paul said he can explore two measures to lower the cost of financing for water projects:
 - i. relaxing or waiving FOREX and GUARANTEE fees of ODA loans; and
 - ii. requesting for budget appropriation to capitalize a water revolving fund. However the earliest opportunity will be in the 2009 GAA. He also requested technical assistance to justify this request.

V. “On the Water Financing Framework”

- a. The group agreed to pursue a water revolving fund, and that the important considerations in establishing the fund are:
 - i. greatest leverage of private sector resources
 - ii. easiest /lowest administrative cost
 - iii. strongest market acceptance in terms of the financing structure
 - iv. most sustainable
 - v. most acceptable/ attractive to clients (borrower acceptance)
- b. If DOF is willing to appropriate a subsidy program, then it must be clear on the following aspects:
 - i. Who are the intended recipients?
 - ii. What are the conditionalities attached?
 - iii. Which projects to prioritize?

- iv. What is the role of ODA funds?
- v. What will be the policy on lending terms, i.e., market or below market?

VI. “Institutional Options for a Water Revolving Fund”

The group discussed options on the ownership and organizational structure of the fund:

- i. Use LWUA Structure
- ii. Use “PWRF Structure with transition to bond financing” under DBP
- iii. Establish a Special Purpose Vehicle

No agreements were reached on the matter.

VII. “Is the problem lack of funding or lack of effective demand?”

- a. Usec Paul asked if indeed the projects will come if funding is made available. He noted the low utilization of ODA lending facilities and asked if anyone has validated the effective demand. He underscored the need to understand the reason for under-investments:
 - i. Is the problem caused by the lack of project preparation/ technical assistance?
 - ii. Is the problem caused by lack of enforcement of regulations/ (or lack of regulation requiring expansion of coverage in the case of water supply?)
 - iii. Is the problem caused by the not so attractive rates given by the GFIs?
 - iv. Is the problem caused by the equity requirement?
- b. If the problem is lack of project preparation, then a project preparation fund is important. In this regard, USec Jun Paul said he is willing to also request for NG funding for a project prep fund (PPF). Miss Jochico said USAID can provide a TA to design a Project Development Facility, which can be presented to DBM. In the meantime, JBIC will have a TA loan that will be administered by DBP to address the needs in the near term.



Mr. Liduvino Geron of LandBank, together with LWUA's Deputy Administrator Mario Quitoriano and LGU Guarantee Corporation President Lydia Oriol in an open exchange on the possible next steps in establishing a Philippine Water Revolving Fund.

VIII. Next Steps

- c. The PWRF Support Team will facilitate another discussion with the study tour group to map out an implementation plan. The team will back stop the group in the review and analyses of issues raised, particularly on the appropriate institutional structure of the long term PWRF funding mechanism.
- d. The group agreed to further study the issue of the lack of effective demand in the water sector.
- e. LWUA and DOF shall meet to discuss on matters concerning the current financing framework.
- f. LWUA shall review the franchise of WDs to see if there are any provisions that could be invoked to compel service coverage expansion.
- g. LBP will be invited in PWRF's technical working group.

ANNEX B

Meeting Notes

A. Maryland Water Quality Financing Administration (MWQFA)



The Philippine Delegation together with Japan Bank for International Cooperation (U.S. Washington Office) representatives discussing water finance with Mr Jag Khuman, Director of MWQFA.

Mandate. MWQFA manages three revolving funds namely: i) Water quality revolving fund ii) Drinking water revolving fund and iii) The Bay restoration revolving fund. MWQFA's main mission is to provide below-market rate loans to local water authorities and communities.

Size of Organization. The MWQFA has a staff of 22 people only.

Financing Model. MWQFA uses a cash flow model. Their portfolio contains both pledged and non-pledged loans. Pledged loans are used to collateralize bonds. Bonds take on a senior position to the loans, i.e., bonds are paid first before the direct loan from MWQFA.

The State does not guarantee the MWQFA. The MWQFA can issue tax exempt revenue bonds for local capital investments only. They must spend 95% of the revenue raised through bonds within 3 years.

Size of Portfolio. They mobilize about \$850 million per year for CWA and \$150 million per year for DWA. Their current portfolio totals \$1.2 billion

- \$593 M from Federal Govt.
- \$119 M from State
- \$149 M from revenue bonds
- \$211 M from repayments

Their debt service coverage is 1.2. If loans are subsidized, the debt service coverage is less important. They issue bonds once a year based on their priority list.



LGU Guarantee Corporation President Lydia Oriol discusses financing with Dr. Andrew Sawyers of MWQFA.

Eligibility. All counties and municipalities are eligible for loans. MWQFA does not lend money to private developers under the CWA RF, but do so under the drinking water RF. About 20 municipalities/counties are able to raise their own funding from the capital markets.

Credit Rating of Borrowers. The MWQFA rates all projects and borrowers independent of the rating agencies. About 90% of all borrowers for CWA funds have been rated compared to about 30% for drinking water assistance.

Loan Terms and Pricing. MWQFA began providing loans at rates 70% of market, but as need for leveraged funds dropped, they were able to reduce rates. They currently provide loans at 25% of market rate (use the Bond Buyer Market Index). Currently 1.1% fixed rate loans for 20 years (max tenor for sewage loans). They charge a 0.5% administration fee on annual debt service.

Program for Disadvantaged Communities. They have a State grants program to help disadvantaged communities prepare projects. Disadvantaged communities get a rate that is 50% of the regular rate with loan tenors up to 20 years.

Project Ranking System. The MWQFA provides low cost financing for all. They select projects based on water quality need and socio-economic and environmental impact. Project Ranking System is based on: i) existing condition, ii) expected benefit and iii) water quality improvement. The intended use plan has their ranking system.

Technical Review. The Department of Environmental Quality's Dept of Water Projects does the technical review of projects to be financed by the MWQFA. The MWQFA pays these Departments based on billable rates/hours. They pay about \$800K per year for technical services and pay these fees out of the 5% fee they charge.

Loan Implementation. They only issue loans after bids are opened. They can finance 100% of the project cost. Construction must start within 18 months.

Project Monitoring. The State Dept. of Environmental Quality monitors projects funded by the MWQFA. They provide some TA to help local communities identify the problem, make recommendations about solutions and review final designs.

B. New Jersey Environmental Infrastructure Trust



The U.S. Tour Participants pose for a picture with the Senior Officers from the NJEIT.

Mandate. NJEIT's objective is to provide lowest cost funding possible. They estimate the need for funding to be about \$18 billion.

Size of Organization. NJEIT has a staff of 14 people.

Governance Structure. The NJEIT is attached to the Department of Environmental Protection, but not part of DEP. This has created some complexity in how they process loans. The NJEIT has a seven member Board of Directors that oversees their operations.

- The DEP does not have authority to issue bonds. Only the State Treasury and special organizations such as the NJEIT have that authority. So the NJEIT was created to mobilize capital and manage the Clean Water and Drinking Water Revolving Funds.
- *Administration Fees.* The NJEIT charges an administrative fee of 0.3% on the outstanding loan balance. State charges a 2% fee for closing costs on each loan.

Safe Drinking Water Act Allocation. Safe Drinking Water Act has the objective of reducing NRW to at most 15%. NJ gets 2% of the federal grant allocation for SDWA projects. The NJEIT receives 4% of the SDWA funds to cover their administrative costs.

Market Coverage. NJ has more than 500 municipalities, of which most have little sophistication. They have had trouble marketing the program to municipalities. Their objective is to decrease costs to the municipalities but some municipalities do not understand the program. NJ has 12 utilities that serve more than 100,000 people. About one-half of the State is covered by private utilities. Two of the largest private utilities are based in NJ.

Credit Rating. The NJEIT has an AAA rating.

Lending Program Eligibility. Funds can be borrowed by both public and private companies. NJEIT now fund any type of project that will protect a water source.

- **Rating Requirement for Eligible Borrowers.** They rely on rating agencies for rating LGUs. For direct loans, they do their own rating analysis.
- **Small Loans.** If a very small loan is included in the bond pool, they may not require it to be credit rated. Over collateralization is at 130%.
- **Business plan requirements.** Utilities are required to have a five-year capital development plan. Department of community affairs approves 5-year municipal capital investment plans. They require the municipalities to secure funding through the NJEIT for water and wastewater projects.

Terms of Loan. NJEIT loans have a term of 20 years. NJEIT issue two loans per project. They provide one loan from the DEP funds (grants from Federal and State Governments) at 0% and the other from funds raised through bonds at market rates.

Final blended rate of two loans is about 2.5%. For Smart Growth projects, they provide 75% of loan at 0%. For 2007, they will do about \$550 million in projects. They will issue \$270 million worth of bonds.

Size and Types of Loans. NJEIT releases about \$600 million per year in loans.

- **Small Projects Financing.** For small projects, NEJIT does direct loans for amounts less than \$150,000 rather than including these loans in their pooled financing package.
- **Project Development Finance.** NJEIT provides funding for project development and planning. These costs get folded into the construction loan. Communities get reimbursed for the costs of project development and planning.
- **Short term/ bridge finance loans.** NJEIT can provide municipalities short term loans if the municipality is ready to begin its project before the bond is released. These short term loans get folded into the long term loan once the bond is issued and the NJEIT gets repaid. This allows projects to begin when ready.

Bond Issuances. NJEIT has raised about \$4.0 billion through bonds. NJEIT issue bonds once a year. NJEIT pool projects for the bond issue. Bonds issued are tax free

The NJEIT bonds are fully secured by local municipalities pledging taxes to cover bond payments. State subordinates its repayment to bond holders. State provides debt service reserves (NJEIT has an AAA rating).

Project Preparation and Review. NJEIT partners with the Dept. of Environmental Protection to review projects, certify all the environmental permits of projects. NJEIT has used a simplified environmental review divided into three levels:

- level 1 – public notice
- level 2 – public hearing

- level 3 – formal EIS. They try to stay away from level 3 projects. They fund mostly level 1 projects, which has eliminated most environmental reviews because of categorical exclusions.

Project Ranking System. NJEIT's programs deal with old infrastructure. They evaluate projects according to:

- What projects will deliver the greatest public benefit
- What are the best projects to fund
- What projects will have the greatest impact on water quality/environment.

Intended Use Plan. The annual intended use plan drives the prioritization of projects and sets up the bond/loan process. EPA requires an intended use plan.

Affordability. They use 2% of annual median family income as a guide. They determine project affordability provided the eventual costs to rate payers does not exceed 2% of this income level for total water/sewerage charges. If a project will require rates greater than this 2% cap, they will revisit the project design and see if it could be changed to reduce costs. For the highest priority projects, if local community cannot afford the project, they will help the community seek a legislative appropriation. They will also seek to package their funding with funds from other agencies (i.e. US Dept of Agriculture (Farm Home Administration) and State grants.

- **Cheapest Funding.** The state utility regulator requires private utilities to get the cheapest funding possible to avoid rate increases. This forces the private utilities to also seek funding from the NJEIT.
- **Tariff rates of private utilities.** The investor-owned utilities are much more aggressive at raising rates. Municipal-operated systems try to avoid rate increases unless these are tied to significant improvements in the service.
- **Tax Rebates to Private Developers.** If a developer makes an investment in an area, any increase in local taxes gets rebated to the developer until the developer's costs of building the water/wastewater system are repaid. After that, the city collects the income – a form of BOT.

Loan Disbursement. NJEIT releases funds to communities based on drawdown schedule. They reimburse for actual expenditures. Funds held until expended are put into interest bearing accounts and the interest earned is used for project preparation. Municipalities do not pay interest during the construction period.

How do they deal with emergencies? They provide emergency certification and reimburse costs and then put the project into the pool for the coming year. They use a simplified planning and design process during emergencies, and reimburse costs at loan closing based on receipts.

Project Monitoring. They track the permitting process for each project on a monthly basis. They bring the engineers, permitting staff, and bond preparers together monthly to keep everyone on the same page for all projects.

Collection of Debt Service. Trustee receives all funds and pays the bond holders, pays the NJEIT administrative fees and pays the State fund. They use the reflows back to the State to secure older outstanding bonds (1995 and newer).

C. Passaic Valley Water Commission



The US Tour Participants discusses water treatment technologies with Joe Bella, Executive Director of the Passaic Valley Water Commission.

History. The Fall River Treatment Plant was first constructed in 1895. A typhoid outbreak drove the construction of the treatment plant. In 1902, it constructed the first sand filter, added sedimentation in 1910 and began chlorinating water in 1917. In 1920, the State set up a utility board to regulate the private water utilities. Sixty to 70% of the system is 100 years old.

Board of Directors. PVWC is governed by a 7 member Board of commissioners. Board consists of the mayors of the 3 main city owners and four others. The mayors of the three main cities appoint the other four commissioners. Each commissioner serves a 4 year term. Terms are staggered. This Board sets the water rates based on an independent consultant analysis. To issue a bond requires the approval of at least 5 board members and agreement of the three main cities.

Mandate. Mission Statement of the PVWC is:

- high quality
- reliability
- competitive rates

Size of Organization. PVWC has 180 staff for the entire utility.

Production. The PVWC produces 85 million gallons per day (mgd). It has a total capacity of 110 mgd, which is also the volume of its water rights. (In NJ, the State owns all the water). They produce water, buy water, distribute water and sell water to other utilities.



The Philippine delegation takes a tour of the PVWC facilities.

Market Coverage. They serve a population of about 1 million people, and wholesale water to another 20 communities. They do billing and customer service, lab work, emergency repairs for many of these 20 communities. They bill quarterly.

They have 600 miles of distribution network, have three open reservoirs with a capacity of 250 million gallons and have 63 wholesale interconnections.

- **Consumer Confidence Reports.** PVWC is required by EPA to submit annually Consumer Confidence Reports.
- **Benchmarking against other utilities.** They benchmark their rates with other towns, and look at performance benchmarks internally, but do not compare with other utilities.

Credit Rating. PVWC has an A- credit rating. They purchase credit insurance to achieve an AAA rating.

SRF funding. PVWC has availed the following:

- \$75 million to upgrade the Little Falls Treatment Plant
- \$4 million to upgrade their distribution system.

They provide a one year reserve for privately sourced bonds.

Purchase of smaller water systems. They have recently purchased small systems. Small towns have trouble meeting all the new regulations. The PVWC has assumed the management of many small systems since they can meet the regulations.

Disbursements. It takes 18 months between starting planning and actual reimbursement.

Wastewater treatment billings. The PVWC does some billings for wastewater treatment services, but no direct relationship with the wastewater utility.

Financial and Operational Indicators.

- **Debt service cover.** Debt service coverage – between 1.3 and 1.5.
- **Non Revenue Water.** Their NRW is between 9.5 and 13%. They do have a few illegal connections. They recently swapped out all meters; they check leaks annually and are replacing all lead service connections.
- **Cost of Producing Water.** Their cost to produce water is \$0.22 per 1000 gallons or approximately \$0.06 per cubic meter.

D. Hawkins Delafield and Wood – Bond Counsel



Hawkins, Delafield and Wood's Mr. Bruce van Dusen shares some light moments with Undersecretary Jun Paul, DBP COO Mr. Edgardo Garcia and Mr. Brad Johnson.

Financial Advisor. Their job as a financial advisor is to review statutes and resolutions that back a bond issuance, how the bond is structured, and collection procedures. They also help structure creative financing solutions.

HDW was instrumental in the establishment of bond banks that have been more active in rural states and allow communities to borrow together using State credits/common credits to strengthen the overall pool.

States with reserve funds would draw upon reserves to make payments in a bond if the loan borrower goes into default.

Bond banks usually were overseen by Boards appointed by the governor with congressional approval. They were authorized to borrow funds.

In some states, the State borrowed funds to initially capitalize the reserve accounts. If the reserve is drawn upon, the State government is under obligation to replenish the reserve through an appropriation.

Reserve was sized to cover an entire year's debt service for the entire program. This gave time for the State to replenish the funds. Most States have limits on how much debt they can incur without further legislation/referendum.

Current Models for SRFs:

- Direct lending
- Leveraged
 - Reserve fund model (i.e. NYEFC)
 - Cash flow model

Reserve fund model – uses Federal and State funds to establish a reserve. In the early years, each municipality was allocated a portion of the reserve – a dedicated portion of the reserve and the earnings on this portion. Reserves initially covered 1/3 of the bond. As loans are paid off, funds in the reserve were released to maintain the 1/3 margin/coverage. Reserve covers both principal and interest, and any interest earned on the reserves was used to pay off the bond.

Cash Flow Model – Most have one-year reserve coverage. They use the State and Federal funds to make loans. The loan reflows are pledged as collateral for the bonds (over-collateralization by usually 15 – 30%).

Whether a Reserve or Cash Flow Model is used depends upon the policies and strength of borrowers. The SRF will have greater pressure to use the reserve fund model or to increase the collateralization ratio, the riskier the group of borrowers.

Key Elements

- Enforceability of contracts
- Independence of judiciary.

Covenants define:

- Source of repayment
- Whether or not issuer can issue other bonds.
- Minimum level of reserves/cash flow
- Loan administrator in case of default.

Bonds need to match the pool of loans the bonds will cover unless the bond is a “programmatically bond” that will finance a changing pool of loans over time.

Bond insurance generally covers principal and interest on repayment schedule without acceleration of debt through the remaining period of the loan in case of default.

In the US there is a move away from the reserve-fund model. California has used a modified reserve fund model that mixes both reserves and collateral for maximum flexibility.

Bond incentives:

- generally tax free

E. Moody's Investor Service - Rating Agency

Moody's Investor Service rates bonds issued by the State Revolving Funds. According to Moody's, most SRFs have Aaa or Aa ratings primarily as a result of substantial assets of the SRFs which are available to bondholders.

In a reserve fund model, the reserve requirement must be very large in order to compensate for the below market interest rates given by the SRFs. In a cash flow model, there must be a large loan to debt ratio to provide substantial security. These are important considerations for the credit rating agency.

Moody's uses a default tolerance analysis as a measure of relative credit strength. In essence, default tolerance measures the percent of loans that could default over the life of the bond, and debt service would still be paid.

For Aaa, Moody's has used a minimum 30% default tolerance, provided the credit quality of the portfolio is, on average, considered to be in the A credit rating category or above. Other factors can also affect the rating. Currently, Moody's is re-assessing the level of assets needed to achieve Aaa based on its analysis of defaults in the US bond market.



Mural at Moody's Investor Service Office captioned: "Credit: Man's Confidence in Man".

Other Factors being considered by the Rating Agency

1. ***Diversity of the loan pool*** is an important factor. Larger loan pools provide more diversification and less concentration in a single borrower. The risk of a single borrower default is minimized.
2. ***Terms of the financing agreement*** between the SRF program and borrowers are key elements to bondholder security.

- Pledge of net revenues of water or sewer system or General Obligations Pledge
- Borrower Covenants
- Local Reserve Funds
- Loan Repayments received prior to debt service payments
- Bond insurance
- Legal action against the borrower for non-payment
- State intercept programs can provide added security

3. **Management** of the SRF is also important.

- Underwriting policies – technical and financial review of projects.
- Monitoring of loan portfolio.
- Record of late payments or defaults in the program.
- Experience of staff
- Program goals
- Investment practices
- Cross-collateralization between Clean Water and Drinking Water
- Open indenture- do recycled funds pledged to bondholders
- Prepayments

F. Bear Stearns Investment Bank – Bond Underwriter



Bear Stearns Senior Managing Director Neil Flanagan and Michael Bridgco discussing the difference between a negotiated sale and a competitive sale of bonds with the Philippine Delegation.

A typical SRF Financing will involve the following players:

1. State Agency
2. Participating Local Borrowers
3. Underwriter/Investment Bankers
4. Financial Advisor
5. Bond Counsel
6. Tax Counsel

7. Underwriters' Counsel
8. Trustee/Paying Agent
9. Rating Agency
10. Bond Insurer
11. Investors

The underwriter's role is to intermediate the sale of Securities from the SRF Agency to public investors.

There are two methods used to market and distribute the SRFs Securities to investors namely: 1) competitive sale and 2) negotiated sale.

Competitive Sale. A pre-packed fully developed transaction is bid to a group of underwriters. The bidder placing the highest price (lowest price) is awarded the securities in exchange for the purchase price. This is typically used for plain vanilla, well established financing. Only 6% of SRF financing sold over the past 20 years have used competitive sale.

Negotiated Sale. The issuer selects an underwriter well in advance of finance date. The underwriter's bankers work with SRF and other financing team members to structure and market the proposed financing. The structure is customized to meet objectives of borrowers, rating agencies, insurers, and investors. Underwriter works at the will of the SRF. There is typically no formal contract signed until the bonds are sold. 94% of the SRF financings over the past 20 years have been completed through negotiated sale.

Steps in SRF Financing. The Underwriter is involved in all aspects of the financing schedule during a negotiated sale. There are several steps in the process.

1. Selection of Financing Team
2. Issue Structuring
3. Resolution Drafting
4. Loan Agreements
5. Preliminary Official Statement
6. Rating Agency Briefing/Presentation
7. Pre-Marketing
8. Pricing/Sale

I. Selection of an Underwriter

1. **Request for Proposal "RFP".** An issuer, often with the aid of a financial advisor, distributes a questionnaire to potential underwriters. Such questionnaire request information from the underwriter such as capabilities, experience with particular financing scenarios, potential solutions to the current issuer's needs etc.
2. **Response valuation and "short listing".** The issuer revises the responses and chooses a smaller group or "short list" for further evaluation.
3. **Oral Presentations.** Once short listed, underwriters are invited to present their qualifications in person for an interactive session.

II. Developing a Plan of Finance and creating the credit

- A. Identify the revenue stream.
- B. Determine appropriate legal protections.
 - a. Key Legal Protections
 - i. Rate Covenants: A requirement to set net revenues (after operating expenses) sufficient to meet debt service obligations and a margin of safety, or "coverage", usually expressed as a multiple of debt service (e.g. 1.2X or 1.5X).
 - ii. Additional Bond Tests: A test that prohibits the issuance of new bonds with the same security unless there are sufficient net revenues (historical and/or projected) to support the new debt service.
 - iii. Debt Service Reserve Fund Requirement: A requirement that funds from bond proceeds or revenues be set aside to make debt service payments if net revenues are insufficient.
 - iv. Other security devices, such as pledges of revenues or contract rights or mortgages on assets, are often offered as additional security to bondholders.

III. Drafting the Legal Documents

- A. Bond Resolution/Indenture
 - a. Document that provides specific conditions for the issuance of debt and for the protection of bondholders.
- B. Structuring the Financing
 - a. Sizing the issue
 - b. Determining the maturity structure
 - c. Fixed versus variable rate
 - d. Cash or derivatives
- C. Preliminary Official Statement (POS)
 - a. Describes the issuer and credit of bonds that are to be offered.
 - b. Is in substantially the same form as Official Statement but without final pricing terms.
- D. Bond Purchase Agreement (BPA)
 - a. Defines and governs the relationship between the issuer and its underwriting team.
 - b. The BPA is negotiated prior to the mailing of the POS, is finalized through the pricing and is executed shortly after pricing hours.
 - c. Includes the issuer's agreement with respect to underwriters' compensation.
 - i. Fix the terms (price, coupons, maturities, amortization etc.) of the bonds.
 - ii. Require the underwriters to accept the bonds at closing and to make a bona fide public sale and secure these obligations with a good faith check.
 - iii. Provide for certain representation and warranties by the issuer to the underwriters.
 - iv. Sell out all conditions to closing.
 - v. Identify certain conditions under which the underwriters may properly refuse to purchase the bonds.

IV. Obtaining a Credit Rating

- A. Submitting documents
 - a. Rating agencies are looking for data to assess an issuer's ability to meet their financial obligations. They would typically require the following:
 - i. Current and historical operating statistics and financial information
 - ii. Most recent audited financials
 - iii. Bond indenture
 - iv. Summary of outstanding debt
- B. Presentation to analysts
 - a. Representatives from the issuer will make a presentation to describe the issuer's activities in detail and respond to specific analyst questions.

V. Educating Investors

- A. Large informational meetings, "internet road shows" for institutional investors and dealers
- B. Small "one-on-one" meetings with major institutional investors.

VI. Pricing

- A. Negotiating the underwriters' compensation
 - a. Underwriters usually agree to buy the bonds at a price less than 100% The difference between par (100%) and the purchase price is referred to as the "Underwriters' Discount" or the spread.
- B. The Spread is composed of three elements:
 - a. Takedown: Salespersons of the investment banks are paid to sell the issuer's bonds to market buyers. It is customary that takedowns increase as maturity lengthens.
 - b. Management Fee: Managing Underwriters are customarily compensated for the structuring and financial advice provided to the issuer for their attendance at meetings and for their review of documents.
 - c. Expenses: Underwriters incur reasonable out of pocket costs, including counsel fees, pricing, travel, syndication's expenses, regulatory fees and similar items. Spreads are quoted as "dollars per 1000 bonds" ; 1% = 10/bond.
- C. Preliminary Pricing
 - a. Underwriters will assess the market, take into account any economic data that is expected to be released and evaluate an issue's attractiveness to potential buyers.
 - b. Underwriters will estimate preliminary indications of price /yield for each component of the issue.
- D. Pricing
 - a. Underwriters evaluate the market based upon interest from buyers and set the price for each component of the issue accordingly.
- E. Award
 - a. Once the pricing is completed the BPA is executed and binds the issuer and underwriter to the agreed upon conditions.
- F. Final Official Statement
 - a. Mailing to Investors

- b. Filing with Municipal Rulemaking Board (“MRSB”) and Nationally Recognized Municipal Securities Information Repositories
- c. Stickers

G. New York State Environmental Facilities Corporation



EFC President DAVID STERMAN together with JAMES T. GEBHARDT, Chief Financial Officer discusses the mandate of the EFC with the US Study Tour Participants.

Mandate. The Environmental Facilities Corporation’s mission is to promote environmental quality by providing low-cost capital and expert technical assistance to municipalities, businesses and State agencies for environmental projects in New York State. Its purpose is to help public and private entities comply with federal and State environmental requirements.

EFC was created by the New York State Environmental Facilities Corporation Act, Title 12 of Article 5 of the Public Authorities Law of the State of New York, as amended, otherwise called the “EFC Act.” As a public benefit corporation, it is a separate entity apart from the State without any power of taxation, and the State is not obligated to pay its bonds.

EFC is governed by a board of directors, three of whom are required to be certain State officials. They are the Commissioner of the New York State Department of Environmental Conservation (“DEC”), who is designated as the chair of the Corporation; the Commissioner of the New York State Department of Health (“DOH”); and the Secretary of State. The four remaining directors are appointed by the Governor and confirmed by the State Senate.

EFC is empowered by State law:

- To administer and finance the State Revolving Funds (SRFs) established by the State as set forth in the EFC Act pursuant to the Federal Water Quality Act of 1987 and the federal Safe Drinking Water Act Amendments of 1996, as well as to administer the State’s Pipeline for Jobs Fund;
- To finance certain State Contributions to the SRFs, to the Pipeline for Jobs Fund and for certain environmental infrastructure projects;

- To finance, through the issuance of special obligation revenue bonds under its Industrial Finance Program, water management, solid waste disposal, sewage treatment and pollution control projects undertaken by or on behalf of private entities; and
- To render technical advice and assistance to private entities, state agencies and local government units on sewage treatment and collection, pollution control, recycling, hazardous waste abatement, solid waste disposal and other related subjects.

The New York State Environmental Facilities Corporation is a public benefit Corporation, empowered by State law to administer and finance the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund pursuant to the federal Water Quality Act of 1987, as well as to administer the Pipeline for Jobs fund. The Corporation also finances, through the issuance of special obligation revenue bonds under our Industrial Finance program, water management, solid waste disposal, sewage treatment and pollution control projects undertaken by or on behalf of private entities.

Types of Loans. Low cost short-term and long-term financing and grants are available for the funding and refinancing of eligible environmental projects through the State Revolving Funds.

- The Clean Water State Revolving Fund provides financing for the construction of publicly-owned wastewater treatment facilities, other eligible water pollution control projects, and certain facilities undertaken as part of an estuary conservation and management plan.
- The Drinking Water State Revolving, administered jointly with the NYS Department of Health, provides a resource for financing various public drinking water systems (including systems owned by for-profit entities and not-for-profit entities) for expenditures for projects which will facilitate compliance with national and state drinking water regulations or otherwise advance the health-protection objectives of the Safe Drinking Water Act.
- The Clean and Drinking Water State Revolving Funds are funded by federal capitalization grants and State matching funds.

The Corporation also provides financial assistance under its Environmental Farm Assistance and Resource Management, Co-funding for Water and Sewer Projects, Clean Vessel Assistance Program and its Financial Assistance to Business Programs.

Bonds Issued. EFC has issued more than \$10 billion in both tax-exempt and taxable revenue bonds under its Clean and Drinking Water State Revolving Fund programs and its Industrial Finance Program.

Annex C

Directory of Study Tour Participants and Institutions Visited

A. Study Tour Participants

Institution/ Name and Position	Contact Details
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MS. LYDIA ORIAL President LGU Guarantee Corporation	Office address: 28/F, Antel 2000, 121 Valero St., Salcedo Vill., Makati City Tel: 845 3386 Fax: 888 4217 Email: dengorial@lgugc.bayandsl.ph
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Institution/ Name and Position	Contact Details
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MR. BRAD JOHNSON President Resource Mobilization Advisors-RMA	Office Address: 700-12 th St, NW Washington, DC. 20005-4075 Tel: (202) 904 2399 Fax: (301) 961 5755
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Note: Representatives from the Japan Bank for International Cooperation Representative Office in Washington DC, Messrs. Tetsuya Harada and Akito Takahashi joined the meetings with USAID and Maryland State Revolving Fund.

B. Institutions Visited

USAID

Address: Ronald Reagan Building, 1300 Pennsylvania Ave, DC, 20004
www.usaid.gov

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John Wasieliewski, Director, DCA
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Jessica Tulodo, DDG to EGAT

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Ed Roche, Senior Credit Analyst

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Maryland Water Quality Financing Authority

Address: 1800 Washington Boulevard, Baltimore MD, 21230
www.mde.state.md.us

Jag Khuman
Director

Tel: 410-537-3119
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Email: jkhuman@mde.state.md.us

New Jersey Environmental Infrastructure Trust

Address: 401 E. State St. Trenton, NJ 08625
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Dennis Hart, Executive Director

Trudie Edinger, Administrative Liaison

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Passaic Valley Water Commission

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Executive Director

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Laura Cummings
Plant Superintendent

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Massachusetts Water Pollution Abatement Trust
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Bruce Van Dusen
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Moody's Rating Agency

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Annex D

Study Tour Program and Itinerary

DATE & TIME	MEETING/ ACTIVITY	AGENDA/ NOTES	LOGISTICAL INFORMATION
Saturday, September 15, 2007			
8:05 AM	Participants leave for Washington DC	NW 20- Audi Pantillano (PWRF); Messrs. Tungpalan, Geron, Quitariano and Ms. Habulan	
9:00 AM			
6:54 PM	Participants arrive in Washington DC (from Detroit)	NW 1226- Audi Pantillano (PWRF); Messrs. Tungpalan, Geron, Quitariano and Ms. Habulan	
6:54 PM			
8:00 PM	Hotel Check in		Willard Inter Continental Washington 1401 Pennsylvania Ave, NW Washington, DC 20004 (202) 628-9100
Sunday, September 16, 2007			
9:00 AM	Briefing on study tour – review itinerary	Basic overview of logistical and content information for the upcoming days.	Fillmore Conference Room Willard Inter Continental Washington
Monday, September 17, 2007			
7:30AM	Meeting with PWRF Team: DAI, TCGI and RMA		Stone Conference Room Willard Inter Continental Washington
8.30AM	Check out of hotel		
10:00AM	Meeting at USAID-Development Credit Authority John Wasielewski- Director of the Office of Development Credit Ed Roche- Sr. Credit Analyst	Discuss USAID and DCA program and experiences supporting water revolving funds	Address: Ronald Reagan Building 1300 Pennsylvania Ave, DC, 20004 Telephone and Email: Ed Roche- (202) 712-0277 eroche@usaid.gov
11:30AM	Depart USAID-DCA for Baltimore		
12:30PM			
2:30	Meet with Maryland Department of Environment - Water Quality Finance Administration Jag Khuman, Director	Discuss technical assistance to small towns, their capital project loan review process, project selection methods and portfolio management.	Address: MWQFA Headquarters 1800 Washington Boulevard Baltimore MD, 21230 Telephone: Andrew Sawyers – (410) 537 3411

DATE & TIME	MEETING/ ACTIVITY	AGENDA/ NOTES	LOGISTICAL INFORMATION
	Andrew Sawyers		
4:30	Depart MWOFA for Trenton New Jersey		
8:00	Arrive at hotel in Trenton, NJ;		Marriott-Lafayette Yard 1 W Lafayette St Trenton, NJ 08608 Tel: (609) 421-4000 Fax: (609) 421-4002
Tuesday September 18, 2007			
7:30 AM	Check out hotel		
8:30 AM	Meet with NJ Environmental Infrastructure Trust Dennis Hart, Executive Director Trudie Edinger – Administrative Liaison	Discuss intended use planning exercise and how this guides resource allocation. Discuss financing model and in particular how the interest subsidy component is sustained.	Address: 401 E. State St. Trenton, NJ 08625 Telephone/ Email: Trudie Edinger- 609-219-8600 tedinger@njeit.org
11:30	Depart NJ EIT for Passaic Valley Water Commission		
1:00PM	Meet with PVWC Joseph A. Bella, Executive Director Laura Cummings, Plant Superintendent	Discuss how they have merged water utilities; and how they package projects for financing. We may also do a tour of their water treatment plant.	Address: Little Falls Water Treatment Plant 800 Union Blvd, Totowa NJ Telephone and Email: Laura Cummings Office: (973) 237.2039 Cell: (201) 522-2532 lcummings@pvwc.com
5:00	Depart PVWC and travel to New York City		
6:30	Arrive at Hotel		Quality Hotel Times Square 157 W 47th St New York, NY 10036 Tel: (212) 827-1900 Fax: (212) 768-7573
Wednesday September 19, 2007			
9:00 AM	Depart hotel for Hawkins Delafield and Wood Office		
9:30 AM	Meeting with Hawkins Delafield and Wood Bruce van Dusen, Partner	Discuss role of legal advisors; importance and elements of trust indentures, covenants to credit enhance bonds, bond resolutions and enforcement of transfer intercepts.	Address: Hawkins Delafield and Wood One Chase Manhattan Plaza New York, NY 10005-1401 Telephone: (212) 820-9307
12:00 PM	Lunch		

DATE & TIME	MEETING/ ACTIVITY	AGENDA/ NOTES	LOGISTICAL INFORMATION
1:00 PM	Meeting with Moody's Credit Rating Agency Tom Paolicelli Vice President and Senior Analyst Infrastructure Finance Team	Discuss role of credit rating agencies in pooled bond financing	Address: Moody's Investor Service 7 World Trade Center at 250 Greenwich Street New York, NY 10007 Telephone: (212) 553-0334 fax: (212) 298-6872
4:00 PM	Arrive at hotel		Quality Hotel Times Square 157 W 47th St New York, NY 10036 Tel: (212) 827-1900 Fax: (212) 768-7573
Thursday September 20, 2007			
8:00 AM	Check out of hotel; Depart for Bear and Stearns Office		
8:30 AM	Meeting with Bear and Stearns Neal Flannegan, Manager	Discuss role of investment banks in pooled bond financing	Address: 383 Madison Avenue New York, NY 10179 Telephone: (212) 272-2000
12:00	Depart NYC for Albany NY		
4:00 pm	Arrive Albany; Check in hotel		Hampton Inn & Suites Albany Downtown 25 Chapel Street Albany, NY 12210 Tel: (518) 432-7000 Fax: (518) 275-4502
6:00	Wrap up of past days meetings		
Friday September 21, 2007			
8:00 AM	Depart hotel for NY EFC		
8:30 AM	Meeting with NY Environmental Finance Corporation James T. Gebhardt/ Chief Finance Officer	The agenda will cover: <ul style="list-style-type: none"> ▪ ownership ▪ organizational structure ▪ technical assistance to small towns ▪ project selection and portfolio management ▪ various mechanisms for credit enhancements, e.g., pledge of cash flow, debt service reserve fund, intercept of inter- 	Address: NY EFC 625 Broadway Albany NY 12207 Telephone: (800)-8829271 Website: www.nysefc.org

DATE & TIME	MEETING/ ACTIVITY	AGENDA/ NOTES	LOGISTICAL INFORMATION
		government transfer of funds <ul style="list-style-type: none"> ▪ borrower and project appraisal 	
12:00 PM	Lunch		
2:00	Wrap up session	Wrap up Session for Trip; Define key targets and objectives for coming year and outline action plan for the long term financing mechanism of PWRf	Conference Room? Hampton Inn & Suites Albany Downtown
5:00			
Saturday September 22, 2007			
8:00 AM	Check out		
11:30 AM	Arrive at NYC Hotel;		Quality Hotel Times Square 157 W 47th St New York, NY 10036 Tel: (212) 827-1900 Fax: (212) 768-7573
12:00			
Departure for Manila: Sunday, September 23, 2007			
12:00 PM	Check-out Hotel; Leave for Airport	Egress through John F. Kennedy Airport	
3:20 PM	Departure for Manila	NW 11 – Messrs. Tungpalan, Geron, Quitariano and Ms. Habulan	

Annex E

Presentation of Massachusetts State Revolving Fund

Massachusetts Clean Water and Drinking Water State Revolving Funds, an Introduction




Pooled Finance Exchange Visit

Introductions

 **Timothy P. Cahill**
Commonwealth of Massachusetts Treasurer and Receiver-General
Chair, Massachusetts Water Pollution Abatement Trust
State House, Room 227, Boston, MA 02133
617-367-3900

 **Scott A. Jordan**
Executive Director
Massachusetts Water Pollution Abatement Trust
One Ashburton Place, Boston, MA 02108
617-367-3900
sjordan@tre.state.ma.us

 **Steven J. McCurdy**
Director
Division of Municipal Services
Mass. Department of Environmental Protection

 **Massachusetts Profile**

Of the 50 states, Massachusetts is:

- Small – 44th in area (27,360 km²)
- Populous – 9th (6,349,097)
- Densely populated – 3rd (818/ km²)
- High income – 9th (\$52,354 per capita)

 **Massachusetts Profile**



 **SRF Programs: Clean Water SRF Loan**

- Eligible Borrower: Local Government Unit
- 2% Interest Rate
- Up to 30 year loan term
- Eligible Projects
 - Wastewater Treatment Projects
 - Infiltration Inflow Projects
 - Collection System Projects
 - Nonpoint Source Projects

 **Clean Water SRF Loan Title 5 (CSMP)**

- Eligible Borrower: Local Government Unit
- 0% Interest Rate
- Up to 20 year loan term
- LGU loans \$\$ to private parties
 - Secured by local property tax betterment
 - Up to 5% interest rate to borrower
- Eligible Projects
 - Septic System Repair
 - Sewer System Tie-ins (provided system failure)



SRF Programs: Drinking Water SRF Loan

- Eligible Borrower: local governmental unit or other community water system
- 2% Interest Rate
- Up to 20 year loan term
- Eligible Projects
 - Projects to address or prevent violations of the public health standards
 - Rehabilitation or development of water sources to replace contaminated sources,
 - Storage facilities, transmission, and distribution pipes
 - Land acquisition, but only if the Department determines that such land is integral to a project

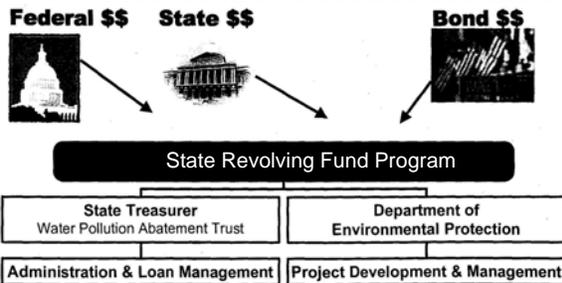


Loan Terms/Fees

	Clean Water	Drinking Water	Interim Loan
Loan Rate	2% (20 years) 2.3% (30 years)	2%	1/2 market (1.76%)
Max. Term	30 years	20 years	1 year
Admin Fee	0.15%	0.15%	0
Effective Loan Rate	2.15%	2.15%	
Origination Fee (one-time)	7.50/\$1000	7.50/\$1000	\$500-\$1,000



State Revolving Funds, an Intergovernmental Partnership



Roles: Federal Government

- Federal government provides capitalization grants
 - Clean Water: \$46m per year, \$868m total
 - Drinking Water: \$27m per year, \$321m total
- Nationwide regulatory framework
 - Clean Water Act
 - Safe Drinking Water Act



Roles: State Government

- State government provides 20% capitalization grants
 - Clean Water: \$9m per year, \$174m total
 - Drinking Water: \$5m per year, \$64m total
- Regulatory Activities
 - Enforcement of Clean Water Act
 - Enforcement of Safe Drinking Water Act
- Program Terms: loan rate, subsidy
- Administrative Framework
 - Procurement regulation
 - Technical approvals



Roles: Mass DEP

- Department of Environmental Protection responsible for:
 - Enforcement
 - Selection of Projects
 - Project technical assistance
 - Approval of expenditures



Roles: State Bond Agency

- Mass Water Pollution Abatement Trust Responsible for:
 - Fiduciary
 - Independent Credit
 - Loan Administration
 - Borrowing/Lending Activity

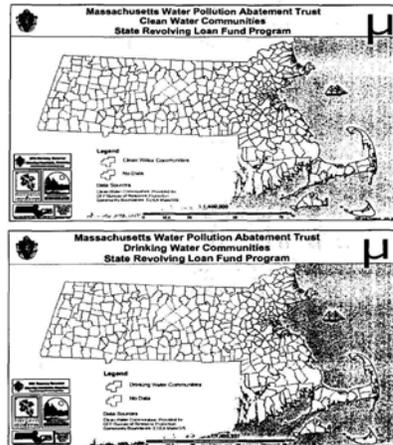


Roles: Local Government

- Local Government Responsible for:
 - Compliance with Clean Water and Drinking Water Acts
 - Construction and management of assets
 - Management of System
 - Rate-setting
 - Repayment of Loans



SRF Background: Statewide Success



- 1,070+ Loans made
- \$4.6 billion lent
- 271 of 351 Mass. Cities and Towns are MPAT/SRF Borrowers
- 97% of Mass. Population is served by WPAT



Steps to Financing

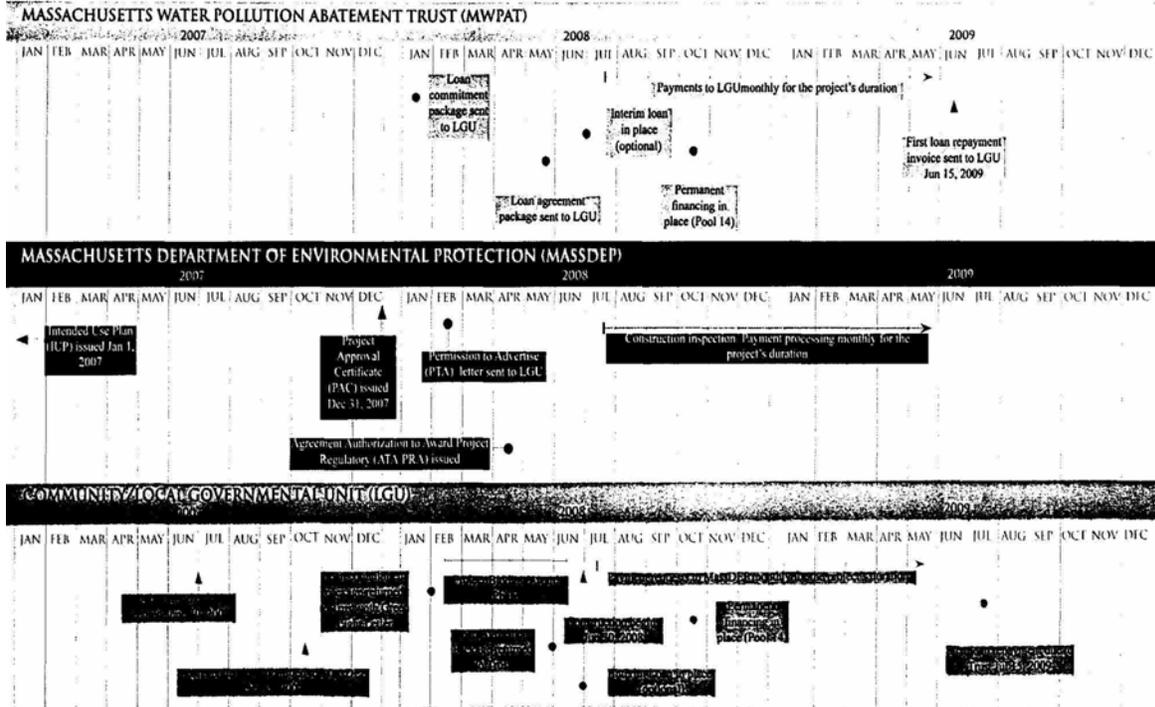
1. Project Selection – Intended Use Plan
2. Local Authorization- by June 30, 2007
3. Final Application- by October 15, 2007
4. Project Approval Certificate
5. Loan Commitment- WPAT
6. Procurement Process
7. Project Regulatory Agreement
8. Loan Agreement- WPAT
9. Loan Closing
 - Short Term Loans (Interim loans)
 - Permanent Loans



**Massachusetts
Water Pollution
Abatement Trust**

Project Duration →
Deadline Dates →
Flexible Dates →

**STATE REVOLVING FUND
TYPICAL 2007 INTENDED USE PLAN (IUP) PROJECT TIMELINE**



1. Project Selection

- Application On-Line at <http://www.mass.gov/dep/water/approvals/surffms.htm#srf>
 - Due in August
- Selection by January



2. Local Authorization

Town Meeting/City Council Vote:

- Must be voted by Saturday, June 30, 2007
- General Obligation Pledged as Security
- Authorization to Borrow
 - Use suggested language written by Trust Bond Counsel
- Appropriation
 - Make sure you ask for enough. Include:
 - Eligible + Ineligible costs
 - Construction Management Fees
 - Police Details
 - Inflation



3. Borrower Loan Application

- Due no later than Monday October 15, 2007 (earlier submission encouraged)
- Loan Application has three parts
 - Applicant Information - Authorized Representative, Local Appropriation etc.
 - Project Requirements - Plans and Specifications, Cost, Schedule, etc.
 - Supplemental Requirements - Permits, Planning, Professional Services Agreement, etc.



4. MassDEP Project Approval Certificate (PAC)

- PAC Issued by MassDEP to the MWPAT
- A copy is sent to Community
- PAC certifies project eligibility, costs, and lists conditions



5. WPAT Loan Commitment Package

- Board Vote creates Commitment to Borrower
- Includes Requirements Letter outlining the step by step process to close the loan
 - Loan Questionnaire – ensures WPAT has all necessary information to comply with bond rules
 - Loan Questionnaire is available on our website.
 - Green Light Letter – from local counsel
- Return Signed Commitment and Questionnaire to WPAT



MassDEP Project Regulatory Agreement (PRA)

- Contract between MassDEP and Borrower
- Establishes MassDEP control over project
 - Outlines project eligibility and funding
 - Establishes disbursement procedures
 - Loan closeout process
 - Legal requirements of Borrower
 - Discusses project defaults and how to remedy



Borrower Procurement Process

- Before the start of bidding, MassDEP must give borrower permission to advertise.
- Contracts must comply with SRF requirements.
- Bid Specifications must be approved in writing by MassDEP.
- MassDEP Civil Rights Section reviews and approves MBE/WBE participation.
- MassDEP reviews bid results and authorizes the award of the contract.



WPAT Loan Agreement

- Contract Between WPAT and Borrower
- Outlines WPAT and Borrower's responsibilities
- States how a loan default can occur and how to cure the default
- Loan defaults do affect the project funding.
- Bond Counsel Issues Bond to WPAT
- Sign and Return Project Regulatory Agreement (PRA) and Loan Agreement to WPAT.



Interim Financing

- Preferable to BANs
 - Lower interest rate
 - Easier compliance
 - Interest rate = 1/2 Market (currently 1.76%)
 - Loan origination fee of \$500 - \$1000
 - Become permanently financed within one year
 - Only pay interest on amount used
 - Interest payment due at close of permanent loan
- Contact WPAT and local bond counsel



Permanent Financing

- Funded by WPAT bonds- Fall 2008
 - Clean water loans are amortized for up to 30 years with engineers' certification
 - Drinking water loans are amortized for up to 20 years only
 - Spend-down within 24 months
- All interim loans, active projects will be financed.
- DEP/WPAT will contact each borrower in summer regarding schedule



Disbursements

- Receiving the Funds
 - Proceeds of the loan – interim or permanent – are disbursed to the community monthly.
 - "Drawdown Request" is completed by the community and forwarded to MassDEP with the appropriate documentation
 - MassDEP reviews the request and approves all eligible costs
 - MassDEP forwards the request to the WPAT
 - WPAT wires to borrower within 48 hours



Debt Service Schedule (Schedule C)

Massachusetts Water Pollution Abatement Trust
Water Pollution Abatement and Drinking Water Revenue Bonds
Pool Program Bonds, Pool 14
Preliminary Structuring Analysis

Schedule C

BORROWER NAME Yourtown
LOAN NUMBER CH07-0001

Loan Term (in Years) 20
Borrowed Amount \$5,000,000
Loan Rate 2%

Date	Schedule of Loan Repayments*			Administrative Fee (0.15%)	Loan Origination Fee (0.75%)	Total Due
	Principal	Interest	Total			
01-Oct-08						
15-Jul-09	161,786	83,333.33	245,119.63	3,750.00	37,500.00	286,369.63
15-Jan-10	48,362.14	48,362.14	96,724.28	3,626.66		100,350.94
15-Jul-10	198,725	48,362.14	247,087.14	3,626.66		250,713.80
15-Jan-11	48,364.85	48,364.85	96,729.70	3,479.62		100,209.32
15-Jul-11	202,739	48,364.85	251,103.85	3,479.62		254,583.47
15-Jan-12	44,367.50	44,367.50	88,735.00	3,327.56		92,062.56
15-Jul-12	5,754.37	5,754.37	11,508.74	431.58		12,040.32
15-Jan-13	284,841	5,754.37	290,595.37	431.58		291,026.95
15-Jul-13	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-14	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-14	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-15	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-15	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-16	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-16	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-17	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-17	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-18	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-18	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-19	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-19	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-20	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-20	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-21	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-21	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-22	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-22	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-23	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-23	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-24	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-24	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-25	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-25	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-26	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-26	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-27	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-27	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-28	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-28	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-29	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-29	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-30	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-30	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-31	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-31	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-32	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-32	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-33	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-33	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-34	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-34	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-35	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-35	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-36	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-36	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-37	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-37	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-38	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-38	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-39	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-39	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-40	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-40	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-41	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-41	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-42	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-42	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-43	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-43	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-44	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-44	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-45	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-45	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-46	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-46	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-47	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-47	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-48	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-48	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-49	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-49	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-50	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-50	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-51	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-51	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-52	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-52	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-53	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-53	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-54	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-54	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-55	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-55	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-56	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-56	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-57	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-57	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-58	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-58	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-59	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-59	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-60	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-60	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-61	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-61	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-62	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-62	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-63	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-63	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-64	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-64	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-65	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-65	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-66	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jul-66	290,596	2,905.96	293,501.96	217.95		293,719.91
15-Jan-67	290,596	2,905.96	293,501.96	217.95		293,719.91