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OFFICE OF THE
DIRECTOR OF INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20503

PROJECT PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

~~492-22-120-309~~

492-22-120-309



PHILIPPINES - Local Water Development I

DLC/P-2159

5/17/76

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

UNCLASSIFIED

AID-DLC/P-2159

May 17, 1976

MEMORANDUM TO THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Philippines - Local Water Development I

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed Twenty Million Dollars (\$20,000,000) to the Government of the Republic of the Philippines to assist in financing the improvement/construction of provincial urban waterworks systems; to provide engineering and management consulting services to the Local Water Utilities Administration (LWUA); to provide equipment, materials, training aids and services to a water analysis laboratory and a waterworks training facility; and to provide specialized training in the U.S.

The loan proposal is scheduled for consideration by the Development Loan Staff Committee on Friday, May 21, 1975; please note your concurrence or objection is requested by c.o.b. on Wednesday, May 26, 1976. If you are a voting member a poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development Program Review

Attachments:

Summary and Recommendations
Project Analysis
Annexes A-U

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LOCAL WATER DEVELOPMENT I

(All subsequent references to Provincial Water II in the
PP shall hereinafter mean Local Water Development I)

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ANNEXES (Due to the limitation of approximately 100 pages, please note
that certain annexes listed below have been extracted from the
PP and are available in the ASIA/PD office)

- A. AID/W PRP Approval Messages: State 62053 and State 23279 -
Available in ASIA/PD
- B. Project Technical Data - CDM "110 System" Summary Report
- C. Environmental Impact Statement - Available in ASIA/PD
- D. Logical Framework Matrix
- E. Project Performance Tracking Network Chart
- F. Statutory Checklist
- G. Mission Director's Certification, FAA 611 (e)
- H. GOP Loan Application
- I. Draft Project Description - Available in ASIA/PD
- J. Draft Loan Authorization

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- K. GOP and Other Donor Efforts in Public Health
- L. LWUA Policy Statement
- M. Assessment of LWUA Institutional Capability
- N. Role of Women in the Philippines - Available in ASIA/PD
- O. IPC - Scope of Work - Evaluation Study
- P. IPC - Sociocultural Profile of 5 Cities - Available in ASIA/PD
- Q. IPC - An Overview of the Community, Tabaco - Available in ASIA/PD
- R. LWUA's Organization Chart
- S. "110 Waterworks System" Deficiencies - Available in ASIA/PD
- T. Financial/Economic Feasibility Methodology and Model - Available in ASIA/PD
- U. Assessment of Water District Institutional Capability

B. Recommendations: It is recommended that a loan be authorized to the Government of the Republic of the Philippines (Borrower) to be relent to the Local Water Utilities Administration (a Government Corporation) for \$20,000,000. The total amount of the authorized loan is to be obligated one-half in FY 1976 and one-half in FY 77 with the following proposed terms:

- Terms:
1. Maturity: forty years including a ten-year grace period.
 2. Interest: two percent per annum during the grace period and three percent per annum thereafter.
 3. Currency: interest and principal repayable in U.S. dollars.

Capital Assistance Committee Members

USAID

Chairman	Richard Dangler
Loan Officer	Arthur J. Thivierge
Program Officer	William Mulcahy
Engineer	John Saccheri

AID/W

Chairman	Milburn Pehl
Loan Officer	Elmer Lee
Desk Officer	Vance Elliott
Engineer	John Neave
Program Officer	Alver R. Roan
Attorney	Peter Bloom
Health Officer	Von C. Yoder

C. Description of the Project:

This project has four aspects:

1. Design and improvement/construction of 25-35 relatively small waterworks system: Under a feasibility study loan, the Local Water Utilities Administration (LWUA) with the assistance of a U.S. consultant, Camp Dresser & McKee International, Inc. (CDM) has studied 110 relatively small provincial waterworks systems for the purpose of determining what could be done quickly and economically to bring the waterworks systems up to an acceptable standard. The final LWUA/CDM report is the basis for this project. A summary is included in the PP as Annex B.

As was explained in the FY 76 and FY 77 PRPs, this is the fourth phase of development of a total provincial water program in which AID has had active involvement. AID financed the prefeasibility studies from which the concept of a national institution providing financing, training, standards and regulations to local independent water districts emerged. AID also financed the comprehensive feasibility studies which led to the creation of the recommended institutions. By Loan 492-U-033, AID is currently financing consulting services to the national and local institutions and partially financing the improvement/construction of five relatively large provincial urban waterworks systems. These five subprojects are well into implementation and are in various stages of design and construction. This overall project under Loan 033 is proceeding very well under LWUA, thus influencing USAID's recommendation for continued support to the overall program.

LWUA realizes that the time span from prefeasibility through feasibility, design and construction of a comprehensive waterworks system is extremely long and the cost of total rehabilitation very expensive. They also know that it cannot limit assistance to only total rehabilitation and still meet the national demand. Both large and small communities are forming into independent Water Districts and clamoring for technical and financial assistance. There is no doubt that community waterworks systems in the provinces, almost without exception, are antiquated, uneconomical, serve a small portion of the community and provide unsafe water. The needs and expectations of the provincial urban areas are just too great to follow the traditional route of total one stage project development. As a result, LWUA has developed what is called the "high impact" program, a first stage effort, in which only the major defects of a waterworks system are corrected and the system management assisted to put the system on a sound, businesslike basis.

A LWUA/CDM study identified 81 potentially eligible projects from a total of 110 systems studied. A project is classified as "not potential" where the source of water is uncertain and FAA Section 611 (a) could not be satisfied without

resorting to further investigations. Before implementing a subproject, LWUA, with the assistance of its general consultant, James M. Montgomery, Consulting Engineers Inc. (JMM), will screen the potential projects again, discuss the formation of an independent water district with the city officials, perform the necessary financial/economic analysis and then make a final decision on design and construction. Since these sub-projects are all relatively small, LWUA intends to prepare the engineering design internally and will assist the newly formed water district with the contracting and construction process. This loan will finance, in addition to items described in paragraphs 2, 3 and 4 below, the foreign exchange requirements of that portion of the local currency costs which would bring AID participation up to 50% of each subproject estimate. Special Letters of Credit (SLC) will be used to reimburse local currency costs using a modified Fixed Amount Reimbursement procedure. (This same financing arrangement is currently being followed under AID Loan 492-U-033 for the financing of JMM services to LWUA and the construction of five relatively large systems.)

At the end of this 5-year project, 25-35 of these "high impact" subprojects will have been completed.

2. Consulting Services: AID is currently financing the services of JMM from Loan 492-U-033. In addition to providing general engineering services, JMM is providing management assistance for both the national and local institutional development. AID provided a \$400,000 grant in 1974 to partially finance initial JMM services towards institutional development, but now that the program is well underway, loan funds will be used to finance these services in the future. Under the original JMM/LWUA contract, JMM was responsible for providing general advisory services to LWUA and the first five subprojects. It soon became apparent that this scope was inadequate because, as interest was generated, about 30 water districts were formed and many more are in the process of formation. Also, LWUA with ADB financing has commenced design/construction of five more relatively large waterworks systems. Therefore, LWUA

requested AID to finance a contract amendment which will provide among other provisions, additional management advisors to assist with the institutional development of all water districts, a financial advisor to LWUA, and more resident engineers to advise in the supervision of construction and to assist with the training of design engineers to carry out to do its own design work under the "high impact" program. The dollar portion of the original consultive services contract is being financed from AID Loan 492-U-033 plus the \$400,000 grant. The recently negotiated amendment will be financed from two sources: about \$.250 million from Feasibility Studies Loan 492-H-030 and the balance of approximately \$2.5 Million from this proposed loan. Since the current contract as amended expires in July 31, 1978 and the "high impact" program will extend beyond that period, it is assumed that some additional consulting services will be needed beyond the current contract period. It is not possible to predict at this time what level of competency LWUA will have reached by July 1978; however, for planning purposes, it is assumed that LWUA will be able to carry on the institutional development work without additional consulting services but will only require some assistance in engineering. Therefore, it is estimated that only \$500,000 will be needed for technical services after July 1978. The \$10 million FY 76 obligation will fully fund the January 1, 1976 amendment for \$2.5 million and the next \$.5 million will come from the FY 77 obligation if needed. Funds not needed for consultant services will be used for project construction. At the end of the five year project period, LWUA should be fully staffed with trained personnel, including 20-25 design engineers, and be capable of carrying out all aspects of this program without foreign technical assistance.

3. Commodities: Since many of the smaller waterworks and certainly all of those in the "high impact" program will be too small to establish and support a fully equipped water quality and analysis laboratory. LWUA intends to set up a central laboratory which will be used for water quality control testing and for training. \$50,000 is being scheduled for this purpose. At the end of the project LWUA will have a fully equipped laboratory staffed with qualified staff sufficient in capacity to handle the needs of LWUA.

Training is a constant on-going activity of LWUA. Presently training sessions conducted by LWUA range from seminars for water district Board members to classes in meter repair. LWUA intends to set up a fully equipped training facility to train waterworks system operators and maintenance personnel. For this purpose, \$50,000 is also programmed to cover the cost of imported audio-visual aids and equipment. At the end of the project LWUA will have a training facility and staff. One of the long term consultants included in the LWUA/JMM contract amendment is a training advisor.

4. Participant Training: Under the current project, AID provided a \$100,000 grant for participant training. This was used to send 25 participants to the U. S. for formal and observation training for periods ranging from two weeks to three months plus one long term participant for training in hydrogeology. This was an extremely successful program and all the participants are currently employed by LWUA or water districts. It is now anticipated that some specialized training in the U. S. will be beneficial in certain fields such as hydrogeology, hydraulics and pumping systems, and wastewater engineering. \$100,000 is being reserved for this purpose.

D. Summary Findings:

Implementation of the "high impact" program will have considerable favorable effect on the overall provincial water program of the Philippines. This is an opportunity to improve a very unhealthy situation which exists in 25-35 communities and thus improve the health and economic development of 1.5 - 2.0 million people in a relatively short time for a relatively small amount of money.

The LWUA/CDM 110 waterworks systems study clearly shows that a need exists and it has identified over 81 cities as ready candidates for the proposed "high impact" program. At the time of preparation of this PP there are several indications that confirm the readiness of the project for implementation. For example: (1) Over the past two and one-half years,

LWUA has developed into a relatively mature and capable organization (See Annex M) with the assistance of JMM, of successfully implementing the project. (2) 12 of the 110 cities studied have already formed water districts and 16 cities are in the process of doing so. (3) JMM and LWUA have negotiated a contract amendment (approved by AID, subject to availability of funds) to provide the consulting services necessary to implement the project. (4) As described in Section C. 1, CDM has completed their study of 110 systems and recommended improvements for over 80 cities. (5) LWUA contracted for the services of a U. S. economist to develop a methodology to test the financial and economic feasibility of the cities under the "high impact" program. Prior to approving the eligibility for construction financing by both AID and LWUA, the economic criteria set forth in Part 3. F must be satisfied. The results of testing the methodology on several of the potential project cities, indicate a very favorable financial and economic return on investment. (See section Part 3-B for Technical Analysis and Annex B for the A/E's detailed summary of the 110 cities project).

AID's statutory requirements will be fully satisfied. CDM, the U. S. engineering firm conducting the initial study on the 110 systems, has identified those cities (81) which are potential projects and the particular defect that must be corrected to bring the system up to an acceptable standard. The study further refines the potential by identifying 16 of the 81 that require some further engineering analysis before the particular defect can be corrected. CDM is also the firm conducting the comprehensive feasibility studies for ten relatively large cities for LWUA. They, therefore, recently have updated cost data and as a result, USAID is confident that the engineering analysis and the cost estimates meet FAA Section 611 requirements. Subsequent engineering prior to construction will be done by LWUA under the guidance of JMM. USAID has complete confidence in JMM, who have demonstrated their capabilities during the past three years of the program beginning with the 1973 comprehensive feasibility studies on which AID Loan 492-U-033 was based.

The financial/economic analysis methodology and testing which will be used for each subproject is given in this PP (See Annex T). A loan Condition Precedent will require that the financial/economic analysis be performed for each subproject prior to a request for loan financing.

An environmental assessment was made by CDM (See Section Part-3-C and Annex C for detailed discussion).

This PP contains the Mission Director's 611 (e) Certification (See Annex G) that the Philippines has the capability to effectively maintain and utilize the project.

E. Project Issues:

The following issues (questions) were raised during the preparation and presentation of the FY 1976 and FY 1977 PRP to AID/W (See Annex A) and are resolved as follows:

1. How does improved potable water system relate/coordinate with other GOP efforts in public health sector? The GOP has a Four-Year Health Plan which, among other items, addresses itself to the following priorities:

- (a) Control of Communicable Diseases
- (b) Improvement of Environmental Health Factors
- (c) Extension of Rural Health Services
- (d) Programs in Development of Medical Services

All of these priorities are related to waterborne or water related diseases and is complimentary to the efforts of the provincial urban water program. See Annex K for a more complete discussion of this issue and a summary of some of the GOP and other donor activities.

2. How will the "high impact" program benefit the poor and how will the poor unable to pay for connection be served? Almost by definition, the small towns chosen for this project are at the lower economic level. In relation to each other some

are poorer than others, but all are poor. Partially to obtain an answer to this question, CDM contracted with the Institute of Philippine Culture (IPC) to make a socio-economic profile of six sample cities as a supplement to the CDM's 110 system study. Copies of the IPC study are available from ASIA/PD for anyone wishing to review their findings. (Also, see Section, Part 4-C for details on the evaluation program, and Section, Part 3-E.)

The project target areas are the small provincial-urban communities with AID participation justified upon the assumption that improved waterworks will improve the quality of life through health and an increase in usable income.

It is LWUA's policy that water be made available to all within the service area but it is also LWUA's policy that all water be paid for. The projects will be beneficial to the poor in two ways through a socialized rate structure and by the use of public faucets. (See LWUA's published policy, Annex L). LWUA's rate structure recommends a lower rate for the users of the smallest meter (3/8"). For those unable to afford a connection, there will be strategically located public faucets. The public faucets will be metered and the water paid for in bulk by the local government or some other group arrangement. One assumption is that the local governments will consider it their responsibility to provide the people with essential needs. If the local government does not accept the responsibility, then the public faucet will be under the control of the barangay (community) leaders who will be responsible for collecting a charge from the users. LWUA queried six water districts as to how they were handling the payment for water from public faucets. Four responded that the local government is paying for the water and two responded that the barangay leaders are responsible for the faucet and they are collecting a charge from the users. So it appears both methods are being used satisfactorily and we can see no reason to change the procedure.

3. What is the role of other donors and the rationale for continued AID assistance? It was with AID's encouragement and assistance that the program was initiated in 1970.

Only after it was demonstrated that the institutions were in place did other donors offer assistance. LWUA obtained a Danish loan for the improvement of two systems in 1974 and recently received an Asian Development Bank loan for the improvement of five systems in the amount of \$16.8 million. The ADB loan is financing five systems for which AID financed the comprehensive feasibility studies. The World Bank has recently shown interest in the project and is expected to finance the improvement of the next five systems, also studied under AID feasibility loan financing. To date the utilization of AID feasibility loan funds has been money well spent as indicated in this case where international donors have been found without any difficulty to carry on financing of the large systems. No other donors, however, have shown any interest in financing the smaller poorer communities to be addressed by this loan. For this reason the GOP specifically is requesting AID assistance on the "high impact" program. (See GOP Loan Application, Annex H). With successful implementation of the "high impact" program it is expected that other donors will become interested and offer future assistance.

4. What is LWUA's institutional capability to undertake expanded program? LWUA is fully capable of undertaking this "high impact" program but, they believe that technical assistance will be needed for several more years. This issue is discussed in more detail in paragraph 8 below, Annex M and Annex U.

5. How will water districts obtain spares for maintenance? The problem of spare parts is recognized by LWUA and previously by the Consultant preparing the feasibility studies. The bid documents prepared by LWUA and JMM for the five systems under Loan 492-U-033 require that the contractor furnish spares for those items designated as critical (pumps, motors, chlorinators and instruments) or which normally require high maintenance. The systems also are designed with standby equipment. In addition, LWUA is currently developing a procurement section under its Technical Department which will be capable of undertaking emergency

procurement. Under the ADB projects LWUA is required to do the offshore purchasing, rather than requiring the contractor to do it as is the case under the AID projects. Finally, all LWUA's bids also require that suppliers have a local representative and maintain local stock (pumps, motors, chlorinators and instruments.)

6. What is the environmental impact of the project and how will the project encourage women to participate in the development process? An environmental assessment is given in Part 3.C and a detailed Environmental Impact Statement (EIS) is provided as Annex C. The EIS analyzes the probable environmental effects of the project on such things as, soil erosion, noise, aesthetics, increase in wastewater, as well as to look at benefits and alternative solutions.

The Role of Women is discussed in great detail in Annex N, which has been taken out of the PP but is available in ASIA/PP. In this Annex, the role of women is reviewed in its broadest terms - that is, vis-a-vis the society as a whole. It cannot be stated that women have a role equal to that of men, but LWUA and the individual water districts realize that more involvement of women is to their advantage. For instance, it is a requirement that at least one board member of a water district be a woman. Also, LWUA is training and employing a large number of women in their operations. As of March 1976, 26% of the LWUA staff were women and this percentage is expected to increase in the future with women assuming more management level positions.

7. How can accuracy in cost estimates be achieved and how will FAR procedures be implemented? Despite the high level of inflation in recent years, LWUA, working with their consultants JMM and CDM, have been able to be very accurate on cost estimates. For example, on the current five pilot projects under Loan 033, bids for three of the five have been evaluated and in all three cases, the successful bidder was quite close to the engineer's estimates. USAID is confident that CDM's cost estimates on the "high impact" program will be reasonably accurate and will properly

consider inflation. The FAR procedures that will be followed on the "high impact" program are identical to those developed for the five pilot projects under Loan 033. The details and procedures are stated in Implementation Letter No. 5 to AID Loan 492-U-033 (available in ASIA/PD). The procedures make allowances for the possibility of higher price increases by evaluating cost and agreeing to a fixed amount to be reimbursed only after bids have been evaluated.

8. Regarding the new element, the "high impact" program: Will municipalities to be included in "high impact" program have autonomous water districts? How will the "high impact" program affect the development of complete systems? What will be the program's effect on LWUA and consultant staffing? How will it accelerate benefits to the poor majority?

All systems under the "high impact" program must be independent water districts. Presidential Decree 198 requires that water districts be formed and certified as a prerequisite to receiving financial assistance from LWUA. As mentioned above, LWUA is currently discussing water district formation with potential "high impact" project areas and as of this date, 12 have already formed water districts and 16 are in the process. This already is more than can be improved within the first two years of the project.

The "high impact" program will bring about complete system development. In addition to the Phase I physical system improvements, the water district will receive technical and managerial assistance from LWUA and JMM. For example, the water districts will be required to install the LWUA commercial practices. The commercial practices include policies and procedures for staffing, billing, accounting, personnel, etc. and were developed by a Philippine management consulting firm under a subcontract to JMM under the current loan project 033. These practices have already been installed in the five pilot projects and are proving very successful in cutting costs, raising revenues and putting the systems on a

more businesslike basis. All five systems have raised collections by a very high percent. Three of the five have already accumulated sufficient surplus to make their scheduled repayments to LWUA. By putting the small systems on a businesslike basis they should be able to self-finance some of the subsequent improvements.

The "high impact" program clearly will require additional staff for both LWUA and JMM. This is already being accommodated. LWUA is currently staffing up and as mentioned previously, LWUA/JMM amended their contract January 1, 1976 to increase the total man/months of consulting services from 325.75 to 669.75. They have more than doubled the current contract to accommodate the additional program. The additional man/months are primarily for management advisors (to the many new water districts) design engineers, training and financial advisors. JMM is prepared to increase its staff to coincide with implementation of this proposed loan.

The "high impact" project will accelerate the benefits to the poor majority. As stated in other parts of this PP, these relatively small communities are less developed than the 15 larger cities currently being assisted or proposed for assistance from Loan 033, ADB and IBRD. Without the "high impact" program the smaller communities would have to wait until the large cities are assisted before funds could be channeled to them. This program immediately targets on the poor. See Section, Part 3. E.

9. What is the evaluation of institutional development on the local level? During the initial three years of LWUA operations, 30 water districts have been formed. Some of these districts have made considerable progress while others have virtually stood still. A discussion of the water districts institutional capability to handle financial management, personnel management and physical resource management, is summarized in Annex U.

10. What is the status of the evaluation of health and economic development impact for the project under AID Loan 492-U-033?

A condition precedent to Loan 033 required an evaluation plan to assess the health and economic development impact of the project. AID/W agreed to assist LWUA develop an acceptable evaluation plan. AID/W sent a team to Manila in October 1974 to investigate the problem and develop a scope of work. Seven months later in April 1975 the team submitted a report which, while not developing a scope of work, did provide a starting point in plan development. In April 1975 AID/Washington executed a PASA agreement with the U.S. Bureau of Census to furnish a Survey Statistician to further assist LWUA and USAID. The Survey Statistician arrived in Manila in September 1975, and has made several subsequent trips since. During these TDY trips the statisticians worked with LWUA which contracted with the Institute of Philippine Culture, Ateneo de Manila University (IPC). The LWUA/IPC contract was signed late January, 1976 with completion of Phase I in early May, 1976. The contract is funded by an AID grant of \$25,000. A copy of the IPC Scope of Work is attached as Annex M. The study will be conducted in four phases.

LWUA/IPC Contract Schedule

Phase I	Preparation of the Research Design	- 4 months
Phase II	Baseline Survey	- 8 months
Phase III	Interim Monitoring	- late 1977
Phase IV	Follow-up Evaluation	- late 1979

IPC is a highly qualified and motivated organization which has considerable experience in the research field of social science. USAID and LWUA are confident of obtaining a useful research document. The PASA agreement with the Bureau of Census

provides for periodic return visits of the Survey Statistician to Manila to review the work and progress of IPC. The findings and conclusions of the IPC evaluation study will equally apply to the systems improved under the "high impact" program.

11. Who are the beneficiaries in the first five cities, Loan 492-U-033? A detailed socio-economic profile has been completed for all five cities and is available with ASIA/ PD Annex P gives the findings on one of these cities, as an example, with discussions on the city economy, income distribution, education, health, government, religion, recreation and ends with a statement of the compatibility of the project with the sociocultural environment.

12. Social Analysis of "high impact" service area? The most detailed social analysis of the "high impact" target area available at this time is the IPC "Socioeconomic Profile of Six Selected Towns" prepared for CDM referred to in other parts of this PP. See Part 1. E. paragraph 2 above, Part 3. E and Annex Q. A brief quote from page xiii of the IPC study Executive Summary reads as follows....."..... the income reported for even the most affluent of the six towns is in absolute terms, low indeed. This is especially true if one considers the equivalent dollar values involved, an assessment which would rate all the six towns as poor."

13. What procurement procedure will be followed under the "high impact" program? To the extent possible LWUA will follow the procedures currently being used in the five cities (Loan 033) wherein the construction contractor's bid includes the material and equipment needed for the project. The contractor makes all arrangements for purchase and delivery to site (except that AID establishes the Letter of Commitment and LWUA establishes the Letter of Credit). If this procedure is found to be not practical in some cases because the project and the local contractor are relatively small or inexperienced, then LWUA's newly established procurement section will make the purchase and furnish the

materials and equipment to the contractor. See paragraph 5 above and Implementation Plan - Part 4. B for more details.

14. Is there additive funding needed for feasibility studies? USAID expects the GOP/LWUA will request some additional funding for feasibility studies from AID Loan 492-T-040, Consulting Services III. It is not their intention to utilize funds from this proposed loan for that purpose. The GOP either has financing or prospects for financing most for all the cities covered by previous feasibility studies and they believe that they can obtain financing for all projects for which feasibility studies are available. They expect follow-on loans for comprehensive improvement/construction of waterworks systems from ADB as well as IBRD. As stated elsewhere, no other donors have expressed interest in financing feasibility studies although they have expressed interest in financing capital improvements. Finally, the financial requirements of the "high impact" program even at this initial stage far exceed this proposed \$20 million loan; and therefore, the GOP/LWUA does not wish to use any of the limited proceeds from the proposed loan for feasibility studies. USAID supports the GOP/LWUA position.

15. Impact on human rights? This project will have a positive impact on the human rights of the persons affected by the project. The Board of Directors of the local water districts is composed of five representative citizens of the area; one representative of civic oriented service clubs, one member a representative of professional associations, one member a representative of business, commercial or financial institutions, one member a representative of educational institutions and one member a representative of women's organization. With this representation on the Board, the communities needs, aspirations and rights are fully considered. This is a representation and development of human rights that did not previously exist. Finally, an improved water supply will lead to increased personal and community cleanliness, a perceived improvement in quality of life and increased individual dignity and well being.

No additional issues were raised.

PART 2 - PROJECT BACKGROUND AND DETAILED
DESCRIPTION

A. BACKGROUND

As stated in the Philippine Mission DAP "... the most critical areas of Philippine development requiring external assistance are the same areas which are the focus of current U. S. legislative authority for A. I. D. - population and health, food and nutrition and rural development." This project emerges out of a recognized national public health problem. The inadequate water systems in the urban provincial areas have contributed to a public health hazard resulting in a high prevalence of water related diseases in the Philippines. To quote from the project PRP "The Philippines has one of the highest morbidity and death rates for water related diseases in all of Asia for which there are statistics. Gastroenteritis is the fourth leading cause of death in the Philippines excluding accidents and infant mortality. This extremely high incidence of intestinal disease is a major concern of the Government of the Philippines (GOP), and we believe that the poor quality and quantity of water in provincial urban areas is probably the major contributing factor. The GOP, therefore, has stated that a local water development program aimed at improving the health and welfare of the people in the provincial urban areas by providing safe potable water is one of their highest priorities."

"While the precise impact of improved water supply on health and nutrition is still unknown, it is known that the ready availability of potable water results in improved health for the beneficiaries. Recorded statistics show that the incident of water related disease is greater in the Philippines than in most other Asian countries. United Nations Health statistics indicate that in 1970 the mortality rate for water related disease in the Philippines was 38.6 per 100,000 population as compared to 0.8 for Hong Kong, 8.0 for Singapore and 19.3 for Thailand."

In an attempt to develop a viable solution to this problem, the GOP in May 1969 requested USAID financial assistance to undertake feasibility studies on waterworks in provincial areas. A prefeasibility study was made by a team from the U. S. Department of Health, Education and Welfare under A. I. D. auspices. The conclusions of this study, completed in September, 1970, were considered in the scope of work for the feasibility studies contracted for in May, 1971 by the GOP (financed under A. I. D. Loan 492-H-023). These studies were performed by a U. S. engineering firm and completed in June 1973.

The studies had two aspects. First were recommendations on the organizational and institutional aspects of water supply at both the national and local level, and outlining the needs for technical, managerial, financial, and regulatory assistance to communities wishing to improve and expand their water utility systems. The second aspect was undertaking individual technical and economic feasibility studies on six provincial water supply systems.

Following the recommendation of the studies, the GOP chartered the Local Water Utilities Administration (LWUA) as the national institution and local water districts on the provincial level by Presidential Decree 198, issued May 23, 1973. The Decree specifically states the GOP policy to develop on a high priority basis, economically viable and sound water supply and wastewater disposal systems for the population centers of the Philippines. This policy would be implemented by the formation and operation of independent, locally controlled water districts under the national LWUA. The LWUA would act as a channel for providing financial assistance, enforcing uniform standards, training of personnel and the adoption of sound operating and accounting practices. Once formed, the local water districts are subject to the provision of the Decree and do not come under the jurisdiction of any local authority or other political subdivision. Presidential Decree 198 was amended by Decree No. 768 in August, 1975, by which LWUA became a GOP corporation and the GOP's contribution to the capitalization of LWUA was increased from Pesos 200, 000, 000

to a minimum of Pesos 500,000,000 to be provided over a ten-year period.

LWUA started operations in September 1973. Now, after only two and one-half years in operation, it has developed into a very effective organization, which has already made a tremendous impact on the country through the development of independent water districts. As of January 31, 1976 LWUA had a staff of 152 employees, of which 108 are professionals holding college degrees. LWUA is organized into four departments (See Organization Chart, Annex P) and is working effectively. Evidence of the effectiveness of LWUA is the fact that 30 water districts have been formed and 30 more are in the process of forming districts. Another indication of the maturity of LWUA is the numerous activities that it is currently handling. Seven waterworks systems are in various stages of design and construction (five financed by AID Loan 492-U-033). Comprehensive Feasibility Studies are being made on ten additional provincial cities (financed by AID Loan 492-U-030), a "high impact" program covering 110 relatively small waterworks systems is being studied to determine what can be done quickly to bring these systems up to an acceptable standard, and design and construction of five of the ten cities under the comprehensive feasibility studies are underway with \$16.8 million financing from the Asian Development Bank. In addition, LWUA recognizes the fact that the key to successful operations in the future is the training of personnel. Extensive training opportunities have been provided ranging from seminars for members of the district Boards to courses in meter repair. Training courses are constantly being augmented and will remain a permanent feature of LWUA's activities.

After its first year of operation, LWUA realized that there was more interest in small provincial cities forming water districts than was initially anticipated. It was also evident to LWUA that the time frame for first indication of interest by a community through preparation of a feasibility study, comprehensive design and construction was just too long to maintain interest in the overall program without LWUA providing some immediate or near term technical and financial

assistance. Therefore, out of a need to maintain credibility and to carry out its responsibilities under the Presidential Decree, LWUA developed the "high impact" program. This program as described in other sections of the PP is unique, not only in that it corrects the obvious defects of waterworks, but literally forces the waterworks to become self-supporting. To receive assistance from LWUA, the community must form into and be accepted by LWUA as a duly constituted water district. Also the water district must install the LWUA recommended commercial practices, which if followed, should put the system on a profitable basis and therefore enable themselves to self finance subsequent improvements.

B. DETAILED DESCRIPTION

1. Logical Framework (See Logical Framework Matrix, Annex D, for overview).

a. Project Goal

"The consequences of unsafe water are serious. Each year an estimated 500 million people are affected by incapacitating waterborne or water-associated illness throughout the world, and as many as ten million people - about half of them infants - die". * AID financed prefeasibility and comprehensive feasibility studies on over 125 provincial urban communities indicate that, almost without exception, community waterworks systems in the Philippines are inadequate and unsafe. By improving a relatively large number of community waterworks systems, which is the purpose of this project, a significant contribution will be made towards improving the public health in the provincial areas, which is the program goal of this project. Obviously the project will make a favorable impact upon public health. But, just as obvious improving the water

*McJunkin, Frederick E. "Community Water Supplies in Developing Countries", p. 2, University of North Carolina, Chapel Hill, North Carolina, 1969.

system alone and providing safe water to more people is not the total solution to the public health problem. Certainly, education, nutrition and other factors have a bearing. As stated in other parts of this PP the GOP and AID are attempting to learn just what contribution improved water supply will make through a very detailed evaluation study. (See Part 1. E. 10 above and Annex O).

While it has been universally recognized that an improved water system will have a favorable impact on public health, it has been equally evident that the improved water system is an essential part of community economic development. In addition to the potential increase in productivity as a result of less illness and longer life, the improved water system facilitates commercial and industrial development. Without the expanded water system, new commercial and industrial establishments would be forced to develop their own individual water supplies. Thus future economic development of a community would be enhanced by the construction of a water system that can meet the water requirements of the industry both with regard to quality and quantity.

b. Project Purpose

The project purpose includes three distinct, inter-related components that collectively contribute towards achievement of the project goal: (1) Increase the use of safe, reliable and economic supply of water in the targeted areas - with particular reference to the lower income group. (2) Institutional development of LWUA and local water districts, (3) Contribute to the economic development in targeted areas. Of the 110 cities studied under the "high impact" program, an average of 25% of the population in each community were being served by the existing waterworks systems. The improvements being recommended are designed to make the water available to the total population in the service area by 1983. This brings the benefits to the total population in a very short period of time. This is possible on these relatively small projects under the "high impact" program because the total quantities of water for each system are not large. Under the current five relatively

large pilot projects (Loan 033) this will not be possible until well after the year 2000. (See Part 1. E. 2 above regarding how this project will reach the lower income group.) At the end of this project, by 1981, these systems will be servicing about 1.5 million people with safe water in the target areas and while the exact effect of the project on public health is not known, an estimated drop of 20% in the incident of waterborne diseases is anticipated.

The institutional capabilities of LWUA and the water districts is the key to continued development and progress of the total program. For this reason, AID is encouraging the use of and financing a rather large component of U. S. consultancy services to LWUA for the life of the project. The tendency in most developing countries is to release the consulting assistance too soon; however, even now LWUA recognizes the value of consultative services. Prior to the expiration of the LWUA/JMM current contract, July 1978, AID and LWUA will carefully assess the needs of the consultant through the remaining life of the project, July 1978. Right now the local institutions depend heavily on LWUA for their individual development with LWUA providing policy and technical assistance. At the end of this project LWUA should be able to carry on all of its functions and continue expansion of the program without assistance of U. S. consultants.

Further, the improved and expanded water systems are expected to provide one of the essential elements for commercial and industrial development. A current common characteristic of the communities studied under the "high impact" program is the lack of industrial establishments. One of the purposes of this project is to facilitate in a relatively short time the type of industries that require a large quantity of good quality water, such as food processing, ice plants, and bottling companies. It is expected that these development opportunities will occur in some communities prior to the end of the project.

c. Project Outputs

The project outputs are (1) The improvement/construction of waterworks systems, (2) Trained LWUA personnel, (3) Water Analysis laboratory and (4) Waterworks training laboratory. As stated throughout this PP, the project will result in the improvement/construction of 25-35 relatively small waterworks systems. We already know from the CDM "110 city study" that the total needs from which the 25-35 will be drawn, far exceeds the current capabilities of LWUA to implement and also requires funding far in excess of what is currently available. However, the last three outputs stated above are the guarantee that with additional funding, the program will continue to expand to other communities. The LWUA/JMM contract recently amended indicates the importance placed upon training of LWUA personnel by JMM and the last two stated outputs are essentially training aids. These training aids are essential to the program's success because they have a direct bearing on the effectiveness of LWUA's personnel.

d. Project Inputs

AID's input is a \$20 million loan to be obligated one-half in FY 1976 and one-half in FY 1977. Approximately \$3 million will be used to finance U. S. consultants services. If the total amount of \$3 million is not required for this purpose, the remaining portion will be used for the improvement/construction of additional waterworks systems. \$100,000 will be used for commodities in the water analysis and waterworks training laboratories and \$100,000 for specialized participant training. The balance of the \$20 million, i. e. \$16.8 million, will be used to finance the foreign exchange requirements of the subprojects and partially reimburse the GOP for local currency costs of the subprojects. Local currency reimbursements will be made through a Special Letter of Credit. AID's combined FX and L. C. reimbursement will not exceed 50% of total project costs.

The GOP will contribute a minimum of 50% of total project cost.

PART 3 - PROJECT ANALYSIS

A. Subproject Selection Criteria and Classification

As briefly stated in Part 1 of this PP, CDM with the assistance of LWUA personnel have for the past nine months surveyed 110 relatively small provincial communities (average population of 33,000). The survey included, among other things: (a) an assessment of the communities need for water, (b) an assessment of the existing water system, and (c) a comparison of (a) and (b) and a proposal to make up the deficiency. In addition to the technical study by CDM, LWUA through its consultant contracted with the Institute of Philippine Culture to research a socio-economic profile of the communities under the program. IPC researched six representative areas. Their report is on file with ASIA/CCD. The analysis of one town, Tabaco, is included as an example of a socio-economic profile, as Annex Q. In addition to the socio-economic research study, LWUA also contracted with Andrew Trice, PhD, Economic Consultant to develop and test a methodology for the financial/economic analysis of waterworks systems under the 110 system study, (see Annex T). The CDM report is the basis for this PP. It includes a summary volume plus eight volumes detailing the analysis of the 110 waterworks system. (This too is available in ASIA/CCD.) Excerpts are included in this PP as Annex B.

Of the 110 systems studied, 81 were identified as potential projects. The potential projects were further classified as complete or partial. Sixty-five and sixteen respectively. If a complete project was too costly under the criteria used (see below), it was re-examined to determine if it could be cut back and still fulfill the purpose of bringing the system up to an acceptable standard. If so, it was included but classified as partial.

The study further identified 48 of the 110 requiring additional technical study. Most of the additional study needs relate to groundwater investigation. Twenty of the 48 were among the 61 projects classified as complete and five among the projects classified as partial while 23 are among the projects

classified as not potential projects.

CDM and LWUA early in the study decided that only projects whose construction capital cost equalled about Pesos 200 per capita 1983 population would be acceptable. If all costs (design, interest during construction, land, administrator, etc.) are considered, the cost per capita would increase to Pesos 280/300. This decision of limiting capital costs per capita was based upon the fact that the communities are relatively poor, that LWUA would charge the districts 9% interest for their loan and it is generally accepted in the water development field that people can pay 6%-8% of their income for water - all of which calculates out to roughly P200 per capita capital cost. These assumptions seem reasonable. (For a further analysis of the cost per capita, see the CDM Final Report-Planning Surveys of 110 Water System on file in ASIA/CCD.)

B. TECHNICAL ANALYSIS

The U. S. engineering firm, CDM, that conducted these studies is a highly experienced firm in the field of waterworks and wastewater treatment. As stated previously, CDM also is conducting ten comprehensive feasibility studies. As a result they have considerable experience in the Philippines and have an appreciation of the Philippine needs and capabilities. This appreciation was borne out in the firm's constant concern while conducting the five studies (five of the ten) of tailoring their recommendations to the community needs in relation to their ability to pay. This concern was carried through to the 110 systems study as indicated by the selection criteria adopted as described earlier.

By the same token, as a result of their experience in the Philippines, the cost figures and escalation factors are based upon sound judgment and experience.

A summary of the study findings, conclusions and recommendations taken from the CDM final report is included as Annex B of this PP. A detailed description of the types of

deficiencies found in the waterworks studied is also included in this PP as Annex S.

In addition to the engineering study already made on the 110 systems, LWUA will conduct additional studies for each system, as stated below in the implementation plan, before being submitted to AID for financing approval including a financial and economic feasibility analysis. In summary, the report submitted to AID, along with the request for financing, will include the LWUA/JMM technical finding, recommendations, financial and economic feasibility analysis, evidence that the system is under an independent water district as defined by LWUA and certified by the U.S. consultant, JMM.

In conclusion, USAID is satisfied that this project is technically sound and meets the requirements of FAA Section 611 (a) and (b).

C. ENVIRONMENTAL ASSESSMENT

An environmental impact statement of improving/constructing a waterworks system is included as Annex C of this PP. The negative impact on the environment of these individual systems will be something less than that stated in the impact statement because in no case is the total system being improved but only those defects corrected to bring the system up to an acceptable standard. On the other hand the positive impact will be realized because the project will provide acceptable potable water and thus favorably affect the public health and community economic development.

During preparation of the Local Water Development I project, the subject of sewage disposal was discussed with the GOP. Sewerage in the Philippines' development plans has not been given the priority it enjoys in more developed countries where per capita consumptive use of water is considerably higher than currently being projected for this project. Only minimal dependence is placed on waterborne sewage disposal at the present time in the Philippines. In

order of priorities, the Philippines considers basic water supply and distribution to be far more important than sewage disposal and at this point in time the GOP is simply unwilling to consider investing an equal amount, and possibly more, of capital funds in sewerage disposal. Cost of sewerage is prohibitive and definitely not within current GOP priority development considerations.

Sewage disposal may become a problem and may precipitate adverse environmental conditions in the future but the establishment of the LWUA and local water districts will create the institutions necessary to effectively address and deal with the sewage disposal problems when appropriate. On balance, the benefits of an expanded, improved, safe, reliable and economical water system would seem, at this time, to clearly outweigh the negative aspects of the absence of a high cost sophisticated sewage disposal system.

D. FINANCIAL PLAN/BUDGET TABLES

1. Construction Costs

Complete Projects (average costs = ₱4,210,000) x 65 = ₱273,635,000

Partial Projects - (average costs = ₱4,956,000) x 16 = ₱ 79,304,000

Weighted Average Costs of one system = ₱ 4,357,000

The cost figures stated above are construction cost and do not include cost of land, administration, legal expenses, engineering design and supervision, interest during construction nor contingencies. The consultant estimates that the construction costs should be increased by fifty percent to take into account those factors. Thus based upon engineering studies, the cost stated below are increased by 50% (multiplied by 1.5) and converted to dollars.

2. Total Average Project Cost for One System

Stated in U. S. dollars at 1976 Prices = $\frac{4,357,000 \times 1.5}{7.5} = \$870,000$

*Rate of exchange used is ₱7.5 = \$1.00

3. Escalation Factors

Construction cost curves were developed by the Consultant for in-place costs of pipelines, wells, water treatment plant, pump stations and storage reservoirs. Escalation factors used in the capital cost of recommended improvements are tabulated as follows:

<u>Year</u>	<u>Escalation Factor</u>
1976	1.00
77	1.12
78	1.25
79	1.40
80	1.57
81	1.73
82	1.90

4. Escalated Costs Per System Per Year in U. S. Dollars

<u>Year</u>	<u>1976 Costs</u>	x	<u>Escalation Factor</u>	=	<u>Total Costs</u>	<u>Loan Cost 1/2*</u>
0	\$ 870,000					
1	870,000	x	1.12	=	975,000	483,000
2	870,000	x	1.25	=	1,088,000	544,000
3	870,000	x	1.40	=	1,220,000	610,000
4	870,000	x	1.57	=	1,366,000	683,000
5	870,000	x	1.73	=	1,500,000	750,000

*The loan will finance 50 percent of the project cost. This 50% is made up of the foreign exchange requirement of the project plus reimbursement, to the GOP by a Special

Letter of Credit in a U. S. Bank, for a portion of the project local currency costs. The project study shows the average foreign exchange requirement of the construction costs to be \$150,000 at 1976 prices. In terms of the same increases and escalation applied in paragraph 2 and 3 above, the foreign exchange requirement (excluding reimbursement) chargeable to the loan for each year would amount to: (1) \$252,000 (2) \$281,250 (3) \$315,000 (4) \$353,250 (5) \$389,250 (\$150,000 x 1.5 x 1.12, etc.)

5. Utilization of Loan

Loan Amount =	\$20,000,000
Consulting Services =	3,000,000
Commodities (lab equipment & training aids) =	100,000
Participants =	<u>100,000</u>
Balance available =	\$16,800,000 for system improvement

6. Disbursement Schedule (\$000)

<u>Year</u>	<u>No. of Systems (1)</u>	<u>Cost</u>	<u>Total \$ From Loan (\$000)</u>	<u>Accumulation</u>
0 1976				2.700(2)
1 1977	5	483,000	2.415	5.115
2 1978	10	544,000	5.440	11.055
3 1979	10	610,000	.500(3) 6.100	17.155
4 1980	4	683,000	2.730	19.885
5 1981				

(1) Listed above is a tentative schedule of systems improvements assuming that the systems chosen are representatives

of the group in size. If the systems improved are actually smaller than the average, more systems will be improved. However, if the systems improved are larger than the average, less systems will be improved. For planning purposes it is assumed that 25 to 35 systems will be improved.

- (2) The disbursement of \$2.5 million that will be put into a Letter of Commitment, soon after the loan conditions precedent are met, to finance the LWUA/JMM contract already executed but not fully funded. In addition the Letter of Commitment for commodities and the PIO/P for participants will also be established within the first year.
- (3) \$500,000 for additional technical assistance.

7. Summary Cost Estimate (\$.000)

<u>Project Input</u>		<u>Project Output</u>	<u>Total</u>
<u>Loan Funded</u>	<u>GOP Funded</u>		
16.8 ⁽¹⁾	16.8	Improve 25-35 water-works systems	33.600
3.0	3.0	Consulting services	6.000
.1	.175	Laboratory and training facility	.275
.1	.035 ⁽²⁾	Participant Training	<u>.135</u>
Total Project Costs		=	40.000

(1) Of the \$16.8 million provided from the loan, \$8.7 million will be used to finance foreign exchange requirements and \$8.1 million will be used to reimburse the GOP for partial local currency cost to bring AID's participation up to 50% of the total subproject costs.

(2) International Travel

E. SOCIAL ANALYSIS

Much attention has been focused on whether a given project will have significant impact on poor people. It is evident from a study done by the Institute of Philippine Culture (IPC) that the small cities involved in this project have substantial proportions of their populations in the lower socio-economic categories. Comparing a geographical selection of the proposed project cities to three of the largest and more developed cities in the Philippines, it is evident there is a large socio-economic gap between these two groups as shown by the four indicators used.

Percent of Dwelling Units with the Described Characteristic

Indicator	<u>Six Project Cities (Geographical Selection)</u>						<u>Three Major Cities</u>		
	Calba- yog	Calam- ba	Gua- gua	Paga- dian	Taba- co	Vigan	Baguio	Manila	Quezon City
Adults with at least Grade Six educational attainment	24	45	56	28	34	44	76	80	85
Dwelling units with piped water	23	36	24	37	57	32	85	98	95
Dwelling units with electricity	6	50	61	18	17	31	78	95	91
Dwelling units constructed of strong materials	15	84	72	28	18	55	97	95	96

Source: 1970 Census of Population and Housing, Manila

Educational attainment is significantly lower in all project cities than in the major cities. This is also true of availability of in-house water and electricity as well as for the existence of housing made of strong materials. The project cities are much more disadvantaged than the comparison cities on all indicators.

No household income data are presently available for cities in the Philippines. For this reason, using data derived from the IPC study, a measure of the relative status of the people in the project cities with other cities in their same administrative class was made in terms of per capita city revenue. These base data came from the GOP Department of Finance and are based upon the revenues collected by cities. The minimum revenue figures of each administrative class were used, as described in the IPC document, to derive the ratios presented here. These ratios are weighted by population so they can be directly compared. Five cities or municipalities of the same Department of Finance administrative class were randomly chosen for comparison with the respective project cities.

Relation of Project Areas to Their Respective Administrative Class Areas

Project Area and Each Respective Comparison Area	Per Capital City Revenue (Pesos)	
	Mean	Median
Calamba	8.43	8.43
Five Municipalities	8.05	8.43
Guagua	8.62	8.62
Five Municipalities	10.78	16.67
Vigan	10.00	10.00
Tabaco	5.00	5.00
Five Municipalities	5.58	5.26
Calbayog	10.64	10.64
Pagadian	17.54	17.54
Five Cities	19.31	21.74

Source: 1970 Department of Finance, Manila

Note: Since there is only one measure for each project city, the mean and median are identical.

This table shows that generally the project cities have less per capita revenue than do the five cities in each of their respective administrative classes. In only two cases do the means of the project cities exceed those of the comparison cities -- Calamba, where the difference is very small and Vigan, where the high figure is probably due to the large revenue producing, commercial establishments in that city (an additional reason, on a cost benefit basis, to improve the water supply there).

The median is the value above and below which one-half of the observations fall. Given the median per capita revenues for the project areas, it is seen that only one of the project cities (Vigan) exceeds the median value. In most cases, the per capita revenue is not only below the comparison cities, but exceptionally below.

These two measures give an indication of the relative standings of the project cities and municipalities to similar revenue-producing cities and municipalities. It is thus evident that the project areas are significantly poorer than their counterpart cities and municipalities.

The cumulative impact from these statistics is that this project will effect areas of lower socio-economic status in the improvement of water supplies in two ways. Water supplies will reach the poorer people who are in great need of an adequate water supply, and the installations and improvements will take place in cities which have fewer resources for providing these needed improvements to their inhabitants.

F. ECONOMIC ANALYSIS

Introduction

The procedures outlined in the methodology for economic analysis of water projects have been applied to several small communities. Three of these studies have been used to illustrate the end product of the methodology. The cities are

Tuguegarao, Cagayan Province, Malaybalay, Bukidnon, and Gapan, Nueva Ecija. The Tuguegarao service area will include about 64,300 persons in 1983, Malaybalay about 20,000, and Gapan about 33,900.

Benefit-cost, net present value and internal rates of return have been computed on the basis of full and partial inflation. A comparison of the two sets of results may be considered, among other possibilities, as the application of sensitivity analysis to the full inflation calculations to see what would happen if price levels are held constant at the close of the final construction stage. (See Annex T for full explanation of methodology used.)

Benefit-Cost Calculations

With full inflation of all factors, the Tuguegarao project has a benefit-cost ratio of 2.04 to 1.00 and an internal rate of return of 31 percent. With only partial inflation, the benefit-cost ratio is 1.46 to 1.00 and the internal rate of return is reduced to 26 percent. The benefit-cost ratios and internal rates of return, under both approaches, are well above break-even. The project appears to be substantially justified in economic terms. It should be noted that the national interest adjustment, reflecting the general improvement in the community which the project is estimated to cause, is 15 percent. Lump sum costs per capita, with inflation are ₱768.

The Malaybalay project yields a benefit-cost ratio of ₱1.73 to 1.00 and 1.19 to 1.00, respectively, for full and partial inflation. The internal rates of return are 24 percent and 19 percent. This project also exceeds the minimum requirement for economic justification under both calculations. It is considered to have a lesser national interest effect, 10 percent, and to be generally somewhat less justified than the Tuguegarao project, based upon benefits as calculated to this point. Lump sum project costs are ₱425 as compared with ₱768 for Tuguegarao.

The Gapan project yields benefits equal to 3.61 times costs with full inflation and 2.49 times with partial inflation. The internal rates of return are 48 and 36 per cent, respectively. National interest effects of the Gapan project are rated at 10 per cent. Of the three projects presented, the Gapan project, on the basis of benefit-cost analysis alone would be most justified. However cost per capita are higher than in Malaybalay at ₱558 per capita.

Limitations Imposed by the Cost of the Least Costly Means of Creating Identical Benefits

Benefits of a project may not, in national interest calculations, exceed the lesser of the computed benefits or the lump sum costs of the next cheapest method of securing the same benefits. Data as to the costs of alternative projects are more limited in the reconnaissance studies than are data for proposed projects. Of the three projects, only the Gapan study shows the costs of the least costly alternative. Making allowances for possible differences in benefits created, it is estimated alternative costs would be approximately 50 per cent above the computed project cost. Based upon discussions with technical personnel it is estimated an alternative plan at Tuguegarao would also cost 50 per cent more than the proposed project and at Malaybalay it would cost 100 per cent more. More detailed cost estimates are needed before this limitation can be applied except very generally.

Priority Among the Three Projects Based Upon Economic Analysis

The Gapan and Tuguegarao projects both have benefit-cost ratios of 1.50 to 1.00 due to the estimated costs of the cheapest alternative method of supplying the identical benefits. As between Gapan and Tuguegarao, Gapan would be preferred because of the generally more favorable ratio of unlimited benefits to costs and the lower cost per capita of developing the new water supply.

Malaybalay would retain its computed ratios of 1.73 to 1.00 and 1.19 to 1.00, inasmuch as the least costly alternative would cost 2.00 times the proposed project. In addition, the cost per capita of the Malaybalay project is the least among the three communities. The order of priority for the three projects on the bases covered here would be:

1. Malaybalay
2. Gapan
3. Tuguegarao

ECCNOMIC FINDINGS, SELECTED WATER PROJECTS
SECURED BY USE OF BENEFIT-COST ANALYSIS PROCEDURES

Item	Tuguegarao	Malaybalay	Gapan
Population, 1983	64,300	20,000	33,900

BENEFIT-COST ANALYSIS WITH FULL PRICE INFLATION

	₱101.0 M	₱ 14.7 M	₱68.3 M
Lump Sum Benefits	49.4	8.5	18.9
Lump Sum Costs	2.04	1.73	3.61
Benefits (Costs = 1.00)	51.6	4.9	49.4
Net Benefit Value	31%	24%	48%
Internal Rate of Return	15.4	1.3	10.4
Annual Benefits	7.5	.8	2.9
Annual Costs	15%	10%	10%
Net Interest Adj.			

BENEFIT-COST ANALYSIS WITH PARTIAL PRICE INFLATION

		8.8 M	36.8
Lump Sum Benefits	55.5	7.4 M	14.8
Lump Sum Costs	1.46	1.19	2.49
Benefits (Costs = 1.00)	17.5	1.4	22.0
Net Benefit Value	26%	19%	36%
Internal Rate of Ratio	8.4	1.3	5.6
Annual Benefits	5.8	1.1	2.3
Annual Costs	15%	10%	10%
Net Interest Adj.			

APPLICATION OF LEAST COSTLY ALTERNATIVE LIMIT

Lump Sum Costs			
Full Inflation	74.1	17.0	28.4
Partial Inflation	57.0	14.8	22.2

ADJUSTED BENEFIT COST RATIO AFTER LIMITATION

Benefit/Alt. Cost			
Full Inflation	1.50	1.73	1.50
Partial Inflation	1.50	1.19	1.50

AVERAGE COST PER CAPITA OF PROJECTS

	₱768	₱425	₱558
Lump Sum			

G. FINANCIAL ANALYSIS

Introduction

Repayment capacity of the water users in the three study cities has been determined by use of the financial analysis procedures. (See Annex T for full explanation of methodology used). The essence of this ability is found in the first several years when all costs are encountered, including the funding of replacement. Comparisons are made for the 1st, 5th, 10th and 15th year.

Findings by Project

Tuguegarao has relatively high costs per M^3 of water from the 5th year according to the attached table. Costs per M^3 are about 190 centavos for the greater part of the first 15 years. However, repayment ability is estimated at almost 2.50 centavos per M^3 for the same period. Thus, there is a favorable ratio of average payment ability equal to about 130 per cent of the average need.

Malaybalay will have relatively low costs of water, ranging from a high of 82 centavos down to 75 centavos per M^3 . Repayment ability is slightly less than for either Tuguegarao or Gapan, due to a greater share given the household use, but it has substantial relative repayment ability because of low costs per M^3 . The ratio is close to three to one for most of the early years.

Gapan has average costs per M^3 which are slightly less than Tuguegarao but higher than Malaybalay. With repayment capacity also slightly less than Tuguegarao, the net effect is that the two cities have closely similar ratios of ability to pay to cost.

On the basis of the foregoing comparisons the three communities can be rated as follows:

1. Malaybalay
2. Gapan
3. Tuguegarao

This is the same ranking found in the economic analysis. With respect to these three communities, and on the basis of the reconnaissance level data, the economic and financial data provide the same ranking.

It is worth noting that on a cost of project per capita basis there would have been no choice between Malaybalay and Gapan. With the financial analysis Malaybalay is seen to be relatively more able to bear the repayment burden.

FINANCIAL FINDINGS, SELECTED WATER PROJECTS
SECURED BY THE FINANCIAL ANALYSIS PROCEDURES

AVERAGE COSTS OF WATER PER CUBIC METER

Project Years	Tuguegarao	Malaybalay	Gapan
1	.63	.78	1.36
5	1.97	.75	1.42
10	1.92	.80	1.71
15	1.92	.82	1.71

AVERAGE REPAYMENT ABILITY PER CUBIC METER
OF WATER

1	1.35	1.19	1.38
5	2.41	1.90	2.02
10	2.48	2.38	2.30
15	2.48	2.38	2.30

RATIOS OF REPAYMENT ABILITY TO AVERAGE COSTS

1	2.14	1.53	1.01
5	1.22	2.53	1.42
10	1.29	2.98	1.35
15	1.29	2.90	1.35

PROJECT COSTS PER CAPITA

Costs, 1977	₱21.2 mil	₱4.6 mil	₱7.8 mil
Population, 1983	64,300	20,000	33,900 ✓
Per Capita	₱330	₱230	₱230

Service fee

PART 4 - IMPLEMENTATION PLANNING

A. LWUA and AID's Administrative Arrangements

1. LWUA

LWUA will be the implementing agency of the GOP for this project. Since this is an on-going project, and LWUA has two and one-half years experience, it should present no major problems. See Annex M for an evaluation of LWUA and Annex R for the organization chart. Two aspects of this project will be new to LWUA. They must perform the financial/economic feasibility analysis and prepare engineering design internally for each subproject. However, as stated previously, LWUA will be assisted in performing these operations. The LWUA/JMM contract has been amended to provide extra consulting services in engineering design and to provide an economist to work with LWUA to develop and test a financial/economic feasibility methodology. In addition, the LWUA/JMM contract provides for a full time JMM financial consultant. To ensure continued successful implementation of the AID financed project by LWUA, AID has encouraged a relatively significant input by U. S. consultants. This practice will continue until LWUA gains sufficient experience to implement its programs without external assistance. LWUA's Board is receptive to this assistance and has agreed to use loan funds for this purpose.

USAID is concerned about the organizational planning of LWUA. The area of concern relates to counterpart personnel to consultants. In an effort to transfer knowledge and experience the JMM, the CDM contracts require that several LWUA personnel be assigned to work full with the consultants. There has been a tendency, because of workloads elsewhere, to assign double duty to some employees in these positions and as a result some positions are not fully covered.

In an attempt to alleviate this situation, AID is including a loan covenant requiring LWUA to specifically assign on a

full time basis all counterpart personnel required by the LWUA/JMM contract, Appendix D. It actually includes twenty positions.

In summary, LWUA has or will have, with the above stated qualification, the managerial and technical capability to successfully implement this project.

2. AID

USAID also has two and one half years of implementing experience on this program. The Assistant Director for Capital Development is responsible to the Mission Director for assuring that this project is correctly implemented. A loan officer has been delegated the responsibility of monitoring the program. USAID receives copies of all correspondence between JMM and LWUA and reviews and approves all contracts involving AID financing. The office monitoring the project has the assistance of engineering and legal officers as necessary. No additional AID staff commitment is needed other than usual administrative support of USAID Staff Officer.

B. IMPLEMENTATION PLAN

Implementation of this project starts prior to execution of the Loan Agreement. The "110 Systems" study will be completed by CDM and LWUA on April 30, 1976. This study forms the basis for the project. Previously, LWUA/JMM/USAID had several meetings to discuss the project, conceptualize its implementation and review staffing requirements. JMM has assured LWUA and USAID that they will be ready to mobilize the additional personnel as soon as authorized by LWUA, presumably in July, 1976.

Another important step in the project implementation process is the formation of water districts by the potential subproject waterworks systems. LWUA presently is discussing with local government officials the formation of independent water districts. Twelve of the 110 have already completed

the process of forming districts and 16 have indicated an interest and are in the process of doing so. It is expected that there will be more subproject candidates available than can be accommodated in the early stages of implementation. The decision on subproject selection will depend upon several factors to be weighed by LWUA; for example initial feasibility/economic feasibility ranking; urgency of the need for improvement; capabilities of the Water District Board to respond, and availability of management and operating staff.

Once the decision has been made for a particular waterworks to become a subproject candidate, LWUA/JMM will study the system and prepare a project report. This project report will contain an in depth analysis of the current situation, recommendation of immediate improvements contemplated and describe future needs, discuss alternative solutions studied, and give financial/economic analysis and estimate of costs. These project reports will be certified by JMM.

The project reports will be submitted to AID for review and approval along with a certification by LWUA that the subproject system has formed a water district under the requirements of LWUA and that the LWUA approved commercial practices are or will be adopted by the district.

After approval of the project report by AID, LWUA under the guidance of JMM will prepare the necessary engineering designs and complete the bid package (IFB).

Following the procedures already established and used by LWUA for the five pilot projects under the current Loan 033, LWUA and the water districts will advertise the job locally, prequalify construction contractors and issue the IFB, evaluate bids and recommend award. Also following established procedures, LWUA along with a certification and recommendation by JMM, will submit the bid evaluation and award recommendations to AID for review and approval.

Note: Depending on the size of the construction project, the IFB will or will not include the required foreign exchange

materials and equipment. If the project is large enough to attract contractors who have the experience and capability to solicit quotations and import the foreign exchange items, they will be included as is done now on the five pilot projects. If the project is too small to attract the contractor experienced in offshore procurement, the material and equipment to be imported will be procured by LWUA, following AID procurement procedures and material purchased will be furnished to the contractor.

After the contract has been awarded, LWUA will execute its standard loan agreement with the water district, request AID to open a Letter of Commitment for the foreign exchange portion of the contract (or for the amount needed to finance the material and equipment being purchased by LWUA).

The procedures for partial reimbursement to the GOP for the project local currency costs and establishment of the Special Letter of Credit will also be the same as currently followed on the five pilot projects under Loan 033. (See Implementation Letter #5 to AID Loan 492-U-033 on file in ASIA/CCD).

Annex E is a Project Performance Tracking (PPT) System network which will be used as one means to monitor the project. As stated in Section IV-A above, USAID monitors this program on a daily basis. As was done on the five pilot projects under this program, USAID/LWUA/JMM will hold meetings as necessary to review problems and progress. USAID/LWUA/JMM have established a very close relationship on this program and no serious problems are anticipated.

In addition to the daily monitoring of project implementation by the project manager, the USAID/Controller will maintain accounting records to support periodic reporting of planned time phased expenditures compared to actual accrued (applied cost basis) expenditures to USAID management. (This requirement is dependent upon the outcome of tests of these procedures now being conducted.)

C. EVALUATION ARRANGEMENT

Since evaluation of the program is an ongoing activity to the five pilot projects being financed under Loan 033 and LWUA with the assistance of IPC has initiated a detailed evaluation plan on the five pilot projects, we consider the ongoing evaluation study applies to this project and the findings related to health benefits and economic development will equally apply (See Annex O). Agreement was reached at the APAC Meeting held on April 23, 1976 to extend the evaluation outlined in Annex "O" to include a representative sampling from the 25-35 target areas of the high impact Local Water Development I Project. A covenant to the loan will require LWUA to make an operational evaluation of the system improvement and installed equipment financed by the loan. For practical purposes this operational evaluation will be made in the second year after completion of a subproject.

D. CONDITIONS PRECEDENT AND COVENANTS

1. Conditions Precedent (CP's)

In addition to the standard CP's, regarding the opinion of the Secretary of Justice, statement of names of the Borrower's representatives, AID will require the fulfillment of the following CP prior to disbursement of any loan funds.

(a) A statement from the Borrower providing for the relending of the loan proceeds from the Borrower to LWUA, such relending to be on terms and conditions not less favorable than the terms and conditions of the loan.

2. Subsequent Conditions Precedent to Opening Additional Letters of Commitment for Procurement of Materials or Reimbursement for Construction of each Waterworks System to be Financed:

Submission to AID approval, a subproject report which shall contain: evidence that the subproject waterworks system is an independent water district under the requirements of LWUA, an analysis of the current situation of the waterworks, recommendation of immediate improvements and its future needs, alternative solutions studied, costs data, and a financial/economic feasibility analysis. The project reports will be certified by JMM as to their concurrence with the findings and recommendations.

3. Covenants

In addition to the standard loan agreement covenants, the loan agreement will contain the following:

(a) LWUA covenants within 90 days from the execution of the loan agreement to provide AID with the names of the LWUA personnel assigned full time to the twenty positions designated as counterpart personnel in the LWUA/JMM contract Amendment No. 1, Appendix D.

(b) LWUA covenants to perform a performance evaluation on all subprojects financed by the loan approximately two years after completion of the subproject construction. The performance evaluation will specifically list in detail the improvements made to the system under the project, the current status of those improvements, and recommendations made by LWUA on any deficiencies found.

(c) LWUA covenants to have the accounts and financial statement (balance sheet, statement of income and expenses, and selected statements) of LWUA audited annually, in accordance with sound and consistently applied auditing principles, by independent auditors and shall, promptly after their preparation and in any event not later than six months after the close of the fiscal year to which they relate, furnish to AID (a) Certified copies of such audited financial statements and (b) the report of the auditors related thereto. LWUA shall furnish AID such further information concerning such accounts and financed statements and the audit thereof as AID shall from time to time reasonably request.

Implementation Timetable

1. Loan Authorized by AID/W - May 15, 1976
2. Loan Agreement Negotiated and Signed - June 30, 1976
3. Conditions Precedent to Initial Disbursement Met - Aug. 30, 1976
4. Request for L/Comm for Consulting Services - Aug. 30, 1976
5. L/Comm for Commodities (Laboratory) Established - Nov. 1, 1976
6. PIO/P for Participants Executed - Nov. 1, 1976
7. L/Comm for 1st Waterwork Improvement - March 1, 1977
8. Construction Started on Fifth System - Sept. 30, 1977
9. Construction Completed on First System - Nov. 30, 1977
10. Construction Started on Fifteenth System - Dec. 30, 1978
11. Construction Started on Twenty-Fifth System - Dec. 30, 1979
12. Construction Completed on Last System - Nov. 30, 1980
13. Terminal Date for Requesting L/Comms - July 30, 1980
14. Terminal Disbursement Date - Dec. 30, 1980

LIST OF ANNEXES

(Due to the limitation of approximately 100 pages, please note that certain annexes listed below have been extracted from the PP and are available in the ASIA/PD office)

- A. AID/W PRP Approval Messages: State 62053 and State 23279 - Available in ASIA/PD
- B. Project Technical Data - CDM "110 System" Summary Report
- C. Environmental Impact Statement - Available in ASIA/PD
- D. Logical Framework Matrix
- E. Project Performance Tracking Network Chart
- F. Statutory Checklist
- G. Mission Director's Certification, FAA 611 (e)
- H. GOP Loan Application
- I. Draft Project Description - Available in ASIA/PD
- J. Draft Loan Authorization
- K. GOP and Other Donor Efforts in Public Health
- L. LWUA Policy Statement
- M. Assessment of LWUA Institutional Capability
- N. Role of Women in the Philippines - Available in ASIA/PD
- O. IPC - Scope of Work - Evaluation Study
- P. IPC - Sociocultural Profile of 5 Cities - Available in ASIA/PD
- Q. IPC - An Overview of the Community, Tabaco - Available in ASIA/PD
- R. LWUA's Organization Chart
- S. "110 Waterworks System" Deficiencies - Available in ASIA/PD
- T. Financial/Economic Feasibility Methodology and Model - Available in ASIA/PD
- U. Assessment of Water District Institutional Capability

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Life of Project:
From FY 1977 to FY 1981
Total U.S. Funding \$20,000,000
Date Prepared: March 1, 1976

Project Title & Number: Local Water Development I - 492-0263

PAGE 1

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</p> <p>To improve the health and economic welfare of the provincial poor.</p>	<p>Measures of Goal Achievement: (A-2)</p> <p>DOH statistics show 20% drop in water related diseases by 1985 in target cities.</p> <p>10% increase in real per capita income in target cities by 1985.</p>	<p>(A-3)</p> <p>DOH records/statistics.</p> <p>NEDA records</p>	<p>Assumptions for achieving goal targets: (A-4)</p> <ol style="list-style-type: none"> 1) Absence of extreme negative variations in the national economy - sustained 4-6% annual GNP growth. 2) Reduction in national birth rate. 3) Increased acceptance of improved nutritional practices.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

PAGE 2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose: (B-1)</p> <p>1) Increase the use of safe, reliable and economic sources of water in the targeted areas - with particular reference to the lower income group.</p> <p>2) Institutional Development of LWUA and local water districts.</p> <p>3) Contribute to economic development in the targeted areas.</p>	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</p> <p>1) a. Safe water supply available for additional 1.5 people in target areas by 1981. b. DOH statistics show 20% decline in incidence of waterborne diseases in target areas by 1985.</p> <p>2) LWUA planning, implementing/managing and evaluating local water projects and systems without technical assistance by 1981. a. Local water projects and systems without technical assistance by 1981. b. Local water districts efficiently managing systems.</p> <p>3) 10% increase in industrial and commercial activity in service areas by 1985.</p>	<p>(B-3)</p> <p>1) Records of LWUA and local water districts.</p> <p>2) Provincial Department of Health Statistics</p> <p>3) USAID evaluation</p> <p>4) Independent surveys</p> <p>5) Provincial economic office records on business and employment.</p>	<p>Assumptions for achieving purpose: (B-4)</p> <p>1) Cost of house connections will not exceed potential users ability to pay.</p> <p>2) Current incomes will remain stable or increase.</p> <p>3) As income increases, the propensity for house connections increases.</p> <p>4) A good waterworks system contributes to community economic development.</p> <p>5) Community standpipes will be made available.</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

PAGE 3

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1):</p> <ol style="list-style-type: none"> 1) Construction/improvement of waterworks systems. 2) Trained LWUA personnel. 3) Water Analysis Laboratory. 4) Waterworks Training Laboratory. 	<p>Magnitude of Outputs: (C-2):</p> <ol style="list-style-type: none"> 1) 25-35 high impact systems. 2) 25-30 waterworks design engineers. 3) Fully equipped and operating laboratory. 4) Waterworks training facilities. 	<p>C-3:</p> <ol style="list-style-type: none"> 1) Project completion reports. 2) Loan Fund disbursement records. 3) LWUA records. 4) Waterworks training facilities. 	<p>Assumptions for achieving outputs: (C-4):</p> <ol style="list-style-type: none"> 1) There will be a continuing and expanding demand for LWUA's services to local water districts. 2) Capable people can be hired and LWUA will be provided adequate budget support.

PROJECT DESIGN SUMMARY
 LOGICAL FRAMEWORK

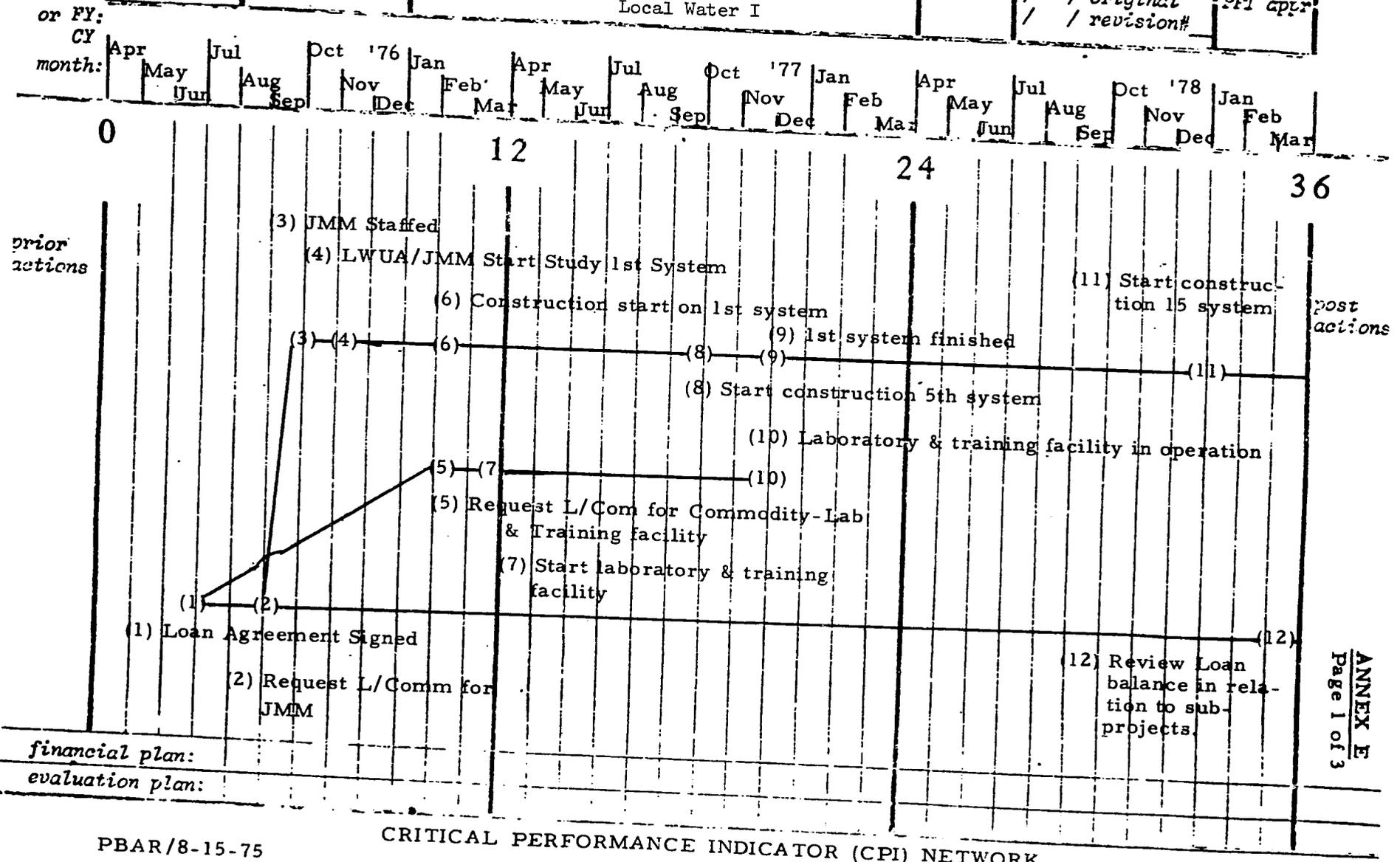
Life of Project: _____
 From FY _____ to FY _____
 Total U.S. Funding _____
 Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS										
<p>Project Inputs: (D-1)</p> <p><u>AID - Loan</u></p> <ul style="list-style-type: none"> 1) Construction and equipment 2) Consulting Services 3) Commodities 4) Participant training <p><u>GOP</u></p> <ul style="list-style-type: none"> 1) Loan or Grant funding of LWUA. 2) LWUA Personnel. 	<p>Implementation Target (Type and Quantity) (D-2)</p> <p><u>AID</u></p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>FY 76</u></td> <td style="text-align: center;"><u>FY 77</u></td> </tr> <tr> <td>1) \$6.8</td> <td>1) \$10.0</td> </tr> <tr> <td>2) \$3.0</td> <td>2) -0-</td> </tr> <tr> <td>3) \$100,000</td> <td>3) -0-</td> </tr> <tr> <td>4) \$100,000</td> <td>4) -0-</td> </tr> </table>	<u>FY 76</u>	<u>FY 77</u>	1) \$6.8	1) \$10.0	2) \$3.0	2) -0-	3) \$100,000	3) -0-	4) \$100,000	4) -0-	<p>(D-3)</p> <ul style="list-style-type: none"> 1) Loan authorization. 2) Contract with consultant for engineering and design training. 	<p>Assumptions for providing inputs: (D-4)</p> <ul style="list-style-type: none"> 1) US Loan funds and GOP local currency available. 2) US consultant contracted. 3) Sufficient local construction firms available.
<u>FY 76</u>	<u>FY 77</u>												
1) \$6.8	1) \$10.0												
2) \$3.0	2) -0-												
3) \$100,000	3) -0-												
4) \$100,000	4) -0-												

PROJECT PERFORMANCE TRACKING (PPT) SYSTEM

country: Philippines	project no:	project title: Local Water I	date: / /	original / revision#	PPT apr
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prior actions

post actions

financial plan:
evaluation plan:

ANNEX E
Page 1 of 3

PROJECT PERFORMANCE TRACKING (PPT) SYSTEM

country:	project no:	project title:	date:	/ / original	approved:
				/ / revision #	

CPI DESCRIPTION

Prior Action

LWUA/JMM Contract
"110 System Study"

1) Loan Agreement Signed	June 30 '76	GOP
2) Request L/Comm for JMM	Aug 30 '76	LWUA
3) JMM Staffed	Sept 30 '76	JMM
4) LWUA/JMM Start Study 1st System	Oct 30 '76	LWUA
5) Request L/Com for Commodities (Laboratory)	Feb 15 '76	LWUA
6) Construction Start on 1st System	Mar 1 '77	LWUA
7) Start Laboratory & Training Facility	Mar 30 '77	LWUA
8) Construction start on 5th system	Sept 30 '77	LWUA
9) 1st System Finished	Nov 30 '77	LWUA
10) Laboratory & Training Facility in Operation	Dec 1 '77	LWUA
11) Construction start on 15th system	Dec 30 '78	LWUA
12) LWUA/JMM/USAID Review balance in relation to subprojects	Mar 31 '79	USAID
13) Construction start on 25th systems	Dec 30 '79	LWUA
14) Construction finished on last system.	Nov 30 '80	LWUA
15) Terminal date for requesting L/Com	July 30 '80	
16) Terminal date Disbursement	Dec 30 '80	

CHECKLIST OF STATUTORY CRITERIA

FAA - Foreign Assistance Act of 1961, as amended.

FAA, 1973 - Foreign Assistance Act of 1973

App. - Foreign Assistance and Related Programs Appropriation Act, 1974.

MMA - Merchant Marine Act of 1936, as amended.

BASIC AUTHORITY

1. FAA 103; 104; 105; 106; 107.
Is loan being made

a. for agriculture, rural development or nutrition;

b for population planning or health;

c. for education, public administration, or human resources development;

d. to solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development;

e. in support of the general economy of the recipient country or for development programs conducted by private or international organizations.

(a) While this loan will not directly alleviate starvation, hunger and malnutrition; it will provide a very basic need of safe water to poor people, thereby, reducing diarrhea which should increase caloric ingestion. The loan will result in some reduction of waterborne diseases in the Philippines.

(b) This loan will have no effect on family planning but will directly combat and prevent waterborne diseases.

(c) Not applicable.

(d) This loan should assist economic development by making safe reliable water available to commercial/industrial development in provincial-urban areas.

(e) Not applicable.

COUNTRY PERFORMANCE

Progress Towards Country Goals

2. FAA 201 (b) (5), (7) & (8); 208

A. Describe extent to which country is:

- | | |
|---|---|
| <p>(1) Making appropriate efforts to increase food production and improve means for food storage and distribution.</p> <p>(2) Creating a favorable climate for foreign and domestic private enterprise and investment.</p> <p>(3) Increasing the public's role in the developmental process.</p> <p>(4) (a) Allocating available budgetary resources to development.</p> <p style="padding-left: 20px;">(b) Diverting such resources for unnecessary military expenditure (See also Item No. 19) and intervention in affairs of other free and independent nations.) (See also Item No. 10.)</p> <p>(5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.</p> | <p>(1) Food production is top priority of the Philippine Government with the goal of achieving self-sufficiency in rice and corn and accelerated production of livestock, poultry, fish, fruits and vegetables. Plans for expended warehousing and distributions of the increased output of grains are being prepared and carried out with help from IBRD loan. Also, through other AID loans assistance, (i. e. in small scale irrigation and agricultural research) the GOP goals should be reached in the near future.</p> <p>(2) See FAA 620(e) (1), Item 4, below.</p> <p>(3) The four-year agriculture program is increasing the productive capability of Philippine farmers. The Department of Local Government and Community Development carries out programs at the barrio (village) level throughout the Philippines. A Decentralization Act providing more autonomy to the Province was enacted in 1967. The Provincial Development Assistance Program is operating in seventeen provinces.</p> <p>Additionally, in an attempt to redistribute income and raise the rural standard of living, the GOP has recently embarked upon an aggressive land reform program. The GOP is well under way with a country-wide rural electrification program thereby increasing the role of the public through participation in local cooperatives.</p> |
|---|---|

(4) (a) About two-thirds of the national budget is allocated to social and economic development. About 10 percent of the budget goes to education, more than 13 percent to agriculture and natural resources, and 16 percent to transportation and communications.

(b) Less than 17 percent of the budget goes to National Defense.

(5) Since its establishment as an independent nation in 1946, the Philippines traditionally has adopted the basic principles of having a free and open society. On Sept. 22, 1972, President Marcos, citing a serious threat to their system from both the extreme left and right, invoked martial law, and ruling by decree, ordered an accelerated implementation of essential reforms long needed to improve the effectiveness of the government and its to the needs of the people, to reduce widespread crime and corruption, to speed development efforts aimed primarily at improving the social and economic well-being of lower income groups. In this regard President Marcos is inaugurating an all-encompassing nationwide land reform program. However, under Martial Law political activity and freedom of the press has been curtailed. Over the last five years the GOP has increased revenues through improved administration and new tax laws.

Over the period of the Project, the GOP will be providing a total of ₱19,600,000 toward this project.

(6) Willing to contribute funds to the project or program.

(7) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

(6) GOP will provide a minimum of 50% of currency required.

(7) Over the past six years the Philippines government has placed increasing emphasis on rural development in an effort to narrow the gap between the rich and the poor, to increase employment opportunities, raise the income levels of the rural population, and to improve the standard of living. Heavy investments are being made on Rural Electrification, transportation, irrigation, agrarian reform, farmer support services, agriculture production, nutrition, and education. Greatly increased external assistance from various bilateral and international donors over the past four years has been directed almost entirely to the rural sector.

B. Are above factors taken into account in the furnishing of the subject assistance?

B. Yes.

Treatment of U. S. Citizens and Firms.

3. FAA 620 (c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U. S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?

3. No

4. FAA 620 (e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U. S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

4. No.

5. FAA 620 (o); Fishermen's Protective Act. 5. If country has seized, or imposed any penalty or sanction against, any U. S. fishing vessel on account of its fishing activities in international waters,
5. There has been no such seizure.
- a. has any deduction required by Fishermen's Protective Act been made? NA
- b. has complete denial of assistance been considered by A. I. D. Administrator? NA

Relations with U. S. Government and Other Nations

6. FAA 620 (a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba? 6. No.
7. FAA 620 (b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? 7. Yes.
8. FAA 620 (d). If assistance is for any productive enterprise which will compete in the United States with United States enterprise, is there an agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan? 8. This assistance is not for such a productive enterprise.
9. FAA 620 (f). Is recipient country a Communist country? 9. No.
10. FAA 620 (i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U. S. assistance, or (b) the planning of such subversion or aggression? 10. No.

11. FAA 620 (j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U. S. property?
11. The GOP has taken all reasonable measures to protect U. S. property. On infrequent occasions, when damage has occurred, proper compensation has been made without delay.
12. FAA 620 (l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the A. I. D. administration within the past year considered denying assistance to such government for this reason?
12. The Philippines has instituted an investment guaranty program with the full range of risk coverage.
13. FAA 620 (n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam?
13. No.
14. FAA 620 (q). Is the government of the recipient country in default on interest or principal of any A. I. D. loan to the country?
14. No.
15. FAA 620 (t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?
15. There has been no such severance.
16. FAA 620 (u). What is the payment status of the country's U. S. obligations? If the country is in arrears, were such arrearages taken into account by the A. I. D. Administrator in determining the current A. I. D. Operational Year Budget?
16. The Philippines is not in default with respect to its dues, assessments or other obligations to the U. N.

17. FAA 481. Has the government of recipient country failed to take adequate steps to prevent narcotics, drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U. S. Government personnel or their dependents, or from entering the U. S. unlawfully?

17. No.

18. FAA s 659. If (a) military base is located in recipient country, and was constructed or is being maintained or operated with funds furnished by U. S. and (b) U. S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U. S. correspondents to such base?

18. Yes. (Presidential Determination No. 74-14 dated 1/20/74).

Military Expenditures

19. FAA 620 (s). What percentage of country budget is for military expenditures. How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).

19. Annual defense budgets average less than 17% of the national budget. Approximately one-third of this amount is for maintenance of peace and order. Philippine foreign exchange resources used to acquire military equipment are negligible. We know of no diversion of either development assistance of PL 480 sales to military expenditures. We are not aware of any diversion of Philippine resources for unnecessary military expenditures.

Conditions of the Loan

General Soundness

20. FAA 201 (d). Information and conclusion on reasonableness and legality under laws of country and the United States)

20. Interest on this loan will be 2 percent during the 10 year grace period and 3 percent for the 30 years

of lending and relending terms of the loan.

remaining to maturity. These terms are reasonable and are not higher than the applicable legal rate of interest under Philippine law.

21. FAA s 201 (b) (2); s 201 (e) Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multi-lateral plan, and the amount of loan exceeds \$100,000, has country submitted to A. I. D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?
21. Each subproject financed under this loan must be justified individually. The GOP has submitted such an application to A. I. D. See Annex H.
22. FAA s 201 (b) (2). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.
22. The current and expected ratio between debt repayment and foreign exchange earnings of the Philippines is expected to be adequate. There are reasonable prospects of repayment.
23. FAA s 201 (b) (1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.
23. Financing is not considered to be available from other sources on terms comparable to this proposed loan.
24. FAA s 611 (a) (1). Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the United States of the assistance?
24. (a) Yes. Detailed plans and estimates will be required by the Loan Agreement before starting construction of any individual system. A prefeasibility study has been completed which establishes firm cost data and design criteria for each subproject.
- (b) Firm costs of the U. S. assistance will be established using modified Fixed Amount Reimbursement procedures.
25. FAA s 611 (a) (2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of loan?
25. All legislative authorities exist.

26. FAA s 611 (e). If loan is for Capital Assistance, and all U. S. assistance to project now exceeds \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

26. Yes. See Annex G.

Loan's Relationship to Achievement of Country and Regional Goals

27. FAA s 207; s 113

Extent to which assistance reflects appropriate emphasis on; (a) encouraging development of democratic, economic, political, and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs; (e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (f) integrating women into the recipient country's national economy.

27. (a) This project directly contributes to the formation of locally independent water districts, (b) Not applicable (c) greatly contributes to training manpower in area of public health and engineering, (d) will make a significant impact on public health re waterborne disease, (e) will contribute towards urban development, (f) women as definitely part of this program, sanitary and civil engineering are fields in which women participate in the Philippines.

28. FAA 209. Is project susceptible of execution as part of regional project? If so why is project not so executed?

28. No.

29. FAA 201 (b) (4). Information and conclusion on activity's relationship to, consistency with, other development activities, and its contribution to realizable long-range objectives.

29. See relationships of this project to other activities in area of public health, Annex K .

30. FAA 201 (b) (9). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.

30. Under this project self-supporting independent water districts will be formed.

31. FA 209; Information and conclusion whether assistance will encourage regional development programs. 31. Not applicable.
32. FAA s 111. Discuss the extent to which the loan will strengthen the participation of urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life. 32. This project makes a direct contribution towards involving the urban poor in the water district economic development.
33. FAA s 201 (f). If this is a project loan, describe how such project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development. 33. By effecting a decrease in water-borne disease, this project promotes the country's overall economic development.
34. FAA s 281 (a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private and local governmental institutions. 34. The independent water districts formed under this project require active participation of the people of the area.
35. FAA s 281 (b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government. 35. See #34 above.

36. FA 201 (b) (3). In what ways does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities?
36. This project by reducing the incident of waterborne diseases will contribute to the development of economic resources by reducing illness and thus lost time.
37. FAA 601 (a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
37. No direct effect except for the reduction of illness.
38. FAA 619. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriate?
38. The Philippines is not a newly independent country.

Loan's Effect on U.S. and A.I.D. Program

39. FAA 201 (b) (6). Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.
39. Although firms from Code 941 countries will be eligible to compete on this Project, past experience with larger water system improvements in the Philippines indicates that U.S. firms will supply some of the mechanical and electrical equipment while Philippine contractors do the construction work.
40. FAA 202 (a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.
40. The total loan amount will go to private enterprise.

41. FAA 601 (b). Information and conclusion on how the loan will encourage U. S. private trade and investment abroad and how it will encourage private U. S. participation in foreign assistance programs (including use of private trade channels and the services of U. S. private enterprise).
41. Procurement of mechanical and electrical equipment will be open to firms in Code 941 countries. U. S. firms traditional have supplied most of this equipment under previous loan.
42. FAA 601 (d). If a capital project, are engineering and professional services of U. S. firms and their affiliates used to the maximum extent consistent with the national interest?
42. Yes.
43. FAA 602. Information and conclusion whether U. S. small business will participate equitably in the furnishing of goods and service financed by the loan.
43. AID procurement procedures will be followed.
44. FAA 620 (h). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?
44. No. The loan agreement will contain implementation control prohibiting such use.
45. FAA 621. If Technical Assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.
45. Services financed under the loan will be from private firms and other non-government sources.

Loan's Compliance with Specific Requirements

46. FAA 110 (a); 208(e). In what manner has or will the recipient country provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the loan is to be made?
46. The loan agreement will so provide and the planned administrative arrangements will assure it. This project is set up for a minimum of 50% host country participation.

47. FAA s 660. Will arrangements preclude the use of funds for police training or other law enforcement assistance? 47. Yes.
47. FAA 114. Will loan be used to pay for performance of abortions or to motivate or coerce persons to practice abortions? 48. No.
49. FAA 201 (b). Is the country among the 20 countries in which development loan funds may be used to make loans in this fiscal year? 49. Yes.
50. FAA 201 (d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter? 50. Yes.
51. FAA 201 (f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise? 51. All construction of system improvements will be implemented using host country construction contractors.
52. FAA 604 (a). Will all commodity procurement financed under the loan be from the United States except as otherwise determined by the President? 52. Commodity procurement will be limited to AID Geographic Code 941.
53. FAA 604 (b). What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U. S. market price? 53. N. A.
54. FAA 604 (d). If the cooperating country discriminates against U. S. marine insurance companies, will loan agreement require that marine insurance be placed in the United States on commodities financed by the loan? 54. Yes.

55. FAA 604 (c). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? 55. N. A.
56. FAA 604 (f). If loan finances a commodity import program, will arrangements be made for supplier certification to A.I.D. and A.I.D. approval of commodity as eligible and suitable? 56. N. A.
57. FAA 608 (a). Information on measures to be taken to utilize U. S. Government excess personal property in lieu of the procurement of new items. 57. U. S. Government excess property will be used to the extent practical.
58. FAA s 611 (b); App. s 101. If loan finances water or water-related land resources project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962? 58. Yes.
59. FAA s 611 (c). If contracts for construction are to be financed what provision will be made that they be let on a competitive basis to maximum extent practicable? 59. AID contracting procedures will be followed.
60. FAA s 612 (b); s 636 (h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the United States are utilized to meet the cost of contractual and other services. 60. The GOP will provide most of the local currency costs. However, \$8.1 million from the loan will be used to reimburse the GOP for partial local currency cost to bring AID's participation up to 50% of the total subproject costs.
61. FAA s 612 (d). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release? 61. The U. S. does not own such excess foreign currency.

62. FAA s 620 (g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property? 62. The loan agreement will limit the use of loan proceeds to procurement of eligible services.
63. FAA s 620 (k). If construction of productive enterprise, will aggregate value of assistance to be furnished by the United States exceed \$100 million? 63. No.
64. FAA s 636 (i). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States or any guaranty of such transaction? 64. No.
65. App. s 103. Will any loan funds be used to pay pensions, etc., for military personnel? 65. No.
66. App. s 105. If loan is for capital project, is there provision for A. I. D. approval of all contractors and contract terms? 66. Yes, in the Loan Agreement.
67. App. s 107. Will any loan funds be used to pay UN assessments? 67. No.
68. App. s 108. Compliance with regulations on employment of U. S. and local personnel. (A. I. D. Regulation 7). 68. Yes.
69. App. s 110. Will any of loan funds be used to carry out provisions of FAA s 209 (d)? 69. No.
70. App. s 113. Describe how the Committee on Appropriations of the Senate and House have been or will be notified concerning the activity, program, project, country, or other operation to be financed by the Loan. 70. A Congressional Notification will be provided prior to authorization of this loan.

71. App. s 501. Will any loan funds be used for publicity or propaganda purposes within the United States not authorized by Congress? 71. No.
72. MMA s 901. b; FAA s 640 C.
(a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately owned U. S. -flag commercial vessels are available at fair and reasonable rates. 72. The Loan Agreement will contain a provision requiring compliance with this requirement.
(b) Will grant be made to loan recipient to pay all or any portion of such differential as may exist between U. S. and foreign-flag vessel rates? (b) No.
73. Section 30 and 31 of PL 93-189 (FAA of 1973) Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U. S. or by foreign forces in or over Laos, Cambodia, North Vietnam, South Vietnam, or Thailand? 73. No.
74. Section 37 of PL 93-189 (FAA of 1973); App. s. 111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam? 74. No.
75. App. 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese? 75. No.

76. App. § 504 . Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to South-east Asia for use by non-U.S. nationals? 76. No.
77. FAA of 1974 § 901. Has the country denied its citizens the right or opportunity to emigrate? 77. No.
78. FAA § 115. Will country be furnished, in same fiscal year, either security supporting assistance, Indochina Postwar Reconstruction, or Middle East peace funds? If so, is assistance for population programs, humanitarian aid through international organizations, or regional programs? 78. No.
79. FAA § 653 (b). Is this assistance within the country or international organization allocation for the fiscal year reported to Congress (or not more than \$1 million over that figure plus 10%)? 79. Yes.
80. FAA § 662. Will arrangements preclude use of funds for CIA activities? 80. Yes.
81. FAA § 116. Does the assistance directly benefit the needy people? If not, does the country engage in a consistent pattern of gross violations of internationally recognized human rights? 81. The assistance will directly benefit the needy people of the Philippines.

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
Manila, Philippines

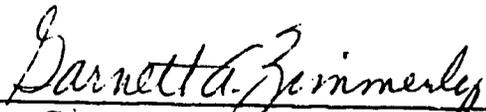
Ramon Magsaysay Center
1680 Roxas Boulevard

Telephone: 59-80-11

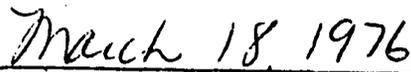
CERTIFICATION PURSUANT TO SECTION 611(e)
OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, GARNETT A ZIMMERLY, the principal officer of the Agency for International Development in the Philippines, having taken into account, among other things, the maintenance and utilization of projects in the Philippines previously financed or assisted by the United States, do hereby certify that, in my judgment; the Philippines has both the financial capability and the human resources capability to effectively maintain and utilize the proposed Local Water Development I.

This judgment is based upon the project analysis as detailed in the Local Water Development I Project Paper and is subject to the conditions imposed therein.



Garnett A. Zimmerly, Director
USAID/Philippines



Date



REPUBLIC OF THE PHILIPPINES
 NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY
 P.O. Box 1116, Manila

Tel. 59-7091
 Cable Address: NEDAPHIL

10 March 1976

Mr. Garnett A. Zimmerly
 Director
 U.S. Agency for International Development
 Ramon Magsaysay Center
 Roxas Blvd., Manila

S i r :

I am forwarding for your consideration the attached letter dated 4 March 1976 of the General Manager of the Local Water Utilities Administration (LWUA) regarding a possible USAID loan of \$20 Million to implement LWUA's Interim Demonstration Program for the improvement of the domestic water supply system of 40 to 60 cities/municipalities in the provincial areas in the Philippines.

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The Program is the second phase of a 3-year Long-Range Planning and Interim Demonstration Program. The initial phase, which is the conduct of the long-range planning program involving the nationwide water needs survey of 100 cities/municipalities, was implemented for LWUA by the Camp Dresser & McKee International, Inc. This was financed by A.I.D. under a Letter of Commitment 492-H-03004 in the amount of \$170,000 and has already been completed. In anticipation of the implementation of this second phase, LWUA has initiated the formation of water districts in the subject localities, developed the methodology for conducting economic and financial feasibility studies, the certification program for the water districts, the Water District Commercial Practices Manual, and the required staff, systems and procedures to carry out the Program.

The proposed \$20 million loan will cover costs of:

- 1) supplies, materials equipment & construction of water system improvements - - - - - \$17,500,000
 - 2) consultant services - - - - - \$ 2,400,000
 - 3) commodities including water testing equipment, bacteriological laboratories and training equipment - - - - - 100,000
- T o t a l - - \$20,000,000



ACTION TAKEN	
Other	_____
_____	_____
_____	_____

DATE ANSWER DUE 3-22-76

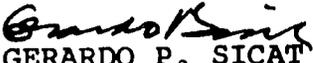
- 2 -

We strongly indorsed this program of LWUA as we find it desirable and in line with the government's current development efforts on the rural scene. We likewise recommend favorable consideration of LWUA's request for a \$100,000 USAID grant for the training of its staff.

May we look forward for USAID favorable consideration of the request. We will be happy to pursue a dialogue with you to formulate without delay the Program.

Regards.

Very truly yours,


GERARDO P. SICAT

Secretary of Economic Planning
(Director-General)

CAPITAL ASSISTANCE LOAN AUTHORIZATION

Provided from: Development Loan Fund
The Philippines: Local Water Development I

Pursuant to the authority vested in me as Administrator, Agency for International Development ("A. I. D. ") by the Foreign Assistance Act of 1961, as amended, (the "Act") and the Delegations of Authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I, Chapter I, Section 104, and Chapter 2, Title I, of the Act, to the Government of the Republic of the Philippines (Borrower) of not to exceed Twenty Million Dollars (\$20,000,000) to be made available to the Borrower to assist financing the improvement/construction of provincial urban waterworks systems; to provide engineering and management consulting services to the Local Water Utilities Administration (LWUA); to provide equipment, materials, training aids and services to a water analysis laboratory and a waterworks training facility; and to provide specialized training in the U. S.

1. Interest Rate and Terms of Repayment

This loan shall be repaid by the Government of the Republic of the Philippines within forty (40) years after the date of the first disbursement thereunder including a grace period of not to exceed ten (10) years from the date of the first disbursement. The interest on the unrepaid principal balance of the loan shall accrue from the date of the first disbursement at the rate of two percent (2%) per annum during the grace period and at the rate of three percent (3%) per annum throughout the remaining life of the loan.

2. Currency of Repayment

Provision shall be made for repayment of the loan and payment of the interest in United States dollars.

3. Other Terms and Conditions

A. The loan will finance the foreign exchange costs of the improvement/construction of provincial urban waterwork system; to provide engineering and management consulting services to the

Local Water Utilities Administration (LWUA); to provide equipment, materials, training aids and services to a water analysis laboratory and a waterworks training facility; and to provide specialized training in the U. S.

Equipment, materials and services financed under this portion of the loan shall have their source of origin in countries included in A. I. D. Geographic Code 941 (Selected Free World). The balance of the loan shall be used to reimburse the Borrower for prior agreed portions of local currency costs of construction for each waterworks system. Such reimbursement is to be through a Special Letter of Credit procedure with source and origin limited to A. I. D. Geographic Code 000 (U. S.).

B. The borrower shall relend the proceeds of this loan to the Local Water Utilities Administration (LWUA), the Beneficiary, for the purposes herein provided on terms and conditions satisfactory to A. I. D.

C. This loan shall be subject to such other terms and conditions as A. I. L. may deem advisable.

Daniel Parker
Administrator

Date

GOP and Other Donor Efforts in Area of Public Health

The GOP Four-Year Health Plan addresses itself to the following priorities:

1. Reduction of Birth Rate
2. Control of Communicable Diseases
3. Improvement of Environmental Health Factors
4. Strengthening and Extension of Rural Health Service
5. Programs in Development of Medical Service

With the exception of the first priority stated above, all are related to waterborne or water related disease and any contribution to the last four priorities is complimentary to the efforts of the provincial urban water program. Some of the GOP and other donor activities are:

With the assistance of primarily the World Health Organization (WHO) the GOP is collaborating in several areas of public health directly related to waterborne diseases. Gastrointestinal infection manifested by the recurrent outbreaks of cholera, typhoid, salmonellosis and shigellosis are, to a large extent, related to poor environmental conditions. WHO has collaborated with the GOP in the environmental health field since 1955. Technical assistance has been extended for the strengthening of sanitary services, community water supplies, food sanitation, the training of sanitary engineers and sanitarians, reviewing sanitary legislation and sanitary codes and the preparation of a manual for sanitarians.

The Philippines, Japan and WHO have been collaborating in cholera research since 1964. WHO contributes consultants and grants towards this effort.

Since 1952 WHO has been assisting the GOP in the control of schistosomiasis. Studies have been made in a pilot area of Leyte on the epidemiology and therapy of the disease as well as on the biology of the snail intermediate host. In 1965 the GOP established the Schistosomiasis Control Commission whose task is to formulate, execute and coordinate national plans for

schistosomiasis control. The present five-year programme supported by WHO utilizes the World Food Programme aid as an incentive to recruiting volunteer workers.

With funds provided by UNDP, WHO assisted in a master plan for sewerage development in the Greater Manila area. In association with the Asian Development Bank and UNDP, WHO is collaborating in water resources development connected with a project involving Laguna de Bay.

With a \$25 million loan from the IBRD, the GOP is implementing a very large health services project. It involves the building of 210 new Rural Health Units and 12 Regional training centers. The GOP counterpart funds in this project are used to rehabilitate 596 Rural Health Units and the construction of Barrio Health Stations to house 2400 new midwives who will be trained in Rural Health and Family Planning case under the project plus training for 2600 midwives, already in the program. This is a five-year program in its second year of implementation.

Republic of the Philippines
LOCAL WATER UTILITIES ADMINISTRATION
PhilComCen Bldg., Ortigas Avenue
Pasig, Rizal

MEMORANDUM for:

The Chairman
Board of Directors
All Water Districts

Subject: Classification of Connections and
Standardizing Water Rate Structures

In order to increase the viability of the water district and improve its operational performance, it is highly desirable that the Board of Directors formally adopt policies for the district on some relevant statements contained in LWUA guidelines issued for the purpose. Among some suggestions are:

- *A. Districts should formally define the consumer classification of (1) residential, government, (2) commercial, industrial, (3) wholesale.

This is necessary to insure that there is no confusion in billing customers and to likewise insure that charges are equitable among water users.

- B. No water may be delivered to any user at a rate of charge less than that established for residential users.

This will preserve the integrity of your water rate schedule and avoid claims of favoritism and grants of special favors to special groups of water consumers.

- **C. Commercial and industrial users may not be charged less than 150% of the charge for equivalent service to residential users, although for the duration of amortization payment 200% is recommended.

These classes of water users generally use water to promote their trade and hence are affluent and can easily afford to partly subsidize the low income group.

- *D. Charges for water service to government entities or for use of public faucets paid for by governmental entity should be the same as for equivalent service to residential users.

Public faucets and government offices are primary for poor people and the public service, hence must be charged the lowest rate available.

- **E. Monthly water charges to users should be composed of at least two components, a basic service charge which is a fixed minimum amount, and a variable commodity charge which is dependent upon the periodic quantity of water consumed.

The service charge carries with it a demand factor, based on the size of connection, that will partly subsidize the low income group.

- *F. Fixed service charges, to take care of the demand charge, to users of all classifications should increase in proportion to the flow capacity as the size of the service connection and meter increase.

- **G. The smallest service available should be a 1/2" x 5/8" meter whose outlet has been artificially restricted to allow a nominal one gallon per minute flow rate. This should be referred to as a 3/8" connection and should only be made available to low income residential users.

This will serve as the basis of rate computation for the basic revenue unit.

- **H. Prior to 100% metering, any unmetered user should be charged in accordance with the computations given in LWUA guidelines for unmetered connection, but it is suggested that this be not less than 125% of the estimated average charge made to the metered user with the same size of connection and number of faucets.

This higher flat rate will encourage metering and will account or make up for the wasteful use of water that normally characterizes flat rate connections.

REFERENCE: *LWUA Guidelines on Classification of Service
Connections
**LWUA Guidelines on Water Rates

If such resolutions are enacted, kindly furnish LWUA a
certified copy of each.

CARLOS C. LEAÑO, JR.
General Manager

Assessment of LWUA Institutional Capability

During the initial two and one-half years of operation, the LWUA has developed from a paper organization to an institution made up of four functioning Departments with 152 employees.

The LWUA has responded to the needs of its expanding program by an accelerating but controlled increase in staff and performance capability. In all aspects of its operations, emphasis has been placed on developing standardized methods and procedures and numerous manuals have been prepared to assist the LWUA maintain consistency in its efforts to upgrade the provincial water systems. These include a Commercial Practices Manual, a Technical Standards Manual, an Operation and Maintenance Manual and a Construction and Inspection Manual. A manual in Water District Management will be completed soon and will be available prior to the start of the Interim Demonstration Program.

Comprehensive assistance from a foreign consultant will continue to be needed during the next several years. Assistance will be provided by James M. Montgomery, Consulting Engineers, Inc. (JMM) as provided for in the JMM-LWUA contract dated July 15, 1974 and amended on January 1, 1976. The amended contract provides advisory services to the total LWUA program, including assistance in Institutional Development of the LWUA with special emphasis in training and financial operations, Institutional Development of the Water Districts, and Technical Assistance for all LWUA Improvement Programs.

JMM is scheduled to provide four engineers, a resident engineer (construction activities), a hydrogeologist, a financial advisor and several management advisors to assist the LWUA with the Interim Demonstration Program.

No attempt is made in this paper to describe all of LWUA's past accomplishments or discuss the full range of its capabilities. Discussions is concentrated in those areas which give a fair indication of the magnitude of LWUA's progress as an institution in a relatively short period. As a growing institution, the LWUA is constantly analyzing its own capability to meet the demands of its program. To date future planning and early action programs have

minimized major difficulties. Based on this good "track record" it is anticipated that the LWUA will continue with its progressive policies and develop as an institution capable of managing a program of much greater magnitude.

Specific examples of LWUA's successful accomplishments and capabilities include the following:

A. Technical Department

1. Design and Engineering Section

- a. Capability to prequalify and retain both local and foreign engineering consultants and administer the contracts. Four local engineering firms and three foreign consultants have been retained.
- b. Capability to review and approve design work by engineering firms. Design work has been completed for six comprehensive improvement projects.
- c. Capability to prequalify construction firms. Contractors have been prequalified for well drilling and for five comprehensive improvement projects.
- d. Capability to administer construction contracts. Two well drilling contracts have been successfully completed, four well drilling contracts are in progress, one comprehensive improvement contract is in progress and bids have been opened on two other comprehensive improvement projects.
- e. Capability to develop and adopt standards. A Technical Standards Manual has been completed.

2. Planning Section

- a. Capability to undertake long range planning. The initial phase of a long range planning effort (106 cities) has been completed. This was accomplished by Camp Dresser & McKee International Inc. (CDM) with counter-part assistance from the LWUA staff.

- b. Capability to undertake comprehensive feasibility studies. Feasibility studies have been completed on 13 comprehensive projects. Of these, the LWUA counterpart staff was actively involved in five of the projects completed by CDM and is presently involved in completing the last five.

3. Hydrogeology Section

The LWUA has provided comprehensive training to three engineers in the field of hydrogeology by formal training and active involvement in well drilling programs and water resource investigations.

4. Field Operations Section

Field operations to date have included numerous trips to the water districts to assist with technical and operational problems. Construction inspection activities have included conducting two comprehensive pre-construction seminars for the contractors and inspectors as well as field inspection of pipe production and construction work. A Construction Inspector Manual has been completed and is in use. Procurement procedures and documents have been prepared and assistance has been provided to the water districts in procuring water meters, pumps, chlorinators, vehicles, piping materials, etc.

- B. Loan Department

Procedures have been completed on implementing loan programs with water districts for both short term and long term loans. This includes preparation of standard loan documents and adoption of relending rates. Loan agreements have been executed with 10 water districts. Repayment procedures have been developed and collections are being made.

Loans for foreign currency have been negotiated with USAID and the Asian Development Bank. Loan conditions have been satisfactorily met.

Prior to the approval of any loan, the LWUA requires a detailed analysis of the financial condition of the loan recipient. Six detailed financial studies have been conducted to date. These

analyses include projecting loan repayment schedules, reserve requirement, operation and maintenance costs as well as water rate evaluation to determine the financial impact of any proposed loan on the water district's and its customer's ability and willingness to repay the loan.

Expertise has been developed in examining and analyzing water district financial statements on a monthly basis to monitor the financial health of each loan recipient. Financial difficulties can be predicted at an early date and allow corrective actions to be taken to protect the loan.

A long range financing plan is being developed to determine the financial capacity of the LWUA to carry out its improvement programs. Long range program costs are compared with the availability of foreign exchange currency as well as local currency.

The Loans Department investigates the financial conditions of all prospective contractors to determine their ability to meet the requirements of any project. The financial condition of said contractors is compared to criteria established during the pre-qualification procedures.

C. Regulatory Department

Well defined and proven procedures have been developed to form water districts. Since district formation is at local option, the procedures include an intensive education effort on the benefits and requirements of the LUWA program. To date, 30 water districts have been formed.

A certification program is being implemented. The program requires that before any loan is granted, a water district has to qualify for a Certificate of Conformance or a Conditional Certificate of Conformance. The purposes of these documents are to inform the water districts of the LWUA requirements and obtain firm commitments from the water districts for specific levels of improvement. Audit teams are sent to the water districts on an annual basis to evaluate district progress.

A standardized system of commercial practices has been developed, and has been installed in eight water districts. The initial installations were conducted by a consultant; however, the Regulatory Division personnel are now trained in this effort and are installing these systems on their own.

D. Administrative Department

The most pertinent function of this Department to the Interim Demonstration Program is Training. Since manpower development is recognized by the LWUA as one of its most important functions, training plays an important role in the total LWUA program.

Several programs have already been successfully implemented. These include: 1) Policy Maker Seminars for the Water Districts, 2) Management Seminars for the Water Districts and 3) Cadet Training Program. The training section also conducts the initial screening of new employees through interviews and testing and gives orientation seminars to all new employees.

Three new programs which will be implemented in 1976 include: 1) Operator Training, 2) Sanitary Engineering Training and 3) Training selected LWUA staff in management of water utilities.

MEMORANDUM OF AGREEMENT
BY AND BETWEEN
THE LOCAL WATER UTILITIES ADMINISTRATION
AND
THE INSTITUTE OF PHILIPPINE CULTURE
ATENEO DE MANILA UNIVERSITY

KNOW ALL MEN BY THESE PRESENTS:

This Agreement made and executed in Quezon City, Philippines
this _____ of January, 1976 by and between:

The Local Water Utilities Administration, with principal office
at the PhilComCen Building, Ortigas Ave., Pasig, Rizal, represented
in this Agreement by its General Manager, Col. Carlos Leño, here-
inafter referred to as the LWUA

- and -

The Institute of Philippine Culture, Ateneo de Manila University,
a research organization that studies local problems of social organiza-
tion and cultural values, with offices at Bellarmine Hall, Loyola
Heights, Quezon City, represented herein by its Director, Ms. Mary
Racelis Hollnsteiner, hereinafter referred to as the I. P. C.

The parties hereto mutually agree as follows:

I. SCOPE OF THE AGREEMENT

A. General Statement

Upon the request of the LWUA, the I. P. C. will provide
research services to the LWUA program by undertaking
an evaluative study of the health and economic impact of
an improved water supply system in selected Philippines
provincial cities. The LWUA program which is partly assisted
by the United States Agency for International Development
(USAID) focuses on the construction of improved water supply

systems in selected Philippine provincial cities. It reflects the belief, to be verified, that its effects will ultimately have a beneficial impact on the health and economic development of the participating communities. The most applicable strategy for the abovementioned-evaluation-study is to ascertain the manner and extent to which improved water supply affects community welfare. In brief, the following will be considered in undertaking the study, which is expected to run over a period of four years starting 1976.

1. To assess the health and economic impact of the new water supply on the city populace within the area of coverage, over a four-year period;
2. To give special attention to the water supply system impact on certain groups, namely:
 - a. the marginal slum and squatter areas (where community rather than individual water connections will be likely);
 - b. the economically mixed areas (whose low and lower-middle income families residing in higher quality structures and surroundings allow for more individual house connections);
 - c. the pre-school children in terms of health benefits, and
 - d. the women in terms of their changing development contributions both at home and in outside work areas.
3. To ascertain in general sense other results of the new water supply system on the broader institutional areas of city life, for example, commerce and industry;
4. To determine the performance levels of the water supply system in terms of quantity and quality of directly planned physical and service outputs.

The whole study, which will run for four years, will be divided into four phases in a "before-after" comparative study design. These are indicated hereunder. For this

particular agreement, however, only the first two phases (I and II) are covered. Phases III and IV will be undertaken and covered under another Memorandum of Agreement to be entered into in the future, probably upon completion of Phase II. A brief description of the four phases follows:

I. Preparation of the research design

A full research proposal or research design will be developed based on a review of the existing information, statistical and descriptive, of the provincial target city(ies), and the available literature on the relation of water supply systems to people and community welfare giving significant attention to valid measures of impact and meaningful categories of investigation. Further, it will entail field reconnaissance trips to the five provincial cities listed as potential survey sites and to the five cities to be chosen as possible control sites. During this phase, construction and pretesting of interview and observation schedules for Phase II will be undertaken. The detailed research design herein-mentioned will focus on and include the sites finally selected after the ocular inspection mentioned above, the interview and observation schedules, the work plan and the budget estimate for Phase II.

II. The baseline survey 1976

A baseline survey of the experimental and matched control sites in one or two cities will be undertaken. This will entail an assessment of the situation before the installation of the water supply system through a sample survey of households in the experimental and control cities taking into consideration the special sample groups; a measurement of the state of broader institutional areas; and a check-off of performance levels of the existing water supply systems.

An important feature of this phase will be the coding and data storage processes to ensure maximum retrieval for comparison purposes in the 1979 reevaluation study.

Along with the final report of the baseline survey hereinmentioned, which will indicate the situation of the people and communities involved in the experimental and control sites, will be a presentation of the Phase III design. This design will include a description of the guidelines, recording procedures, supervisory-administrative activities entailed, a tentative work schedule and project budget estimate.

III. Interim monitoring, 1976-79

Significant events and changes in the community which might later be associated with the impact measures of the water supply system will be documented and recorded. These activities will be undertaken immediately after the baseline survey (1976) and before the evaluation restudy in 1979 is conducted. A small staff of local residents to be trained and supervised by the IPC will carry on these monitoring activities. They will keep track of the progress of the water system installation and related events at various stages. This participant-observation approach is expected to allow more meaningful explanations as to why certain results shall have or shall have not emerged in 1979. Further, it will indicate any fluctuations in response during the interim period.

A report on the monitoring phase will show the major trend of activities and events and will introduce the manner by which the reevaluation study will be conducted. This report will also include a rough budget estimate and work schedule for Phase IV, the follow-up evaluation survey.

IV. Follow-up evaluation study, 1979

Using the same survey and other forms of investigation undertaken in the baseline survey (Phase II), a follow-up evaluation survey will be conducted in 1979 in the experimental and control cities. It hopes to reveal the effects which shall have been presumably felt in the community three years after the installation of the new water system. The final report of the study (covering all the phases) will stress the impact both

in health and economic aspects, of the new water supply systems on the people and community of the participating provincial cities.

B. Specific Tasks

The specific tasks covered by this agreement are to undertake Phases I and II of the study over an accumulated period of one year (Phase I - 4 months, Phase II - 8 months). The tasks in each phase are as follows:

1. Phase I. Preparation of a research design

- a. To design a specific research proposal that will be used for Phase II, based on a review of the existing literature and field visits to the proposed research sites as described in Phase I description in item IA.1 above.
- b. To submit to the LWUA a draft research proposal in five (5) copies in typescript at the earliest three months or no later than five months after the execution of this Agreement, or at a date mutually agreed upon by the LWUA and the IPC. The LWUA shall return this draft proposal to the IPC within a week's time after receipt thereof, with comments, if any. The IPC shall make the necessary revisions, if any, and submit the final proposal in five (5) copies in typescript within a week after receipt of the LWUA response.

2. Phase II, Baseline survey, 1976

- a. To conduct a baseline survey in one or two cities based on the specifications presented in the research proposal designed and approved in Phase I.
- b. To submit an administrative progress report (in three copies) immediately after completion of data gathering, indicating significant situations encountered in the field and a brief description of how the data will be analyzed.

- c. To analyze the data gathered in this phase focusing on the impact of the installation of the water supply system focusing on the two main concerns, namely health and economic results.
- d. To submit a brief substantive progress report (in three copies) on the project showing some preliminary results of the data analyzed or where so requested and indicated earlier by the LWUA, preliminary findings on priority areas under negotiation.
- e. To submit a draft of the final report (in three typescript copies) of the study at the earliest 6.5 months after the start of Phase II or at the latest 7.5 months after or at a date mutually agreed upon by LWUA and the IPC. The LWUA shall return this draft to the IPC within a week's time after receipt thereof, with comments, if any. The IPC shall make the revisions reasonably called for and submit in mimeographed form ten (10) bound copies of the report within a period of three weeks after receipt of the LWUA response.

II. WORK PLAN TIMETABLE AND COVERAGE

The work plan and coverage specified in Section I. B. of this Agreement will be carried out by the IPC for an accumulated period of one year, allowing four (4) months for Phase I and eight (8) months for Phase II. Inasmuch as Phase II is dependent upon the results of Phase I, the launching of Phase II will be done only after the LWUA's approval of the research design resulting from Phase I.

The coverage of the study will be Tacloban City and possibly another city. Cagayan de Oro City is likely to be chosen as the second experimental city; however, Bacolod, Davao, and San Pablo cities may be considered as alternate second-city possibilities. The final choice of the area coverage shall be subject to discussion by the LWUA with IPC. The discussion shall be relayed in writing by the LWUA to the IPC before the launching of Phase II.

III. PROJECT COST AND TERMS OF PAYMENT

A. Project Cost

The preparation, survey, and other research activities involved in the study either for one city or for two cities as specified in Section I. B. above will be accomplished at a total fixed price as indicated below:

	<u>One-city survey *</u>	<u>Two-city survey**</u>
Phase I	P 24,970	P 34,612
Phase II	<u>103,623</u>	<u>165,738</u>
Total	<u><u>P128,593***</u></u>	<u><u>P200,350***</u></u>

*Tacloban City

**Tacloban city and another city

***The breakdown of the budget is shown in the attached schedule.

Provided, however, that inasmuch as Phase II is dependent upon the results of Phase I, the fixed cost hereinstated for Phase II will be subject to review after Phase I results emerge for possible increase or decrease. Provided further, that in view any change in the budget after a thorough review by the IPC, a revision of the Phase II fixed-price shall be duly negotiated, the results of which will be covered by a mutual agreement in writing to this effect and will be considered part and parcel of this Agreement.

The total price of the study hereincovered by this Agreement is not subject to any contractor's tax. A Taxpayer's certificate will be issued upon acceptance of this Agreement both by the LWUA and the IPC and prior to its notarization. This Certificate is to form part and parcel of this Agreement.

POSITION & ORGANIZATION CHART LOCAL WATER UTILITIES ADMINISTRATION

Approved under LWUA
Board Res. No. 7-75
As of Sept. 9, 1975

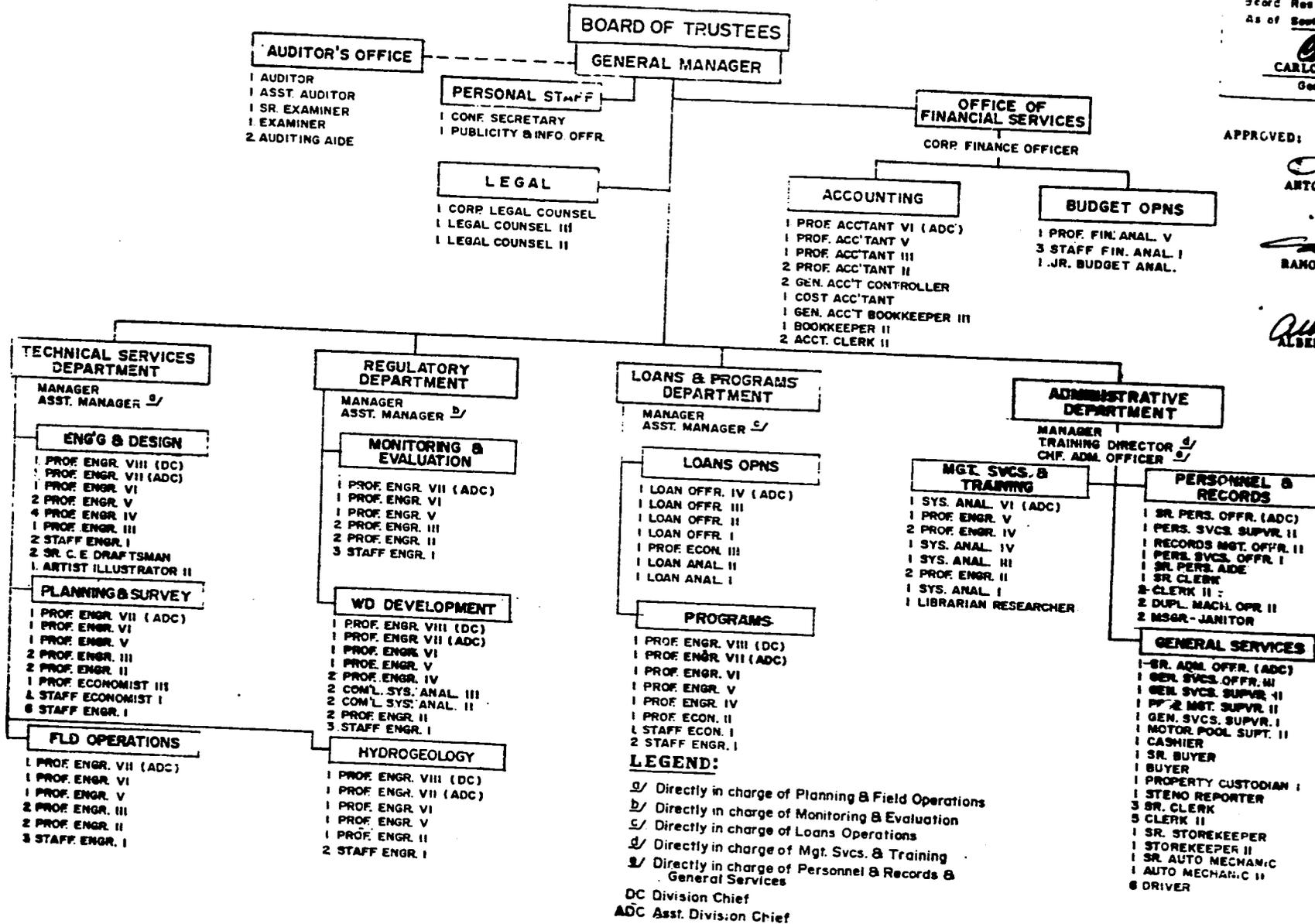
Carlos C. Leado, Jr.
CARLOS C. LEADO, JR.
General Manager

APPROVED: Subject to

Antonio M. Lossin
ANTONIO M. LOSSIN
Chairman

Ramon B. Carbenas
RAMON B. CARBENAS
Trustee

Alberto R. Sanchez
ALBERTO R. SANCHEZ
Trustee



ANNEX R

ASSESSMENT OF WATER DISTRICT INSTITUTIONAL CAPABILITY

During the initial three years of LWUA operations, 30 water districts have been formed. The degree of institutional development of these districts varies. Many districts have made considerable progress while others have virtually stood still. The degree of development generally reflects the capability of the key staff members of the water districts, and its Boards of Directors. In recognition of the importance of having motivated and qualified personnel involved in water district operations, the LWUA is taking a more active role in promoting high standards, modern screening methods and competitive salary structures for all water district personnel. At the same time, LWUA training activities are being expanded to meet the obvious need.

The status of water district institutional development is summarized as follows:

1. GENERAL

The Districts are to a great extent removed from local politics. Even though the boards are appointed by the local mayors or governors, the boards seem to have developed allegiance to the water systems and have in many instances opposed the wishes of other government agencies to protect the best interests of the districts.

Most districts seem to have developed an identity of their own. From interaction with other districts at various meetings and as a result of LWUA's training efforts, the districts seem to recognize the important role they are to play within their community. The managers and board members are generally well known and active within their communities and are able and willing to promote their district and its programs.

All the districts have qualified for a Conditional Certificate of Conformance issued by the LWUA. These have been issued as evidence that the districts meet certain initial standards and have programmed certain improvements to achieve required higher levels of development.

2. FINANCIAL MANAGEMENT

Comprehensive commercial practices and management information systems have been developed by the LWUA. The new systems have been installed in eight districts and installation is continuing at a rate of one per month. The new systems are greatly improving the district's ability to control their total financial structure, particularly the billing and collection efforts. It is not uncommon now for a district to achieve in excess of 80% collection efficiency, where in the past it would be on the order of 30-40 percent. The new reporting systems also provide the Manager and the Board of Directors timely financial information which allow early recognition of problem areas.

A recent LWUA program requires the water districts to prepare and submit 10-year projections of cash flow. This forces the districts to calculate anticipated future water rates and plan for realistic rate increases well ahead of revenue requirements. Four districts have prepared such plans acceptable to the LWUA.

The overall financial condition of the water districts varies from very poor to excellent. The key factor is the willingness of the district management to collect water bills. Where the district management has taken a hard-line approach, the results have been extremely promising. Another factor is the willingness of the district boards to raise water rates to realistic levels. The most common argument against diligent collection efforts and higher water rates is the present very low level of service in many of the districts. Some districts would rather improve service prior to making a real effort at collecting bills and increasing rates.

3. PERSONNEL MANAGEMENT

District Board members have, in the majority, developed a healthy attitude relative to board-manager relationship. Some members still attempt to "run everything" and make all decisions on a personal and a case-by-case basis, but the majority seem to realize that the establishment of sound policy to be implemented by management is more effective.

Delegation of authority is slowly taking place throughout the district heirarchy whereas in the past literally all decisions were made by one individual. As an example, district managers may

approve purchases up to some limit without the approval of the board, heads of commercial departments may adjust water bills without the manager's approval, and storekeepers may requisition replacement items without further approval when stores get low.

Many managers are making sincere efforts to surround themselves with competent, hard working supervisory personnel. This is often difficult due to the ingrained culture which places more importance on the maintenance of smooth interpersonal relationship rather than risk confrontation.

The LWUA has developed and made available to the districts sample job descriptions, desirable salary rates and personnel rules and regulations. These have in some cases been adopted as submitted, sometimes revised and adopted and in some cases totally ignored. Overall, however, the trend is towards a more organized and logical approach to personnel management.

4. PHYSICAL RESOURCES MANAGEMENT

To date the major emphasis of the LWUA program has been on improving the quality of the personnel at the water district level and improving the district's financial position. The theory being that well qualified and motivated people with financial resources can resolve the remaining district problems.

Since no major physical improvements have yet been completed as part of the LWUA program, practically all the districts have serious physical resource deficiencies which minimize opportunities for significant improvement of service to the customers.

At the five pilot water district and several other districts which have received more concentrated assistance from the LWUA some improved capability has been developed, particularly in operation of the existing facilities. Water production can now be measured more accurately and the efficiency of the machinery determined. These districts are also more aware of the water quality aspects of water supply and disinfection capabilities as well as quality monitoring has improved.