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

CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

PHILIPPINES - PROVINICAL WATER

[redacted]

Project Number: 492-56-531-263
Loan Number 492-H-033

AID-DLC/P-2020

UNCLASSIFIED

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

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AID-DLC/P-2020

March 14, 1974

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Dollar Development Loan
Philippines - Provinicial Water

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed Fifteen Million Dollars ($15,000,000) to the Government of the Republic of the Philippines (Borrower) to be made available to assist in the design and construction of up to five provinical waterworks systems, and test-well drilling programs, water resources surveys and waste-water disposal studies.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee on Wednesday, March 20, 1974. Also, please note your concurrence or objection is due by close of business Monday, March 25, 1974. If you are a voting member a telephone poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development
Program Review

Attachments:

Summary and Recommendations
Project Analysis
ANNEXES I - XV

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PHILIPPINES - PROVINCIAL WATER

AID-DLC/P-2020

March 13, 1974

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PHILIPPINES - PROVINCIAL WATER

Summary and Recommendations

1. Borrower/Beneficiary - Government of the Republic of the Philippines (GOP) will be the Borrower and the Local Water Utilities Administration (LWUA) will be designated Beneficiary and implementing agency.

2. Loan

(A) Amount - $15,000,000 (Fifteen million dollars) to be made available over a four year period.

(B) Terms -

(i) Maturity: 40 years including a 10-year grace period.
(ii) Interest: 2% per annum during the grace period. 3% per annum thereafter.

3. Grant

Amount: $750,000 over three years: FY 1975, FY 1976, FY 1977.

4. Financial Plan:

($ in millions: $1.00 = ₱6.78)

A.I.D. Loan	A.I.D. Grant	GOP Budget	Total
$15.0	$.75	$15.70 (equiv.)	$31.45

5. Purpose of the Loan - The proposed loan will provide a line of credit to the Government of the Philippines. The GOP will make the proceeds available to local water districts through LWUA to finance an initial package of up to five provincial water systems. These systems will be selected on a project by project basis from the initial six feasibility studies now completed and/or possibly from the ten supplemental studies being undertaken by LWUA. Barring unanticipated problems the five systems will probably be the five of the six studied to date for which technical and economical studies are completed and for which final design can now commence.

The loan will finance an estimated $6.7 million of foreign exchange cost for consulting services, offshore commodities and commodity related services. The remaining $8.3 million will be made available to reimburse the GOP for the peso cost of completed and acceptable construction work. The loan, therefore, will finance approximately 50 percent of the estimated total project costs and approximately 35 percent of the estimated peso cost.

Special letters of credit will be used tied to U.S. imports for the local currency portion financed by A.I.D.

Purpose of the Grant - The proposed grant will finance technical consulting services directly attributable to the institutional development aspects of the project. Two-Hundred, Fifty Thousand dollars ($250,000) will be made available in each of three fiscal years - 1975, 1976, 1977 - to finance this assistance for the national institution (LWUA) and the local institutions.

6. Project Purpose and Relationship to Development Goal

The purpose of the Provincial Water Supply Project is two-fold; the development of water systems in up to five selected cities which will provide safe water on a reliable and economic basis to a significant portion of the population; the development of the technical and institutional capacity to extend such service to other cities in the Philippines.

The development goal to which the project will contribute is, improved public health in the Philippines.

A close relationship between public health and an area's water supply has been suspected for years, i.e., a lack of potable water contributes to the spread of waterborne diseases, inadequate amount of water precludes personal hygiene. In the Philippines, inadequate sanitary protection of most water supply facilities has frequently subjected customers to hazardous health conditions. Up to this time, secondary cities in the Philippines have lacked the institutional capacity to develop safe and reliable water supplies. In addition to developing water systems and an institutional capability, the Provincial Water Supply Project will serve as a basis for testing the correlation between water and improved health, and developing guidelines for future activities. An evaluation element will be built into the project plan.

The specific conditions which are expected to result from the construction/improvements, technical consulting services and training to be financed under this project are as follows:

(1) The percentage of population directly served by water systems in five specified communities studied to date, will have increased from approximately 30% on an unsafe and unreliable basis, to approximately 47% on a safe and reliable basis by 1982. This, despite an anticipated population increase of 50% during the same period. (See Annex II)

The balance of the population in the service areas not directly connected to a system will have access to safe water from system public faucets or standposts.

The systems will be financially self-supporting.

Rates and charges will be within the means of and accepted by a substantial portion of the community.

(2) Test-well drilling programs, water resources surveys and wastewater disposal studies will have been completed with recommendations to the GOP for appropriate action.

(3) Self-sustaining institutions will have been established at the national and local levels. The national organization will provide technical, financial, regulatory and training assistance to local water utilities. The local level institution will own, operate and manage the water utilities.

(4) Evaluation findings assessed for lessons relevant to future Philippine water projects, and communicated to GOP and LWUA.

To encourage increased access to, and increased use of the new water systems by lower income groups, the proposed rate structure for the five systems is designed to subsidize the low income consumers.

7. Project Outputs

In order to achieve the end results as described above, the project will provide for the following outputs to be completed:

(1) Planning and organization of national and local institutions.

(2) Development of trained technical and managerial personnel to staff local and national institutions.

(3) Design and construction/improvement of waterworks systems in five provincial local areas.

(4) Completion of test-well drilling programs, water resources surveys and wastewater disposal studies.

(5) Evaluation of the efficiency and impact of the water supply systems covered by the project.

Institutions for the development of provincial water systems have been authorized by Presidential Decree No. 198 -- "The Provincial Water Utilities Act of 1973" -- promulgated May 25, 1973. This act established a national organization, the Local Water Utilities Administration (LWUA), and called for the establishment of local water districts. An essential element and key to the ultimate success of this project are consulting services to help establish the initial operation of the LWUA and local water districts. These services are proposed for A.I.D. grant funding.

8. Project Rationale

The project is a pilot effort in the sense that it is the beginning of a national program. The training and experience gained from its

implementation, and the lessons learned from its evaluation will be invaluable for application to other localities in the Philippines.

There are approximately 300 communities in the Philippines of 30,000 population and more in need of assistance for safe and reliable water supply systems. These communities represent approximately 50% of the total Philippine population outside of greater Manila. These are areas of rapid population density increase;which render inadequate traditional water sources such as shallow wells, springs and streams. At some point, adequate service becomes an absolute necessity. Taking improved public health as a benefit of safe and adequate water supplies, positive effects are clearly greatest where population is most densely concentrated.

9. Other Project Benefits

In addition to the health benefits which are the primary goals to which the development of safe and reliable water systems is expected to contribute, the Provincial Water Project is expected to have benefits in the areas of fire prevention and economic activity. Evaluation of the impact of improved water supply will, to the extent possible, attempt to assess any improvements in these areas as well as public health.

10. Project Capital Costs - The feasibility studies completed in six provincial local areas recommended a three phased construction program. This project will be able to construct Phase I in up to five areas, including a provision of funds for necessary test-well programs, water resources surveys and wastewater disposal studies.

Total Project Costs (000's)(1)

	Pesos	U.S.$	Totals in U.S.$
Construction - Loan	56,362(2)	6,184	14,497
Construction - GOP	104,140		15,360
Totals for Five Areas	160,502	6,184	29,857(5)
Testwells/Water Resources/ Wastewater Disposal	814*	504*	624
Technical Assistance	1,500(3)	750(4)	971
Total Project Costs	162,816	7,438	31,452

*Dollars to be included in loan; Pesos a GOP contribution.

(1) ₱6.78 equal U.S. $1.00
(2) Approximately $8.3 million of the loan will be used to reimburse the GOP for approximately 35% of the construction peso cost by means of a dollar tied Special Letter of Credit.
(3) Estimate of Peso support to be furnished by the GOP for the technical assistance.
(4) Grant financing of $250,000 each in FY 1975, FY 1976 and FY 1977 to finance technical assistance for the national and local institutions.
(5) Includes 12% for engineering consulting services.

10. Statutory Checklist - All statutory criteria have been met (See Annex XIV. Item No. 20 thereof, however, is still open.)

11. Country Team Views - The country team recommends approval of the loan.

12. Other Sources of Funds - No other source of funds is known. There have been expressions of interest by other donors in follow-on projects.

13. Environmental Considerations - The impact of this project on the natural environment has been reviewed and discussed in the Environmental Analysis in Annex IX. In summary the benefits of water system, at this time, clearly outweigh the potential detrimental effects of the absence of a high cost sewage disposal system.

14. Issues - None

15. Recommendations - Authorization of: (a) a grant of $750,000 to finance the consulting services needed to develop the related institutions at the national and local level; (b) a loan to the Republic of the Philippines in an amount up to $15 million to finance the foreign exchange as well as approximately 35% of the local currency costs of goods and services required to design and construct/improve five provincial local waterworks systems and provide for testwell drilling programs, water resources surveys and wastewater disposal studies. The loan will be subject to the following terms and conditions.

(1) The loan to be repaid in 40 years including a ten-year grace period on repayment of principal.

(2) Interest on outstanding principal to be charged at the rate of 2% per annum during the grace period and 3% thereafter.

(3) Repayment of principal and interest in United States dollars.

(4) The GOP will covenant to provide the local currency and/or other resource requirements for completion of the project on a timely basis.

(5) The loan shall be subject to other terms and conditions set forth in Section III of the attached CAP and the loan authorization.

Capital Assistance Committee

USAID		AID/W	
Chairman	Arthur J. Thivierge	Chairman	M.Milburn Pehl
Loan Officer	Thomas E. Johnson	Loan Officer	Laurance W. Bond
Engineer	William C. Larson	Engineer	Thomas Leahy
Program Officer	Bernard H. Masters	Legal Advisor	Jay Burgess
		Country Desk	Dennis Chandler

I. PROJECT DESCRIPTION AND OBJECTIVES

A. BACKGROUND

Approximately 50% of the population of the Philippines, outside the greater Manila area, is located in communities of 30,000 or greater and should be able to support viable waterworks system. The supply of water to most of these provincial communities has, however, been generally unsatisfactory. Most of the utilities servicing such areas were constructed in the 1940's and, due to poor maintenance and a lack of expansion to meet the needs of growing populations, have since become inadequate. In varying degrees, unsafe water, unreliable and insufficient service, and inequitable rate structures and other administrative shortcomings are common. The inadequate water systems in these communities has contributed to a public health hazard resulting in a high prevalence of water-borne diseases in the Philippines. Though not fully researched, this prevalence has had a detrimental effect on economic development in addition to the apparent social implications.

The Government of the Philippines (GOP) has previously made several unsuccessful attempts to address the situation. A National Water Sewerage Authority was created in 1955. Though charged with the responsibility of managing the various utilities throughout the country, the central management and local staff appointive authority was located in Manila. Thus, local water utilities were controlled by a bureaucracy which, in most cases, was remote and unresponsive to the needs of local communities, with little financial assistance available for construction of the systems, or their operations, maintenance and repair. The NWSA was abolished by legislation passed in 1971 which established the Metropolitan Water-works and Sewerage System (MWSS). The MWSS was intended primarily to operate the water and sewerage utilities of the Greater Manila Area, but with a mandate to operate a limited number of provincial systems under certain conditions. This, too, proved ineffective and the overall situation continued to deteriorate.

In a continuing attempt to develop a viable solution to this problem, the GOP requested USAID Financial assistance to make feasibility studies on waterworks in provincial areas in May, 1969. 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). This study was performed by the joint venture of Adrian Wilson International Associates, Inc., and James M. Montgomery Consulting Engineers, Inc. (Consultant), 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 system. The second aspect was undertaking individual technical and economic feasibility studies on six provincial water supply systems.

Based on the GOP review of the consultants recommendations regarding establishing a new institutional framework, the GOP has, by Presidential Decree established a new organization, the Local Water Utility Administration (LWUA). LWUA is designed to provide technical and financial assistance to the provincial systems as well as exercise regulatory control. With the establishment of LWUA, the GOP requested A.I.D. financing of the six provincial systems studied by the consultants and technical and managerial assistance to LWUA and the new water districts. Based on an intensive review of the program, A.I.D. has agreed to consider financing up to five eligible systems with a development loan in FY 74 and to consider a supplemental loan in FY 75.

B. Project Objectives

The objective of this project is to initiate a nationwide program designed to provide safe, reliable water to provincial populations of the Philippines by establishing and fully developing a national and local institutions. The Local Water Utility Administration (LWUA) at the national level, will be developed to provide financial, technical, regulatory and training services to local water systems on a permanent and self-sustaining basis. At the local level five new local water districts will be established to construct and manage the new systems and subsequent expansions. LWUA will assist the newly established water districts to design and construct the initial package of five local water systems which, if successful, will be duplicated in other localities. While the initial projects are sizable in and of themselves, they are essentially pilot projects in terms of the beginning of an overall national program.

As indicated above, a community of 30,000 is considered potentially able to support its own waterworks system. The GOP is utilizing ..... feasibility study loan resources (A.I.D. Loan 492-H-030) to

engage a consultant for additional technical and economic feasibility studies in ten more communities. With LWUA operational, as the national institution, additional technical and economic feasibility studies should each require a much shorter period of time (estimated at 3-4 months) than was necessary to conduct the original six. Essential to the scope of work of the consultant for the additional feasibility studies will be the training of the LWUA staff to conduct follow-on feasibility studies. Ultimately feasibility studies will be conducted by the Philippines private sector and LWUA's staff must have the capability to approve and evaluate such studies. These supplementary studies are considered to be an integral part of the program although not directly funded under the proposed loan.

C. The Project Description

1. Grant Financing - Institutional Development (See Annex 13).

The GOP has requested that USAID grant-finance Consulting assistance to the LWUA and the local water districts. USAID is currently, and has been since August 15, 1973, grant-financing services of one management advisory consultant to the LWUA. This consultant is experienced in water utility organization, management and operation and is assisting LWUA in both establishing its own organization and negotiating with potential local water districts. As LWUA grows and as local water districts are formed, additional technical assistance will be needed by LWUA and by the individual local water districts. Assuming a four-year project (FY 75-78), this assistance is estimated to require a total of approximately 12 man-years of service. In response to strong GOP requests, USAID intends to request in FY 75, FY 76 and FY 77 the grant financing of this technical assistance for a total of $750,000 over the three year period. An estimated schedule of the technical assistance, assuming five waterworks are under construction in FY 75 is as follows:

Estimated Technical Assistance Schedule
FY Costs

	Grant		
	1975	1976	1977
Consultants 1/	200	200	200
Training	50	50	50
TOTALS	250	250	250

1/ Budgeted at $50,000 per man-year

It is planned that one consultant, as is currently assisting LWUA, will be on board for a full 44-month period. He will assist LWUA in (a) organizing and developing its five operating divisions, i.e., administration, training, regulatory, technical and loans; (b) negotiating with and advising potential water districts, (c) coordinating training programs for and between LWUA and water

districts. This person must be experienced in overall utility operations and administration. It is also expected that several short term consultants will be needed at LWUA over the 44 month period. These may be in the areas of legal, water treatment, training and financial. The plan provides for a total of 8 man-months of specialized short term consultants. The 44 month duration of this phase of the project begins after the loan agreement is signed and the initial conditions precedent to financing fulfilled. It extends through the time when at least five systems could reasonably be constructed.

On the local water district level it is planned that one consultant will work with a maximum of two individual districts. The consultant on the local level will have much the same responsibility as the consultant to LWUA in addition to assisting the water district in coordinating its activities with LWUA. He will be on board before construction begins and remain until shortly after it is completed. The primary areas of organization and development on the local level are (a) administration, (b) commercial, (c) engineering, (d) production and (e) construction and maintenance. Upon formation of a water district, the consultant will be needed, as the development of these areas will be simultaneous with construction of the system. It is planned that the consultant will be on board for approximately thirty months for a district that will require an eighteen month construction period.

With five districts formed, a total of four full time consultants plus eight man-months of short term specialists will be needed for a total of 144 man-months.(1)

2. Loan Financing - Engineering and Construction

The $15 million loan requested by the GOP and proposed by this CAP is to finance the $6.2 million foreign exchange estimated to be required for the project, i.e., engineering, design, supervision of construction and off-shore procurement for Phase I construction of five pilot waterworks systems. The loan will also provide $8.3 million for local currency reimbursement to finance approximately 35% of the total local currency requirements of the project. It is also estimated that $504 thousand will be included for testwell drilling, water resources surveys and wastewater disposal studies. In summary, this loan will finance 50% of the total project costs.

3. Feasibility Studies, A.I.D. Loan 030

The GOP has requested A.I.D. assistance to perform an additional 10 technical and economic feasibility studies in various provincial areas. LWUA will provide the local

(1) See implementation plan for the schedule.

currency required. These studies should provide LWUA with a backlog of prospective follow-on candidates for water districts and will provide much valuable training and familiarity to the LWUA staff in the preparation and/or evaluation of water system feasibility studies.

4. Summary of Financial Inputs

In summary, total inputs into the program are (1) $750,000 of grant financing consulting services to the institutional aspects of the project over three years. (2) a $15 million project loan to finance the foreign exchange requirements of designing and constructing Phase I of up to five pilot waterworks systems ($6.2 million) and to provide approximately 35% of the local currency required to construct the systems ($8.3 million). (3) $504 thousand for necessary testwell drilling programs, water resources surveys, and wastewater disposal studies. (4) $15.4 million equivalent in pesos by the GOP to finance the remaining local currency requirements of constructing the five systems, and $814 thousand equivalent for the studies and surveys. (5) $750,000 and ₱1,700,000 from Government of the Philippines' fund to conduct additional feasibility studies.

5. Expected Outputs

(a) The Local Water Utilities Administration should be able to carry on the function of providing assistance to the formation and development of additional water districts, and the construction/improvement of waterworks systems. At the end of the four-year project, LWUA should have a fully trained staff of approximately twenty-five full-time employees prepared to provide necessary technical and financial assistance.

(b) Up to five local water districts should be formed and in full operation delivering safe, potable water on a reliable basis; serving as large a part of the total community as is economically feasible; maintaining rates and charges which are within the financial means of customers and will promote the district as a self-supporting entity which can match the growth of the community. To assume this competent operation, each water district should have fully trained staffs by the end of the project.

(c) Up to five waterworks systems are to have been designed and constructed/improved. These improvements will dramatically increase the percentages of the populations served in the areas covered by the feasibility studies. By the end of the construction financed under this project an average of 47% of the areas populations are to be served compared with a present average of 30%. This in view of the projected 50% growth of populations during the same time period.

In addition to bringing safe water to a larger percentage of the total population by direct connections to the system, the project will also bring safe water to that segment of the population within the service area which is not directly connected by means of public faucets and standpipes. Those that cannot afford a connection to the waterworks system will still have safe water available. Besides

obvious benefits to health this will result in an impressive economic benefit to the financially poor citizen. Currently, individuals who do not have access to water systems or private sources often purchase water from vendors. The price of water from vendors varies from an equivalent cost of $2.80 to $15.00 per 1,000 gals., compared with the approximate price range of $.28 to $.55 proposed by this project.

D. PROJECT ASSESSMENT

1. Place of the Project in the Philippine Development Program

The improvement of local waterworks has long been an aim and desire of the GOP and earlier attempts to rectify the situation are indicative of a long period of interest. However, the issuance of the Presidential Decree No. 198 is the strongest evidence yet that the GOP is resolved to firmly deal with an unacceptable condition. The GOP has, by Decree, committed over ₱200 million to this program. Since the issuance of the decree on May 25, 1973, there have been several instances to further substantiate the GOP intentions. On September 12, 1973, over President Marcos' signature three individuals of national stature were appointed to the Board of Trustees. On the same date the Budget Commission was instructed to immediately release ₱1,000,000 to LWUA for an operating budget. Clearly the project is an essential part of the GOP overall development plan and this interest will be a key factor in the successful implementation of this project and the overall program. The improved waterworks are also very important to the development plans of individual cities. Today, waterworks systems cannot meet the present industrial demands of cities. Without improvements, new industrial and commercial establishments will be forced to continue to develop their own, individual high cost water supply systems, causing a deterrent to further industrial development.

From a public health point of view, there are no agreed upon criteria for evaluating the impact of improved water systems on the health of the populace. Nevertheless, it is noted that the Philippines has one of the highest morbidity and death rates for waterborne 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. It cannot be categorically stated that the incidence of waterborne diseases will be significantly lowered solely through the implementation of an improved water system. Improved water supply is, however, a necessary first step. This project offers the opportunity to establish evaluation criteria to determine the effects of water supply on disease incidence.

2. Place of the Project in the A.I.D. Program

During the past two to three years U.S.A.I.D./Philippines has been restructuring and redirecting its overall program and its project components. One of the essential features of this process has been an increased focus on getting increased development benefit "downstream"

to substantial numbers of the more disadvantaged elements of the population. Emphasis has been placed on formulating and implementing projects designed to deliver both short-term and lasting benefits to the lower economic strata, particularly in the smaller cities and rural areas. Projects are selected for USAID assistance, to a very large extent, on the basis of their ability to improve the health and overall standard of living of the neglected population in the non-Manila areas. Both the GOP and USAID have recognized that the unavailability of potable water represents a highly negative factor in the lives of these people. This project is intended to alleviate that negative condition by providing accessibility and adequate supplies of potable water to provincial dwellers. Thereby, improving life conditions, future prospects and, expectantly, health. Phase I of this project in five provincial areas will by 1980 increase the percentage of these area's total populations served by water systems from approximately 30% to 47% despite a more than 50% increase in population growth during the same period. The rate structure is designed to subsidize the lower income customers by having the higher income customer pay a higher rate per quantity of water used than the lower income customer. This project fits well into the new A.I.D. philosophy and strategy and the efforts of this Mission towards the goal of greater social equity.

II. BORROWER AND IMPLEMENTING AGENCIES

The Borrower under this loan will be the Government of the Philippines. The proceeds of this loan will be made available to the LWUA who will act as implementing agency for the loan. LWUA will in turn relend the proceeds of the loan, and the additional peso resources required for the projects, to independent local water utilities.

A. Presidential Decree 198 (PD 198)

Presidential Decree No. 198, dated 25 May 1973 provides (1) the legal authority for the GOP to incur the proposed indebtedness, (2) the legal authority for establishment of LWUA and the relending of the proceeds of the loan by LWUA, and (3) the legal basis for the establishment of the respective local water utilities.

PD 198 was enacted in response to the institutional requirement recommendation of the consultants which were developed after extensive discussions with the Philippine Government. PD 198, to a considerable degree, is patterned after the legislation establishing the National Electrification Administration and reflects the experience to date of the GOP with the implementation of the NEA legislation. The basic experience of the GOP with the NEA model has been satisfactory and accepted (with necessary adjustments to reflect the difference in character of the water utility).

PD 198 establishes as a matter of national policy the "creation, operation, maintenance and expansion of economically viable

water supply and waste water systems for population centers in the Philippines." The decree in form provides that this objective be achieved through the establishment of locally owned and controlled water districts, supported by financial and technical assistance from the central government and under the regulatory control of the central government.

B. Borrower

The Republic of the Philippines will, as indicated above, be the Borrower under this loan. The GOP will implement the loan through LWUA and will (a) provide the funds to LWUA on the same terms as it receives the loan from A.I.D., e.g., 2% interest during a ten year grace period and 3% interest during the remaining 30 year repayment period. In addition, as provided in PD 198, the GOP will assume the foreign exchange risk associated with the external borrowing; thereby enabling LWUA to relend to the local districts in Philippine pesos without maintenance of value.

In addition, the GOP will provide to LWUA all supplementary peso resources required for the projects from normal budgetary resources.

C. Implementing Agency (LWUA)

LWUA was created by PD 198 as an Agency of the Philippine Government attached to the National Economic Development Authority (NEDA) which is the GOP economic planning body. While LWUA is attached to NEDA, it has corporate powers enabling it to act independently under the supervision of its Board of Trustees, one of whom is the Deputy Director of NEDA.

The charter act and powers of LWUA as set forth in PD 198 have been reviewed and are considered satisfactory to enable LWUA to accomplish its stated purposes, e.g., (1) to establish minimum standards and regulations in order to assure acceptable standards of construction, materials and supplies, maintenance, operation, personnel, training, accounting and fiscal practices for local water utilities; (2) to furnish technical assistance and personnel training programs for local water utilities; (3) to monitor and evaluate local water standards; (4) to effect system integration, joint investment and operations, district annexation and deannexation whenever economically warranted; and (5) to provide a specialized lending institution with peculiar expertise in the financing of local water utilities.

As of the date of this CAP, three of the five members of the Board of Trustees have been appointed. It is expected that two additional candidates will be selected to fill the Board after more water districts are organized. As part of the feasibility studies for this project, the Consultant analyzed the organizational requirements for both the national and local institutions. Recommendations were made concerning staffing patterns, training requirements and the implementation

of the organizational development. The LWUA has reviewed and accepted the study and recommendations of the Consultant. Annexes III - VI include the organization structure, personnel requirements and implementation schedules for both the national and local institutions. The General Manager of LWUA was appointed in June 1973 and has been filling the position since that time. A management advisory consultant, from Montgomery Consulting Engineers, has been grant financed by A.I.D., and has been active since August 15, 1973. A partial staff has been appointed and various functions are being carried out by LWUA. To date the staff has: developed a certification program for potential water districts; a set of mandatory standards and recommended practices; a primer for the use of local water utilities to assist in the formation of a water district; and guidelines for prequalifying and selecting contractors and consultants. All divisions of LWUA have some operating staff.

While LWUA has made a satisfactory start in the organization and staffing, it recognizes it is not competent at this stage to undertake both the institutional development task and implementation of 5 systems without outside consulting assistance. LWUA has initiated negotiations to obtain consulting services necessary to conduct the test well drilling program in three of the six cities for which feasibility studies have been completed. It is expected that this phase of the program will proceed as soon as a loan is authorized. In addition, LWUA is planning to contract for consulting assistance in both the engineering and management areas.

The consulting engineering assistance will be patterned after the successful model used by the National Electrification Administration, e.g., LWUA will contract directly with a U.S. consulting firm which will (a) assist LWUA develop technical standards for local water systems, (b) provide on behalf of LWUA, technical assistance to the local engineering firms who have primary responsibility for design and supervision of construction, and (c) will review and approve final designs of the water systems on behalf of LWUA.

The management consulting assistance supporting LWUA will focus on two areas (1) Direct assistance to LWUA as an organization and focusing on such matters as organization, accounting and finance, rate evaluation, etc., and (2) Provision of management consultants to work directly with the newly created water districts. These personnel will have operating experience with water utilities in the U.S. and will provide a general advisory service to the new utilities, much as the NRECA has successfully done in the formation and development of the Rural Electric Coops in the Philippines.

D. Local Water Districts

A general summary of the powers and functions of a local water district is included in Annex VII. Five local water districts for which project financing is being considered under this loan have already passed resolutions to establish local water districts.

The newly authorized districts continue to operate as the existing water systems of the municipalities involved. The new districts must begin the job of reorganization and restaffing in order to maintain at least the status quo of these systems and hopefully make system improvements such as installation of new meters, system repair, etc., when financing becomes available. The major job of reorganizing and implementing a major capital construction program however will be dependent on outside consulting assistance from LWUA, U. S. consultants, and the local engineering firms. By the time the Phase I capital improvement program is completed, local utilities financed should have developed organizations capable of satisfactory system operation .

A key factor in this equation will be the U.S. consultant directly attached to the local utility. He will, during the formative years, have to fill the experience gap of the general manager and lack of skills of the local utilities.

E. Conclusions on Institutional Capability

It is the project committee's conclusion that the existing legal authorities and the consultant's proposals for organizing, staffing and training LWUA and the local utilities, provide a satisfactory basis for development of the necessary institutional capability to implement the proposed project; providing that the existing in-country capability is supplemented in this first phase by the recommended technical and managerial consulting assistance.

III. PROJECT ANALYSIS - INDIVIDUAL WATER SYSTEMS STUDIED TO-DATE

A. Study Area Profiles

The location map (Annex I) refers to the areas studied to date. With the exception of Baguio, the areas which were included in the original six studies have economies dominated by agriculture. Only San Pablo has less than fifty percent of its population engaged in agricultural production of one kind or another.

Cagayan de Oro

The most recent census reports indicated Cagayan de Oro City had a population of 128,319 and a work force approximately 17,000 persons, with 5,000 unemployed. Most of the working population is engaged in agricultural production and related industry. Approximately seven percent of the population is engaged in the retail trade with others working as craftsmen, laborers and in administrative, professional and service occupations.

Leyte

Tacloban City is the center of activity for this area which includes Tanauan and Palo. The population of the area is put at 132,032 in most recent census reports. Though accurate figures on employment are not available, the fact that over 63 percent of the land within the Tacloban City boundaries is under cultivation suggests the preponderance of agriculture. There are three industrial plants in the area, the National Investment and Development Corporation (NIDC) coconut oil mill in Tanauan, the San Miguel Corporation bottling plant in Tacloban, and the Pepsi-Cola bottling plant in Tanauan. However, these three plants only employ a total of 630 people.

Davao

Davao City is also dominated by agricultural activity. However some 30 industrial plants do employ approximately 3,700 people and there are some 4,300 commercial establishments. A detailed analysis of Davao is elsewhere in this paper. (See pp. 17-19).

Bacolod

As with the other project areas, Bacolod City is dominated by agricultural activity. The province of Negros Occidental, including Bacolod City, accounts for 70% of the Philippine sugar exports. Industrial activity in the city is mainly based on sugar production. There are approximately 160 small-scale industrial establishments and 2,600 commercial, retail trade establishments. The population is put at 187,300.

San Pablo

San Pablo City has a population indicated at 105,517. Though economically dominated by agriculture, figures for Laguna Province (including San Pablo City) indicate approximately 34% of the population engaged in agricultural activities. This compares with up to 64% in other areas. Another sizable portion of the population are skilled craftsmen and laborers. Approximately 87% of the cultivated land is devoted to coconut production. Industrial activity is based on cocunut processing and by-products and there are some 300 commercial establishments registered in the City.

Baguio

Due to its moderately cool climate, Baguio City serves as the summer capital of the Philippines and as a vacation resort. Consequently the economy is dominated by commercial activity catering to the needs of visitors. The resident population of Baguio is estimated at 85,000, with students and out-of-town visitors approximately 24,000 and 40,000 respectively. Periodically visitors descend on the city, such as at the Easter vacation time, when it is estimated 120,000 people visit the City.

B. Technical Description

The extensions to the water systems proposed for design and construction under this loan are small municipal systems. In all cases the water sources will be developed from springs, deep wells and collector wells and will require a minimum of treatment consisting of chlorination and the removal of iron and manganese from the water. The systems will be designed and constructed to upgrade and extend the present systems. The existing systems provide water service to populations in the cities varying from 35,000 to 50,000 people. The proposed extensions will be designed to provide service in these cities for populations varying from 75,000 to 180,000 people. Such designs shall provide for transmission and distribution networks, storage reservoirs, house connections, fire hydrants and meters as well as the necessary support facilities consisting of administration, shop, storage and laboratories buildings. Test well programs will be conducted in several of the cities to support the preliminary investigations on the availability of groundwater. See para 'C' below which exemplifies a typical study area.

C. Typical Study Area (Davao City)

The Davao City study is briefly summarized as an illustration of the five cities to be financed.

Davao, the largest city on the island of Mindanao, has a total population approximating 392,000 people. The existing Davao Metropolitan Waterworks (DMW) is a division of the Davao City government with about 40,000 persons living within the service area. However, only one-half of these are served directly by the system, with an intermittent and unsafe water supply. Many private residences depend upon rainwater collection and storage systems, while more affluent citizens are served from private wells. Industrial firms construct their own deep wells. A large number of people use water purveyors distributing from tank trucks as a very expensive source of potable water. The existing system has thirty-three (33) fire hydrants which provide inadequate fire protection because of insufficient water supply and low pressure in the distribution system.

Under city ownership and operation the DMW has never realized gross annual revenues sufficient to meet expenses. The DMW budget makes no provisions for facility depreciation nor improvements.

Because practically all meters attached to the system are out of order, a rate schedule is not in effect. Therefore, current water changes are a flat ₱5.00 per month per connection.

Roughly two-thirds of the DMW total water production comes from surface supplies with one-third groundwater from deep wells. The principal surface supply is the Talomo River 9 kilometers west of the city center and a second surface source the Malagoo Creek, 20 kilometers to the northwest. One spring and four small capacity wells are also used. Bacteriological examinations indicated that 80% of the samples tested are positive for coliform bacteria.

The GOP Bureau of Census estimates that the city population is growing at a rate between 5 and 6% compounded annually and will do so through 1985 when the growth rate will taper off to 3-4% through the year 2000. By then Davao will have a population of 1.4 million. Due to the large number of persons presently not served by the DMW systems, and the large outlays of funds required to extend service to all potential customers, immediate provisions for water service to the entire city population do not appear feasible. It is therefore recommended that phased improvements be made to the system. Phase I, to be constructed under this project, will eventually serve approximately six times the population currently served. If other phased improvements are made as planned, 77 percent of the service area population will be served by the year 2000.

Future water consumption (assuming construction of all phases) is estimated to increase from approximately 850 mg (3.22 million cubic meters) in 1976 at the completion of Phase I construction, to about 16,000 mg (60.6 million cubic meters) by the year 2000. This is a per capita consumption of 31 gpcd in 1976 and 62 gpcd in 2000.

Given the above described situation and assuming all phases of construction/improvement are completed, the proposed system will provide continuously satisfactoy water service to all future customers. Delivered water will meet the recommended Philippine National Standards for Drinking Water (the standards were promulgated in 1963 by the Bureau of Public Health) and the system will be able to meet all peak demands likely to be placed upon it.

The study concluded that groundwater is the most economical and advantageous source of supply. Preliminary studies show that the character of the alluvium in the river valley is ideal for groundwater extraction by means of collector wells. However, a test well program is necessary before a definite decision can be made on the water source and the final system design.

The availability of labor presents no problem in the Davao area but the construction contractors will probably have to bring in supervisory and technical personnel. Many of the required construction materials, including pipe (asbestos cement, cast iron and steel) are produced in the Philippines. However, all of the major mechanical equipment and valving, must be imported. Qualified construction contractors that have the capability and necessary equipment are available in the Philippines.

The study recommends that the water demands of the study area be met by a phased construction program which will reduce the economic impact of the cost of improvements upon the community. The study plans are: Phase I to start in 1975 and be completed in 1977 and provide adequate service through 1982; Phase II to start in 1981 and be completed in 1983 should provide adequate service through 1990; Phase III to start in 1988, and be completed in 1990 should provide adequate service through 2000.

Cost estimates for Phase I include: the test well program, the cost of removing and replacing the existing 2,500 substandard water service connections; the purchase and installation of 2,500 new meters plus a nine month supply; 30 fire hydrants; stock and shop buildings, vehicles, spare parts, tools, furniture and materials. It also takes into consideration that part of the existing system that can still be utilized.

Project Costs

Breakdown of Project Costs for
System Improvements
Davao Water Utility
(Thousands of U.S. Dollars)

	Foreign Exchange	Pesos(4)	Total
Total Construction Costs	821.9	5,408.1	6,230.0
Engineering(1)	299.0	448.6	747.6
Contingency(2)	106.8	703.1	809.9
Sub-totals 1974 costs	1,227.7	6,559.8	7,787.5
Allowance for Escalation(3)	245.5	1,312.0	1,557.5
Total Project Costs	1,473.2	7,871.8	9,345.0

(1) At 12% of construction costs with 40% assumed as foreign exchange cost and 60% a local cost.

(2) A 13% overhead on all direct costs.

(3) Escalation assumed to be equal to 20% by the mid-point of the construction period.

(4) In U.S. dollar equivalent @₱6.78 to U.S. $1.00.

D. Project Capital Costs

Cost estimates for carrying out the first phase of a five city program including testwells/water resources and waste-water studies are as follows:

TOTAL PROJECT CAPITAL COSTS FOR AREAS STUDIED
(In Thousands)

Study Area	Pesos	U.S.$	Totals in U.S.$
*Cagayan de Oro	23,483	923	4,387
*Leyte	17,323	794	3,349
*Davao	44,475	1,228	7,788
*Bacolod	34,839	1,587	6,725
*San Pablo	16,433	761	3,185
Test-well drilling/water resources/waste-water disposal studies	678	434	534
Totals (1974 costs)	137,231	5,727	25,968
Total Escalated Cost	161,316	6,688	30,481

*Areas immediately eligible for financing consideration.

E. Findings of Technical Soundness

The project scope has been defined as outlined above, and a reasonable implementation plan developed as detailed in Section VI following. Provision has been made for technical assistance, training, and basic tools and equipment as required to provide LWUA and the local water districts a capability to operate and maintain the facilities to be constructed and manage the institutions to be established. The project and the estimated costs thereof reflect the findings of a well qualified U.S. consulting firm, as expressed in a 1973 study financed by A.I.D. Loan 492-H-023. The project is considered technically sound as presented.

F. Environmental Impact

The proposed program is expected to have a favorable environmental impact in the areas served by the proposed water systems. Annex VIII provides a detailed commentary on the environmental impact and was developed by USAID in consultation with the consulting engineer.

The major beneficial environmental impact will be the provision of potable water to a large number of Filipinos with an expected contribution thereby to the eventual reduction of the high incidence of water-borne disease in the areas effected.

Since water systems have an integral relationship to waste water disposal problems, this potential detrimental environmental aspect has received close review by USAID, the GOP and the consultant. Waste water disposal is not judged to be a serious immediate problem in five of the cities studied to date, but will need to be addressed with the Phase II water system investment for these areas. In the sixth system studied waste water is considered to be a serious enough potential problem to warrant a supplemental study. This study will be undertaken with a portion of the proceeds of this loan.

G. Employment Impact

The proposed systems are expected to be constructed by Philippine contractors. It is anticipated that a significant number of unskilled laborers will be employed for tasks where machines might be used in the U.S., though this choise is, of course, up to the contractor who submits the lowest bid.

Nevertheless, as a consequence of materials and labor purchased in the localities during the first-phase construction of the proposed improvements, multiplier effects will occur as the wages paid to the local labor force are funneled into retail establishments of the area. A long-range effect on the economy and employment can also be expected through linkages. Once the new systems are operational industries will have an inducement to locate in the localities and generate employment. The operation and maintenance of the system will in-and-of-itself require purchase of materials and labor locally. Thus, economic benefits can be expected during and after construction.

IV. FINANCIAL AND ECONOMIC ANALYSES

The methodology for computing the financial and economic returns for the Davao City Water District (as well as others studied) took into account several factors while, at the same time, making several assumptions. Phase one was isolated (i.e., no assumption was made that phase two and three would be implemented) and the rates of return calculated for a twenty-year time period. It was assumed that the phase one system would be utilized to its maximum safe capacity, i.e., sufficient pressure in mains to provide reliable and safe service without infiltration; that the utility would make necessary investments to extend service; and that the effective price for water service would gradually increase to account for higher operating and investment costs.

Effective Price for Water

The effective price for water is important to the success of the water district as a self-sustaining enterprise, inasmuch as it is the determining factor to the availability of revenues to meet operating and maintenance expenses, additional plant investment and debt servicing. This effective price for water is the average value for a unit of all water sold -- not the actual price to an individual consumer, which is set by the rate schedule developed by the water district.

Water Rates Schedule

Each district is to develop a strategy for establishing rate schedules related to meter size. These schedules should result in relatively low monthly water bills to low-income customers with middle and higher income groups paying disproportionately more. Thus, to some extent, the middle and higher income groups subsidize low income consumers.

Residential customers are classified by monthly family income, i.e., less than ₱250, ₱250 to ₱800 and over ₱800. The objective of the designed rate structure is to get as many of the lower income group as possible to apply for water connections. Presumably, this group will use up to 20 cu. m. per month and would select the smallest available meter (3/8 inch). High utilization by the low-income group would be a benefit to the community in terms of alleviating health problems and at the same time, providing the utility a substantial source of water sales revenues by virtue of the larger numbers included in the group. The middle-income group is expected to have an average consumption of up to 35 cu.m. per month and probably select 1/2 inch meters. The upper-income group is likely to utilize more than 35 cu.m. per month and should select the 3/4 inch meter. Commercial, industrial and bulk consumers would have meters of one inch to six inches in size available. The rate structure is then developed with a cost per unit increasing proportionately to the meter size. These prices are then averaged to arrive at an effective price for water service.

A. Financial Analysis

In developing the financial analysis of the system, estimates had to be made for the cost of design and construction/improvement, effective water prices for each system, operating and maintenance expenses, additional investments for minor extensions of the Phase I system and equipment replacement. Projections were then made for water production based on design capacities; assumptions concerning consumption and unaccounted for water; finally projections for connections to the systems. From these, financial projections were possible and a rate of return on capital investment calculated and a determination of debt service capability made.

1. Internal Rate of Return

In calculating the financial rate of return for the Davao City Water District, it was assumed that the utility would absorb the cost of replacing meters for existing customers and that connections to the system would lag behind its service capabilities. It was assumed that new customers would provide financing for their own meters with the utility providing financing for the necessary investment to make the connection (service mains, etc.) at the rate of ₱500 per connection. Straight-line depreciation was assumed for all physical assets with a "balloon" investment in the sixteenth year to replace those assets fully depreciated.

A rate structure was used which gave an effective price for water which ranged from $.39 per 1,000 gallons in year one to $.48 per 1,000 gallons in year twenty. Projecting the number of connections to the system (or size of the utility) and water production, an estimate was made of the annual operating and maintenance expense. Elements of this expense included necessary staff salaries and benefits, maintenance and repair, the cost of energy, chemicals and technical advisory expense. Added to this expense was the investment

necessary for expanding system service to new customers. The sum of these were then subtracted from gross revenues to arrive at net revenues before interest. Discounting these for the twenty year period showed the Davao utility having a financial internal rate of return of 8.3%. See Annex IX Table 1 for a summary of these calculations.

2. Debt Servicing Capability

If generally accepted techniques of financial analysis are applied to the water districts proposed for this project, it is found that there is a reasonable rate of return on the fixed assets investment but a seeming inability to service the debt. There are two main reasons for these apparently contradictory conclusions. First is the fact that there is no equity investment, i.e., all financial capital is borrowed. Secondly, assuming LWUA relending terms of 25 years (including a five year grace period on repayment of principal) and 8 percent interest, and further assuming a time-lag in connections to the system (thus less consumption), revenues during the early years will be considerably short of that necessary to service the debt. Experience and information regarding acceptance of water systems in other developing countries offers no concrete evidence for making any assumptions regarding a rate of service connections. We have chosen to be conservative here for illustrative purposes.

Accepting the conservative assumption, these slow connection and consumption figures become critical to a district's ability to service debt. In the Davao City example, it was found that revenues during the construction period and first five years of operation would not meet the debt servicing requirement as outlined above.

To meet this servicing need, two different approaches were attempted which came up with somewhat extreme answers. First it was assumed that the interest during the grace period was capitalized, and borrowing allowed to meet debt servicing requirements. This approach showed that no principal payments could be made until year twelve and the repayment schedule would have to extend far beyond the proposed 25 year period.

The second approach assumed that the LWUA would defer all payments during construction and the first five years of operation, and that the district managers could bank and/or invest cumulative cash reserves and earn six percent interest. This approach showed that by year six interest and principal payments could be made, and assuming all cash reserves were applied to reducing the debt, repayment was accelerated and liquidated by the seventeenth year.

Though neither of the above extremes are likely, the LWUA has expressed its contention that a reasonable policy to meet the needs of the local water districts will be adopted. Suffice it to say here that LWUA examine carefully its relending policy so these water districts can be financially viable and self-sustaining.

B. Economic Rate of Return

The primary difficulty in calculating the economic rate of return on the Phase I aspects of the Davao City Water District improvement and expansion program is in the identification and measurement of the benefits attributable to a potable water supply project. Nevertheless proxies are utilized and an attempt is made to outline economic benefits, assign a value of measurement and calculate an economic rate of return. The economic benefits included in the calculation for Davao City are the sum of direct consumer personal satisfaction, fire prevention, reduction in illness and reduction in loss of life caused by water borne disease.

The proxy adopted as a measure of the personal satisfaction benefit is the utility's projected revenue from water sales and payment for metered connection to the system. The effective water rate per cubic meter varies from 70 centavos in the early years to 85 centavos in the latter years of the water utility's operations. Assuming an average 80 centavo per cubic meter effective water rate over the 20 year time period, the price of 1,000 gallons is about $.45. A more exact measurement of the personal satisfaction benefit should be related to the per unit price the consumer would be willing to pay for a safe, reliable potable water supply given the available alternatives. Unfortunately, there are no real alternatives or sources of supply for the quantities that are to be delivered by the water utility at the conclusion of the Phase I program. Currently the price of delivered potable water to individuals not connected to the Davao City system may go as high as $1.00 or $2.00 per 1,000 gallons but for only very limited quantities of water. No measurement of the consumer surplus probably excluded by the $.45 per 1,000 gallon water rate mentioned above is feasible. The utilization of water sales revenues as the approximate proxy of personal satisfaction benefits is most probably an understatement of this benefit but the only quantifiable measurement currently available.

The fire prevention benefit was measured by the projected reduction in the fire insurance premium rates for Davao City on insured properties. The relationship appears to be direct and reasonable.

The reduction in illness and death benefits are conceptually more problematical and more difficult to quantify. Intuitively there would appear to be some health benefits attributable to a safe and reliable water supply. There was no evidence to correlate this relationship based on discussions with IBRD personnel concerned with water supply projects and A.I.D. specialists in the health sector. The empirical relationship is currently an unknown factor and will be one focal point for the evaluation of various water projects impacts on the quality of life in selected provincial water districts.

The economic costs of the illustrative Davao City Water District project include total operating and maintenance costs, additional investments, cost to the consumer of connecting to the system as well as the original investment. Summarizing the benefits

and costs, the economic rate of return is calculated at 10.6 percent. This is lower than the 12-15 percent opportunity cost of capital range considered appropriate to project analysis in the Philippines. Nevertheless, given other benefits involved for which no effort at quantification is possible at this time (impact on economic development and the improvement in the quality of life) and the institutional development aspects, 10.6 percent is an acceptable economic rate of return.(1)

C. Application to All Systems

The financial internal rates of return were calculated for four of the additional waterworks systems eligible for financing under this project. These were as follows:(2)

(1)	Cagayan de Oro -	8.9%
(2)	Leyte -	6.8%
(3)	San Pablo -	6.9%
(4)	Bacolod -	6.7%

Economic rates of return were not calculated for these four systems with completed studies, as the Davao example was felt to be representative. Though some conditions may vary to some degree, the similarities are close enough that one can project that calculated results would also be similar.

V. ECONOMIC AND BALANCE OF PAYMENTS IMPACT

A. Philippine Economic Performance and Debt Service Capacity

With a major economic stabilization program initiated in February 1970, which included devaluation of the peso, the BOP position improved considerably and a small surplus was realized in 1970 and 1971. The capital account, however, continued to be under pressure due to heavy repayment of short and medium-term debt. Performance in 1972, while not all favorable, resulted in an overall BOP surplus of $94 million. Developments during the first half of 1973 were unprecedented. A trade surplus of $179 million was realized, due primarily to higher export prices and volumes as well as to lower import volumes. Exports were almost 70% higher than the comparable period in 1972. As of July 31, 1973, the external debt outstanding amounted to $2,256 million, of which 67% consisted of loans with original maturities of more than 5 years compared to 43% at the beginning of 1970. Despite the improved

(1) Annex Tables II - IV detail the costs, benefits and calculations to arrive at the Economic Rate of Return.

(2) Calculations of these figures are on file and available in ASIA/CD.

maturity pattern, heavy debt service payments will persist at least over the medium-term future. Provided adequate levels of official aid for commodity imports and project assistance are forthcoming, and if the recent improvements in export prices persist, management of the external debt and debt servicing, while difficult, will not present serious problems. The debt service ratio presently stands at 19.2%. With the general improvement in economic conditions the growth rate in real terms may approximate 8 to 8.5% for 1973 as compared with a 1972 rate of 4.5%.

A major constraint, and uncertainty, on the continued positive performance of the Philippines' economy is the rising cost and uncertain availability of energy. The fuel oil shortage and accompanying inflationary pressures could prove disruptive to the continued rapid economic growth.

B. Impact on U.S. Balance of Payments

The impact of this loan on the U.S. balance of payments should not be unfavorable. Goods and services financed by $6.7 million of this loan will be obtained from A.I.D. Geographic Code 941 (U.S. and Lower Income Countries), and it is expected that the U.S. will supply essentially all imported goods and services. The $8.3 million of the loan which will be used to reimburse the GOP for a portion of local currency costs will be totally utilized in the U.S. through Special Letters of Credit opened with U.S. banks in favor of the GOP and tied to U.S. procurement.

VI. IMPLEMENTATION PLAN

The primary responsibility for project implementation will rest with the LWUA as implementing agency for this loan. The CP's and loan covenants are designed to enable LWUA and A.I.D. to agree, at the outset of the project, on a comprehensive set of guidelines, criteria and checks necessary to assure A.I.D. that LWUA, with the assistance of its consultants, can effectively implement the project.

A new contract to provide consultancy services on the organization and institutional development of the LWUA and the local water districts will be negotiated and will include general engineering assistance and advisory services. The test well program required prior to final system engineering design will be undertaken on these systems requiring such services and will be carried out under the general guidance and supervision of the Consultant.

Basic engineering and design capability for water supply and distribution systems is felt to be adequate in the Philippines as long as proper review, guidance and monitoring is provided by the LWUA assisted by the Consultant. However, some specialized problems such as water treatment plant and collector well design will require assistance from the U.S. Consultant. Local engineering firms thus are expected to

design the individual systems and provide the normal A&E construction supervision services. Similarly, local construction contractors are believed capable of constructing these relatively simple waterworks systems if adequately monitored and supervised during construction operations. LWUA, in turn, will, with the assistance and guidance of its Consultants, establish standards, review and monitor all such activities to assure itself and A.I.D. that engineering and construction performance meet the standards and criteria established.

That portion of the Consultant's work attributable to engineering and construction review and monitoring will be financed from loan proceeds. On the other hand, consulting and advisory services that can be attributed primarily to the institutional aspects of the LWUA or the local water districts is expected to be grant funded. The foreign exchange costs of the Consultant's supervisory services associated with the test well drilling program will also be eligible for reimbursement from loan funds.

A.I.D. will not be directly involved in the selection of local A&E contractors other than to reserve the right of final contract approval to assure compatibility with overall project objectives. It is, however, expected that the Consultant will assist the LWUA in preparing scopes of work and terms of reference for both the A&E's and construction contractors. A.I.D. will rely primarily on the consultant's certification of the technical adequacy of engineering plans and specifications, construction and equipment installation.

Construction contracts are expected to be awarded to contractors on a competitive basis with contracts awarded to the lowest overall responsive bidder. The Consultant will assist the LWUA in preparation of bid documents and in its evaluation of potential contractors. Final contract awards will be subject to A.I.D. approval.

Offshore procurement will be limited to commodities procured in countries noted as eligible under A.I.D. 941 of the A.I.D. Geographic Code Book and such procurement will be eligible for financing under the loan

A.I.D. will reimburse the project for previously agreed local currency costs of segments of work completed to acceptable standards by means of dollar special letters of credit opened in U.S. banks tied to general procurement of U.S. goods not necessarily related to this project. Adherence to A.I.D. Regulation No. 1 procedures will not be required. A procedure will be established whereby the local A&E firm and the LWUA, along with the Consultant, will periodically certify to the acceptability of the completed segments of work. A.I.D. will then open a special dollar letter of credit in favor of the GOP equivalent to an agreed upon proportion of the local currency component of the total value of the accepted work.

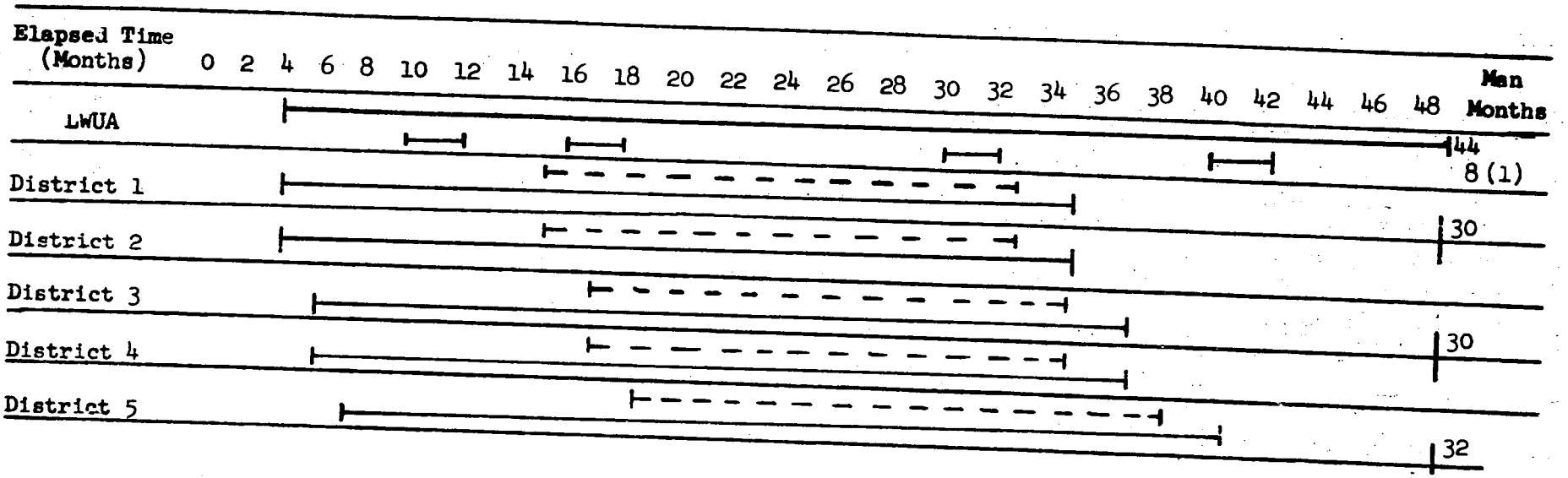
Thus, there will be no adverse effect on the U.S. balance of payments in reimbursing local costs since all proceeds are expended in the U.S. At the same time, A.I.D. is assured that its resources have been well utilized since reimbursement will be made only for acceptable completed segments of work in this project.

The following is a possible schedule of key events leading to timely implementation of the proposed loan:

IMPLEMENTATION SCHEDULE

Event	Total Elapsed Time (Months)							Action Responsibility
	GOP / LWUA	Local Water Districts						
		1	2	3	4	5		
Loan Authorization	0							AID/W
Loan Agreement Negotiated & Signed	1							GOP/USAID
Test Well Program Started	-	-	-	2	2	4		GOP
Satisfaction Initial CP's	3							GOP/USAID/AID/W
Water District Formed		3	3	4	4	6		GOP/Water Dist.
General Consultant On-Board at LWUA	4							GOP/USAID
Consultant On-Board at Water District		4	4	6	6	8		
Test Well Program Completed	-	-	-	8	8	10		GOP
Selection of Local A&E Firms	-	6	6	8	8	12		GOP
System Design Completed		10	10	12	12	16		GOP
Satisfaction of Remaining CP's	10							GOP/USAID/AID/W
Approval of Construction Bid Package		12	12	14	14	18		
Selection of Local Contractor	-	13	13	15	15	19		GOP/ISAID
Construction/Procurement Constracts Let	-	15	15	17	17	21		GOP/USAID
Construction Completed	-	33	33	35	35	39		GOP/Contractor
Consulting Services Concluded								GOP/Consultant
- To LWUA	48							GOP/Consultant
- To Local Water District	-	34	34	36	36	40		GOP/Consultant

SCHEDULE OF CONSULTING SERVICES TO INSTITUTIONAL DEVELOPMENT



Notes:

Total - - - 144

(1) Short Term Consultant to LWUA as required, i.e., legal, training, water treatment, financial

Consultant on Board

Construction

VII. CONDITIONS PRECEDENT AND COVENANTS

A. Conditions Precedent

The major conditions precedent required of the Borrower and/or the Beneficiary in addition to the standard CP's are recommended as follows:

1. Conditions Precedent to Opening Letters of Commitment for Technical Consultancy Services

   a. A contract acceptable to A.I.D. with a U.S. consulting firm to provide the requisite management and technical advisory assistance to LWUA and local water districts.

   b. A contract acceptable to A.I.D. for an engineering firm to develop a test well drilling program for at least three water districts.

   c. A request to USAID for financial assistance or other arrangements satisfactory to A.I.D. to conduct additional feasibility studies on potential water districts.

   d. LWUA must be operational to the extent that it has a full time General Manager, an operating budget, staff sufficient to carry on required functions and adequate physical facilities.

   e. LWUA must be funded to the extent specified in Presidential Decree No. 198.

   f. LWUA will provide a general implementation plan and schedule satisfactory to A.I.D. for executing the project, including a financial projection of peso requirements and sources to construct up to five systems, endorsed by the Borrower (GOP).

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

   a. All arrangements completed for the formation and operation of the specific water district.

   b. A completed and acceptable feasibility study for the water district with certification as to its economic and technical feasibility by the consultant to LWUA.

c. Review and approval by the consulting engineer to LWUA of the final design and specifications for the waterworks system as prepared by the local A&E firm.

d. A statement of understanding between the GOP and A.I.D. regarding payment of local currency construction cost by the GOP (LWUA) and subsequent reimbursement by A.I.D. to the GOP through a Special Letter of Credit in a U.S. bank.

e. Contract(s) acceptable to A.I.D. for construction of the waterworks system.

f. A loan agreement acceptable to A.I.D. between LWUA and the individual water district.

g. A detailed implementation plan, including a construction schedule and financial plan for the individual system, including procurement of meters beyond the initial stock financed by the loan.

h. Assurance by the GOP that the specific water district will not be liable for the outstanding waterworks bonds issued by the National Water and Sewerage Authority.

i. An evaluation plan developed to measure performance levels and the impact on health and economic development.

B. Covenants

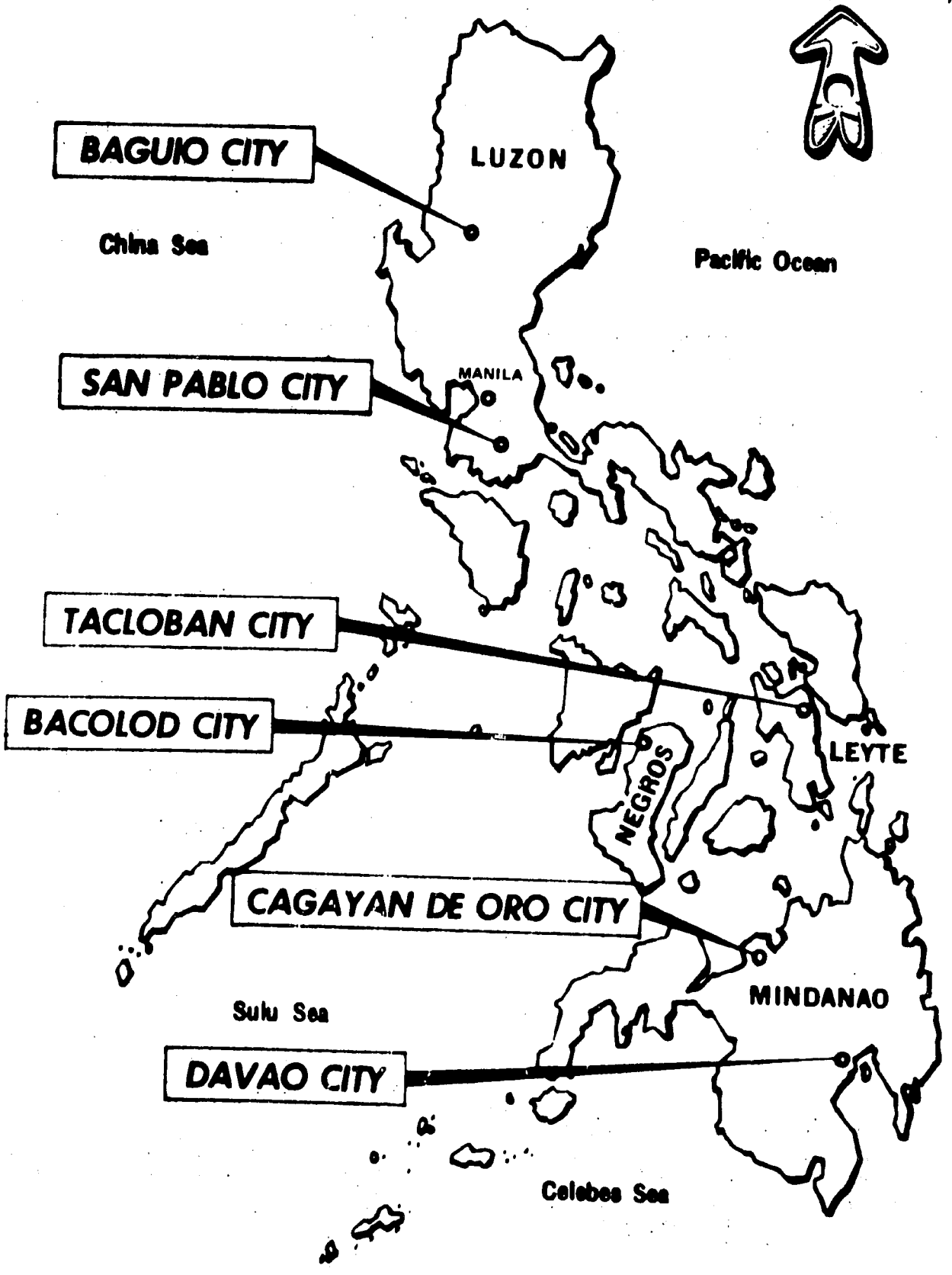
1. GOP Covenants

a. Make available to LWUA on a timely basis: (1) peso funds required for implementation and completion of the project, (2) any foreign exchange necessary to complete the project if loan proceeds are not sufficient.

b. Assist LWUA to carry out the project or cause the project to be carried with due diligence and efficiency, in conformance with sound engineering, construction, financial and management practices and any plans, specifications, contracts, schedules or other arrangements approved by A.I.D.

c. That water rates in local districts will be fixed to result in rates that will result in revenues as specified in Presidential Decree No. 198, Chapter IX, Section 37, and that the rate structure will conform to a schedule which favors the lower income customer.

ANNEX I
AID-DLC/P-2020 3//3/74

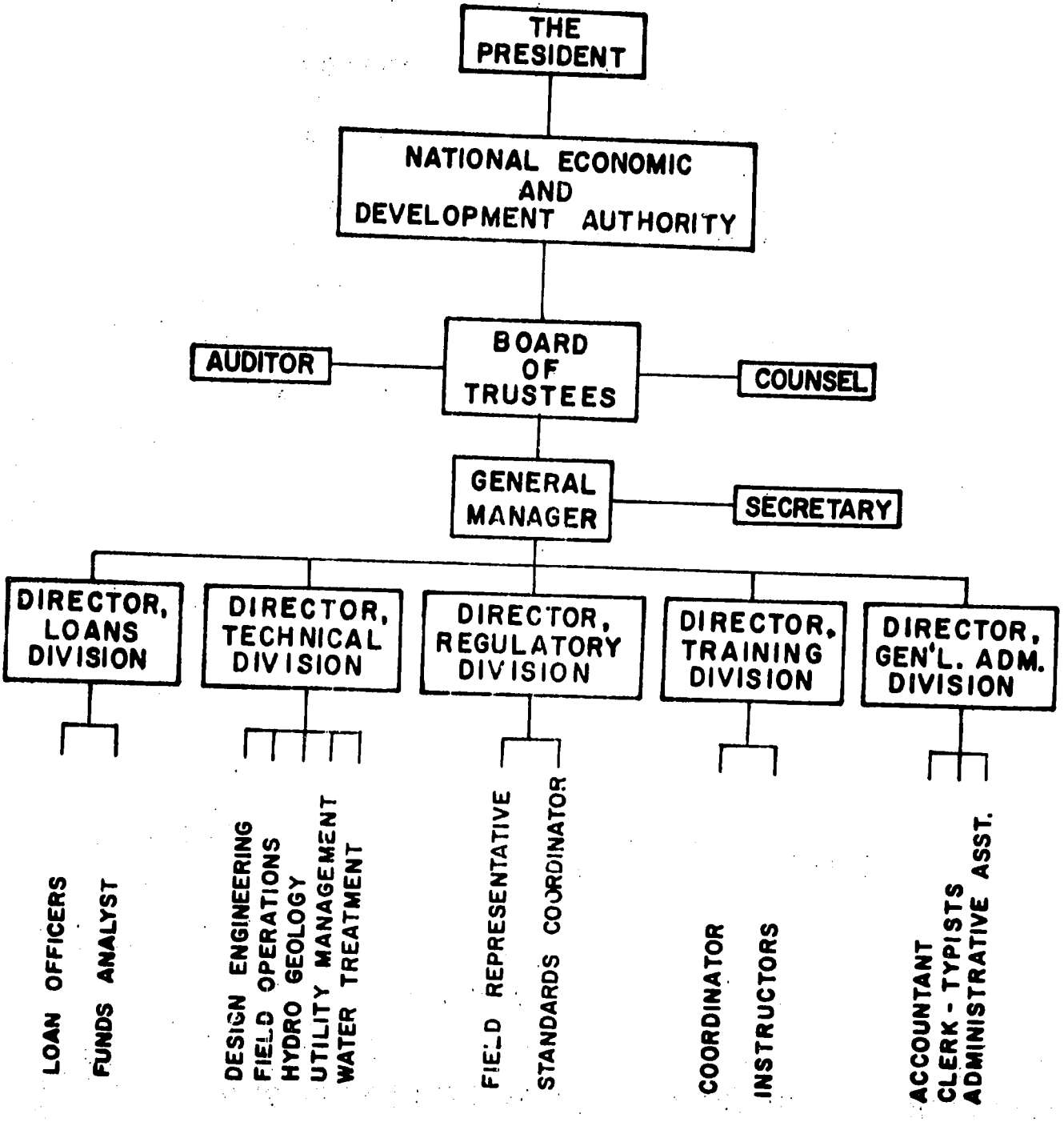


FIVE PILOT SYSTEMS

District	1970 Population (000)	% Served	1982 Population (000)	% Served
DAVAO	224	10	400	45
BACOLOD	187	21	261	54
CAGAYAN DE ORO	128	27	205	53
N.E. LEYTE	132	32	177	55
SAN PABLO	102	48	144	51

LOCAL WATER UTILITIES ADMINISTRATION

ORGANIZATION STRUCTURE



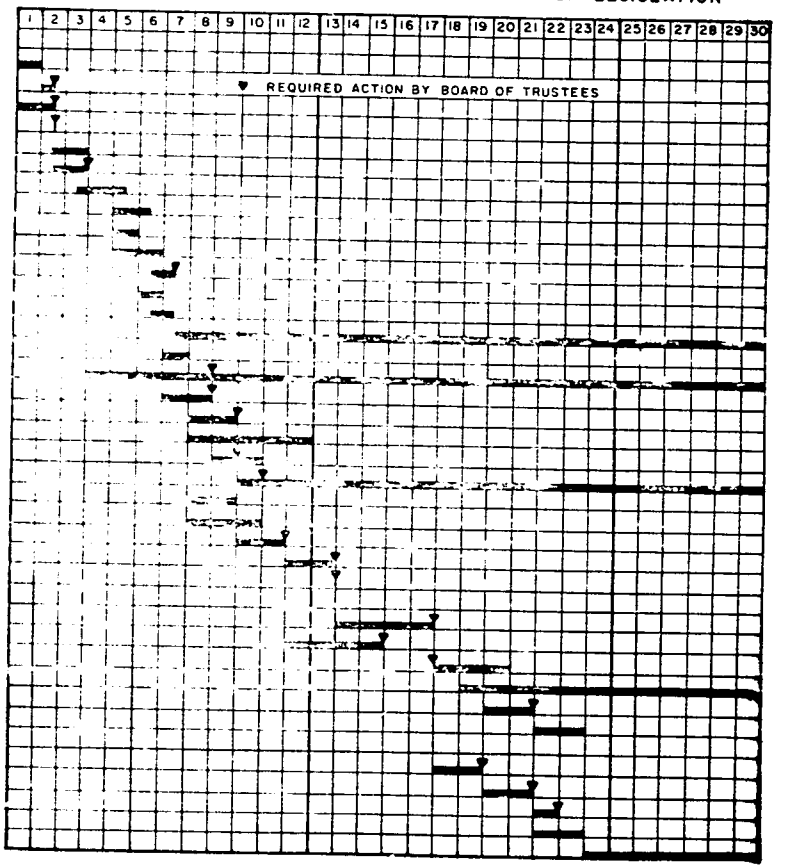
LOCAL WATER UTILITIES ADMINISTRATION

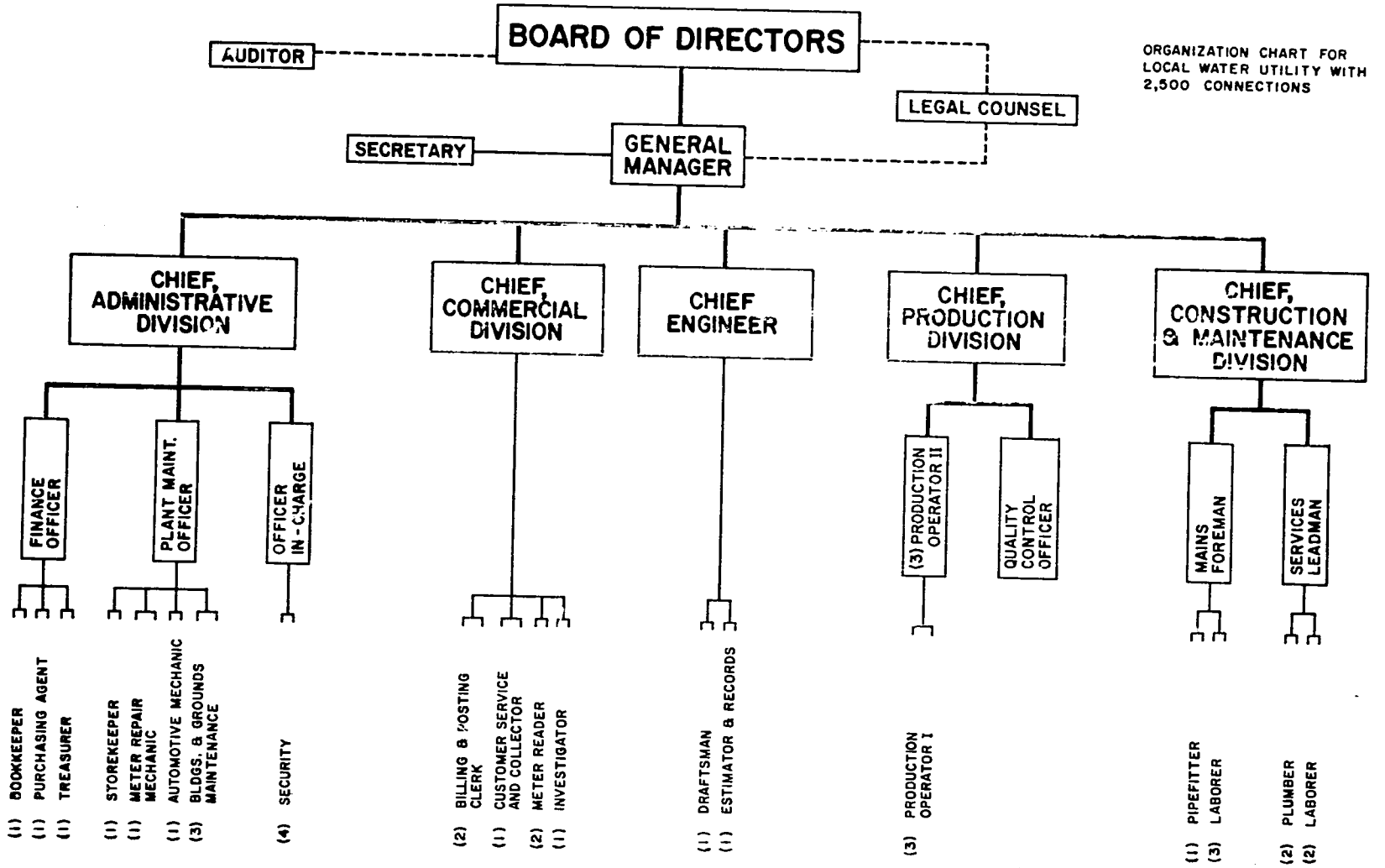
PRINCIPAL ACTIVITIES RECOMMENDED DURING INITIAL PHASES OF INSTITUTIONAL DEVELOPMENT

PROPOSED ACTIVITY

- APPOINT TRUSTEES
- ORGANIZE BOARD OF TRUSTEES
- HIRE GENERAL MANAGER
- SECURE INITIAL OPERATING FUNDS
- HIRE INITIAL STAFF
- ADOPT BY-LAWS
- DEVELOP PROGRAM FOR EVALUATION OF LOCAL WATER UTILITIES
- SURVEY AND EVALUATE LOCAL WATER UTILITIES
- SELECT LOCAL AREAS FOR FURTHER INVESTIGATION
- HIRE ADDITIONAL STAFF
- DEVELOP POLICY RELATIVE TO FINANCING COST OF FEASIBILITY STUDIES
- DEVELOP LIST OF QUALIFIED ENGINEERING CONSULTANTS
- DEVELOP CAPABILITY FOR EVALUATING FEASIBILITY REPORTS
- EVALUATE FEASIBILITY REPORTS
- ESTIMATE FUTURE CAPITAL NEEDS
- INVESTIGATE AND SECURE LOAN COMMITMENTS
- DEVELOP LOAN CRITERIA
- DEVELOP LOAN COVENANTS
- HIRE ADDITIONAL STAFF
- CREATE REVOLVING LOAN FUND
- EVALUATE APPLICATIONS FOR LOANS FROM LOCAL WATER UTILITIES
- DETERMINE NEEDS FOR ASSISTANCE AND TRAINING
- HIRE TECHNICAL AND TRAINING STAFF
- ESTABLISH POLICY RELATIVE TO TECHNICAL ASSISTANCE
- DEVELOP POLICY RELATIVE TO STANDARDS
- ADOPT DRINKING WATER STANDARDS
- DEVELOP AND ADOPT STANDARDS FOR:
  - DESIGN AND CONSTRUCTION
  - EQUIPMENT, MATERIALS AND SUPPLIES
- PROMULGATE AND DISTRIBUTE COPIES OF STANDARDS
- REVIEW CONTRACT DOCUMENTS TO DETERMINE CONFORMANCE WITH LOAN COVENANTS AND STANDARDS
- DEVELOP POLICY FOR SURVEILLANCE OF LOCAL WATER UTILITIES
- HIRE FIELD STAFF
- DEVELOP TRAINING PROGRAMS FOR LOCAL WATER UTILITIES FOR:
  - MANAGEMENT
  - OPERATORS
- DEVELOP SCHEDULE OF PROPOSED CHARGES FOR ASSISTANCE
- TEST AND FINALIZE TRAINING PROGRAMS
- CONDUCT TRAINING PROGRAMS

TIME OF ACTIVITY, MONTHS AFTER ENACTMENT OF LEGISLATION

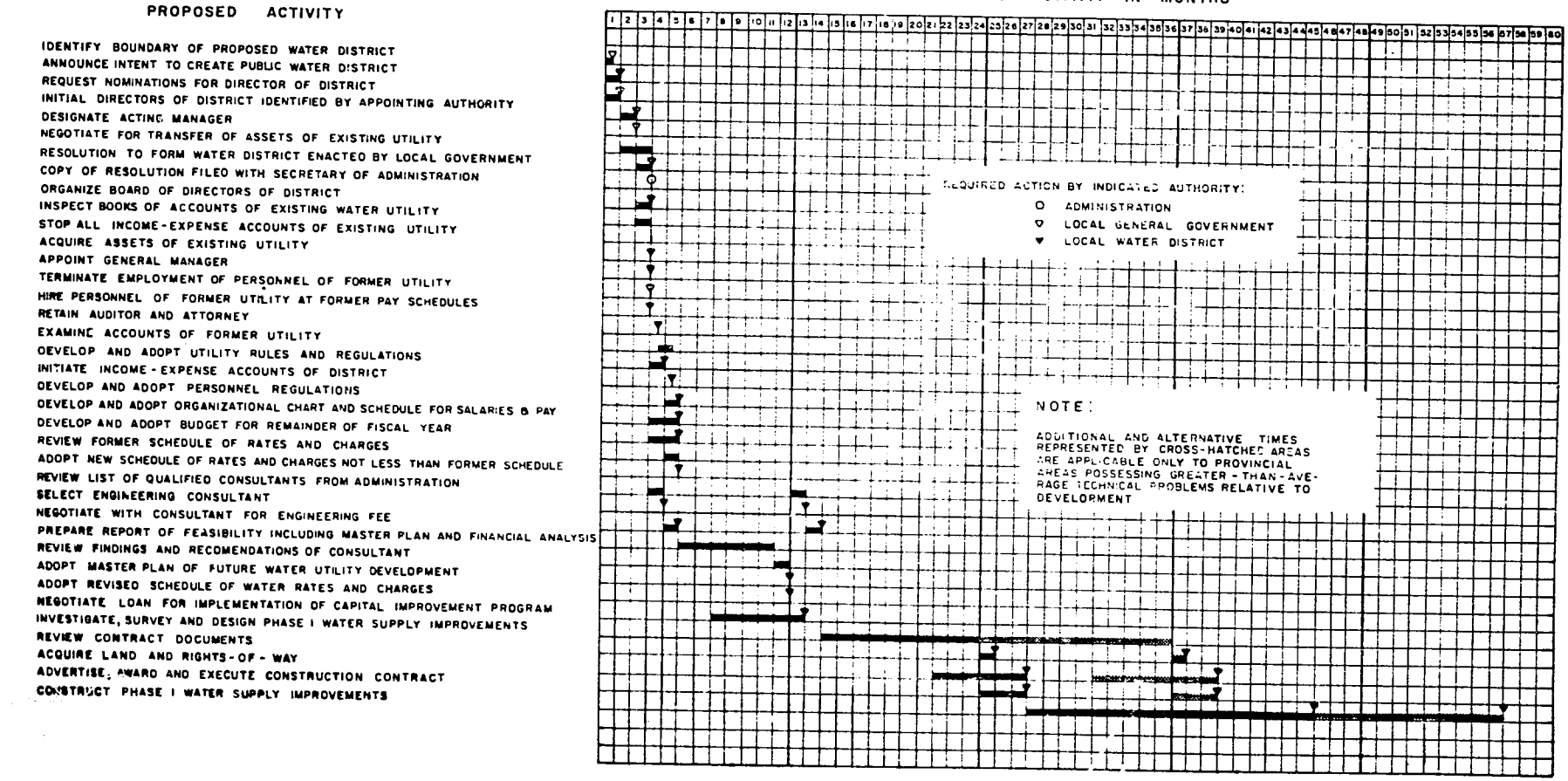




ORGANIZATION CHART FOR LOCAL WATER UTILITY WITH 2,500 CONNECTIONS

TYPICAL LOCAL WATER DISTRICT

PRINCIPAL ACTIVITIES REQUIRED FOR INSTITUTIONAL DEVELOPMENT AND FOR IMPLEMENTATION OF PHASE I IMPROVEMENTS



SUMMARY OF POWERS AND FUNCTIONS OF LOCAL WATER DISTRICTS

Pursuant to the relevant sections of Presidential Decree No. 198, a local water district will be a public entity with defined corporate boundaries in the same manner that a province or city has such boundaries. A legislative board of directors will govern the district which is organized and operated solely for the function of managing and operating the public and proprietary systems of a domestic water and sewer utility. Notwithstanding its proprietary operational function, the local water district is a political, and not a private enterprise. It is owned and operated solely for the benefit of the public within its corporate boundaries.

Unlike the investor-owned private utility, the local water district is necessarily non-profit in its operation, and owned by the entire public within its boundaries, rather than by consumers or members. Although operating on a non-profit basis, it is conducting a proprietary business supported by its own charges and revenues. Thus, the district will be authorized, and in good business practice required, to accumulate reasonable reserves for capital expansion.

The board of directors of the district will be composed of persons from the community who are not elected officials but who are experienced in business, professional, or civic activities. Directors will serve for rotating six-year intervals. An appointing authority will be required to select the directors from lists of nominees submitted by qualified civic and business groups. The appointing authority will be either a mayor or a governor as determined by a prescribed procedure. The board will have full policy control of the local water utility and will hire the manager, attorney and auditor. The appointing authority will exercise no control over a seated board member and no board member may be removed from office prior to the expiration of his term except for cause.

The local water district and a city (or municipality or province) within which it operates, will be companion public entities operating in the same general geographic area. The local water district will be created only by the affirmative act of the concerned local legislative body. However, once established, the water district will be wholly independent and dissolved only by its own act. Directors, although appointed by the mayor (or governor), will hold office for fixed terms and will not be subject to removal or other control by same.

EVALUATION

There are two dimensions for evaluation activities related to the Provincial Water Supply project. One is the task of building evaluation capability into LWUA. The other dimension for evaluation is that of measuring the immediate performance and the impact of the activities carried out under this project.

A. Institutionalizing an Evaluation Capacity

As the lending and regulatory agency, LWUA will be responsible for the development and, to a degree, subsequent operation of water projects throughout the Philippines. This will require the capacity not only for project selection (feasibility determination) but project evaluation.

LWUA will be most suited to concentrate on evaluation of the efficiency and performance of local water districts, while evaluation of the impact of a safe and reliable water supply on longer range goals such as health and economic development should be left to other agencies of the GOP.

In order to carry out evaluation of water utility development and operations, LWUA will need appropriately qualified and trained staff, evaluation guidelines and criteria, and an organization structure which provides for moving information into decision-making and implementing channels. Part of evaluation capacity includes the ability to contract for and manage evaluation consultants.

A possible source of evaluation criteria may be the ten additional feasibility studies to be carried under A.I.D. Feasibility Studies Loan 492-H-030. Criteria used in assessing feasibility frequently fortell the necessary standards of efficiency and performance. Evaluation during the project lifetime, of the efficiency and performance of the five local utilities being developed should also provide experience helpful in developing criteria for evaluating future utilities.

Developing an evaluation capacity in LWUA, and as required in the five local utilities under this project, should be considered a facet of the institution-building requirement. The most likely course of action towards meeting this need is to engage supplemental consulting services to design an administrative organization and system for evaluation, and to work with LWUA and the engineering consultant in developing evaluation guidance and criteria. The institutional/engineering consultant is expected to be able to carry out the recommendations, with additional guidance either from A.I.D. or the evaluation consultant if necessary.

B. Evaluating the Provincial Water Supply Project

There are two levels of achievement upon which evaluation of the Provincial Water Supply Project must focus. The first is the performance level. This concentrates on measuring initially, the timely and efficient production of the planned outputs, and as the project progresses. on measuring the extent to which the conditions indicating successful achievement of the project purpose are being met. (These objectives are outlined in the Summary and Recommendations, Sections 6 and 7, at the beginning of this CAP.) Evaluation of institutional maturity will be an important issue in determing achievement of the project's purpose.

The importance of evaluating the project's performance is not merely in A.I.D. and the GOP satisfying themselves that their investments are producing the desired results, but in the model and training ground these activities can provide to LWUA and the local utilities. It is therefore particularly important that A.I.D., the consultants and the GOP cooperate in planning and carrying out the organization for the implementation of evaluation activities. This is to assure that a system is established, counterparts trained, and findings used not only to improve the on-going project at the national and local levels, but to refine criteria for assessing and evaluating future utilities which LWUA will assist.

Discussions with the GOP should develop specific evaluation elements of the project, so as to assure their understanding and cooperation. The exact responsibilities of the various parties will then be determined. GOP involvement in evaluating performance is likely to be mainly through LWUA, but with review by the responsible unit in NEDA. Depending on the expertise and staff time available from the contractor, AID and the GOP side, it may be necessary to use some specialized consulting services in developing the organization and design (including criteria and timing) for evaluation and/or its implementation. Both the US and Philippines have firms and individuals experienced in this area. Modest contingency funds will need to be provided in the project for such services. One possible approach to evaluating performance, both to satisfy AID and the GOP's management needs, may be to follow a periodic, semi-structured approach such as an annual progress evaluation by the implementing agents-A.I.D., LWUA and the engineer. This would be combined with a more in-depth study led by AID, the GOP or the evaluation consultant, possibly at the 2nd and 4th years of the project. The latter would particularly look at institutional aspects of the project, among others.

The second level on which evaluation of the Provincial Water Supply project must focus is the question of its impact on the long-term goal of improving public health in the Philippines. A.I.D. is interested in determining the nature of this linkage both as a means of assisting the GOP in refining its criteria for selecting and designing future water projects, and to improve the Agency's own efforts towards improving community health.

Determination of the health impact of the water utilities--and possible impacts in other areas such as fire prevention and employment generation--will need to be done after project implementation. Preparation of an evaluation design will need to be done early in the project lifetime so that baseline data can be collected and provision made for regular collection of required data. Some, if not all of the planning for this evaluation could be done in conjunction with that which must be done to evaluate performance, particularly if, as appears likely, specialized evaluation consulting services are required.

GOP involvement suited for evaluating the project's impact would need to be identified; this is likely to be the responsibility of health planning and administration, and some organization(s) concerned with economic development. The GOP, if interested in participating, has the capacity to provide considerable data and skills required to carry out this evaluation, and expertise exists also in the private sector. Where and how we provide lending for this impact level evaluation needs to be further considered before the project is finalized.

ENVIRONMENTAL ANALYSIS

Except as discussed below, by its very nature this project will have a minimal effect on existing ecological and environmental conditions.

To provide basic water supply and distribution, the project will involve the installation of deep and/or shallow wells; diversion or intake structures; treatment facilities; distribution system storage facilities; pumps, valves and other machinery; customer meters and fire hydrants; and a network of pipelines along streets, roads, highways and other rights-of-way (generally following normal routes of transport) specifically acquired for this purpose. In almost all cases, the transmission and distribution lines will be installed below ground level in trenches, the surfaces of which will then be returned to existing conditions. The treatment, storage, pumping, and other supporting facilities and equipment are relatively inconspicuous and will have little or no adverse effect on the existing environment and can be installed to blend attractively with the surrounding areas. In all cases, the operation of pumps and associated equipment is contemplated to be by the use of electric motors (except for standy diesel engines to maintain operations in cases of emergency) so that noise and air pollution will be inconsequential. In general, disruption of or damage to the environment through the actual construction and installation operations associated with the water production, transmission and distribution facilities will be of only a temporary and minor nature. Also, the overall adverse effects of construction activities, even though minimal, can be further reduced with adequate system design considerations as well as construction performance follow-up supervision.

Of more concern, the contemplated water system expansions and improvements will bring about benefits in public health but at the same time could pose some compensating hazards. Increased water production and more economic and reliable distribution will very likely result in increased water use and the generation of greater wastewater flows than presently occur. Despite that, the additional volumes of sanitary sewage that improved waterworks will generate is anticipated to be disposed of through the same means now being used throughout the Philippines, i.e., septic tanks, pits, ground leaching, and surface drainage in ditches or gutters. In terms of being a burden to the existing surface drainage facilities, or causing flooding, wastwater will be insignificant by comparison with run-off from even a minor rainstorm, although minor ad hoc adjustments to surface drainage facilities may be necessary to prevent unsightly or undesirable accumulations.

Present wastewater disposal is the responsibility of the property owner or tenant and is handled largely through septic tanks or other crude, and for the most part, uncontrolled pits for solid wastes combined with ground leaching and/or surface drainage forliquid effluents.

Generally speaking, there are no current provisions for municipal collection, treatment or disposal of sanitary wastes, and while LWUA recognizes it must address this problem in the future, there are no formal plans to meet the requirement at present. If left unattended and unresolved, unsatisfactory disposal of wastewater could present an additional hazard to public health, and could conceivably produce an adverse visual and air quality effect on the environment. However, separate discussions with the consultant indicate that he does not anticipate that wastewater will precipitate public health problems in the near future that exceeds those being presently experienced in Manila. To support this, he points out that except for very minor exceptions, the metropolitan area of Manila is basically unserved by any deliberate systematic sanitary sewage disposal system; practically all liquid wastewater not leached into the ground is transported to natural drainage systems through open ditches, gutters, canals, etc. Yet there is no evidence of intolerable or unacceptable public health conditions as a result. Neither is it envisioned that the potable water will be in danger of contamination from the wastewater since, assuming proper installation and operation of the new improved distribution systems, the water supply will be under sufficient constant pressure to prevent infiltration. In fact, the incidence of waterborne disease should decline since many present systems are subject to contamination by infiltration owing to spasmodic negative pressures on distribution systems.

Planning for effective controlled sanitary sewage disposal has been discussed with the GOP. To this point of the Philippines' development, sewerage has not been given the significance or priority it enjoys in more developed countries where per capita consumptive use of water is considerably higher than currently being projected for this project, and where maximum dependence is placed on waterborne sewage disposal. In the contemplation and order of priorities, the Philippines considers basic water supply and distribution to be far more important than sewage disposal and at this point is simply unwilling to consider investing an equal amount, and possibly more, of capita funds in sewerage as in waterworks improvements. In a city like Davao, for instance, 5% of the total families have a monthly income of ₱ 800 ($115) and above; 60% have a monthly income of ₱ 250 to ₱ 800 ($35 to $115); and 35% have under ₱ 250. At these income levels, cost of sewerage is prohibitive and definitely not within current GOP priority development considerations.

The judgment of the Project Loan Committee is that sewage disposal may become a problem and may precipitate adverse environmental conditions in the future but that these very developments will increasingly force attention to bear on their resolution. In fact, the establishment of the LWUA and local water districts as a result of this project will create the institutions necessary to effectively address and deal with the sewage disposal problems at the appropriate time in the future. Further, in agreement with the LWUA Board Member who expressed the opinion that, in practical terms, the five project areas would probably be forced to address this problem during the planning of Phases II or III, the Committee believes it impractical to insist on a resolution of the question now in conjunction with the proposed water supply and

distribution loan for Phase I improvements. On balance, the benefits of an expanded, improved, safe, reliable and economical water system would seem, at this time, to clearly outweigh the negative benefits of the absence of a high cost sophisticated sewage disposal system.

As noted in the text of this CAP, the waste water problem in Baguio (the sixth city studied) represents an exception to the above conclusion. Because of the larger anticipated waste water flow and the potential contamination of ground water supplies, Baguio requires a supplementary waste water study to determine the requirements, if any, for investment in a waste water disposal system along with the Phase I water system improvements. Completion of this study and resolution of the waste water problem will be a precondition to any investment in this system.

ANNEX X

DAVAO CITY TABLES

TABLE 1 DAVAO CITY WATER DISTRICT
INTERNAL RATE OF RETURN

Year	Pop. Served (1000)	Annual Consumpt. (1000 Cu. M.)	Annual Production (MG)	Effective Water Rate (₱/Cu. M.)	Annual Revenue (₱1000)	Annual Operating Expense (₱1000)	Additional Connections	New Invest. (₱1000)	Net Revenues (₱1000)	8% Interest P.V.Calculation P.V. Factor	8% Interest P.V.Calculation Present Value (₱1000)	9% Interest P.V.Calculation P.V. Factor	9% Interest P.V.Calculation Present Value (₱1000)
0										1.000	(57,655)*	1.000	(57,008)*
1	40	1,823	643	.70	1,212	458	--	--	754	.926	698	.917	691
2	50	2,714	852	.70	1,805	566	--	--	1,239	.857	1,062	.842	1,043
3	80	4,089	1,440	.70	2,719	878	--	--	1,841	.794	1,462	.772	1,421
4	105	5,657	1,993	.70	3,762	1,065	2,500	1,250	1,447	.735	1,064	.708	1,024
5	130	7,363	2,593	.70	4,896	1,275	2,500	1,250	2,371	.681	1,615	.650	1,541
6	155	8,993	3,167	.75	6,408	1,478	2,500	1,250	3,680	.630	2,318	.596	2,193
7	180	10,693	3,766	.75	7,619	1,708	2,500	1,250	4,661	.583	2,717	.547	2,550
8	205	12,461	4,388	.75	8,879	1,944	2,500	1,250	5,685	.540	3,070	.502	2,854
9	213	13,241	4,663	.75	9,434	2,035	800	400	6,999	.500	3,500	.460	3,219
10	222	14,108	4,968	.75	10,052	2,134	900	450	7,468	.463	3,458	.422	3,151
11	230	14,934	5,259	.80	11,350	2,230	800	400	8,720	.429	3,741	.388	3,383
12	238	15,780	5,557	.80	11,993	2,327	800	400	9,266	.397	3,679	.356	3,299
13	246	16,652	5,864	.80	12,655	2,425	800	400	9,830	.368	3,618	.326	3,205
14	255	17,614	6,202	.80	13,386	2,534	900	450	10,402	.340	3,537	.299	3,110
15	264	18,600	6,550	.80	14,136	2,644	900	450	11,042	.315	3,478	.275	3,036
16	264	18,980	6,678	.85	15,326	2,666	900	3,564	9,096	.292	2,656	.252	2,292
17	264	19,345	6,808	.85	15,621	2,688	800	400	12,533	.270	3,384	.231	2,895
18	264	19,710	6,936	.85	15,916	2,709	800	400	12,807	.250	3,202	.212	2,715
19	264	20,075	7,065	.85	16,210	2,731	800	400	13,079	.232	3,034	.194	2,537
20	264	20,440	7,193	.85	16,505	2,752	800	400	13,353	.215	2,871	.178	2,377
									Discounted Salvage Value =		5,225		4,326

Physical Assets Salvage Value = 24,301

Net Present Value = 1,734

Net Present Value = (4,146)

Utility IRR = .08 + .01 $\left(\frac{1,734}{1,734+4,146}\right)$ = .083

*Discounted for investment over 3 year period.

TABLE 2
DAVAO CITY WATER DISTRICT
ECONOMIC RATE OF RETURN
(₱ 000)

(1) Year	(2) Total Economic Costs	(3) Total Economic Benefits	(4) Net Economic Benefits	(5) Discounted Net Economic Benefits 10%	(6) Discounted Net Economic Benefits 12%
1	49,244	150	(49,094)	(44,626)	(43,841)
2	15,139	180	(14,959)	(12,356)	(11,922)
3	878	2,324	1,446	1,086	1,030
4	3,163	3,137	(26)	(18)	(17)
5	3,373	4,848	1,475	916	836
6	3,576	6,586	3,010	1,698	1,626
7	3,806	8,385	4,579	2,349	2,070
8	4,042	10,631	6,589	3,077	2,662
9	2,706	12,542	9,836	4,170	3,551
10	2,889	14,217	11,328	4,373	3,648
11	2,901	14,902	12,001	4,200	3,444
12	2,998	15,566	12,568	4,009	3,230
13	3,096	16,943	13,847	4,016	3,171
14	3,289	17,669	14,380	3,782	2,948
15	3,399	18,544	15,145	3,620	2,772
16	6,535	19,485	12,950	2,823	2,111
17	3,359	20,448	17,089	3,384	2,495
18	3,380	21,679	18,299	3,294	2,379
19	3,402	22,017	18,615	3,053	2,159
20	3,423	22,351	18,938	2,822	1,970
21	3,423	22,645	19,222	2,595	1,788
22	3,423	22,940	19,517	2,401	1,620
	(21,208)		21,208	2,609	1,760
			Net Present Value =	3,277	(8,610)

$$\text{Economic IRR} = .10 + .02\left(\frac{3,277}{3,277+8,610}\right) = .106 = 10.6\%$$

Note: Column 2, Total Economic Costs obtained from Column 6 of Table 3
Column 3, Total Economic Benefits obtained from Column 6 of Table 4

TABLE 3

DAVAO CITY WATER DISTRICT

ECONOMIC COSTS (₱ 000)

(1) Year	(2) Initial Capital Investment	(3) Additional Investment (2)	(4) Cost of Additional Connections (3)	(5) Annual Operating Expense (4)	(6) Total Economic Costs
1	48,736	-	-	458	49,244
2	14,573	-	-	566	15,139
3		-	-	878	878
4		1,250	848	1,065	3,163
5		1,250	848	1,275	3,373
6		1,250	848	1,478	3,576
7		1,250	848	1,708	3,806
8		1,250	848	1,944	4,042
9		400	271	2,035	2,706
10		450	305	2,134	2,889
11		400	271	2,230	2,901
12		400	271	2,327	2,998
13		400	271	2,425	3,096
14		450	305	2,534	3,289
15		450	305	2,644	3,399
16		3,564	305	2,666	6,535
17		400	271	2,688	3,359
18		400	271	2,709	3,380
19		400	271	2,731	3,402
20		400	271	2,752	3,423
21		400	271	2,752	3,423
22		400	271	2,752	3,423
	21,208(1)				

(1) Physical assets salvage value based on straight-line depreciation.

(2) Equipment replacement and minor system additional expenditures.

(3) ₱339 for each additional connection.

(4) The annual operating expenses are for the total water utility operation including any related to pre-Phase I improvement and expansion.

TABLE 4
DAVAO CITY WATER DISTRICT
Economic Benefits
(₱ 000)

(1) Year	(2) Personal Satisfaction(1)	(3) Fire Prevention(2)	(4) Reductions in Illness(2)	(5) Reductions in Loss of Life(2)	(6) Total Economic Benefits
1	150	--	--	--	150
2	180	--	--	--	180
3	1,212	302	73	737	2,324
4	1,805	320	92	920	3,137
5	2,889	339	147	1,473	4,848
6	4,102	359	192	1,933	6,586
7	5,372	381	238	2,394	8,385
8	7,088	404	285	2,854	10,631
9	8,469	428	330	3,315	12,542
10	9,613	454	375	3,775	14,217
11	10,059	481	390	3,922	14,902
12	10,561	510	407	4,088	15,566
13	11,745	540	422	4,236	16,943
14	12,277	573	436	4,383	17,669
15	12,956	607	451	4,530	18,544
16	13,677	644	468	4,696	19,485
17	14,420	682	484	4,862	20,448
18	15,610	723	484	4,862	21,679
19	15,905	766	484	4,862	22,017
20	16,193	812	484	4,862	22,351
21	16,487	812	484	4,862	22,645
22	16,782	812	484	4,862	22,940

(1) Revenue from water sales and meter connections is used as the proxy for personal satisfaction benefits. In years one and two, the estimates of water sales revenue was based on ₱ 60 per annum change per connection and 2,500 and 3,000 connections respectively. These water sales revenue estimates were included as a partial offset to the inclusion of annual operating expenses in Table 3.

(2) See explanation note to table.

DAVAO CITY WATER DISTRICT
EXPLANATION NOTE TO ECONOMIC BENEFIT
CALCULATIONS IN TABLE 4

A. Fire Prevention (Column 3)

The proxy utilized as the measure of the fire prevention benefits attributable to an improved and expanded water utility is the assumed annual reduction in fire insurance premiums by residential, commerical and industrial property owners.

The following table reflects an estimate of fire insurance premiums paid in 1972:

Type of Property	Insured Value (1) (₱ Millions)	Premium Rates (₱/1000)	Total Premium (₱ 000)
Residential	24.4	2.50	61
Commerical	56.2	6.80	382
Industrial	70.5	3.90	275
			718

(1) The assessed value of property in Davao was taken at 40% of market value. It was further assumed that 15 percent of residential, 50 percent of commerical and 60 percent of industrial property were covered by fire insurance policies.

The Annual savings in fire insurance premiums was assumed as one-third of the 1972 base period and ₱ 239,000. This base period calculation was increased by 6 percent annually to take into account the growth factor attributable to urban development.

B. Reductions in Illness

The benefits attributed to reductions in the incidence of water-borne diseases are made up of two segments: the annual loss in labor productivity, and the cost of medical care. The calculation of the annual loss in productivity is estimated at 0.26 man years per 1000 population served and the value of productivity loss at ₱ 5,130 per man year. The ₱ 5,130

labor loss estimate was calculated from a survey of estimated family income for Davao City in 1972 (See Table IV-2, p. IV-5 in "Report of Feasibility Improvement and Expansion of Urban Water System, Davao City Area, Republic of the Philippines, NEDA, by Wilson-Montgomery, June 1973). The annual saving in medical cost reduction was based on ₱ 500 per 1000 population served.

C. Reduction in Loss of Life

Based on water-borne disease death rate of .718 per 1000 population (see Table IV-3, p. IV-9 of report noted above) and assuming the value of one life as 5 years loss of productivity at an economic cost of ₱ 25,650 (5 years x ₱ 5,130 per annum --figure used above in calculating reduction in illness benefits).

Republic of the Philippines

Department of Finance

ANNEX XI.1

Office of the Secretary

Manila

November 9, 1973

USAID/C&R NOV 28 '73

The Director
U. S. Agency for International Development
Ramon Magsaysay Center
1680 Roxas Boulevard
M a n i l a

S i r :

SUBJECT: Provincial Waterworks Project

In a study made by Wilson-Montgomery, consultants to the Provincial Water Feasibility Studies, it recommended the construction of the first phase of the three phase - water system development of the six (6) pilot waterworks projects to provide safe, potable, and adequate water supply to the consumers. Realizing the urgency and importance of this project, the Philippine Government has attached high priority to it in the government's development program.

In behalf of the Republic of the Philippines I have the honor to apply for a loan in the amount of approximately $15.0 Million to finance $7.5 Million of the foreign exchange costs and $7.5 Million of the local currency costs, not exceeding 50% of the total project costs.

The local currency cost balance of approximately $15.0 Million has been covered sufficiently with appropriations and local funds would be made available as required.

Please accept assurance of our highest esteem.

Very truly yours,

CESAR VIRATA
Secretary

ACTION TAKEN
NAN ✓ Other
Type Letter No.
Dated Initials
11/28/73

DATE ANSWER DUE 11-28-73

4. The LWUA has developed a substantial staff for implementing the provisions of the decree. To date the staff has:

   a. developed a certification program designed to establish individual timetables of improvement for water districts.

   b. instituted a system of mandatory standards and recommended practices. Already produced are cash and cost control procedures, utility regulations, job descriptions with qualifications and employee regulations.

   c. developed a primer for the use of local water utilities to inform them and assist them in forming a water district.

   d. developed guidelines for prequalifying and selecting contractors and consultants.

5. All divisions of the LWUA, with the exception of the Loan Division, are substantially staffed. However, expertise from NEDA is being availed of in loan matters.

In addition, the LWUA has commenced negotiations, also with USAID, to retain technical assistance for the conduct of required test well programs for the cities of Cagayan de Oro, Davao, and Tacloban. It is expected that actual drilling on these projects will commence within sixty days.

The LWUA is also, in the process of establishing a revolving fund as its source for financial assistance to water districts. Twenty million pesos are authorized to be appropriated annually for ten years to provide the starting funds for this purpose. Over P7.0 million out of the initial P20 million have already been programmed for release for the first two quarters of FY 1974 and the balance, during the last two quarters of the same fiscal year.

It is the intention of the LWUA to proceed as expeditiously as possible with the design and construction of Phase I of the six pilot city water systems. The feasibility studies have established that approximately $7.5 million of direct foreign exchange will be required. Considering the constraints on our local funding availability, it is vital that we reserve our available peso funds essentially for local currency expenses only. For this reason, the loan application to USAID should

therefore be in the amount of $15 million, to include indirect foreign exchange costs, which is approximately fifty percent of the total project requirement.

This project of constructing the water system for six pilot cities will be the first tangible result of this very worthwhile program which commenced approximately two years ago. Because of the unusually long period of preparation and the expected long design and construction period, the LWUA is anxious to do all in its powers to remove every possible impediment to the rapid progress of this program. Your early consideration of this request will therefore be greatly appreciated.

Very truly yours,

CARLOS C. LEANO, JR.
Acting General Manager

ANNEX XI.2

REPUBLIKA NG PILIPINAS
PANGASIWAANG LOKAL SA PAGGAMIT NG TUBIG
(LOCAL WATER UTILITIES ADMINISTRATION)

c/o IOC, Camp Aguinaldo, Quezon City

October 22, 1973

The Director General
National Economic and
Development Authority
Manila

Subject: Loan for Provincial Water Utilities

Sir:

Please consider this as a request to the Philippine Government to make a loan application of $15 million to USAID to implement the program to improve the domestic water supply situation in six pilot cities in the provincial areas of the Philippines, viz., Bacolod, Baguio, Cagayan de Oro, Davao, San Pablo, and Tacloban.

Feasibility studies for these cities have already been completed by the firm of Wilson-Montgomery. As part of the studies, an institutional study was also completed which recommended that a national organization be set up specifically to render technical and financial assistance to provincial water utilities. It also recommended that, to be eligible for financial assistance, a provincial water utility should first be formed into an autonomous water district independent of the local government.

Pursuant to the aforementioned studies the following accomplishments have been realized up to this date.

1. Presidential Decree No. 198 was enacted which created the Local Water Utilities Administration (LWUA) and authorizes the formation of autonomous water districts.

2. Three cities, namely, Cagayan de Oro, Bacolod, and San Pablo have formed water districts.

3. Two additional cities, namely, Tacloban and Davao are in the process of forming a water district. The Baguio City Council has indicated enthusiasm for the program and is giving serious consideration to forming a water district.

ANNEX XII

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, Thomas C. Niblock, 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 Provincial Urban Waterworks Systems.

This judgment is based upon the project analysis as detailed in the Provincial Urban Waterworks Systems Capital Assistance Loan Paper and is subject to the conditions imposed therein.

Thomas C. Niblock, Director
USAID/Philippines

30 January 1974
Date

Services to be Grant Financed

The Institutional Development aspects of this project are to be grant financed. This funding will provide the services of a consultant to the Local Water Utilities Administration at the national level, and individual consultants to utilities at the local level. The individuals secured for full-time services will be experienced in water utility organization, management and operation.

At the national level, the consultant will provide assistance in the overall development of LWUA and its five operating divisions--administration, training, regulatory technical and lending. He will also assist LWUA in its negotiations with local water districts and coordinate training programs for and between LWUA and local water districts.

Consultants to the local utility districts will provide assistance in the organization and development of their administration, engineering division, construction and maintenance divisions, production and commercial aspects of the districts as enterprises. In addition, coordination of activities with LWUA will be part of the consultants' assistance responsibilities.

Training of personnel is an integral part of institutional development. Five different types of persons have been identified as functioning for water utilities which require five different types of training. These include: Policy-makers, Managers, Technicians, Operational personnel, and General Support personnel.

The first four categories of these persons perform functions which are unique to a domestic water industry and accordingly require specialized training. The last category (General Support) performs such functions as bookkeeping, automotive maintenance, general clerical and routine administration. These are functions common to persons and training facilities available. The technical assistance grant, therefore, provides funding only for those categories of persons who will need the specialized training.

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

ANNEX XIV

OFFICE OF
THE ADMINISTRATOR

CAPITAL ASSISTANCE LOAN AUTHORIZATION

Provided from: Development Loan Fund
The Philippines: Provincial Waterworks Project

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 1, Section 104, and Chapter 2, Title I, of the Act, to the Government of the Republic of the Philippines (Borrower) of not to exceed Fifteen Million Dollars ($15,000,000) to be made available to assist in the design and construction of up to five provincial waterworks systems, and test-well drilling programs, water resources surveys and wastewater disposal studies.

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 goods and services required to design and construct up to five provincial waterworks systems, and the foreign exchange costs of consulting services for test-well drilling, water resources surveys and wastewater disposal studies. Equipment, materials and services financed under this portion of the loan shall have their source and origin in countries 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 provincial system. Such reimbursement is to be through the Special Letter of Credit procedure with source and origin limited to A.I.D. Geographic Code 000 (United States).

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.D. may deem advisable.

_____

Daniel Parker
Administrator

_____

Date

STATUTORY CHECKLIST

I. FULFILLMENT OF STATUTORY OBJECTIVES

A. Needs Which the Loan is Addressing

1. FAA Section 103. Discuss the extent to which the loan will alleviate starvation, hunger and malnutrition, and will provide basic services to poor people enhancing their capacity for self-help.

1. While this loan will not alleviate starvation, hunger and malnutrition; it will provide a very basic need of safe water to poor people. The loan will result in some reduction of waterborne diseases in the Philippines. The systems are designed to serve large segments of the population and the rate structure is designed to enable poor people to be able to afford the water.

2. FAA Section 104. Discuss the extent to which the loan will increase the opportunities and motivation for family planning; will reduce the rate of population growth; will prevent and combat disease; and will help provide health services for the great majority of the population.

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

3. FAA Section 105. Discuss the extent to which the loan will reduce illiteracy, extend basic education, and increase manpower training in skills related to development.

3. Not applicable.

4. FAA Section 106. Discuss the extent to which the loan will help solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development.

4. Not applicable.

5. FAA Section 107. Discuss the extent to which the loan will support the general economy of the recipient country; or will support development programs conducted by private or international organizations.

5. Not applicable.

B. Use of Loan Funds

1. FAA Section 109. Have the funds with which the loan is to be made been authorized for an account different from the account from which the loan is to be made? (i.e., have the funds been transferred from another account?). If so, (a) do the funds to transferred exceed 15% of the total funds made available for the account from which the funds were transferred? (b) do the total funds so transferred exceed 25% of the funds made available for the account pursuant to which the loan is to be made? (c) has a determination been made that such a transfer is necessary? (d) has the authority of Sections 610(a) or 614(a) of the FAA been used to effect the transfer of funds?

1. Not applicable.

2. FAA Section 110. Has the intended recipient country provided satisfactory assurances that it will provide at least 25% of the costs of the entire program, project or activity with respect to which such assistance is to be furnished under Sections 103 - 107 of the FAA?

2. Yes

3. FAA Section 111. Discuss the extent to which the loan will strengthen the participation of the 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.

3. By contributing to better public health, the loan will contribute to the productivity of poor people.

4. FAA Section 112. Will any part of the loan be used to conduct any police training or related program (other than assistance rendered under Section 515(c) of the Omnibus Crime Control and Safe Streets Act of 1968 or with respect to any authority of the Drug Enforcement Administration or the FBI) in a foreign country?

4. Not applicable.

5. FAA Section 113. Describe the extent to which the programs, projects or activities to be financed under the loan give particular attention to the integration of women into the national economy of the recipient country.

5. Not applicable.

6. FAA Section 114. Will any part of the loan be used to pay for the performance of abortions as a method of family planning to motivate or coerce any person to practice abortions?

6. No

II. COUNTRY PERFORMANCE

A. Progress Towards Country Goals

1. FAA §§201(b)(5), 201(b)(7), 201(b)(8), 208. Discuss the extent to which the country is:

(a) Making appropriate efforts to increase food production and improve means for food storage and distribution.

(a) Food production is top priority of Marcos Administration with goal of achieving self-sufficiency in rice and corn and accelerated production of livestock, poultry, fish, fruits and vegetables. Plans for expanded warehousing and distribution of the increased output of grains are being prepared and carried out with help from IBRD loan.

(b) Creating a favorable climate for foreign and domestic private enterprise and investment;

(b) See FAA 620(e)(1), below.

(c) Increasing the people's role in the developmental process;	(c) The four-year agriculture program is increasing the productive capability of Philippine farmers. The Presidential aim for 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. Provincial Development Councils are operating or being established in fifteen pilot Provinces. 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, and is well under way with a country-wide rural electrification program.
(d) Allocating expenditures to development rather than to unnecessary military purposes or intervention in other free countries' affairs;	(d) More than 70% of the national budget is allocated to social and economic development. One-fourth of the budget goes to education, nearly 10% to agriculture and natural resources, and almost 20% to transportation and communications. Less than 14% of the budget goes for national defense.
(e) Willing to contribute funds to the project or program;	(e) The GOP will contribute about one-half of the total project cost, i.e., about 75 million pesos. Over a ten year period the GOP will contribute 200,000,000 pesos to the capitalization of the Local Water Utilities Administration.

(f) Making economic, social and political reforms such as tax collection improvements and changes in land tenure arrangement; and making progress toward respect for the role of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise;	(f) The GOP, ever since its establishment as an independent nation in 1946, has patterned its government after that of the United States, adopting the same democratic principles and strongly supporting a free and open society. On September 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 efficiency of the government, to reduce widespread crime and corruption, to speed development efforts aimed primarily at improving the social and economic well-being of lower income groups. However under National Law political activity and freedom of the press has been curtailed. In this regard President Marcus is inaugurating an all-encompassing nation-wide land reform program. Over the last five years the GOP has increased revenues through improved administration and new tax laws, the most recent being a stabilization tax imposed on traditional high level exports following the devaluation of the peso in 1970.
(g) Responding to the vital economic, political and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.	(g) As a result of the disastrous summer of 1972 floods, the Marcos' Administration has embarked on a large scale reconstruction program with the help of USAID. This program is directly meeting the needs of the devastated communities of Luzon. Included in the program are: a school reconstruction and textbook programs as well as on road building, irrigation and other infrastructure programs. Other self-help development programs are rural electrification, water supply, irrigation, and rice production.

B. Relations with the United States

1. FAA Sec. 620(c). Is the government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies, including arbitration, or (b) the debt is not denied or contested by the government, or (c) the indebtedness arises under such government's or a predecessor's unconditional guarantee?

1. No

2. FAA Sec. 620(d). If the loan is intended for construction or operation of any productive enterprise that will compete with U.S. enterprise, has the country agreed that it will establish appropriate procedures to prevent export to the U.S. of more than 20% of its enterprises annual production during the life of the loan?

2. Not applicable.

3. FAA Sec. 620(e)(1). Has the country's government, or any agency or subdivision thereof, (a) nationalized or expropriated property owned by U.S. citizens or by any business entity not less than 50% beneficially owned by U.S. citizens, (b) taken steps to repudiate, or nullify existing contracts or agreements with such citizens or entity, or (c) imposed or enforced discriminatory taxes or other exactions, or restrictive maintenance or operation conditions? If so, and more than six months has elapsed since such occurrance, identify the document indicating that the government, or appropriate agency or subdivision thereof, has taken appropriate steps to discharge its obligations under international law toward such citizen or entity? If less than six months has elapsed, what steps if any has it taken to discharge its obligations?

If the recipient government has engaged in any of the activities described in (a), (b), or (c) above, has the President made a determination and certified to Congress that a waiver of the provisions of Section 620(e) is important to the national interests of the U.S.

3. The Parity Amendment, an Ordinance appended to the Philippine Constitution on March 12, 1947, and effective by its terms until July 3,1974, permitted U.S. citizens, as distinguished from other aliens, to acquire and hold "public agricultural land" and to operate public utilities with the same rights and privileges as citizens of the Philippines. The Supreme Court of the Philippines, in a decision now being appealed, has held that the right of U.S. citizens to acquire and hold such property and to operate utilities will expire on July 3,1974. The GOP and U.S. Embassy is currently negotiating on this point. At present there is no indication that the GOP contemplates any act contravening FAA §620(e)(1).

4. FAA Sec. 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, and failed to take appropriate measures to prevent a recurrence and to provide adequate compensation for such damage or destruction?	4. The GOP has taken all reasonable measures to protect U.S. property. On infrequent occasion when damage has occured, proper compensation has been made without delay.
5. FAA Sec. 620 (l). Has the government instituted an investment guaranty program under FAA Sec. 221(b)(l) for the specific risks of inconvertibility and expropriation or confiscation?	5. Yes
6. FAA §620(o). Fisherman's Protective Act of 1954, as amended, Section 5. Has the country seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters? If, as a result of a seizure, the U.S.G. has made reimbursement under the provisions of the Fisherman's Protective Act and such amount has not been paid in full by the seizing country, identify the documentation which describes how the withholding of assistance under the FAA has been or will be accomplished.	6. No.
7. FAA Sec. 620(q). Has the country been in default, during a period in excess of six months, in payment to the U.S. on any FAA loan?	7. No
8. FAA Sec. 620(t). Have diplomatic relations between the country and the U.S. been severed? If so, have they been renewed?	8. No

C. Relations with Other Nations and the U.N.

1. FAA Sec. 620(i). Has the country been officially represented at any international conference when that representation included planning activities involving insurrection or subversion directed against the U.S. or countries receiving U.S. assistance?

1. No

2. FAA Secs. 620(a), 620(n); Has the country sold, furnished, or permitted ships or aircraft under its registry to carry to Cuba or North Vietnam, items of economic, military or other assistance?

2. No

3. FAA Sec. 620(u); App. Sec. 107. What is the status of the country's U.N. dues, assessments or other obligations? Does the loan agreement bar any use of funds to pay U.N. assessments, dues or arrearages?

3. The Philippines is not in default with respect to its dues, assessments or other obligations to the U.N. The Loan Agreement and disbursement procedures will ensure that loan funds are not used for payment of U.N. obligations.

D. Military Situation

1. FAA Sec. 620(i). Has the country engaged in or prepared for aggressive military efforts directed against the U.S. or countries receiving U.S. assistance?

1. No

2. FAA Sec. 620(s). What is (a) the percentage of the country's budget devoted to military purposes, and (b) the amount of the country's foreign exchange resources used to acquire military equipment, and (c) has the country spent money for sophisticated weapons systems purchased since the statutory limitation became effective?

2. Annual defense budgets average less than 15% 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 or of PL 480 sales to military expenditures. We are not aware of any

Is the country divering U.S. development assistance or PL 480 sales to military expenditures? Is the country divering its own resources to unnecessary military expenditures? (Findings on these questions are to be made for each country at least once each fiscal year and, in addition, as often as may be required by a material change in relevant information.)	diversion of Philippine resources for unnecessary military expenditures.

III. CONDITION OF THE LOAN

A. General Soundness

Interest and Repayment

1. FAA §§201(d), 201(b)(2). Is the rate of interest excessive or unreasonable for the borrower? Are there reasonable prospects for repayment? What is the grace period interest rate; the following period interest rate? Is the rate of interest higher than the country's applicable legal rate of interest.	1. The rate of interest is considered reasonable and repayment of the loan with interest is within the financial capability of the borrower. Interest through the grace period will be at the rate of 2% per annum, and 3% thereafter. This rate is not higher than the applicable legal rate of interest in the Philippines.

Financing

1. FAA §201(b)(1). To what extent can financing on reasonable terms be obtained from other free-world sources, including private sources within the U.S.?	1. Financing is not considered to be available from other sources on terms comparable to this proposed loan.

Economic and Technical Soundness

1. FAA §§201(b)(2), 201(e). The activity's economic and technical soundness to undertake loan; does the loan application, together with information and assurances, indicate that funds will be used in an economically and technically sound manner?	1. Feasibility studies conducted by a U.S. consulting firm conclude that the project is economically and technically sound.

2. FAA §611(a)(1). Have engineering, financial, and other plans necessary to carry out assistance, and a reasonable firm estimate of the cost of assistance to the U.S., been completed? — 2. Yes

3. FAA §611(b); App. §101. If the loan or grant is for a water or related land-resources construction project or program, do plans include a cost-benefit computation? Does the project or program meet the relevant U.S. construction standards and criteria used in determining feasibility? — 3. Yes

4. FAA §611(e). If this is a Capital Assistance Project with U.S. financing in excess of $1 million, has the principal A.I.D. officer in the country certified as to the country's capability effectively to maintain and utilize the project? — 4. Yes

B. Relation to Achievement of Country and Regional Goals

Country Goals

1. FAA §§207, 281(a). What is this loan's relation to:

(a) Institutions needed for a democratic society and to assure maximum participation on the part of the people in the task of economic development. — (a) The water districts to be formed under this project are non-political organizations directed by interested citizens in the community.

(b) Enabling the country to meet its food needs both from its own resources and through development, with U.S. help, of infrastructure to support increased agricultural productivity. — (b) Not applicable.

(c) Meeting increasing need for trained manpower. — (c) Not applicable.

(d) Developing programs to meet family health needs. — (d) This project has a direct beneficial effect on public health.

(e) Assisting other important economic, political, and social development activities, including industrial development, growth of free labor unions; cooperatives and voluntary agencies; improvement of transportation and communication systems; capabilities for planning and public administration; urban development; and modernization of existing laws.

(e) A reliable, safe waterworks system is essential to most development activities. This project will have a definite beneficial effect on most of the areas of development mentioned above.

2. FAA §201(b)(4). Describe the activity's consistency with and relationship to other development activities, and its contribution to relizable long-range objectives.

2. This project is consistent with the GOP new society polity of assisting the common man.

3. FAA §201(b)(9). How will the activity to be financed contribute to the achievement of self-sustaining growth?

3. Improved water system will contribute to overall standard of living, increase individual productivity and encourage industrial growth.

4. FAA §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 resource requirements and the relationship between ultimate objectives of the project and overall economic development.

4. Without a safe, reliable waterworks system overall economic development is hindered. This project will remove the hindrance by removing the necessity of commercial and industrial establishment of producing their own water system and greatly benefiting the general health conditions of the community.

5. FAA §201(b)(3). In what ways does the activity give reasonable promise of contributing to development of economic resources, or to increase of productive capacities?

5. By improving the general health conditions of the community for one way.

6. FAA §281(b). How does the program under which assistance is provided recognize the particular needs, desires, and capacities of the country's people; utilize the country's intellectual resources to encourage institutional development; and support civic education and training in skills required for effective participation in political processes.

6. Not applicable.

7. FAA §601(a). How will this loan encourage the country's efforts 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?

(a) There will be a need to purchase from offshore procurement sources, motors, valves, etc. to construct the project. (b) all contracting will be on a competitive basis (c) water districts may well develop into district cooperative. (d) N/A (e) local industries will develop capabilities to manufacture the waterworks need, i.e., water meters. (f) N/A.

8. FAA §202(a). Indicate the amount of money under the loan which is: going directly to private enterprise; going to intermediate credit institutions or other borrowers for use by private enterprise; being used to finance imports from private sources; or otherwise being used to finance procurements from private sources.

8. The total amount of the loan will be used to finance procurement from private sources.

9. FAA §611(a)(2). What legislative action is required within the recipient country? What is the basis for a reasonable anticipation that such action will be completed in time to permit orderly accomplishment of purposes of loan?

9. The necessary legislation was enacted in the Presidential Decree No. 198, dated May 25, 1973 called the "Provincial Water Utilities Act of 1973".

Regional Goals

1. FAA §619. If this loan is assisting a newly independent country, to what extent do the circumstances permit such assistance to be furnished through multilateral organizations or plans?

1. Not applicable.

2. FAA §209. If this loan is directed at a problem or an opportunity that is regional in nature, how does assistance under this loan encourage a regional development program? What multilateral assistance is presently being furnished to the country?

2. The loan is not directed at regional problem. However, it is being furnished in the context of multilateral aid to the Philippines by a number of donors including Japan, IBRD and the ADB.

C. Relation to U.S. Economy

Employment, Balance of Payments, Private Enterprise.

1. FAA §§201(b)(6); 102. What are the possible effects of this loan on U.S. economy, with special reference to areas of substantial labor surplus? Describe the extent to which assistance is constituted of U.S. commodities and services, furnished in a manner consistent with improving the U.S. balance of payments position.

1. The major equipment financed by this loan is expected to be obtained from U.S. source. Local currency reimbursement will be tied to Special Letters of Credit for purchase of commodities, in the U.S. The effect of the project on the U.S. balance of payments will be minimal.

2. FAA §§612(b); 636(h). What steps have been taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. and local currencies contributed by the country are utilized to meet the cost of contractual and other services, and that U.S. foreign owned currencies are utilized in lieu of dollars?

2. Not applicable.

3. FAA §601(d); App. §108. If this loan is for a capital project, to what extent has the Agency encouraged utilization of engineering and professional services of U.S. firms and their affiliates? If the loan is to be used to finance direct costs for construction, will any of the contractors be persons other than qualified nationals of the country or qualified citizens of the U.S.? If so, has the required waiver been obtained?

3. The loan agreement will require the GOP to hire a U.S. consulting firm to furnish engineering services. The technical assistance to LWUA will be a U.S. consultant. Construction contractor will probably be a Filipino.

4. FAA §608(a). Provide information measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.	4. U.S. Government excess property will be the first source of supply for vehicles and shop equipment.
5. FAA §602. What efforts have been made to assist U.S. small business to participate equitably in the furnishing of commodities and services financed by this loan?	5. Procurement procedures will follow normal commercial trade practices to maximum extent possible.
6. FAA §621. If the loan provides technical assistance, how is private enterprise on a contract basis utilized? If the facilities of other Federal agencies will be utilized, in what ways are they particularly suitable; are they competitive with private enterprise (if so, explain); and how can they be made available without undue interference with domestic programs?	6. Services financed under the loan will be from U.S. engineering firm and other non-governmental sources.
7. FAA §611(c). If this loan involves a contract for construction that obligates in excess of $100,000, will it be on a competitive basis? If not, are there factors which make it impracticable.	7. Yes, on a competitive basis.
8. FAA §601(b). Describe the efforts made in connection with this loan to encourage and facilitate participation of private enterprise in achieving the purposes of the Act.	8. Private enterprise is being utilized to the maximum extent practicable under this loan.
Procurement	
1. FAA §604(a). Will commodity procurement be restricted to U.S. except as otherwise determined by the President?	1. Commodity Procurement will be limited to A.I.D. Geographical Code 941, plus the Philippines.
2. FAA §604(b). Will any part of this loan be used for bulk commodity procurement at adjusted prices higher than the market price prevailing in the U.S. at time of purchase?	2. No

3. FAA §604(e). Will any part of this loan be used for procurement of any agricultural commodity or product thereof outside the U.S. when the domestic price of such commodity is less than parity?	3. No
4. FAA §604(f). Will the agency receive the necessary pre-payment certification from suppliers under a commodity import program agreement as to description and condition of commodoties, and on the basis of such, determine eligibility and suitability for financing?	4. Yes
D. Other Requirements	
1. 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?	1. Yes
2. App. §105. Does the loan agreement provide, with respect to capital projects, for U.S. approval of contract terms and firms?	2. Yes
3. FAA §620(k). If the loan is for construction of a production enterprise, with respect to which the aggregate value of assistance to be furnished will exceed $100 million, what preparation has been made to obtain the express approval of the congress?	3. Not applicable.
4. FAA §620(b), 620(f); Has the President determined that the country is not dominated or controlled by the international Communist movement? If the country is a Communist country (including, but not limited to, the countries listed in FAA §620(f)) and the loan is intended for economic assistance, have the findings required by FAA §620(f) and App. §109(b) been made and reported to the Congress?	4. The Philippines is not dominated or controlled by the international Communist movement.

5. FAA §620(h). What steps have been taken to insure that the loan will not be used in a manner which, contrary to the best interest of the United States, promotes or assists the foreign aid projects of the Communist-bloc countries?	5. The loan agreement will contain implementation controls prohibiting such use.
6. App.§109. Will any funds be used to finance procurement of iron and steel products for use in Vietnam other than as contemplated by §110?	6. No
7. FAA §636(i). Will any part of this loan be used in financing non-U.S.-manufactured automobiles? If so, has the required waiver been obtained?	7. Non-U.S. manufactured automobiles will not be financed.
8. FAA §§620(a)(1) and (2), 620 (p). Will any assistance be furnished or funds made available to the government of Cuba or the United Arab Republic?	8. No
9. FAA §620(g). Will any part of this loan be used to compensate owners for expropriated or nationalized property? If any assistance has been used for such purpose in the past, has appropriate reimbursement been made to the U.S. for sums diverted?	9. No. No assistance has been used for such purposes in the past.
10. FAA §201(f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise?	10. Local consulting, engineering and construction firms will be used plus most of the construction material will be purchased locally.
11. App. §103. Does the loan agreement bar any use of funds to pay pensions, etc., for persons who are serving or who have served in the recipient country's armed forces?	11. Yes. The loan agreement will cover this requirement.
12. MAA §901.b. Does the loan agreement provide for compliance with U.S. shipping requirements, that at least 50% of the gross tonnage of all commodities financed with funds made available under this loan (computed separately by geographic area for dry bulk carriers, dry cargo liners, and tankers) be transported on privately owned U.S. flag commercial vessels to the extent such	12. Yes. The loan agreement will cover this requirement.

vessels are available at fair and reasonable rates for U.S. flag vessels and that at least 50% of the gross freight revenue generated by all shipments financed with funds made available under this loan and transported on dry cargo liners be paid to or for the benefit of privately owned U.S. flag commercial vessels?

13. FAA §481. Has the President determined that the recipient country has failed to take adequate steps to prevent narcotic drugs produced or procured in, 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 United States unlawfully?

13. No.

14. App. §110. Is the loan being used to transfer funds to world lending institutions under FAA §209(d) and §251(h)?

14. No.

15. App. §601. Are any of these funds being used for publicity or propaganda within the United States?

15. No.

16. FAA §612(d) and Section 40 of PL 93 - 189 (FAA of 1973). Does the United States own host country excess foreign currency and, if so, what arrangements have been made for its release in compliance with Section 40 (FAA of 1973)?

16. The Philippines is not an excess currency country.

17. FAA §604(d). Will provisions be made for placing marine insurance in the U.S. if the recipient country discriminates against any marine insurance company authorized to do business in the U.S.?

17. Yes. An appropriate provision will be included in the loan agreement.

18. Section 29 of PL 93 - 189 (FAA of 1973). Is there a military base located in the recipient country which base was constructed or is being maintained or operated with funds furnished by the U.S., and in which U.S. personnel carry our military operations? If so, has a determination been made that the government of such recipient country has, consistent with security, authorized access, on a regular basis to bona fide news media correspondents of the U.S. to such military base?

18. Yes. (Presidential Determination No. 74-14 dated 1/28/74.)

19. 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?	19. No.
20. Section 32 of PL 93 - 189 (FAA of 1973). Has the recipient country engaged, or is it now engaging, in the internment of imprisonment of that country's citizens for political purposes?	20. This question is currently under investigation.
21. Section 37 of PL 93 - 189 (FAA of 1973); App. §111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam?	21. None.
22. FAA Section 640(c). Will a grant be made to the recipient country to pay all or part of such shipping differential as is determined by the Secretary of Commerce to exist between U.S. foreign flag vessel charter or freight rates?	22. No.
23. App. §104. Will any of the funds appropriated for this project be used to make a payment on any procurement contract to which the U.S. is a party and which does not contain a termination for convenience (to the U.S.) provision in it?	23. No.
24. App. §106. Has it been determined that not more than $12,000,000 has been used during fiscal year 1974 in carrying out research under FAA §241?	24. Yes.
25. 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?	25. No.
26. App. §113. Have excess foreign currencies on deposit with the U.S. Treasury been used to underwrite local costs of U.S. foreign assistance programs in the recipient country, if available?	26. The Philippines is not an excess currency country.

27. App. §114. Have the House and Senate Committees on Appropriations been notified five days in advance of the availability of funds for the purposes of this project?

27. Yes.

28. App. §604. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to Southeast Asia for use by non-U.S. nationals.

28. No.