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CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

PANAMA - PANAMA CITY WATER SUPPLY SYSTEM

AID-DLC/P-699/3

UNCLASSIFIED

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

UNCLASSIFIED

AID-DLC/P-966/3

April 1, 1971

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Panama - Panama City Water Supply System

Attached for your review are the recommendations for an amended loan authorization increasing by \$5,000,000 a loan in an amount of \$15,000,000 made to the Instituto de Acueductos y Alcantarillados Nacionales for United States dollar and local cost of goods and services to assist in the construction of a new water supply system for Panama City, such system to be located in the vicinity of Madden Lake and having a normal capacity of 56 million gallons daily.

While a loan of this amount would normally be reviewed at a Development Loan Staff Committee meeting, in this case it does not appear necessary since no policy or other significant issue exists regarding this loan amendment to the original \$15,000,000 loan authorized on June 18, 1968. However, if any member of the DLC wishes to have a meeting, please notify us and one will be arranged. Otherwise, please advise us as early as possible but in no event later than close of business on Thursday, April 8, 1971, if you have a basic policy issue arising out of this proposal.

Rachel R. Agee
Secretary
Development Loan Committee

Attachments:

Summary and Recommendations
Project Analysis
ANNEXES I-IV

UNCLASSIFIED

April 1, 1971

PANAMA CITY WATER SUPPLY SYSTEM
LOAN 525-L-028 (Amendment No. 1)

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
SECTION I - SUMMARY AND RECOMMENDATIONS	i
SECTION II - NATURE OF THE PROJECT	1
A. DESCRIPTION OF THE PROJECT	1
1. DEFINITION OF THE PROJECT	1
2. THE BORROWER	1
3. PREVIOUS EXTERNAL ASSISTANCE	2
4. LIMITS OF AID FINANCING	3
B. DESCRIPTION AND JUSTIFICATION FOR AMENDMENT	4
1. ENGINEERING ANALYSIS	4
2. MACRO-ECONOMIC PERFORMANCE OF THE ECONOMY	9
3. FINANCIAL ANALYSIS	10
C. REVIEW AND RECOMMENDATIONS	17
1. EVALUATION OF PROGRAM PROGRESS	17
2. RECOMMENDATIONS OF COUNTRY TEAM	17
SECTION III - CONDITIONS AND COVENANTS	19
SECTION IV - ISSUES	21
ANNEX I - EXHIBITS	
ANNEX II - CERTIFICATION BY USAID DIRECTOR	
ANNEX III - DRAFT LOAN AMENDMENT AUTHORIZATION	
ANNEX IV - STATUTORY CRITERIA	

SECTION I - SUMMARY AND RECOMMENDATION

1. BORROWER: The Instituto de Acueductos y Alcantarillados Nacionales (IDAAN), an autonomous agency of the Government of Panama.
2. AID LOAN:
 - a) Amount - not to exceed \$5,000,000 to augment AID Loan No. 525-L-028 of \$15,000,000. Total project cost, updated estimate: \$28,640,000.
 - b) Terms - interest at 3-1/2% per annum. Loan to be repaid over 25 years including a grace period of five years. On the first \$15,000,000 disbursed under the Loan interest will be capitalized during the grace period. On all disbursements in excess of \$15,000,000 interest will not be capitalized. The Government will have the option of receiving the benefits of the two-step procedure.
3. PROJECT DESCRIPTION: The project consists of two elements: First, the design and construction of a new water supply system for Panama City with a nominal capacity of 56 million gallons per day (mgd) (See Annex I Exhibit B) and second studies to be conducted by qualified consultants of water rates, organization, administration and operations of IDAAN, and implementation by IDAAN of the recommendations contained therein. The additional funds requested are to complete financing the first of these elements, the new water system.
4. PURPOSE OF THE PROJECT: The new water supply system is to be developed to provide additional potable water services to the City of Panama necessary to supply increasing demands from growth and expansion up to projected 1990 demand levels. Panama City is presently supplied by the water system of the Panama Canal Company. An agreement will be reached between the Panama Canal and the Government of Panama to provide 30 mgd out of its 45 mgd design capacity system. The average daily use by the City has surpassed the supply available from this system and projections show that by the time the proposed project is ready for operation, demand will greatly exceed the water supply from the Panama Canal Company System.

5. **FINANCIAL PLAN:** The proposed updated financial plan is as follows:

	<u>LOCAL COST</u>	<u>DOLLAR COST</u>	<u>TOTAL</u>
A.I.D.	\$ 2,400,000	\$ 17,600,000	\$ 20,000,000
IDAAN	<u>8,640,000</u>	<u>- - -</u>	<u>8,640,000</u>
TOTAL	<u>\$ 11,040,000</u>	<u>\$ 17,600,000</u>	<u>\$ 28,640,000</u>

6. **OTHER SOURCES OF FUNDS:** No other sources of financing are available.
7. **RECOMMENDATION:** On the basis of the conclusions of the Capital Assistance Committee that the project is technically, economically and financially justified, it is recommended that A.I.D. Loan 525-L-028, Panama City Water Supply System to IDAAN be increased by an amount not to exceed five million dollars (\$5,000,000) for a total loan of twenty million dollars (\$20,000,000).

It is recommended that the special conditions of the loan remain as stated in the Loan Agreement. These conditions are set forth in Section III of this paper. It is also recommended the following covenant be added to Article V, Special Covenants and Warranties, of the Loan Agreement:

Section 5.02 - Special Covenants and Warranties of Government. Until final compliance by all parties to the Agreement of all other obligations contained herein, and unless A.I.D. and government shall otherwise agree in writing, Government covenants that:

It shall approve appropriate increases in IDAAN's water rates, or shall provide to IDAAN a subsidy for necessary operating capital, in the event that IDAAN's own projected operating revenues are insufficient to insure efficient operation of IDAAN or are insufficient to meet requirements to carry out the project.

CAPITAL ASSISTANCE COMMITTEE

Engineer:	Charles S. Stevens
Project Coordinator:	Robert D. Adams
Economic Advisor	Clark Joel
Legal Advisor:	Arthur Mudge
Controller:	William McMill
Program Officer:	Henry Johnson
Loan Officers:	Neil Billig/Lewis Robinson

Drafted by: Robert D. Adams/William Naylor/Lewis Robinson

April 1, 1971

SECTION II - NATURE OF THE PROJECT

A. DESCRIPTION OF THE PROJECT

1. Definition

The Project as defined in the Loan Agreement between the Republic of Panama, Instituto de Acueductos y Alcantarillados Nacionales (IDAAN) and the United States of America for a Panama City Water Supply System, A.I.D. Loan No. 525-L-028, consists of two elements: first, the design and construction by IDAAN of a new water supply system for Panama City with a nominal capacity of 56 million gallons daily (mgd) (Annex I Exhibit B); secondly, studies to be conducted by qualified consultants of the rates, organization, administration and operation of IDAAN and implementation by IDAAN of the recommendations contained therein. The proposed amendment deals only with the first of these elements and is to finance estimated cost overruns to complete the construction of the new water supply system.

The new water system is to provide additional potable water service to the City of Panama necessary to supply increasing demands from growth and expansion. The new supply will draw from Madden Lake on the Chagres River about 15 miles north of the City, and will augment and partly replace existing service being provided by Panama Canal Company Water System from Miraflores Lake in the Canal. The new system will be capable of providing a nominal supply of up to 56 mgd as the first stage of an ultimate 212 mgd system. This initial system, when operated with the available Panama Canal Company Supply is expected to meet the demand of Panama City up to the year 1990 while the ultimate system is intended to meet the needs projected for the year 2020.

2. The Borrower

The Instituto de Acueductos y Alcantarillados Nacionales (IDAAN) is the Borrower of AID Loan 525-L-028 dated May 6, 1969, to assist in financing the Panama City Water Supply System, and it will remain as such in the proposed amendment. IDAAN was established by Law 98 of 1961 as an autonomous state agency with its own juridical personality, patrimony and autonomous internal system. IDAAN began operations on January 1, 1962. It is the agency

of Republic of Panama responsible for national planning, administration, maintenance and management of all matters pertaining to the supply of water, the disposal of sewage and the disposal of refuse and garbage for all communities with population over 500. It has sufficient authority to establish rates which are to be charged for these public services, subject to approval of the Executive Branch, and is also empowered to borrow funds in Panama and from foreign institutions up to \$45 million with the security and guaranty of the Government of Panama. IDAAN is in the process of having this limit raised to \$75 million.

IDAAN is composed of four departments: Operation and Maintenance, Design and Study, Administration and Accounting, and Inspection. The management of IDAAN is vested in its Executive Director who is responsible to a board of directors which consists of seven members. The chairman is the Minister of Public Works. The other six members include the Director General of Public Health, Comptroller General, one Civil Engineer from IVU, one Sanitary Engineer, and one representative each of the Urban Chamber of Colon and the Panamanian Association of Landowners.

IDAAN is considered to be one of the best administered government institutions in Panama. In general, the USAID's experience has been satisfactory with respect to both the technical aspects of engineering and construction, and the administrative aspects.

3. Previous External Assistance to IDAAN

Since 1957, the U.S. Government through both ICA and AID, has made six loans to IDAAN as follows:

<u>Loan No.</u>	<u>Purpose</u>	<u>Date Signed</u>	<u>Amount</u>	<u>TDD</u>
525-B-001	Water/Sewer Panama City	4-29-57	\$ 1,981,996	6-30-63
525-L-005	Water/Sewer Panama City	2-6-63	6,000,000	5-1-68
525-L-011	Sewer - Colon	7-16-65	400,000	8-15-71
525-L-019	Water/Sewer Panama City	1-4-67	3,055,000	1-31-73
525-L-026	Water/Sewer Panama City	7-7-67	6,600,000	12-31-71
525-L-028	Water Sup/Panama City	5-6-69	15,000,000	11-6-74

All of the above loans are being implemented in a satisfactory manner and in the opinion of USAID each will be completed within the terminal disbursement dates (TDD's) noted above.

IDAAN has received two loans from the Interamerican Development Bank (IDB). The first loan of \$2,762,000 signed on May 31, 1962, was designed to help finance the expansion and improvement of water supply systems in the smaller urban cities of Panama. Loan funds have been fully disbursed and IDB has concluded that the project works were well planned and properly constructed. IDB's second loan to IDAAN was signed on May 29, 1967 and was in the amount of \$3,450,000. The purpose of this loan is to further improve water supply systems for rural and small urban areas and to expand the sewerage system of Chitre. In its entirety this second IDB loan will benefit about 45 towns. This program is to be completed by December 31, 1971. IDAAN is presently negotiating a new loan with IDB in the area of rural community water supply projects.

4. Limits of AID Financing

The new water supply system for Panama City with a nominal capacity of 56 mgd including engineering fees, construction, and, special rate and management studies had an estimated cost of \$23,000,000 of which the borrower is to contribute \$8,000,000 as stated in the Loan Agreement of Loan No. 525-L-028, Panama City Water Supply System. An additional loan from AID in the amount of \$5,000,000 is requested in order to complete financing of the project and the additional funds will be matched by \$640,000 from the Borrower for a total project cost of \$28,640,000. The total cost of rights of way for this project is approximately \$660,000 based on a projected cost of \$2.00 per square meter and a requirement of approximately 330,000 square meters. Of this cost approximately 50 per cent is government land and the cost of procurement is only the transaction equivalent to \$300,000. All other facilities will be paid from loan funds and borrower's contribution. Electrical and mechanical equipment, metal piping and valves, steel and rubber products, and engineering and professional services which will be procured from the United States and countries included in Code 941 of AID Geographic Code Book, are estimated to cost \$17,340,000. Loan Agreement will specify Code 941 and Panama procurement for AID loan funds and Panama and Code 955 procurement for IDAAN funds but as a practical matter virtually all procurement is expected to come from the U.S. and Panama.

B. DESCRIPTION AND JUSTIFICATION FOR AMENDMENT

1. Engineering Analysis

A. Technical Feasibility

The feasibility study completed in 1967, recommended the construction of a new water supply system capable of supplying 70 million gallons per day (mgd). This new system when combined with a supply of 15 mgd from the Panama Canal Company would provide 85 mgd or enough water to meet the demands projected for 1990. Due to financial limitations, the Borrower reevaluated the feasibility study recommendations and chose to combine the continued use of 30 mgd from the Panama Canal Company with a new water system capable of supplying 56 mgd for a total of 86 mgd to meet the 1990 water demand. The loan agreement, therefore, made funds available to assist in financing a new water system capable of supplying 56 mgd. The loan financed consultants have recommended some changes in the feasibility report design criteria. Although these changes have not altered the basic concept and layout of the proposed new facilities, Annex I Exhibit A and B, some individual components have been revised and some increased in size. These changes, together with inflation as a consequence of delay in initiating the project, result in a current cost estimate of \$28,640,000, Annex I Exhibit C, representing an increase of \$5,640,000 from the funding now authorized. The City of Panama is expanding in the pattern and the rate projected by the feasibility studies, and the project continues to represent the most economic alternative for supplying future water demand. It is our judgement that the project continues to meet the technical criteria of FAA Section 611, and that additional funds are needed. It is recommended that the description of the approved project be revised as noted in Annex I Exhibit B.

The City is now experiencing an increasingly serious water shortage, reference Annex I Exhibit D. Without additional financing, major components of the system would have to be deferred or capacities reduced, resulting in a system again needing expansion at just about the time of completion of this project.

B. Estimate of Cost

The estimated cost of \$28,640,000 represents an increase of 24.5% over the original feasibility report estimate which had been prepared in late-1967 and projected for a construction period extending through 1971. The new cost estimate is based on mid-1970 prices projected to the programmed median date (mid-1972) of the construction period (late-71 to mid-74) and as a result reflects an added escalation increase of 10%-15%, which is consistent with experience in Panama where construction costs have been rising at a rate of 5%-7-1/2% per year.

An examination of the new increased cost shows that an added \$5,400,000 is reflected in construction costs and \$240,000 in administrative costs, Annex I Exhibit C.

The first figure on construction costs shows increases for two sub-items reflecting a greater than usual spread between preliminary concept and design.

The specific items are:

1. The water transmission main where the increased diameters, from 54 and 60 in to 60 and 66 in, respectively and the 30% increase in length, have resulted in an increase of \$937,000, 12% in the new sub-item cost of \$8,902,000.
2. The water treatment plant where the impact of cost increase was felt mostly heavily, through application of more conservative design criteria, has resulted in an increase in certain components, principally chemical feed and storage and sand-filter area. The new treatment plant now has 200% more chemical feed capacity, 500% more chemical storage space and 70% more sand-filter area. This also is the sub-item most susceptible to cost escalation for it is here that the major mechanical and electrical installations will be made, and these particular items have experienced cost escalation, as much as 25% in excess of the overall 10%-15% projected for the entire project. As a result of design criteria changes and added escalation increases, the new cost estimate of \$9,327,000 for this sub-item represents a 91% increase.

3. The costs of the remainder of the sub-items under construction are generally within the limits of change usually experienced between the preliminary planning concept and the design stage for such a complex development. Some costs have increased and others have decreased, but the sum-total has remained generally about the same.

Under administrative costs, two sub-items have contributed most to the cost increase, those for engineering and land.

1. The increased engineering costs reflect a reserve for cost of possible added services which can result from added work for the needed interim supply to resolve water shortages until the new system is operating.
2. The increased land costs are generally the result of rising land values. About 50% of the needed right-of-way will be negotiated with private land owners. The remaining 50% belongs to Government of Panama entities, and these lands will be acquired at only the transaction costs from one Government agency to another.

C. Design Concept

The design and layout recommended by the present consultant and accepted by IDAAN generally follows the basic pattern set forth in the feasibility analysis with only the following significant changes.

Investigations of lake hydrology, lake topography and water quality have indicated that the intake should be sited further off-shore and in deeper water. The intake works are now sited within the lake near the Madden Dam, and include the raw water pumping station to be built into the intake tower which will be connected to the shore with a bridge.

2. A Government Agency, the Instituto de Recursos Hidráulicos y de Electrificación (IRHE) will finance and install the power transmission line to the project. In view of power availability from two sources, IRHE and Panama Canal Company, and the continued availability of limited water supply

from Panama Canal Company, stand-by power generation has been reduced to provide for only selected emergency needs in the case of a major power failure.

3. Based on results of detailed economic analysis evaluating pumping and construction costs for various diameters of pipe to serve as transmission conduit, together with projections for water supply and timing of future incremental additions, it is planned to increase the first-phase construction from a single 54 inch diameter to 60 inch for the raw water supply and from 60 inch to 66 inch for the treated water transmission.
4. Due to the relocation of the intake works and from a study of alignment to balance rock and other excavation and related construction costs, the transmission conduit will now be 22,200 meters in length rather than the 17,727 meters originally proposed.
5. The treatment plant will now have about 70% more filter area, 500% more warehouse space, 10% more sedimentation detention, and approximately 200% more chemical feed capacity than that of the original concept.

Due principally to a lack of long-term data on quality characteristics of Lake Madden water and the limited operating experience of the IDAAN organization, more conservative design criteria have now been adopted for the new treatment plant. Sedimentation basin detention periods have been increased from 2.5 to 2.8 hours and the filtration rate decreased from 5 gallons per minute per square foot to 3 gpm/sf. Chemical feed equipment capacity has been increased to treat water of a projected lesser quality than has been encountered in the sampling program to date. Also in consideration of possible shipping and manufacturing strikes and other possible similar delays, chemical storage space is now provided for a 6-months supply of imported chemicals versus the original one-month supply storage.

These changes in criteria result in the major part of the cost increase, and both the original and the current criteria fall within the ranges accepted by U.S. regulatory agencies. In view of the successful

operation experience of the Miraflores Plant in the Canal Zone, at loadings exceeding those herein proposed, with a plant and equipment some 50 years old and treating a lesser quality of raw water, the new plant will be capable of supplying 56 mgd, and probably even more as experience is gained in its operation.

6. Until recently, the Panama City area has never experienced significant seismic activity, and in keeping with standard engineering practice in the Canal Zone and in Panama, the original design concept did not include provisions for seismic loading. In January 1971, however, a tremor occurred of intensity 5.5 on the Richter scale. It is, therefore, proposed to strengthen structural features of the system, particularly the intake structure and the reservoir.
7. The original concept pointed out potential savings by including the older low-pressure areas of the city within the service area of the new system. The current consultant has recommended it is inadvisable to link this area with the new high-pressure service because of the old and deteriorated piping. The condition of this low-pressure system is to be investigated under a recently authorized IDB feasibility study loan.

2. Macroeconomic Performance of the Economy

Gross Domestic Product, in 1960 Balboas, grew from B/415.8 million in 1960 to B/837.9 million in 1969; thus in real terms, the output of the domestic economy doubled over the past ten years. ^{1/} The average rate of growth of gdp at 8.1% was very impressive and well in excess of the target rate set by the Alliance for Progress. In real per capita terms, the growth of the domestic economy was also impressive, rising from B/420 in 1961 to B/591 in 1969. Moreover, this record of growth was achieved with minimal inflation. The index of the implicit deflator for gdp (1960 = 100) rose only to 111.7 in 1968 and the Consumer Price index (1962 = 100) applicable to low and moderate income groups in Panama City rose only to 110.4 in March of 1970.

Total employment grew by 120 thousand between 1960 and 1969 - from 300 thousand to 420 thousand - and unemployment was held to fairly low levels. Between 1965 and 1969, the unemployment rate averaged 6.5%. Over this period, a low of 5.1% was attained in 1966. In the two succeeding years, however, the unemployment rate rose somewhat, to 6.4% in 1967 and to 6.9% in 1968. It declined to 6.5% in 1969.

The macroeconomic sources of this performance are not difficult to detect. Gross domestic investment, in 1960 Balboas, increased from B/767.8 million in 1960 to B/203.6 million in 1969, or at annual average rate of 13.0%. For the most part, both private and public investment grew apace during this period. Private investment grew very vigorously in all years except 1964, 1967 and 1969. In the latter two years, a sharp upsurge of public investment spending offset the decline in the growth of private investment. In spite of the rapid growth in public investment in recent years, private investment still makes up almost 80% of the total. There can be little doubt that the investment climate in Panama has been very favorable to private capital formation over most of the recent decade.

Merchandise exports grew at rather spectacular rates over the 1960-1969 period, averaging 14.6% per year in current prices. Over the same period, merchandise imports grew at 10.8% per year. In 1969, Panama had a B/33 million deficit in its current account which was covered by Government borrowing.

^{1/} Except where noted, all of the basic data in this report were drawn from the publications of the Dirección de Estadística y Censo.

Despite the satisfactory growth rate, concern has developed among the international assistance agencies that the level of public investment needed to sustain that growth is beginning to exceed Panama's financial resources. At the Third Inter-Agency meeting on the financial status of Panama, held under CIAP auspices on January 8, 1971, a series of recommendations were made calling upon Panama to restrict current and investment expenditures during 1971 and 1972, to make new fiscal efforts on the revenue side, and to undertake administrative reforms leading to more efficient use of funds and improved project preparation, all with a view to reducing the need to rely upon borrowing from private foreign sources at high interest rates and short maturities. At this time the international financial agencies were urged to consider reducing borrower counterpart requirements on project loans.

In preparation for the April 5, 1971 CIAP meeting on Panama the Secretariat has re-examined the situation and reiterated the recommendations.

The report points out that the public investment budget, including the autonomous agencies, is expected to go up from 99.6 million dollars in 1970 to 121.1 million in 1971 with almost exactly one third of the 1971 budgeted investment to be financed by official external borrowing. It is also noted that in 1970 actual expenditures on investment were 81.7 million dollars, an execution rate of about 82%. In order to finance this level of investment, a level deemed necessary by the GOP to sustain growth, employment and private activity, the GOP has resorted to short-term private borrowing. In 1970 54 million dollars were borrowed including 17 million to refinance one year credits obtained in 1969. In 1971 the GOP is exploring the possibility of obtaining \$48 million, on slightly better terms, including \$15 million of refinancing. The result has been to increase the percentage of government debt service to current revenues from 13.4% in 1969 to 17.5% in 1970. Thus, while Panama's long term debt service requirement as a percentage of export earnings remains low, there is the risk of a near term external liquidity problem.

The CIAP recommendations continue to mention the need for restraint, new fiscal measures (now planned for 1972 after further experience with 1970 reforms) and general efficiency in fiscal management.

The terms and conditions of this loan are directed specifically at two CIAP recommendations: the need for IFI's to "study financing a larger portion of total project costs," and the need to reduce transfers from the general budget to the budget of the autonomous agencies.

Under the original loan agreement the Borrower, using a government capital subsidy, was committed to provide about 34% of total project cost. The Borrower is being asked to contribute, not including about \$100,000 in interest during construction, just over 11% of the additional project cost covered by the amendment, bringing the Borrower's contribution to total project costs down to just over 30%.

The amended loan agreement will contain a covenant, essential to the protection of the project, which envisages the possibility of an additional operating subsidy to the Borrower by the Government. However, the conditions precedent regarding rate and management studies and the implementation of rate and management recommendations are designed to eliminate the need for any further budgetary transfer from Government to the borrowing agency.

3. Financial Analysis

A. Financial Plan

The total cost of the project is estimated to be \$28,640,000 of which \$17,600,000 will be for U.S. procured goods and services and the balance of \$11,040,000 will be for procurement in Panama. As shown in the summary table the local cost portion of the A.I.D. loan remains at 12%. The A.I.D. loan portion of local costs (\$2,400,000) is 21.7% of the total local cost requirements of \$11,040,000 and will be for procurement in Panama.

SUMMARY TABLE 1/

	<u>Local Cost</u>	<u>Dollar Cost</u>	<u>Total</u>
A.I.D.	\$ 2,400,000	\$ 17,600,000	\$ 20,000,000
IDAAN	<u>8,640,000</u>		<u>8,640,000</u>
TOTAL	\$ 11,040,000	\$ 17,600,000	\$ 28,640,000

IDAAN's contribution will be approximately \$8,640,000 or 31.7% of the total project. This amount will be received from the GOP by direct budget support. Approximately \$450,000 has already been made available to IDAAN by the GOP. The balance will be received over the period of loan disbursement. \$77,000 of IDAAN's contribution will be used to fund a contract with the Pan American Health Organization (PAHO). This contract will cover services to conduct both a management and rate study of IDAAN. The contract for this study, required as a condition precedent to disbursement for other than engineering costs, has been signed and work is expected to start in April, 1971. PAHO expects to complete the study by September, 1971.

A schedule showing the planned annual disbursement is set forth below:

Approximately \$2,400,000 of loan funds will be made available for procurement of goods and services in Panama. The Borrower contribution of \$8,640,000 will be available for procurement of goods and services in Panama although there might be some procurement with Borrower funds of goods from countries included in A.I.D. Geographic Code 935.

<u>YEAR</u>	<u>AID</u>	<u>IDAAN</u>
1970	380,000	443,000
1971	554,000	800,000
1972	8,994,000	3,300,000
1973	10,072,000	3,591,000
1974	- - -	506,000
	<hr/>	<hr/>
	20,000,000	8,640,000

B. Borrower's Financial Situation

During the last three years IDAAN has continued the growth pattern indicated in the initial CAP. Revenues from water sales have steadily increased both in Panama City and in the suburban areas serviced by IDAAN. Gross water sales income has increased from \$4,223,000 in 1967 to \$5,280,000 in 1970, an increase of 25%. A brief summary statement showing changes in major Balance Sheet items during the last three years is included in this section. The following more detailed statements and projections are included as Annex I to this paper.

Balance Sheet as of December 31, 1970
Annex I Exhibit E

Income Statement for the year ended December 31, 1970
Annex I Exhibit F

Forecast of Income Statements for the years 1971 through 1984
Annex I Exhibit G

Forecast Balance Sheet for the years 1971 through 1984
Annex I Exhibit H

Forecast Cash Flow Statement for the years 1971 through 1984
Annex I Exhibit I

Forecast Source and Application of Funds for the years
1971 through 1984 - Annex I Exhibit J

Water sales have been projected on the basis of increased consumption due to both a growing population, and an economic expansion which because of raised standards of living has the effect of increasing the per capita consumption. IDAAN's water rates have remained unchanged since inception and were

presented in the basic CAP. A look at both the cash position and the operating income projected for the years 1972 - 1975, indicate the IDAAN will be in a rather precarious position during these critical years. This problem has been discussed in great length with IDAAN. As mentioned above IDAAN has contracted with PAHO to conduct a rate and management study to be completed in September, 1971. Unless PAHO can come up with some major cost reduction recommendations, it is apparent that they must recommend an immediate rate increase. However, this promises to be a period of reduced water supply and poor service since estimated demand will exceed the present capacity of the Panama Canal Company. Therefore, IDAAN is reluctant, from a public relations standpoint, to raise rates during this period. They would prefer to run at an operating loss and risk a rather shaky cash situation. In the past IDAAN has received funds in the form of operating grants from the government.

Therefore, a precedent has been established for this type of assistance. It is our recommendation that a covenant be included in the loan agreement which would protect both IDAAN and the U.S. Government from a potentially unsound situation. A suggested covenant to this effect has been included in the draft Loan Amendment Authorization. In effect it requires the GOP to agree to provide any additional funds required by IDAAN in order to keep IDAAN on a sound financial footing, so that the implementation of this and prior loans will not be jeopardized by IDAAN's reluctance to raise water rates, or the GOP's reluctance to increase rate increases on a timely basis.

Starting in 1975 the projected income statement reflects an estimated rate increase for Panama City of approximately 60%. Admittedly, IDAAN would be in a better position to determine a more accurate projected rate increase after the PAHO study. IDAAN's plan is to increase their water rate at one time when the new plant begins operation.

This rate increase should be sufficient to carry them through several years of operation without another increase. At this point it is useless to speculate as to the recommendations evolving from the rate study. IDAAN is bound to these recommendations by the existing loan agreement. We can only assume that they will put IDAAN on a sound financial footing no later than 1975.

IDAAN's projected cash positions actually show a more pessimistic picture than is actually the case. This is because IDAAN only bills every two months. (The list of January, March, May,

July, September and November). This means that their lowest cash position is at the end of the two-month period just prior to issuance of new billings. Their average cash position would be somewhat in excess of that shown on December 31 statements.

A comparison of their cash positions on November 30 and December 31 during the last two years highlights this point.

	<u>November 30</u>	<u>December 31</u>
1969 Cash Balances	\$ 479,000	\$ 284,000
1970 Cash Balances	\$ 234,000	\$ 75,000

Dividing accounts receivable by average daily sales we find that accounts receivable were outstanding for an average of 145 days in 1970. This is a marked improvement from the 201 days in 1967. It should be noted that these averages are somewhat inflated due to the bi-monthly billing system. IDAAN continues to work at reducing this average as reflected in their balance sheet projections. Although these projections appear to be somewhat on the optimistic side, starting in about 1976. IDAAN should be in a much more favorable cash position so we have not taken exception to their projections. A continuing problem in their receivable collections is the large amounts owed to them by Government and semi-government organizations. IDAAN reports that during the last year the situation regarding these accounts has improved and they anticipate that this increment will continue.

IDAAN passes on to property owners the costs of construction of sewer lines through special assessments. These special assessments are a lien against the property. The present method is to allocate the total cost of a sewer project along with estimated operation costs for twenty years. The total amount is payable over 20 years plus interest at 6½%. IDAAN has historically, and in their projected statements, treated the full amount of the bi-monthly billing comprising assessment, interest, and operating costs, as an other income item in their financial statements. In effect the total amount ends up in retained earnings on the Balance Sheet.

During our financial analysis of IDAAN's statement we advised them that we took exception to the accounting treatment of these assessments which may be shown as an other income item which would be offset by the interest IDAAN pays on loans

payable for the construction of the sewers. The present system overstates net income and retained earnings. There is a danger of establishing water rates on a net income figure rather than on operating income. Even if IDAAN establishes rates on operating income, they may be hard pressed to justify such rates while carrying a large and inflated retained earnings account. Since this represents a major change in their accounting procedures we have not asked them to make this change at this time. We will bring this point to the attention of PAHO for them to take any appropriate action while conducting their management and rate study.

With the exception of the comments noted above, our analysis of IDAAN's projected statements indicate that IDAAN should be in a continually improving financial position. The most pressing problem is a need for a rate increase. IDAAN has the authority to establish its own rates with the approval of the Executive Branch. Therefore it is mostly a question of "how much" and "when".

The financial security of IDAAN rests on a certain extent of the covenant of budget support mentioned earlier and on the planned rate increases. Given a choice between increasing GOP budget support and a change in the rate structure, we anticipate that the GOP Executive Branch will probably agree to enactment of the rate increases finally proposed by IDAAN.

TABLE No. 2

STATUS OF MAJOR BALANCE SHEET ITEMS
(In Million of U.S. \$)

As of December 31, 1970

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
Total Assets	28.4	32.7	34.7	37.5
Fixed Assets	25.2	28.5	30.2	32.4
Long Term Debt	11.8	14.9	16.1	17.2
Total Equity	13.0	14.3	15.8	16.9
Ratio Long Term Debt to Equity	.91	1.04	1.02	1.02
Ratio Current Assets to Current Liabilities	.84	1.15	1.46	1.24

TABLE No. 3

DEBT SERVICE CAPABILITY
(In Million of U.S.\$)

<u>Year</u>	<u>Net Income & Depreciation + Special Assessment</u>	<u>Debt Service P & I</u>	<u>Times Earned</u>
1971	2,255	1,785	1.26
1972	2,283	1,631	1.40
1973	2,664	1,693	1.57
1974	2,906	1,679	1.73
1975	4,025	3,384	1.19
1976	5,363	3,668	1.46
1977	5,771	3,677	1.57
1978	5,971	3,560	1.68
1979	6,216	3,404	1.83
1980	6,544	3,391	1.93
1981	6,905	3,433	2.01
1982	7,176	3,417	2.10
1983	7,497	3,334	2.25
1984	7,831	3,313	2.36

C. Review and Recommendations

1. Evaluation of Program Progress

Since signing loan agreement 525-L-028, May 6, 1969, IDAAN has signed a contract for consulting engineering services with the United States joint venture of Metcalf and Eddy, and Voorhees, Trindle and Nelson and their local associate, Ingenieros Panameños, S.A. The engineer is presently proceeding with the final design of the project and will have the construction contracts ready for bids in October of this year.

IDAAN has also negotiated a contract for a study of the water rates and a study of its organization, administration and operations with the Pan American Health Organization (PAHO) and is to commence work on these studies in April. IDAAN is confident that the studies and recommendations will be complete within six months to allow the construction contracts for the water supply system to proceed on schedule.

Although the program is a number of months behind the original schedule the consulting engineer has assured IDAAN that construction will be completed by November 1974. In general, the USAID's experience with IDAAN during the course of this loan has been satisfactory with respect to both the engineering aspects and the administrative aspects. USAID foresees no problems in implementation and execution of the balance of the project provided additional funds are authorized.

2. Recommendations of the Country Team

The project is consistent with emphasis on programs to improve economic and social conditions in large urban centers of Panama. The demand for potable water by the city of Panama has surpassed the supply available from the Panama Canal Company Miraflores Water System and projections show that by the time the proposed project is ready for operation, demand will greatly exceed the water supply from this source. It is estimated that this project coupled with Canal Company system, will provide an adequate supply of water, up to the year 1990, to the City of Panama. To assist in providing the city of Panama with an adequate supply of potable water, the Country Team and the Government of Panama has placed the highest

priority in the continued support of this project and recommends approval of additional funds since it considers the project vital to the health and well being of not only the city of Panama but the entire country.

SECTION III - CONDITIONS AND COVENANTS

It is recommended that the special conditions and covenants of the loan remain as stated in the loan agreement. These are as follows:

A. Conditions

1. Prior to disbursement of funds for other than engineering services, the Borrower shall submit:
 - a. Evidence of contractual arrangements for a study of IDAAN's water rates by a qualified firm or institution acceptable to A.I.D.
 - b. Evidence of contractual arrangements for a study of IDAAN's organization, administration and operations by a qualified firm or institution acceptable to A.I.D.

IDAAN has satisfied the above two conditions by contracting the services of the Pan American Health Organization, work on these two studies will commence in April 1971.

2. Prior to disbursement of loan funds for construction, unless A.I.D. shall otherwise agree in writing, IDAAN shall have:
 - a. Final design, plans and specifications, bid documents, cost estimates, and a time phased construction schedule for construction of the water system.
 - b. Evidence that IDAAN has taken action, to the extent of its legal capacity, to comply with the recommendations of the completed study of IDAAN's water rates, together with a commitment that IDAAN will promptly implement recommendations of the study for future action.
 - c. Evidence that Borrower has taken action, to the extent of its legal capacity, to comply with the recommendations contained in the completed study of IDAAN's organization, administration and operation, together with a commitment that IDAAN will promptly implement recommendations of the study for future action.

- d. A detailed operating and maintenance program and budget ready for implementation, for the entire water supply system serving the city of Panama including provision for necessary skilled staff and training of additional staff as may be required, and for equipment and material maintenance and replacement.
- e. Evidence of an agreement with the Panama Canal Company for the right of way and use of Canal Zone area and for the use of Madden Lake water to the extent necessary for this project and projected expansions.
- f. Evidence that IDAAN has obtained all real property rights, including easements and rights of way required for construction and operation of the water system.
- g. A written understanding with the Panama Canal Company setting forth, among other things, the annual quantity of water to be made available to IDAAN from the Miraflores system up to 1990.
- h. A contract with a firm, satisfactory to IDAAN and A.I.D., for construction services.

B. Covenants

The special covenants and warranties of the loan agreement are the following:

- 1. IDAAN will implement on a timely basis the recommendations in the water rate study.
- 2. IDAAN will implement on a timely basis the recommendations in the management study.
- 3. IDAAN will continue its program of installation of water meters in accordance with the detailed operating and maintenance program of condition A, 2.d above, endeavoring to complete such installation for all connections before commencement of operation of the water system.
- 4. IDAAN will pay all of its debts due and owing to the Panama Canal Company within ninety (90) days from the dates of invoices submitted to IDAAN for such debts.

It is also recommended that the following covenant be added to the existing loan agreement:

The Government of Panama will agree to approve appropriate increases in IDAAN's water rates or will provide to IDAAN a subsidy for necessary operating capital, in the event that IDAAN's own projected operating revenues are insufficient to insure efficient operation of IDAAN or are insufficient to meet requirements to carry out the project.

SECTION IV - ISSUES

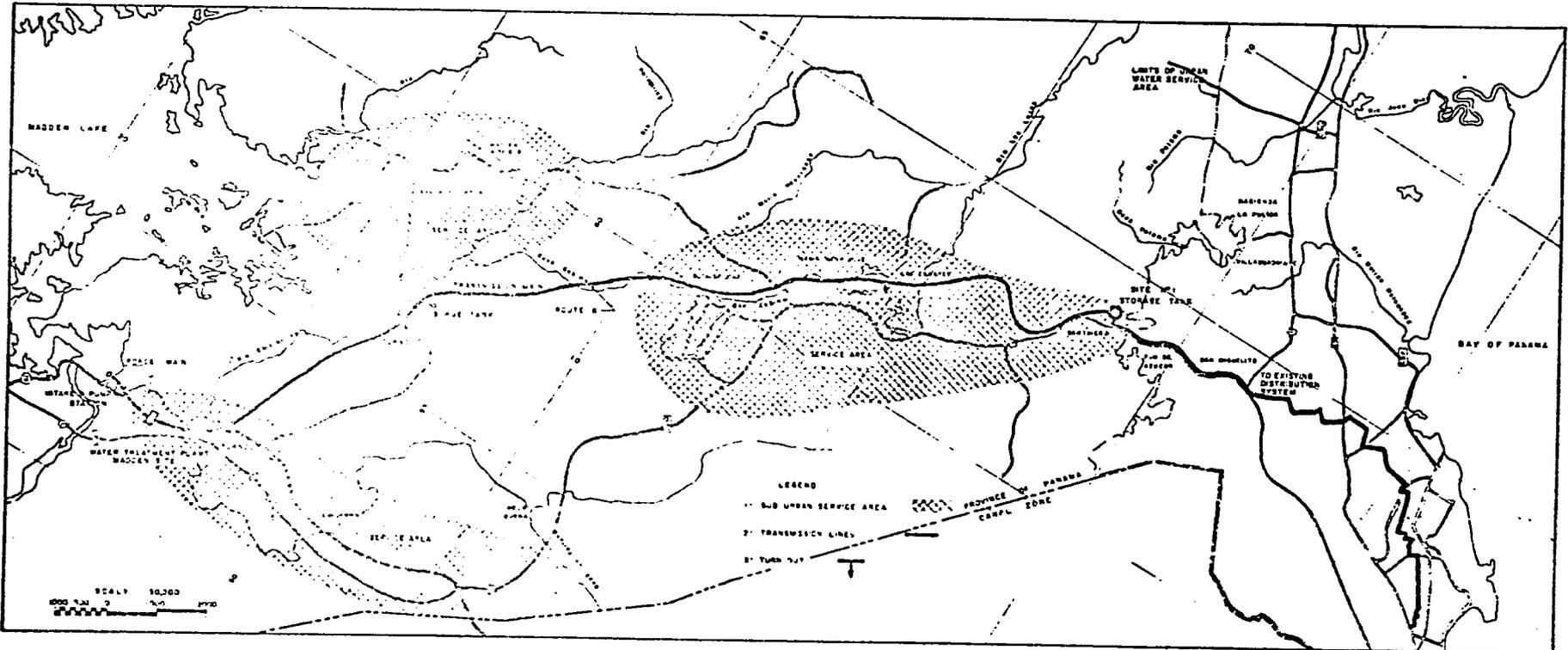
ISSUE - The cash balance for 1973-1974 as set forth in the cash flow statements prepared by IDAAN are considered low for a multimillion dollar turnover and are not considered sufficient in the event of a larger demand placed on the operating capital.

RESOLUTION - The loan agreement to be amended will contain a covenant by the government to subsidize IDAAN in the event that IDAAN generated operating capital is insufficient for operation.

CONTENTS

ANNEXES:

Annex I - Exhibit A	Map of Project
Annex I - Exhibit B	Project Description
Annex I - Exhibit C	Estimated Cost - First Stage Construction System Capable of Supplying 56 MGD
Annex I - Exhibit D	Graphic Projection of Supply and Demand
Annex I - Exhibit E	Balance Sheet as of December 31, 1970
Annex I - Exhibit F	Income Statement for the Year Ended December 31, 1970
Annex I - Exhibit G	Forecast of Income Statements 1971 - 1984
Annex I - Exhibit H	Forecast Balance Sheet 1971 - 1984
Annex I - Exhibit I	Forecast Cash Flow Statement 1971 - 1984
Annex I - Exhibit J	Forecast Source and Application of Funds, 1971 - 1984
Annex II	Certification by USAID Director
Annex III	Draft Loan Amendment Authorization



PROJECT DESCRIPTION

1. Intake works in Lake Madden to be hydraulically and structurally designed to supply maximum day flow projected for the year 2020.
2. Raw water pump room with layout and space for installations to meet maximum day flow projected for the year 2020; initial equipment and piping installation to be capable of supplying 56 mgd.
3. Force main from the raw water pumps to the water treatment plant pipe diameter to be 60 inches.
4. Water treatment plant hydraulically designed to pass a maximum average day flow at a rate of 90 mgd. Equipment, chemical storage and feed, and piping to be installed in this program to be capable of supplying 56 mgd.
5. Force main to convey treated water from treatment plant to balancing reservoir. Pipe diameter to be 66 inches. Three turnouts to provide for subsequent water service to communities enroute.
6. Storage reservoir for balancing hourly demand variations of system, capacity of 10 million gallons.
7. Interconnection from reservoir to existing distribution system to convey balance maximum hourly flow, and such additions to trunk main system, as may be required to facilitate any increase in service during the interim period before the new facilities are brought into production.

TABLE No. 1

ESTIMATED COST - FIRST STAGE CONSTRUCTION
SYSTEM CAPABLE OF SUPPLYING 56 MGD
 (Thousand of Dollars)

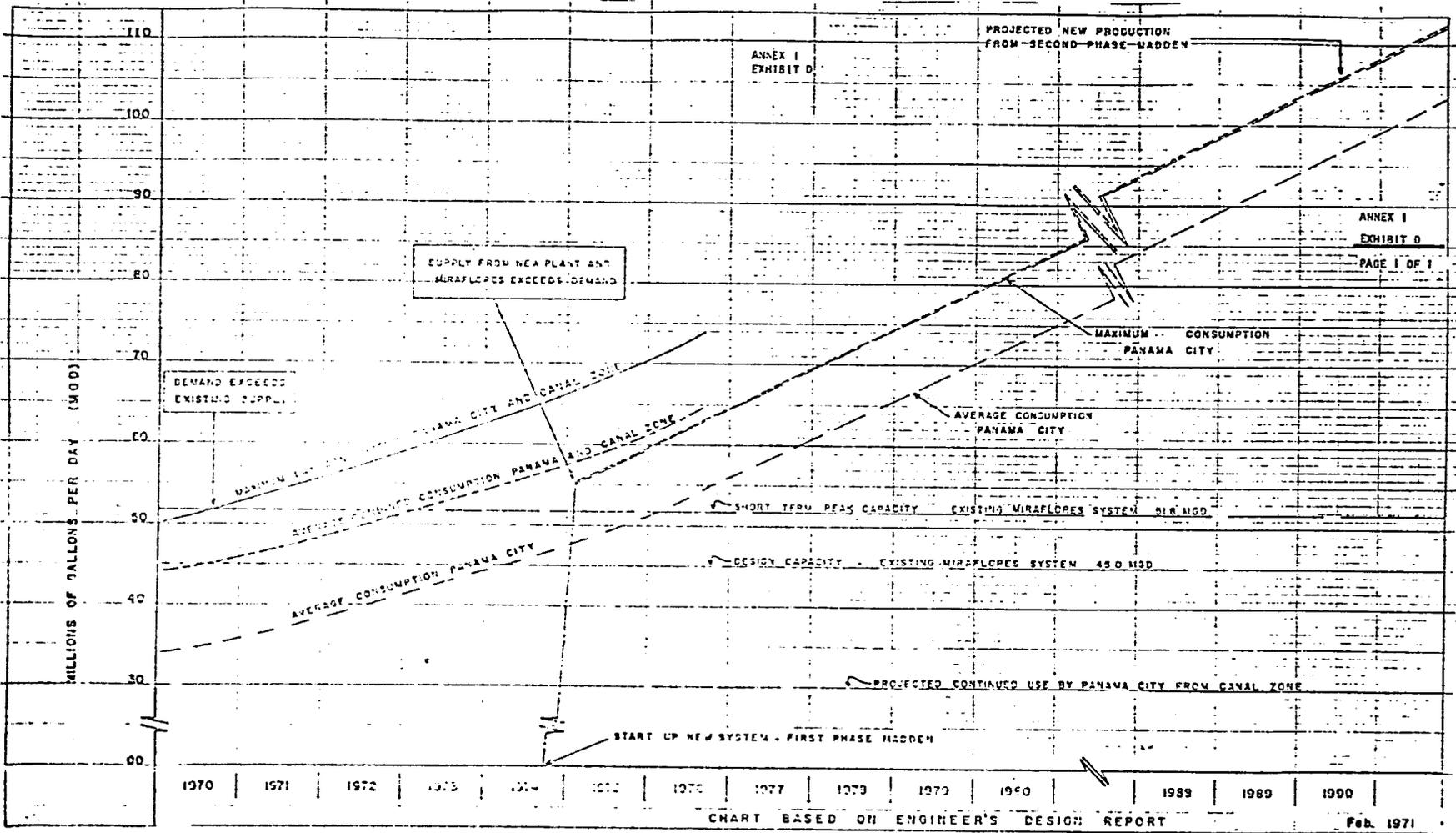
I T E M	Original CAP Estimate	Loan Agreement Estimate *	Updated Estimate *
<u>Construction</u>			
1. Intake & Intake Tunnel	1,245	1,470	--- **
2. Water Transmission Mains	6,750	7,965	8,902
3. Raw Water Pumping Station	1,313	1,548	2,514
4. Water Treatment Plant & Treatment Water Pumping Station	4,150	4,895	9,327
5. Standby Power Generation	189	224	--- ***
6. Water Storage Reservoirs	665	785	960
7. Water Transmission Main to Distribution System	708	833	752
8. Electrical Transmission Line & Substation	236	276	158 ****
9. Water Trunk Mains within Distribution System	1,540	1,815	1,644
10. Spaces maintenance facilities and start up supplies	168	198	152
<u>Sub-Total Construction</u>	<u>16,964</u>	<u>20,000</u>	<u>24,402</u>
<u>Other Costs</u>			
11. Management Study, Rate Study	150	175	77
12. Engineering	2,036	2,401	2,586
13. Legal Administration & Financing	182	212	232
14. Land	145	170	300
15. Participant Training	13	33	36
<u>Sub-Total Other Costs</u>	<u>2,526</u>	<u>2,991</u>	<u>3,231</u>
Project Contingencies (10%)	1,949		
Total Project Costs	21,500	23,000	28,640
Interest During Construction	1,500		
	<u>23,000</u>	<u>23,000</u>	<u>28,640</u>

* 10% contingency distributed, interest during construction capitalized.

** Combined with item 3.

*** Reduced and combined with item 8

**** Substation only, power line by others.



INSTITUTO DE ACUEDUCTOS Y ALCANTARILLADOS NACIONALES
 BALANCE SHEET
 DECEMBER 31, 1970
 (\$000 Omitted)

ASSETS

Plant

Water System	27,215
Sewage System	<u>14,161</u>
Total Utility Plant	41,376
General Plant	<u>1,833</u>
	43,209
Less: Accumulated Depreciation	<u>14,201</u>
	29,008
Construction Work in progress	<u>3,410</u>
<u>Total Plant</u>	<u>32,418</u>

Construction Funds

Bank Deposits	<u>965</u>
---------------	------------

Current Assets

Cash on Hand and in Banks	75
Accounts Receivable-water consumers	2,108
Acc. Receivable Assessments to consumers	954
Less: Partial Payments Received	257
Accumulated Prov. for Uncollectibles	278
Accounts Receivable - Various	96
Inventories of materials & Supplies-Net	685
Other Current Assets	694
TOTAL CURRENT ASSETS	<u>4,077</u>
TOTAL ALL ASSETS	<u>37,460</u>

CAPITALIZATION

Long Term Debt

Bonds Payable	1,909
Loans Payable	<u>15,364</u>
<u>Total Long Term Debt</u>	<u>17,273</u>

Equity of IDAAN

Accumulated Net Earnings	4,759
Capital Grants	
At start of operations-Jan. 1,1962	7,740
Additional State Grants	<u>4,459</u>
<u>TOTAL EQUITY OF IDAAN</u>	<u>16,958</u>

<u>TOTAL CAPITALIZATION</u>	<u>34,231</u>
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CURRENT LIABILITIES

Bank Overdraft	179
Accts. Payable-Pan.Canal Co.-Water	599
Other Accts. Payable-Various	1,370
Post Due Interest Payable	144
Short Term portion of long term debt	<u>937</u>
	<u>3,229</u>

<u>TOTAL CAPITALIZATION AND LIABILITIES</u>	<u>37,460</u>
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INSTITUTO DE ACUEDUCTOS Y ALCANTARILLADOS NACIONALES
 INCOME STATEMENT
 For Year Ended December 31, 1970
 (\$000 Omitted)

Operating Income - Water Sales		5,280
Operating Costs		
Operating Costs	3,150	
Design & Inspection	185	
Administrative & General Expenses	<u>1,065</u>	
Total Operating Costs		<u>4,400</u>
Operating Income Before Depreciation		880
Depreciation		<u>768</u>
Operating Income		112
Interest Expense		<u>615</u>
TOTAL		(503)
Other Income		
Special Assessments	708	
Other Income	<u>230</u>	
Total Other Income		<u>938</u>
Net Income Before Special Charges & Government Operating Grants		435
Special Charges		
Fire Loss	42	
Prior period adjustments	<u>142</u>	
Total Special Charges		<u>184</u>
Net Income Before Government Operating Grants		251
Government Operating Grants		<u>20</u>
NET INCOME		<u><u>271</u></u>

NOTES ON EXHIBITS G AND H, ANNEX I

There is a difference in the annual estimates of operating income from Water Sales in the Income Statement, Exhibit G and the Cash Flow Forecast, Exhibit H. This results from the fact that Exhibit G shows income in terms of billings and Exhibit H uses actual collections. As previously noted (page 13) IDAAN has been making and will continue to make a special effort to reduce the average lag between billings and collections. This results in higher collections than billings through 1973, and with the exception of 1975, when the new supply becomes available and new rates are expected to become effective, higher billings than collections, the normal pattern, in subsequent years.

INSTITUTO DE ACUEDUCTOS Y ALCANTARILLADOS NACIONALES

CUADRO No. 1

1971 - 1984

FINANCIAL FORECAST OF INCOME STATEMENTS
Year 1971 to 1984 (Inclusive) by years
(In thousands of Balboas)

PROMOSTICOS FINANCIEROS DE INGRESOS
Para los años 1971 a 1984 (Inclusive), por años
(En Miles de Balboas)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
OPERATING INCOME														
Water Sales	5,635	5,917	6,422	6,877	8,537	10,706	12,102	12,707	13,342	14,039	14,709	15,297	15,909	16,545
OPERATING COSTS														
Operating Costs	3,424	3,766	3,955	4,153	4,776	5,583	6,423	6,776	7,115	7,400	7,696	7,965	8,204	8,450
Design & Inspection	125	131	138	145	152	160	167	176	181	194	204	214	225	236
Administrative & General Expenses	1,104	1,161	1,219	1,279	1,243	1,409	1,480	1,543	1,631	1,713	1,793	1,895	1,983	2,082
TOTAL OPERATING COSTS	4,653	5,058	5,312	5,577	6,171	7,157	8,070	8,505	8,927	9,307	9,698	10,067	10,412	10,768
OPERATION INCOME BEFORE DEPRECIATION	982	859	1,110	1,300	2,366	3,549	4,032	4,202	4,413	4,702	5,011	5,230	5,497	5,777
DEPRECIATION	782	1,162	1,250	1,344	2,355	2,314	2,320	2,331	2,354	2,378	2,409	2,444	2,480	2,526
OPERATING INCOME	200	(303)	(140)	(66)	60	1,235	1,712	1,869	2,061	2,323	2,602	2,786	3,017	3,251
INCOME DEDUCTIONS														
Interest on BID Loan-31-77/78	85	83	80	68	72	68	65	60	56	51	46	41	36	31
Interest on BID Loan-146 SF/78	100	96	92	87	83	79	74	70	66	61	57	53	49	44
" " AID Loan-525-L-005	194	190	185	179	173	166	160	153	147	141	134	126	118	109
" " AID Loan 525-L-011	13	13	12	12	11	11	10	10	9	9	8	8	7	7
" " AID Loan 525-L-019	107	107	105	102	99	96	93	90	87	83	80	77	73	69
" " AID Loan 525-L-026	111	195	231	231	230	224	218	217	205	198	192	185	177	169
" " AID Loan 525-L-028	--	--	--	--	742	725	708	690	672	653	633	613	592	570
" " ICA Loan	32	28	24	20	16	12	9	3	--	--	--	--	--	--
" Chase Manhattan Bank Loan	8	--	--	--	--	--	--	--	--	--	--	--	--	--
" Long Term Debts (Bonds)	75	70	66	61	57	51	45	40	34	27	20	13	7	4
" Social Security Loan No. 1	17	11	2	--	--	--	--	--	--	--	--	--	--	--
" BID Loan No. 3 Rural	--	--	--	--	419	416	404	394	383	371	358	346	332	318
" Overdraft (National Bank)	13	13	13	13	--	--	--	--	--	--	--	--	--	--
" Bond Store Colón	31	27	23	18	14	9	4	--	--	--	--	--	--	--
TOTAL INCOME DEDUCTION	787	834	833	791	1,818	1,837	1,792	1,722	1,639	1,595	1,528	1,462	1,391	1,321
TOTAL	(587)	(1,133)	(943)	(857)	(1,856)	(622)	(83)	156	402	728	1,074	1,324	1,424	1,930
OTHER INCOME														
Special Assessments	1,100	1,240	1,361	1,403	1,448	1,595	1,542	1,592	1,642	1,692	1,744	1,796	1,850	1,904
Others Income	175	184	193	203	211	219	197	177	159	150	150	150	150	150
GOVERNMENT CONTRIBUTIONS														
Government Operating Grants	192	42	37	32	27	21	15	13	11	10	8	7	5	3
TOTAL OTHER INCOME	1,467	1,466	1,591	1,638	1,686	1,835	1,754	1,782	1,812	1,852	1,892	1,943	1,995	2,057
OPERATING INCOME	200	(303)	(140)	(66)	60	1,235	1,712	1,869	2,061	2,323	2,602	2,786	3,017	3,251
INGRESOS DE OPERACION														
Venta de Agua	5,635	5,917	6,422	6,877	8,537	10,706	12,102	12,707	13,342	14,039	14,709	15,297	15,909	16,545
COSTOS DE OPERACIONES														
Gastos de Operación	3,424	3,766	3,955	4,153	4,776	5,583	6,423	6,776	7,115	7,400	7,696	7,965	8,204	8,450
Diseño e Inspección	125	131	138	145	152	160	167	176	181	194	204	214	225	236
Gastos Administrativos y Generales	1,104	1,161	1,219	1,279	1,243	1,409	1,480	1,543	1,631	1,713	1,793	1,895	1,983	2,082
TOTAL DE COSTOS DE OPERACION	4,653	5,058	5,312	5,577	6,171	7,157	8,070	8,505	8,927	9,307	9,698	10,067	10,412	10,768
INGRESOS DE OPERACION ANTES DE LA DEPRECIACION	982	859	1,110	1,300	2,366	3,549	4,032	4,202	4,413	4,702	5,011	5,230	5,497	5,777
DEPRECIACION	782	1,162	1,250	1,344	2,355	2,314	2,320	2,331	2,354	2,378	2,409	2,444	2,480	2,526
INGRESOS DE OPERACION	200	(303)	(140)	(66)	60	1,235	1,712	1,869	2,061	2,323	2,602	2,786	3,017	3,251
DEDUCCIONES DE INGRESOS														
Intereses Préstamo BID- 35-77/78	85	83	80	68	72	68	65	60	56	51	46	41	36	31
" " BID- 146 SF/78	100	96	92	87	83	79	74	70	66	61	57	53	49	44
" " AID- 525-L-005	194	190	185	179	173	166	160	153	147	141	134	126	118	109
" " AID- 525-L-011	13	13	12	12	11	11	10	10	9	9	8	8	7	7
" " AID- 525-L-019	107	107	105	102	99	96	93	90	87	83	80	77	73	69
" " AID- 525-L-026	111	195	231	231	230	224	218	217	205	198	192	185	177	169
" " AID- 525-L-028	--	--	--	--	742	725	708	690	672	653	633	613	592	570
" " ICA	32	28	24	20	16	12	9	3	--	--	--	--	--	--
" Chase Manhattan Bank	8	--	--	--	--	--	--	--	--	--	--	--	--	--
" Deuda a largo plazo (Bonos)	75	70	66	61	57	51	45	40	34	27	20	13	7	4
" Seguro Social No. 1	17	11	2	--	--	--	--	--	--	--	--	--	--	--
" BID Rural No. 3	--	--	--	--	419	416	404	394	383	371	358	346	332	318
" Sobregiro Banco Nacional)	13	13	13	13	--	--	--	--	--	--	--	--	--	--
" Bonos Alcantarillados -Colón	31	27	23	18	14	9	4	--	--	--	--	--	--	--
TOTAL DE DEDUCCIONES DE INGRESOS	787	834	833	791	1,818	1,837	1,792	1,722	1,639	1,595	1,528	1,462	1,391	1,321
TOTAL	(587)	(1,133)	(943)	(857)	(1,856)	(622)	(83)	156	402	728	1,074	1,324	1,424	1,930
OTROS INGRESOS														
Tasa de Valorización	1,100	1,240	1,361	1,403	1,448	1,595	1,542	1,592	1,642	1,692	1,744	1,796	1,850	1,904
Otros Ingresos	175	184	193	203	211	219	197	177	159	150	150	150	150	150
APORTACIONES ESTATALES														
Subsidio de operación del Estado	192	42	37	32	27	21	15	13	11	10	8	7	5	3
TOTAL DE INGRESOS ANTES	1,467	1,466	1,591	1,638	1,686	1,835	1,754	1,782	1,812	1,852	1,892	1,943	1,995	2,057

EXHIBIT G - Page 1 of 1

INSTITUTO DE ACUEDUCTOS Y ALICANTARILLADOS NACIONALES
1971 - 1984

CUADRO No. 3

CASH FLOW FORECAST
(In thousands of Balboas) *

PRONOSTICO DE LIQUIDEZ
(En miles de balboas)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
<u>CASH BALANCE AT BEGINNING OF THE YEAR</u>	7	24	129	16	10	125	228	103	145	119	195	211	230	576	<u>SALDO EN CAJA AL COMIENZO DEL AÑO</u>
<u>OPERATING INCOME</u>															<u>INGRESOS DE OPERACION</u>
Water Sales	5,951	6,056	6,731	6,300	8,717	10,421	11,556	12,635	13,150	13,839	14,382	14,995	-15,902	16,310	Venta de Agua
<u>OTHER INCOME</u>															<u>OTROS INGRESOS</u>
Special Assessment	1,210	1,605	1,749	1,543	1,358	1,276	1,311	1,353	1,445	1,489	1,570	1,616	1,776	1,809	Tasa de Valorización
Other Incomes	175	154	193	203	211	219	197	177	159	150	150	150	150	150	Otros Ingresos
<u>GOVERNMENT CONTRIBUTION</u>															<u>APORTACIONES ESTATALES</u>
Government Operating Grants	192	42	37	32	27	21	15	13	11	10	8	7	5	3	Subsidio de Operación del Estado
<u>CASH REQUIREMENTS</u>															<u>INGRESOS DE CAPITAL</u>
Capital Govt. Grants-BID Rural	1,517	1,240	1,875	1,247	-	-	-	-	-	-	-	-	-	-	Subs. de Capital del Estado BID Rural
BID Loan- Rural 146-57/78	1,141	-	-	-	-	-	-	-	-	-	-	-	-	-	Préstamo BID Rural 146-57/78
BID Loan- Rural No. 3	134	2,926	6,213	1,700	-	-	-	-	-	-	-	-	-	-	Préstamo BID-Rural No. 3
AID Loan-Colón (Storm Sever)525-L-011	140	52	-	-	-	-	-	-	-	-	-	-	-	-	Prést. AID-Colón (Alic. Pluv.)525-L-011
Capital Govt. Grants-AID-525-L-026	707	-	-	-	-	-	-	-	-	-	-	-	-	-	Subs. de Cap. del Estado-AID-525-L-026
AID Loan-Panamá No.3 525-L-026	3,910	1,730	-	-	-	-	-	-	-	-	-	-	-	-	Prést. AID-Panamá No.3 525-L-026
Capital Govt. Grants-Water Supply	850	3,200	3,591	488	-	-	-	-	-	-	-	-	-	-	Subs. de Cap. del Estado
Loan Water Supply-Panamá	554	5,914	10,072	-	-	-	-	-	-	-	-	-	-	-	Prést. Planta Potabilizadora- Panamá
<u>DEPRECIATION</u>	250	1,350	1,250	1,366	2,305	2,314	2,320	2,335	2,354	2,379	2,409	2,444	2,380	2,526	<u>DEPRECIACION</u>
<u>TOTAL CASH AVAILABLE</u>	17,231	20,547	31,810	13,461	12,335	16,376	19,657	15,615	17,254	17,986	18,714	19,423	20,443	21,326	<u>TOTAL DISPONIBLE</u>
<u>OPERATING COST AND DEPRECIATIONS</u>	5,435	6,213	6,552	6,953	8,477	9,471	10,390	10,839	11,281	11,686	12,107	12,511	12,892	13,296	<u>CASTOS DE OPERACION Y DEPRECIACION</u>
<u>OTHER INCOME DEDUCTIONS</u>	787	834	833	771	1,916	1,857	1,792	1,722	1,659	1,595	1,528	1,462	1,391	1,321	<u>INTERESES SOBRE PRESTAMO</u>
<u>CAPITAL EXPENDITURES</u>	9,792	20,474	21,451	4,785	957	1,193	1,535	1,877	2,174	2,716	3,014	3,315	3,617	3,923	<u>INVERSIONES DE CAPITAL</u>
<u>REPAYMENT OF LOANS</u>	981	998	797	860	853	1,445	1,811	1,855	1,835	1,745	1,754	1,905	1,955	1,943	<u>AMORTIZACIONES</u>
<u>DECREASES IN CURRENT LIABILITIES</u>	212	21	181	72	65	157	26	147	193	49	55	-	12	51	<u>DISMINUCIONES DE PASIVO CORRIENTE</u>
<u>TOTAL PAYMENTS</u>	17,237	25,545	31,814	13,451	12,335	16,368	15,355	15,470	17,145	17,781	18,503	19,193	19,867	20,532	<u>TOTAL DE PAGOS</u>
<u>CASH ON HAND AT END OF PERIOD</u>	74	129	16	10	125	228	103	145	119	195	211	230	576	842	<u>SALDO EN CAJA AL FINAL DEL AÑO</u>

* 1 Balboa = 1 Dollar U.S. Ct.
February 1971

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ANNEX I - Page 10 of 13
EXHIBIT H - Page 1 of 1

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INSTITUTO DE ACUEDUCTOS Y ALCANZARILLADOS NACIONALES
1971 - 1984

Cuadro N° 2

STATEMENT OF SOURCES AND APPLICATION OF FUNDS
Years 1971 to 1984 (Inclusive) by years
(in thousands of Balboas)*

FUENTES DE FINANCIAMIENTO Y SU UTILIZACION
Para los años 1971 a 1984 (Inclusive) por años
(en miles de Balboas)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
SOURCES OF FUNDS														
Net Earning and Depreciation	1,650	1,491	1,868	2,147	2,136	3,527	3,994	4,262	4,568	4,959	5,385	5,721	5,111	6,513
Capital Government Grant-BID Rural N° 3	1,517	1,590	1,875	1,247	-	-	-	-	-	-	-	-	-	-
BID Loan - Rural 146-SF/PX	1,151	-	-	-	-	-	-	-	-	-	-	-	-	-
BID Loan - Rural N° 3	134	3,924	6,213	1,700	-	-	-	-	-	-	-	-	-	-
AID Loan - Colon N° 1 525-L-011	160	63	-	-	-	-	-	-	-	-	-	-	-	-
Capital Government Grants-AID 525-L-026	700	-	-	-	-	-	-	-	-	-	-	-	-	-
AID Loan-Panama N° 3 525-L-026	2,980	1,700	-	-	-	-	-	-	-	-	-	-	-	-
Capital Government Grants-Water Supply Panama	300	3,000	3,591	488	-	-	-	-	-	-	-	-	-	-
Loan Water Supply - Panama	100	4,300	10,000	-	-	-	-	-	-	-	-	-	-	-
TOTAL FUNDS	10,730	21,371	26,313	5,673	2,423	3,527	3,994	4,262	4,568	4,959	5,385	5,721	6,111	6,513
INCREASE IN WORKING CAPITAL	1,170	102	1,431	84	268	-								
TOTAL	10,730	21,371	26,313	5,673	2,423	3,527	3,994	4,262	4,568	4,959	5,385	5,721	6,111	6,513
UTILIZATION OF FUNDS														
OPERATIONS & INVESTMENTS														
BID Project-Rural 146-SF/PX	1,400	-	-	-	-	-	-	-	-	-	-	-	-	-
BID Loan N° 3- Rural	431	3,817	6,313	3,102	-	-	-	-	-	-	-	-	-	-
AID Project-Colon Seguro Saver 525-L-011	205	134	-	-	-	-	-	-	-	-	-	-	-	-
Expenses Capitalized to Const.in Progress	624	453	627	721	857	895	835	877	924	968	1,014	1,065	1,117	1,173
Interest Capitalized to Const.in Progress	-	41	176	274	-	-	-	-	-	-	-	-	-	-
AID Project-Panama N° 3 525-L-026	1,000	1,435	232	-	-	-	-	-	-	-	-	-	-	-
Project Panama Water Supply	1,100	12,294	13,663	488	-	-	-	-	-	-	-	-	-	-
IDAM Building Project	45	-	-	-	-	-	-	-	-	-	-	-	-	-
IDAM Other Investment	-	100	100	100	100	300	700	1,000	1,250	1,750	2,000	2,250	2,500	2,750
TOTAL	5,922	20,476	23,451	4,763	927	1,195	1,535	1,877	2,174	2,716	3,014	3,315	3,617	3,923
ADJUSTMENTS														
Banco	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Préstamo ICA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Préstamo Seguro Social N° 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Préstamo Chase Manhattan Bank	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Préstamo BID-Interior 35-TF/PX	83	83	97	97	110	110	124	124	138	138	138	138	152	152
Préstamo BID-Rural 146-SF/PX	143	143	143	143	143	143	143	143	143	143	143	143	143	143
Préstamo BID-Rural N° 3 (Nuevo Proyecto)	-	-	-	-	306	317	328	340	352	364	377	390	406	406
Préstamo AID 525-L-005	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Préstamo AID 525-L-011	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Préstamo AID 525-L-019	-	34	77	80	87	86	89	92	95	98	102	105	109	113
Préstamo AID 525-L-026	-	-	-	81	167	173	179	185	191	198	205	212	220	227
Bonos Alc.Pluvial- Colon - Serie "E"	45	68	74	78	80	82	93	-	-	-	-	-	-	-
Edificio IDAM	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Préstamo AID 525-L-028 - Planta Potabilizadora	-	-	-	449	485	402	221	538	557	577	597	597	619	640
TOTAL	994	767	600	643	1,412	1,833	2,075	2,745	3,745	4,267	4,866	5,511	6,111	6,513
INCREASE IN WORKING CAPITAL	1,170	102	1,431	84	268	-								
TOTAL	10,730	21,371	26,313	5,673	2,423	3,527	3,994	4,262	4,568	4,959	5,385	5,721	6,111	6,513

* 1 Balboa = 1 dollar U.S. Cy.
February 1972

Febrero 1972

EXHIBIT I - Page 1 of 1

INSTITUTO DE ADUQUENTOS Y ALCANTARILLAJOS NACIONALES

1971 - 1984

Cuadro N° 4

FINANCIAL BALANCE SHEET AT DECEMBER 31
(in thousands of Balboas)

PROYECTO DEL BALANCE DE SITUACION A DICIEMBRE 31
(en miles de Balboas)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
ACTIVO														
PIAFIA														
Water System	28,772	34,564	34,033	41,519	42,277	41,374	42,409	43,925	45,782	47,962	49,749	42,839	45,739	49,010
Sanage System	18,076	26,003	27,109	29,047	31,004	31,000	31,904	31,444	31,905	31,905	31,905	31,905	31,904	31,905
Total Utility Plant	46,848	60,567	61,142	70,566	73,281	72,374	74,313	75,369	77,687	79,867	81,654	74,744	77,643	80,915
General Plant	2,473	2,712	2,437	2,437	2,437	2,710	2,710	2,710	2,710	2,710	2,710	2,710	2,710	2,710
Less: Accumulated Depreciation	12,419	15,426	15,536	18,278	18,429	18,429	18,429	18,429	18,429	18,429	18,429	18,429	18,429	18,429
Less: Accumulated Depreciation	11,946	14,714	14,100	15,841	15,841	15,707	15,707	15,707	15,707	15,707	15,707	15,707	15,707	15,707
Construction work in Progress	2,473	2,712	2,437	2,437	2,437	2,710	2,710	2,710	2,710	2,710	2,710	2,710	2,710	2,710
TOTAL ASSETS	42,438	46,255	46,437	50,646	50,277	49,277								
PASIVO Y RESERVAS														
LIABILITIES														
Bank Deposits	1,100	1,400	1,400	1,700	1,400	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
RESERVES														
Reserve for Contingencies	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Reserve for Depreciation	1,000	1,300	1,300	1,600	1,300	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Reserve for Contingencies	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Reserve for Depreciation	1,000	1,300	1,300	1,600	1,300	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Reserve for Contingencies	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Reserve for Depreciation	1,000	1,300	1,300	1,600	1,300	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Reserve for Contingencies	100	100	100	100	100	100	100	100	100	100	100	100	100	100
TOTAL LIABILITIES	2,200	2,800	2,800	3,400	2,800	3,400								
EQUITY														
Capital	40,238	43,455	43,637	47,246	47,477	46,877	46,877	46,877	46,877	46,877	46,877	46,877	46,877	46,877

ACTIVO

PIAFIA

Sistema de Acueducto
Sistema de Alcantarilla

Total-Sistema de Acua. y Alcant.
Planta General

Perpet Depreciada Acumulada

Construcciones en Proceso

TOTAL - PIAFIA

FONDO PARA CONTINGENCIAS

Reserva Contingencia

ACTIVO CORRIENTE

Cuentas en Caja y Banco
Cuentas por Cobrar - Agua
Cuentas por Cobrar - Imp. y S. M.
Reserva para Contingencia
Reserva para Contingencia
Cuentas por Cobrar - Lotes
Imp. de Agua y Suministros Agua
Otros Activos Corrientes

TOTAL DEL ACTIVO CORRIENTE

TOTAL DEL BIEN DE PATRIMONIO

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(Continued)

(In thousands of Balboas)

(Continuación)

(En miles de balboas)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
CAPITALIZATION														
LONG TERM DEBT														
Bonds Payable	1,717	1,577	1,427	1,249	1,105	924	745	648	541	428	305	177	122	64
Loans Payable	20,357	34,443	50,018	50,935	46,761	47,765	46,143	44,124	42,219	40,294	38,284	36,250	34,177	32,077
TOTAL LONG TERM DEBT	22,102	36,020	51,445	52,257	47,866	48,690	46,888	44,772	42,760	40,720	38,589	36,427	34,299	32,141
EQUITY OF IDIAN														
Accumulated Net Earnings	4,759	5,639	5,970	6,565	7,379	7,209	8,422	10,096	12,024	14,238	16,813	19,794	23,071	26,702
Balance - January 1	553	311	625	711	(170)	1,213	1,674	1,928	2,214	2,582	2,976	3,277	3,631	3,987
Net Earnings-Jan. 1 to Dec. 31	3,829	3,920	6,568	7,379	7,209	8,422	10,096	12,024	14,238	16,813	19,794	23,071	26,702	30,689
CAPITAL GRANTS														
At Start of operations-Jan. 1, 1962	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740
Additional State Grants:														
During this year	3,017	4,890	5,466	1,735	-	-	-	-	-	-	-	-	-	-
In Previous Years	2,115	7,635	12,525	17,591	16,726	16,726	16,726	16,726	16,726	16,726	16,726	16,726	16,726	16,726
TOTAL EQUITY OF IDIAN	21,014	26,275	32,329	31,845	36,475	35,895	37,567	39,490	41,704	44,286	47,260	50,527	54,168	58,155
TOTAL CAPITALIZATION	43,116	62,295	83,774	87,102	84,341	84,587	84,450	84,260	84,464	85,006	85,849	86,954	88,467	90,296
CURRENT LIABILITIES														
Bank Overdraft	179	179	179	179	-	-	-	-	-	-	-	-	-	-
Accounts Payable-Pan. Canal Co.-water	477	367	367	357	367	-	-	-	-	-	-	-	-	-
Other Accounts Payable-Various	1,263	1,308	1,450	1,353	1,434	1,900	1,733	1,531	1,176	830	261	-	-	-
Post Due Interest Payable	104	104	-	-	-	-	-	-	-	-	-	-	-	-
Bonds Redeemable in one year	232	140	150	158	144	171	129	99	103	115	121	128	55	38
Loan Amortizations due in one year	864	657	710	725	1,204	1,620	1,596	1,739	1,640	1,681	1,784	1,827	1,823	1,934
TOTAL CURRENT LIABILITIES	3,079	3,051	2,871	2,872	3,319	3,711	3,631	3,359	2,921	2,626	2,166	1,953	1,942	1,992
TOTAL CAPITALIZATION CONTRACT AND														
REDEMPTIONS PAYABLE AND CURRENT														
LIABILITIES	45,195	65,346	86,645	89,974	87,660	88,298	88,089	87,819	87,385	87,632	87,015	88,907	90,410	92,288

CAPITALIZACION

DEUDA A LARGO PLAZO

Bonos por Redimir
Préstamos por Pagar

TOTAL DEUDA A LARGO PLAZO

VALOR NETO DEL IDIAN

Ingresos Netos Acumulados
Saldo - Enero 1
Ingresos Netos - Enero a Dic. 31

PATRIMONIO ECIENTAL

Saldo al comienzo de CP-1-1-62
Concesiones adicionales Estado
Durante este año
En años anteriores

TOTAL VALOR NETO DEL IDIAN

TOTAL CAPITALIZACION

PASIVO CORRIENTE

Sobregiro Bancario
Cuentas por Pagar-Panama Canal Co.
Otras cuentas por Pagar
Intereses vencidos por pagar
Bonos redimibles en un año
Amortizac. de préstamos pagaderos en un año

TOTAL PASIVO CORRIENTE

**TOTAL CAPITALIZACION CONTRACTAS Y
RENTACIONES POR PAGAR Y PASIVO CORRIENTE**

• 1 Balboa = 1 Dollar U.S. C.
JANUARY - 1971

DRAFT LOAN AMENDMENT AUTHORIZATION

ALLIANCE FOR PROGRESS FUNDS

PANAMA: PANAMA CITY WATER SUPPLY SYSTEM

Pursuant to the authority vested in the Deputy U.S. Coordinator, Alliance for Progress, by the Foreign Assistance Act of 1961, as amended, and the delegation of authority issued thereunder, I hereby amend the text of the Loan Authorization for AID Loan No. 525-J-028, as amended authorizing the establishment of a loan to the Instituto de Acueductos y Alcantarillados Nacionales of not to exceed fifteen million dollars (\$15,000,000) for United States Dollar and local cost of goods and services to assist in the construction of a new water supply for Panama City, to read as follows:

"Pursuant to the authority vested in the Deputy U.S. Coordinator, the Alliance for Progress, by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part 1, Chapter 2, Title VI, Alliance for Progress to the Instituto de Acueductos y Alcantarillados Nacionales ("IDAAN") of not to exceed twenty million United States Dollars (\$20,000,000) for United States dollar and local cost of goods and services to assist in the construction of a new water supply system for Panama City, such system to be located in the vicinity of Madden Lake and having a normal capacity of 56 million gallons daily. Included as part of this project is a study of water rates in the Republic of Panama and a study of IDAAN's organization, administration and operations. This loan is to be subject to the following terms and conditions:

1. Interest and Terms of Repayments:

- (a) Borrower shall repay the Loan to the Agency for International Development ("A.I.D.") in United States dollars within thirty (30) years from the first disbursement under the Loan, including a grace period of not to exceed five (5) years. Borrower shall pay to A.I.D. in United States dollars on the disbursed balance of the Loan interest at the rate of three and one-half ($3\frac{1}{2}$) percent per annum. Interest on disbursements not in excess of \$15,000,000, shall be capitalized during the grace period.
- (b) If, with respect to disbursements not in excess of \$15,000,000, prior to the end of the grace period the Government of Panama ("Government") so elects, Borrower shall fulfill its dollar obligation under

the Loan by paying the Government in the currency of Panama the equivalent, determined as of a time and in a manner satisfactory to A.I.D., of the United States dollar amounts payable to A.I.D. under (a) above, and in such event the Government shall pay to A.I.D."

- (i) The equivalent in United States dollars, determined as of a time and in a manner calculated to obtain repayment of all dollars disbursed plus interest, of all amounts paid to Government as follows:
 - (a) All interest immediately upon receipt subject to Government's right to retain all payments in excess of two (2) percent per annum during a grace period of not to ten (10) years from the first disbursement under the Loan ("Government Grace Period") and all payments in excess of two and one-half ($2\frac{1}{2}$) percent per annum thereafter.
 - (b) Principal within forty (40) years from the first disbursement under the Loan, including the Government Grace Period.
- (ii) Interest in United States dollars of two (2) per annum during the Government Grace Period, and two and one-half ($2\frac{1}{2}$) percent per annum thereafter on all amounts of outstanding principal paid by Borrower to Government from the respective dates of such payments of principal.
- (c) If, with respect to disbursements in excess of \$15,000,000, prior to the date the first interest payment is due, the Government of Panama ("Government") so elects, Borrower shall fulfill its dollar obligations under the loan by paying to Government in the currency of Panama the equivalent, determined as of the time and in a manner satisfactory to A.I.D. under (a) above and in such event the Government shall pay to A.I.D.:

- 3 -

- (i) the equivalent in United States dollars, determined as of the time and in a manner calculated to obtain repayment of all dollars disbursed plus interest, of all amounts paid to Government as follows:
 - (a) all interest immediately upon receipt subject to Government's right to retain all payments in excess of two percent (2%) per annum during a grace period of not to exceed ten (10) years from the first disbursement under the Loan (Government grace period) and all payments in excess of three (3%) percent per annum thereafter;
 - (b) principal within forty (40) years, including the Government grace period; and
- (ii) interest in United States dollars of two percent (2%) per annum during the Government grace period and three (3%) percent per annum thereafter on all amounts of outstanding principal paid by Borrower to Government from the respective dates of such payment of principal.

2. Other Terms and Conditions:

- (a) Paragraph reference Code 941 procurement including shipping and marine insurance to be provided by Office of the General Council, AID/Washington.
- (b) The Government shall guarantee repayment of the Loan in United States dollars.

- (c) Prior to disbursement of funds for other than engineering services, the Borrower shall submit:
 - (i) evidence of arrangements for a study of Borrower's water rates with a qualified firm acceptable to A.I.D.; and
 - (ii) evidence of arrangements for a study of Borrower's organization, administration and operations with a qualified firm acceptable to A.I.D.
- (d) Prior to the disbursement of funds for construction, the Borrower shall, unless A.I.D. shall otherwise agree in writing:
 - (i) take action to implement the recommendations contained in the completed study of Borrower's water rates, and give written evidence that future actions recommended by the study will be taken on a prompt and timely basis;
 - (ii) take action to implement the recommendations contained in the completed study of Borrower's organization, administration and operations, and give written evidence that future actions recommended by the study will be taken on a prompt and timely basis;
 - (iii) submit evidence of a written agreement with the Panama Canal Company on the volume and cost of water to be taken from the Miraflores system up to the 1988-1990 period;
 - (iv) Develop an operating and maintenance program for the water system serving Panama City, including provision for facilities, necessary skilled staff and training of additional staff as may be required; and
 - (v) submit evidence that the full amount of Borrower's contribution to the Project will be made available on a timely basis in order to assure completion of the Project within the scheduled period.
- (e) Borrower shall agree to:
 - (i) implement on a timely basis its operating, maintenance and staff training program, and to provide qualified and experienced staff as may be necessary and appropriate;

- 4 -

- (ii) implement on a timely basis the recommendations contained in the completed study of Borrower's water rates;
 - (iii) implement on a timely basis the recommendations contained in the completed study of Borrower's organization, administration and operations;
 - (iv) continue its program of installation of water meters with the view to completing installation for all connections before commencement of operation of the new water supply plant; and
 - (v) pay all debts of Borrower due and owing to the Panama Canal Company within ninety (90) days of the dates of invoices submitted to the Borrower.
- (f) The Government shall agree to approve appropriate increases in IDAAN's water rates or to provide to IDAAN a subsidy for necessary operating capital, in the event that IDAAN's own projected operating revenues are insufficient to insure efficient operation of IDAAN or are insufficient to meet requirements to carry out the project.
- (g) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable."

Deputy U. S. Coordinator
Alliance for Progress

Date

AID 1240-2 (1-71)

April 1, 1971

CHECKLIST OF STATUTORY CRITERIA

(Alliance for Progress)

In the right-hand margin, for each item write answer or, as appropriate, a summary of required discussion. As necessary, reference the section(s) of the Capital Assistance Paper, or other clearly identified and available document, in which the matter is further discussed. This form may be made a part of the Capital Assistance Paper.

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended.

App. - Foreign Assistance and Related Agencies Appropriations Act, 1971.

MMA - Merchant Marine Act of 1936, as amended

COUNTRY PERFORMANCE

Progress Towards Country Goals

1. FAA § 208; §.251(b).

A. Describe extent to which country is:

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

The growth in agricultural production in Panama (1960-69/6.2%) is among the highest in Latin America. Improvement in food storage and distribution has been satisfactory.

(2) Creating a favorable climate for foreign and domestic private enterprise and investment.

The climate for foreign and domestic private enterprise and investment has been favorable as evidenced by the high rate of private investment over the past several years.

AID 1240-2

(3) Increasing the public's role in the developmental process.

Although legislation is enacted by executive decree, rather than elected legislature; increased participation in the development process is being promoted through several GOP programs, especially those administered by the Office of Community Development.

(4) (a) Allocating available budgetary resources to development.

During the 1960-1969 period, public sector real investment amounted to about \$260 million or 20% of estimated total public expenditures (1,301 million \$)

(b) Diverting such resources for unnecessary military expenditure (see also Item No. 16.) and intervention in affairs of other free and independent nations. (See also Item No. 14.)

Panama's expenditures for military purposes have been a small percentage of total government expenditures, and Panama has not intervened in the affairs of other free and independent nations.

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

Panama will contribute \$8.6 million to project, or just over 30% of the cost.

(6) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.

(7) Adhering to the principles of the Act of Bogota and Charter of Punta del Este.

(8) Attempting to repatriate capital invested in other countries by its own citizens.

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

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

(6) Panama has made substantial progress in social, economic and political reforms. Panama has reformed her tax laws and has improved tax administration substantially. As a result, 1969 income tax receipts totaled \$41.0 million, nearly three times the 1963 total of \$15.5 million. Although there is no press censorship under the provisional government, the Government is moving in the direction of restoring constitutional rights, and free elections have been held in at least one Municipality in 1970. The provisional government has emphasized the concepts of self-help and individual initiative in its civic action programs and has given support to private enterprise.

(7) Panama is adhering to the principles of the Act of Bogota and is working to achieve the objectives of the Charter of Punta del Este. In practically every category Panama is ahead of the targets set by the Charter, or has programs underway which will bring her performance up to the target levels.

(8) Capital repatriation is not a problem in Panama at present time. Capital flows are not restricted.

(9) See answer to 6 above.

B. Yes

Treatment of U.S. Citizens

2. FAA § 620(c). *If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?*
- No such case known. Assistance is to semi-autonomous government agency.
3. FAA § 620(e)(1). *If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing-ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?*
- No such case known in which remedies have been exhausted.

AID '1240-2

4. FAA § 620(o); Fishermen's Protective Act. 8.5. *If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters,* No such seizures or sanctions known.

a. *has any deduction required by Fishermen's Protective Act been made?* N/A

b. *has complete denial of assistance been considered by A.I.D. Administrator?* N/A

Relations with U.S. Government and Other Nations

5. FAA § 620(d). *If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?* Assistance is not for a productive enterprise which will compete in the U.S. Water will be provided to the city of Panama.

6. FAA § 620(j). *Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction by mob action, of U.S. property?* No

7. FAA § 620(l). *If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the A.I.D. administration within the past year considered denying assistance to such government for this reason?* No. Current bilateral covers these risks.
8. FAA § 620(q). *Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country?* No
9. FAA § 620(t). *Has the country severed diplomatic relations with U.S.? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?* no
10. FAA § 620(u). *What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearage taken into account by the A.I.D. Administrator in determining the current A.I.D. Operating Year Budget?* Panama is not delinquent with respect to dues, assessments or other obligations to the U.N. for the purposes of Article XIX of the Charter.
11. FAA § 620(a). *Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba?* No

AID 1240-2

12. FAA § 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? **Yes**
13. FAA § 620(f). Is recipient country a Communist country? **No**
14. FAA § 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the U.S. or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? **No determination has been made that the government of France is involved in (a) or (b).**
15. FAA § 620(n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam? **No**

Military Expenditures

16. FAA § 620(s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points to be coordinated with FPO/MS.)
- (a) Less than 1% of 1970 budget
 - (b) Less than 1% of foreign exchange resources
 - (c) No purchase of sophisticated weapons systems

AID 1240-2

CONDITIONS OF THE LOAN

General Soundness

17. FAA § 201(d). *Information and conclusion on reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.*

Terms of proposed loan are consistent with the laws of Panama and the United States and are not unreasonable for the borrower.

18. FAA § 251(b)(2); §.251(e). *Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multi'ateral plan, and the amount of the loan exceeds \$100,000, has country submitted to A.I.D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?*

Financial, economic, and engineering analyses contained in Section II,B of the Capital Assistance Paper conclude that activity is sound on all points. A letter applying for the increase was sent to the Mission Director on December 30, 1970 from the Director of the Panamanian Planning Office of the Presidency.

AID 1240-2

19. FAA § 251(b). *Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.*
- The terms of the proposed loan are such that there are reasonable prospects for repayment.
20. FAA § 611(a)(1). *Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?*
- Such plans already prepared and a basis for increase request
(a) Yes
(b) Yes
21. FAA § 611(a)(2). *If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purposes of loan?*
- No such further legislation required.
22. FAA § 611(c). *If loan is for capital assistance, and all U.S. assistance to project now exceeds \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?*
- Such certification is contained in Annex II of the Capital Assistance Paper.
23. FAA § 251(b). *Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.*
- Such financing is not available.

Loan's Relationship to Achievement
of Country and Regional Goals

24. FAA § 207; § 251(a). Extent to which assistance reflects appropriate emphasis on; (a) encouraging development of democratic economic, political, and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs, or (e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and voluntary agencies; transportation and communication; planning and public administration; urban development; and modernization of existing laws.
- (a) This project not applicable.
 (b) This project not applicable.
 (c) Project will provide training in water supply operations.
 (d) Project is essential to health of Panama City.
 (e) Project is essential to industrial and urban development in Panama and supports improved planning administration of a public utility.
25. FAA § 209. Is project susceptible of execution as part of regional project? If so why is project not so executed? No
26. FAA § 251(b)(3). Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to realizable long-range objectives. Project is directly related to and in support of development activities in City of Panama, and project is designed with water supply objectives and needs post year 2,000 specifically taken into account.

AID 1240-2

27. FAA § 251(b)(7). *Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.*

This project is an essential ingredient for achieving self-sustaining growth in Panama.

28. FAA § 281(a). *Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions.*

This project is not directly related to this objective but is essential to other USAID Panama programs such as cooperative housing.

29. FAA § 281(b). *Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.*

Answer to item #28 equally appropriate here.

AID 1240-2

30. FAA § 601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.
- Loan fosters private initiative and cooperation through use of competitive bidding for construction and will improve technical efficiency in borrower by training in operation of a large water treatment plant and planning its expansion.
31. FAA § 619. If assistance is for newly independent country; is it furnished through multilateral organizations or plans to the maximum extent appropriate?
- Panama is not a newly independent country.
32. FAA § 251(h). Information and conclusion on whether the activity is consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress in its annual review of national development activities.
- This activity is consistent with QIAP findings and recommendations.
33. FAA § 251(g). Information and conclusion on use of loan to assist in promoting the cooperative movement in Latin America.
- Not applicable.

AID 1240-2

34. FAA § 209; § 251(b)(8).
Information and conclusion whether assistance will encourage regional development programs, and contribute to the economic and political integration of Latin America.

The project is restricted only to the wayer supply needs of the City of Panama and is not of a regional development nature.

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

35. FAA § 251(b)(4); § 102.
Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.

Almost all of loan funds will be used for procurement of goods and services of U.S. origin through competitive bid procedures; although Code 941 procurement will be authorized.

36. FAA § 601(b). *Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).*

A U.S. engineering firm in joint venture with a Panamanian firm is currently contracted by the Borrower as a consultant on project implementation.

AID 1240-2

37. FAA § 601(d). *If a capital project, are engineering and professional services of U.S. firms and their affiliates used to the maximum extent consistent with the national interest?* Yes. See responses to items #35 and #36.
38. FAA § 602. *Information and conclusion whether U.S. small business will participate equitably in the furnishing of goods and services finance by the loan.* U.S. small business will be permitted to participate equitably through use of established rectification procedures.
39. FAA § 620(h). *Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?* No
40. FAA § 621. *If technical assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.* No use of other Federal agencies to provide technical assistance services is presently contemplated under the loan. Professional and other services will be provided under a contract basis.

AID 1240-2

41. FAA § 252(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.
- All of the AID loan funds will be used to provide goods and services from private sources.

Loan's Compliance with Specific Requirements

42. FAA § 201(d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter?
- Yes
43. FAA § 608(a). Information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.
- It is contemplated that the loan agreement will provide for the utilization of U.S. Government excess property under the appropriate circumstances.
44. FAA § 604(a). Will all commodity procurement financed under the loan be from U.S. except as otherwise determined by the President?
- Procurement under this loan is confined to the U.S., Panama, and certain developing countries as determined by the President.

AID 1240-2

45. FAA § 604(b). *What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price?* The loan agreement and implementation letters will so provide.
46. FAA § 604(d). *If the host country discriminates against U.S. marine insurance companies, will loan agreement require that marine insurance be placed in the U.S. on commodities financed by the loan?* Maximum insurance procurement requirements will be met.
47. FAA § 604(e). *If off-shore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity?* No agricultural commodity or product will be procured.
48. FAA § 611(b); App. § 101. *If loan finances water or water-related land resource construction project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962?* A benefit-cost computation has been prepared by the firm of Greeley and Hansen in accordance with the procedures set forth in this memorandum.
49. FAA § 611(c). *If contracts for construction are to be financed, what provision will be made that they be let on a competitive basis to maximum extent practicable?* Contracts for continuation will be let on a competitive basis only.

AID 1240-2

50. FAA § 620(g). *What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property?*

Loan funds are not being made available for any such purpose.

51. FAA § 612(b); § 636(h). *Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.*

The government of Panama is contributing over 30% of the project cost. The U.S. owns no local currencies that could be used for this project.

52. App. § 104. *Will any loan funds be used to pay pensions, etc., for military personnel?*

No.

AID 1240-2

53. App. § 106. *If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms?* Yes
54. App. § 108. *Will any loan funds be used to pay U.N. assessments?* No
55. App. § 109. *Compliance with regulations on employment of U.S. and local personnel for funds obligated after April 30, 1964 (Regulation 7).* Regulation & will be complied with.
56. FAA § 636(i). *Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States, or any guaranty of such a transaction?* No
57. App. § 401. *Will any loan funds be used for publicity or propaganda purposes within U.S. not authorized by the Congress?* No

AID 1240-2

58. FAA § 620(k). *If construction of productive enterprise, will aggregate value of assistance to be furnished by U.S. exceed \$100 million?* No
59. FAA § 612(d). *Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?* U.S. owns no such currency in Panama
60. MMA § 901.b. *Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately owned U.S. flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.* Will be complied with. Appropriate provisions will be included in loan agreement and implementation letters.