

**AUDIT REPORT
TO
THE CONGRESS OF THE UNITED STATES**



**UNITED STATES SECTION
INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
DEPARTMENT OF STATE**

FOR THE FISCAL YEARS ENDED JUNE 30, 1954 AND 1955

**BY
THE COMPTROLLER GENERAL OF THE UNITED STATES**

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June 4, 1956

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON 25

B-125014

JUN - 4 1956

Honorable Sam Rayburn
Speaker of the House of Representatives

Dear Mr. Speaker:

Herewith is a copy of our report on the audit of the United States Section, International Boundary and Water Commission, United States and Mexico, Department of State, for the fiscal years ended June 30, 1954 and 1955. This audit was made by our Division of Audits pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

This is our first report on the operations of the United States Section. The more important matters commented on in this report concern (1) the operation and maintenance of flood control works in the lower Rio Grande at Federal expense although these works provide substantial benefits to local interests, (2) the allocation of construction costs of the Falcon Dam Project, (3) the agreement entered into by the United States Section for the operation and maintenance of the Douglas-Agua Prieta Sanitation Project, and (4) the authorization to the United States Section for the construction, and operation and maintenance of a western land boundary fence between the United States and Mexico.

A copy of this report is being sent today to the President of the Senate.

Sincerely yours,

Comptroller General
of the United States

Enclosure

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REPORT ON AUDIT
OF
UNITED STATES SECTION
INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
DEPARTMENT OF STATE
FOR THE FISCAL YEARS ENDED JUNE 30, 1954 AND 1955

The Division of Audits, General Accounting Office, has made an audit of the UNITED STATES SECTION, INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO, for the fiscal years ended June 30, 1954 and 1955, pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

GENERAL COMMENTS

The United States Section, International Boundary and Water Commission, United States and Mexico (also referred to as United States Section), operates under the foreign policy direction of the Department of State. This activity was created by the treaty of March 1, 1889 (26 Stat. 1512), between the United States and Mexico, with jurisdiction to examine and decide questions arising on the fluvial boundary between the two countries growing out of changes in the beds of the boundary streams, works constructed in these streams, or any other cause affecting the boundary. The Commission's jurisdiction was extended to the overland boundary from El Paso, Texas, to the Pacific Ocean by the Water Treaty of February 3, 1944 (59 Stat. 1219).

The United States Section is headed by a Commissioner who is appointed by and serves at the pleasure of the President. The United States Commissioner is responsible to the Secretary of State in matters of policy. The headquarters office is located in El Paso, Texas, and eight field and seven subfield offices have been established along the United States-Mexican border. At June 30, 1955, the United States Section had 375 employees at annual salaries totaling about \$1,640,000 compared with 418 employees at annual salaries totaling about \$1,605,000 at June 30, 1954. The reduction in personnel was caused primarily by the completion of work on the construction of Falcon Dam.

PRINCIPAL FINDINGS AND RECOMMENDATIONS

The principal matters discussed in this report are as follows:

Local benefits in Lower Rio Grande Flood Control Project

The Lower Rio Grande Flood Control Project within the United States is operated and maintained by the United States Section at Federal cost, although substantial benefits are derived from the project by local interests. Existing flood control law provides generally that local flood protection works constructed by the Federal Government be operated and maintained by and at the cost of local interests. (See pp. 26 and 27.)

Allocation of the estimated construction costs of the Falcon Dam Project to purposes

Allocations of the total estimated construction cost to the United States of the Falcon Dam Project, prepared by the United States Section and reported to the Bureau of Reclamation,

do not include all costs incurred on the project, and allocations of the joint costs to the extent appropriate have not been made to all purposes served by the project.

1. The total estimated construction cost to the United States considered for cost allocation purposes does not include \$603,000 for preliminary surveys and testing costs paid from funds appropriated for construction of the Falcon Dam Project.
2. The allocation of the United States total estimated construction cost to power includes only the direct costs of specific power facilities.
3. No portion of the total estimated construction cost to the United States of the Falcon Dam Project has been allocated to irrigation, although reports of the United States Section and testimony by officials of the Section before congressional committees disclosed that considerable benefits would be derived from the project by water users in the Lower Valley in Texas.

We are recommending (1) that the United States Section include the \$603,000 for preliminary surveys and testing costs as part of the total estimated construction cost to the United States of the Falcon Dam Project, (2) that the United States Section make the allocation of the total estimated construction cost of the Falcon Dam Project so that each purpose will bear to the extent appropriate a share of the joint costs, and (3) that in the final allocation on the costs of the Falcon Dam Project an appropriate portion of the costs of the project to the United States be allocated to irrigation. (See pp. 37 to 40.)

The Zapata problem

One of the problems that has faced the United States Section in the construction of Falcon Dam and reservoir has been the relocation of communities to be inundated by the reservoir.

Principally because of uncertainties as to titles to lands required for the project, the Section concluded that the necessary rights-of-way would have to be acquired by condemnation, and condemnation proceedings were accordingly instituted in 1949. It was also the Section's view initially that in the absence of specific legislative authority, it could not undertake the moving of communities within the reservoir area to locations outside that area. However, in a letter dated May 16, 1951, regarding House bill 1649 which had been introduced in the Congress and which would have provided, among other things, for relocating residents of the reservoir area, President Truman informed the Department of State that "While I agree that the Federal Government should assist in every way possible to permit the orderly relocation of the Zapata County residents, I feel that the best way to accomplish this objective is not through special legislation but through general legislative authority which now exists." He added that it was his understanding "*** that under the terms of the Mexican Water Treaty and the provisions of Public Law 786 of the 81st Congress, the Commissioner of the United States section of the International Boundary and Water Commission can, and should, furnish all necessary assistance to the residents of the area."

A decision was then reached to relocate the affected towns and communities in a new townsite in Zapata County. The United States Section entered into an agreement with the Commissioner's Court of Zapata County, the governing body of the county, and with the Board of Trustees of the Zapata County School District to provide for the payment of compensation for the taking of

the court house, schoolhouses, and other public facilities by exchange on a new townsite of certain public buildings, schools, and facilities to replace similar improvements in the area to be inundated.

The United States Section proceeded to provide a townsite with modern public utilities and public buildings and to assist people to relocate. When the facilities were completed they were offered to, but were refused for acceptance by, the Zapata County officials. One of the reasons underlying the county's refusal to accept the completed facilities was the refusal of the United States Section to supply new furniture and equipment for the public buildings.

On March 9, 1955, the United States Commissioner wrote the Comptroller General requesting advice on the propriety of supplying furniture and equipment, at Government expense, for the public buildings, schools, and facilities constructed in the townsite of new Zapata. On June 9, 1955, the Comptroller General wrote the United States Commissioner that under the terms of the agreement there appeared no contractual requirement or obligation on the part of the International Boundary and Water Commission to supply furniture and equipment for the replaced public buildings, schools, and facilities, and that, in the absence of a legal obligation to pay for furniture and equipment, appropriations available for construction of Falcon Dam may not be used for expenditures of such nature.

In July 1955 the United States Section tendered deeds for the completed facilities in new Zapata which were accepted by the town officials. (See pp. 42 to 45.)

Settlement with Imperial Irrigation District
of California

The act of September 2, 1950 (64 Stat. 576), authorized a credit to be given the Imperial Irrigation District of California, to be applied against annual payments due from the district under a repayment contract with the United States, in an amount not greater than 80 percent of the costs incurred by the district in constructing, operating, and maintaining flood protection works located in, along, or adjacent to the Colorado River in Arizona, California, and Lower California, Mexico, not to exceed \$3,000,000. The United States Commissioner of the International Boundary and Water Commission, United States and Mexico, was designated by the act to determine the amount of the credit to be given to the Imperial Irrigation District.

On February 1, 1954, the United States Commissioner, in a report to the Secretary of State, found that a credit of \$3,000,000 to the Imperial Irrigation District of California would be equitable under the act. At June 30, 1955, credit to the Imperial Irrigation District had been withheld pending the District's submission of evidence of title and a quitclaim deed granting to the United States a right-of-way on certain levee works in California. (See pp. 48 and 49.)

Costs of operating and maintaining
sanitation projects

The United States Section has negotiated an agreement with the city of Douglas, Arizona, which provides that the city will contribute 75 percent, subject to revision every 10 years, of the annual operation and maintenance costs of the Douglas-Agua Prieta

Sanitation Project allocated to the United States by agreement with Mexico, not to exceed \$4,500. An agreement similar to that with the city of Douglas, Arizona, was in the process of being negotiated with the city of Nogales, Arizona, at March 31, 1955.

The effect of the agreements are to obligate the Federal Government, in perpetuity, to pay part of the cost of operating and maintaining the sewage treatment plants constructed for the benefit of, and without cost to, the cities of Douglas and Nogales, Arizona.

We are recommending that, if the Commission assumes responsibility for operating and maintaining these projects, the United States Section obtain full reimbursement from the cities of Douglas and Nogales, Arizona, for their share of the costs of operating and maintaining the projects. (See pp. 51 to 53.)

Transfer of responsibility for maintaining western land boundary fence

The construction and maintenance of the western land boundary fence has not been pursued with vigor and no work on construction has been done by the Section since 1951. The primary purpose of the fence is to control livestock movement across the border to protect American livestock from diseases carried by Mexican animals. The fence serves the further purpose for control of human traffic and smuggling.

The Congress may wish to review the authorization to the United States Section for construction and maintenance of the fence and, if now justified, to assign responsibility for its construction and maintenance to a Federal agency more directly concerned with responsibilities for its purposes.

(See pp. 54 and 55.)

Report on weaknesses and deficiencies
in procedures and internal controls

During our examination we observed a number of weaknesses and deficiencies in procedures and internal controls of the Section. These matters were included in a report dated September 23, 1955, to the United States Commissioner. Among the items included in the report were:

1. Need for strengthening procedures for billing, collecting, and accounting for revenues.
2. Inadequate administrative controls over warehouse stock and nonexpendable property.
3. Distribution of general office engineering and administrative expenses to benefiting activities.
4. Need for shop order system for vehicle repairs.
5. Transfer of accounting and administrative functions from Harlingen to El Paso.
6. Use of imprest cash funds and blanket purchase orders.
7. Need to properly record and distribute clearing account transactions.
8. Application of work order system not complete.
9. Accounting for depreciation of facilities.
10. Economy in use of motor vehicles and equipment.

We believe that the adoption of the recommendations contained in the report to the Commissioner will result in improved efficiency and greater economy in the operations of the United States Section.

HISTORY AND ORGANIZATION

CREATION AND JURISDICTION OF THE COMMISSION

The International Boundary and Water Commission, United States and Mexico, was created under the terms of the treaty of March 1, 1889 (26 Stat. 1512), between the United States and Mexico, which provided for the establishment of an International Boundary Commission to:

*** examine and decide *** All differences or questions that may arise on that portion of the frontier between the United States of America and the United States of Mexico where the Rio Grande and the Colorado rivers form the boundary line, whether such differences or questions grow out of alterations or changes in the (river) bed *** or of works that may be constructed *** or of any other cause affecting the boundary line ***."

Article 2 of the Water Treaty of February 3, 1944 (59 Stat. 1219), provided that:

"The International Boundary Commission established pursuant to the Convention between the United States and Mexico signed in Washington March 1, 1889 *** shall hereafter be known as the International Boundary and Water Commission, United States and Mexico ***."

* * * * *

"The Commission shall in all respects have the status of an international body and shall consist of a United States Section and a Mexican Section. *** Whenever there are provisions in this Treaty for joint action or joint agreement by the two Governments, or for the furnishing of reports, studies or plans to the two Governments, or similar provisions, it shall be understood that the particular matter in question shall be handled by or through the Department of State of the United States and the Ministry of Foreign Relations of Mexico."

Before the creation of a permanent Commission, as provided by the treaty of March 1, 1889, special commissions had been appointed by each government, in accordance with treaty provisions, to:

1. Designate the boundary line and establish landmarks showing the limits of both republics as specified in the Treaty of Peace ending the war between the United States and Mexico (treaty of February 2, 1848, 9 Stat. 922).
2. Survey and mark the boundary line as specified in the Gadsden Treaty under which the United States purchased

land from Mexico which now comprises part of the States of Arizona and New Mexico (treaty of December 30, 1853, 10 Stat. 1031).

3. Make a preliminary reconnaissance of the boundary line for the purpose of rebuilding and replacing monuments marking the boundary which had been destroyed or removed (treaty of July 29, 1882, 22 Stat. 986).

Since its creation the Commission has been empowered by treaty and national law to conduct a program of cooperative action between the United States and Mexico for the solution of joint engineering problems, including equitable division between the two countries of the waters of the Rio Grande, the Colorado, and the Tijuana Rivers, conservation and storage of these waters, flood control, sanitation hazards, and stabilization of the river boundary.

ORGANIZATION AND MANAGEMENT

The International Boundary and Water Commission, United States and Mexico, consists of a United States Section and a Mexican Section. The United States Section is headed by a Commissioner who is appointed by, and serves at the pleasure of, the President. The United States Commissioner is responsible to the Secretary of State in matters of policy. An Engineer Commissioner appointed by the President of Mexico heads the Mexican Section and is under the supervision of the Ministry of Foreign Relations in the Mexican Government.

Since the creation of the International Boundary Commission, by the treaty of March 1, 1889, only five men have served as United States Commissioners. These men and their tenures of office as Commissioners have been:

Colonel Anson Mills	October 20, 1893	- July 1, 1914
Lucius D. Hill	May 2, 1917	- June 30, 1921
George Curry	August 8, 1922	- July 1, 1927
L. M. Lawson	July 1, 1927	- February 13, 1954
Colonel L. H. Hewitt	June 17, 1954	-

From the date of resignation of Colonel Mills to the appointment of Mr. Hill, no American served as Commissioner because of the revolutionary disturbances in Mexico at that time. During the gaps between the tenures of the other Commissioners, the affairs of the Commission have been directed by an Engineer or Secretary in charge.

The United States Section consists of a headquarters office in El Paso, Texas, and eight field and eight subfield offices located along the United States-Mexican border. Field offices are located at San Diego, California, Yuma, Arizona, and El Paso,

Alpine, Del Rio, Laredo, Falcon Village, and Harlingen, Texas. Subfield offices are located at Hatch and Las Cruces, New Mexico, Nogales, Arizona, and Fabens, Fort Hancock, McAllen, Mercedes, and Brownsville, Texas. Headquarters of the Mexican Section is at Ciudad Juarez, Chihuahua, across the Rio Grande from El Paso, and several field offices are maintained by the Mexican Section.

The number of employees attached to the headquarters and field offices of the United States Section at June 30, 1955 and 1954, are as follows:

<u>Location</u>	<u>Number of employees at June 30</u>	
	<u>1955</u>	<u>1954</u>
Headquarters:		
El Paso, Texas	70	67
Field office:		
San Diego, California	12	12
Yuma, Arizona (note a)	6	6
El Paso, Texas (note b)	77	79
Alpine, Texas	5	5
Del Rio, Texas	50	48
Laredo, Texas	42	109
Falcon Village, Texas	37	19
Harlingen, Texas (note c)	<u>76</u>	<u>73</u>
Total	<u>375</u>	<u>418</u>

^a Includes employees at subfield office at Nogales, Arizona.

^b Includes employees at subfield offices in Fabens and Fort Hancock, Texas, and Hatch and Las Cruces, New Mexico.

^c Includes employees at subfield offices in McAllen, Mercedes, and Brownsville, Texas.

By ruling of the Civil Service Commission,¹ employees of the United States Section have been exempted from the provisions of the Classification Act of 1949. The Civil Service Commission's ruling was based on section 202(2) of the act which states that the act shall not apply to "positions in or under the Department

¹Letter dated February 2, 1950, addressed to the Commissioner, International Boundary and Water Commission, signed by the Chief Personnel Classification Division, United States Civil Service Commission.

of State which are (A) connected with the representation of the United States to international organizations."

Headquarters organization at El Paso, Texas

The headquarters organization consists of the office of the United States Commissioner and administrative, engineering, legal and real estate divisions.

The United States Commissioner is responsible for carrying out the provisions of treaties and national laws, as they relate to the international boundary between the United States and Mexico, in accordance with policies prescribed by the Secretary of State. Each of the headquarters divisions assists the United States Commissioner in carrying out his responsibilities by advising him on matters of finance, engineering, and law, as they relate to the activities of the Commission, and by giving technical guidance and general supervision to operations conducted by the several field offices. The number of employees in each major organization unit of the headquarters office of the United States Section at June 30, 1955 and 1954, is summarized.

	Number of employees at June 30	
	<u>1955</u>	<u>1954</u>
Office of the Commissioner	2	3
Administrative division:		
Office of the chief	3	5
Finance and accounting	8	8
Budget and audit	1	-
Procurement	7	7
Personnel	4	4
Other services	11	14
Engineering division:		
Office of the chief	3	2
Planning and engineering	17	13
Operations	2	-
Water control	9	9
Legal and real estate division	<u>3</u>	<u>2</u>
Total	<u>70</u>	<u>67</u>

Field organization

The organization of the field offices is similar to that of the headquarters office. The project or resident engineers in charge of the field offices, as well as the employees in the field offices performing functions relating to administration, engineering,

and legal and real estate, are directly responsible to, and receive technical guidance and general supervision from, the respective divisions of the headquarters office. The number of employees in each major organizational unit of the field offices of the United States Section at June 30, 1955 and 1954, is summarized.

	San Diego		Yuma (note a)		El Paso (note b)		Alpine		Del Rio		Laredo		Falcon Village		Harlingen (note c)		Total		
	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955	June 30 1954	June 30 1955
Office of the project or resident engineer	2	2	1	1	1	3			1	2	2	1	2	1	1	2	10	12	
Administrative:																			
General administration	2	2	1	1	2	1			4	3	1	2	4	3	3	2	17	14	
Finance and accounting												3			1	1	1	4	
Procurement											1	2	1		5	5	7	7	
Personnel											1	2				1	1	3	
Engineering:																			
Planning and engineering	5	5	1	1	5	5			42	40	14	62			4	3	71	116	
Operations			1	1	69	70					5	18	29	14	55	50	159	153	
Water control	3	3	2	2			5	5	3	3	11	12	1	1	7	9	32	35	
Legal and real estate	—	—	—	—	—	—	—	—	—	—	7	7	—	—	—	—	7	7	
	<u>12</u>	<u>12</u>	<u>6</u>	<u>6</u>	<u>77</u>	<u>79</u>	<u>5</u>	<u>5</u>	<u>50</u>	<u>48</u>	<u>42</u>	<u>109</u>	<u>37</u>	<u>19</u>	<u>76</u>	<u>73</u>	<u>305</u>	<u>351</u>	

^a Includes employees at subfield office at Nogales, Arizona.

^b Includes employees at subfield offices in Hatch and Las Cruces, New Mexico, and Fabens and Fort Hancock, Texas.

^c Includes employees at subfield offices in McAllen, Mercedes, and Brownsville, Texas.

Note: The decrease in the number of field employees is due principally to the completion of work on the construction of Falcon Dam.

FINANCING

APPROPRIATIONS BY THE CONGRESS

Funds required by the United States Section to carry out the activities of the Commission have been appropriated by the Congress under appropriation titles, and in amounts, as follows:

<u>Appropriation titles</u>	<u>Fiscal year 1955</u>	<u>Cumulative to June 30, 1955</u>
Salaries and expenses	\$ 453,326	\$12,670,408
Construction	300,000	64,662,960
Operation and maintenance	1,008,542	1,908,542
Rio Grande emergency flood protection	—	<u>350,100</u>
Total	1,761,868	79,592,010
Lapses and transfers	<u>1,093</u>	<u>150,590</u>
Net total	<u>\$1,760,775</u>	<u>\$79,441,420</u>

Allotments (net) of \$5,834,088 from appropriations for National Industrial Recovery Administration and Public Works Administration are not included in the above tabulation. Amounts shown as appropriations for "salaries and expenses" and "operation and maintenance" in fiscal year 1955 include \$3,326 and \$8,542, respectively, transferred from the Department of State (appropriation symbol 1951127, Missions to International Organizations, and symbol 1950545, Repayment Allowances) to cover the fiscal year 1955 costs of pay increases enacted by the Congress. The transfers of funds were made in accordance with title II of the act of June 30, 1955 (69 Stat. 238).

Funds appropriated by the Congress for construction and Rio Grande emergency flood protection remain available to the United States Section until fully expended or rescinded. Funds appropriated for salaries and expenses and operation and maintenance are available for obligation only in the fiscal year for which the funds are appropriated. To June 30, 1955, amounts totaling \$117,593 for salaries and expenses and \$32,996 for construction lapsed or were transferred.

Appropriations for salaries and expenses have been made annually to the United States Section since the creation of the permanent Commission in 1889 and are used to finance general administrative and engineering costs incurred at the El Paso headquarters office. These appropriations finance also the costs incurred in making preliminary surveys and investigations which serve as a basis upon which authorizations for the construction of specific projects or facilities are granted.

Appropriations for construction are made to the United States Section to finance the costs of facilities to be constructed as part of approved projects undertaken to (1) provide flood protection and to conserve water, (2) correct sewage problems which result in the pollution of domestic water supplies and other health hazards, and (3) erect fences and monuments to mark the boundary line between the United States and Mexico. Before fiscal year 1948 separate appropriations of construction funds were made by the Congress for each approved project. Beginning in fiscal year 1948 funds for construction are provided by a single appropriation for construction.

Appropriations for operation and maintenance were made initially in fiscal year 1954 to finance costs incurred in the operation and maintenance of completed construction projects and completed integral segments of projects under construction. Before fiscal year 1954 operation and maintenance activities were financed from the salaries and expense and construction appropriations.

Appropriations for Rio Grande emergency flood protection were provided to pay the costs of emergency flood control work, including protection, reconstruction, and repair of all structures under the jurisdiction of the United States Section in the Rio Grande Canalization, Rio Grande Rectification, and Lower Rio Grande Flood Control Projects.

In fiscal year 1956 the United States Section obtained appropriations of \$435,000 for salaries and expenses and \$1,200,000 for operation and maintenance under the Departments of State and Justice, the Judiciary, and Related Agencies Appropriation Act, 1956 (69 Stat. 264).

REVENUES AND DISPOSITION

All revenues collected by the United States Section, except those for rental of quarters at Fort McIntosh (Laredo), Texas, and Falcon Village, Texas, are covered into the United States Treasury as miscellaneous receipts. The budget presentations prepared by the United States Section provide for a reduction in the amount of funds requested for construction and operation and maintenance in the amount of the estimated revenue from rental of quarters at Fort McIntosh and Falcon Village, respectively.

The act of June 18, 1954 (68 Stat. 255), provides that:

**** the electric power and energy generated at Falcon Dam *** shall be delivered to the Secretary of the Interior *** who shall transmit and dispose of such power and energy ***. Rate schedules shall be drawn having regard to the recovery *** of the cost of producing and transmitting such electric energy, including the amortization of the capital investment allocated to power

by the Secretary, in collaboration with the Secretary of State, over a reasonable period of years.

* * * * *

"Sec. 2 All receipts from the sale of electric power and energy *** shall be covered into the Treasury of the United States to the credit of miscellaneous receipts ***."

After the passage of the above act the Secretary of the Interior designated the Bureau of Reclamation, Department of the Interior, as the agency to market power generated at Falcon Dam. Beginning in October 1954, power generated at Falcon Dam was sold under an interim contract negotiated by the Bureau of Reclamation and the Central Power and Light Company of Corpus Christi, Texas. Each month the Bureau deposits the proceeds from sales of power, generated at Falcon Dam attributed to the United States Section, to a miscellaneous receipts account in the United States Treasury. Revenues from sales of power generated at Falcon Dam through June 30, 1955, totaled \$249,105.

SOURCE AND APPLICATION OF FUNDS

A condensed statement of sources and application of funds is given below.

	Fiscal year <u>1955</u>	Cumulative to June 30, <u>1955</u>
Sources of funds:		
Appropriations by the Congress, net	\$1,760,775	\$79,441,420
Allotments of appropriations for NIRA and PWA, net	-	5,834,088
Contributions in aid of construc- tion	-	212,906
Revenue from sales of power	<u>249,105</u>	<u>249,105</u>
Total	<u>\$2,009,880</u>	<u>\$85,737,519</u>
Application of funds:		
Costs of property, plant, and equipment, including surveys and investigations, less retirements, sales, and other dispositions	\$1,448,525	\$59,223,028
Costs of operation, maintenance, and administration of non- revenue-producing operations, net	1,259,323	20,427,766
Costs of operating and maintaining Falcon power plant	80,789	80,789
Revenues and other collections de- posited with U.S. Treasury	228,910	275,603
Transfers of property or costs, net	<u>-308</u>	<u>1,880</u>
	3,017,239	80,009,066
Less amounts included above for depreciation of fixed assets	<u>6,884</u>	<u>483,901</u>
	3,010,355	79,525,165
Increase in net working assets	<u>-1,000,475</u>	<u>6,212,354</u>
Total	<u>\$2,009,880</u>	<u>\$85,737,519</u>

ACTIVITIES

Activities of the United States Section comprise primarily the carrying out jointly with Mexico the investigation, construction, and operation and maintenance of projects for flood control, conservation, storage and equitable distribution of water, stabilization of the river boundaries, and sanitation as a result of treaty obligations with Mexico.

The cost of construction, including investigations, under these activities in fiscal year 1955, and cumulative costs to June 30, 1955, are as follows:

	<u>Fiscal year</u> <u>1955</u>	<u>Cumulative</u> <u>to</u> <u>June 30, 1955</u>
El Paso-Rio Grande Projects	\$ 24,919	\$19,752,359
International Dams Program on the Rio Grande	1,330,745	36,014,410
Lower Colorado River Flood Control Program	48,141	590,532
Nogales Flood Control Project	-83	815,946
Douglas Flood Control Project	-4,720	-
Sanitation projects	16,413	802,325
Western Land Boundary Fence Project	-	765,789
Water Control and Distribution Program	1,423	104,107
Tijuana River Development Project (preliminary surveys)	11,876	111,145
Santa Cruz River Development Project (preliminary surveys)	6,782	89,574
General property and equipment	<u>13,029</u>	<u>176,841</u>
Total	<u>\$1,448,525</u>	<u>\$59,223,028</u>

The adjusted cumulative costs at June 30, 1955, are classified as plant in service (\$22,638,440), construction work in progress (\$34,499,711), and preliminary surveys and investigations (\$2,084,877).

The records of the United States Section do not permit a tabulation of the cumulative costs of operation and maintenance by the several activities of the Section. For the fiscal years 1955 and 1954 the United States Section records showed revenues and costs classified as operation and maintenance, as follows:

	<u>Fiscal year</u>	
	<u>1955</u>	<u>1954</u>
<u>Power operations</u>		
Revenue from sales of power	\$ 249,105	\$ -
Costs of operating and maintaining Falcon power plant	<u>80,789</u>	<u> </u>
Excess of revenues over costs	<u>\$ 168,316</u>	<u> </u>
<u>Non-revenue-producing operations</u>		
Miscellaneous collections (rental of land and facilities, sales of scrap, salvage, equipment, and the like)	<u>\$ 19,818</u>	<u>\$ 15,537</u>
Operating expenses:		
El Paso Projects--canalization and rectification	357,107	383,196
Lower Rio Grande--flood control and bank protection	203,034	279,385
International water control and hydro-graphic studies	210,451	199,141
Falcon Dam--multipurpose plant	<u>97,855</u>	<u>43,351</u>
Total for operating activities	868,447	905,073
General office engineering expenses	72,441	117,704
General administrative expenses	<u>248,303</u>	<u>231,865</u>
Total operating expenses	<u>1,189,191</u>	<u>1,254,642</u>
Net operating expenses	1,169,373	1,239,105
Net adjustments to current and prior year costs, not classified by activity	<u>89,950</u>	<u>-64,185</u>
Net increase in nonreimbursable costs for the period	<u>\$1,259,323</u>	<u>\$1,174,920</u>

General office engineering and general administrative expenses have not been apportioned to the United States Section's operating activities.

EL PASO-RIO GRANDE PROJECTS

The solution of common problems of flood control on the Rio Grande is one of the more significant responsibilities imposed by treaty provisions upon the Commission. Under this program the Commission has investigated and constructed and is operating a number of flood control and other purpose projects on the Rio Grande.

Projects that are classified as a part of the El Paso-Rio Grande Projects, and total costs incurred by the United States Section in investigation and construction in fiscal year 1955, and cumulative costs to June 30, 1955, are as follows:

	Fiscal year <u>1955</u>	Cumulative to <u>June 30, 1955</u>
Canalization and Rectification Projects	\$ 2,693	\$ 8,896,601
Lower Rio Grande Flood Control Project	7,037	10,574,506
Rio Grande Bank Protection Project	3,807	240,088
Anzalduas Dam	<u>11,382</u>	<u>41,164</u>
Total	<u>\$24,919</u>	<u>\$19,752,359</u>

The adjusted cumulative costs at June 30, 1955, are shown in the records of the United States Section as plant in service (\$19,711,195), construction work in progress (\$39,508), and preliminary surveys and investigations (\$1,656). With the exceptions of the Anzalduas Dam and appurtenant works, estimated to cost \$4,319,416, all of the works of the El Paso-Rio Grande Projects have been constructed.

The United States Section's major expenditures for operation and maintenance are incurred on the El Paso-Rio Grande Projects. Operation and maintenance of the canalization and rectification works from Caballo Dam in New Mexico, upstream on the Rio Grande about 110 miles from El Paso, and downstream about 85 miles to Quitman Canyon, Texas, cost \$357,107 in fiscal year 1955 and \$383,196 in fiscal year 1954. Operation and maintenance work in the Harlingen, Texas, area, principally maintenance of interior and river floodways and levees, cost \$203,034 in fiscal year 1955 and \$279,385 in fiscal year 1954.

Canalization Project

The act of June 4, 1936 (49 Stat. 1463), authorized construction of the Canalization Project on the Rio Grande. The purposes of this project were (1) to enable the United States to effectively

control deliveries of 60,000 acre-feet of water allotted annually to Mexico under the provisions of the treaty of May 21, 1906 (34 Stat. 2953), and (2) to reduce the danger of flood in areas along the Rio Grande between the site of Caballo Dam in New Mexico and El Paso, Texas. Other benefits resulting from this project were the additional points of access across the river made possible by bridges constructed over the canalized channel of the Rio Grande and improved water supplies to irrigation systems in the area.

The principal features of the project consist of the American Dam at El Paso, Texas, and the canalized channel of the Rio Grande which extends 110 river miles upstream from American Dam to Caballo Dam in New Mexico.

American Dam is a diversion dam located wholly within the United States. At this dam the 60,000 acre-feet of water allotted to Mexico annually is released into the Rio Grande for diversion downstream at the International Dam into the Old Mexican Canal near Juarez, Mexico. The waters of the Rio Grande allotted to the United States are diverted at American Dam into a canal which runs parallel to the Rio Grande and furnishes water for irrigation to farms in the El Paso Valley area.

The channel canalization feature of the project consists of a low water channel, formed by modifying the river's natural course by excavating and installing revetment and jetties, and a flood channel formed by levees set back on both sides of the low water channel. Other works constructed as part of the channel canalization feature included wasteways, culverts, and bridges installed in the levees.

Construction of the project features began in 1938 and was substantially completed by 1943. In 1947, with the completion of certain bridges over the Rio Grande, construction of the project was finally completed.

Rectification Project

The treaty of February 1, 1933 (48 Stat. 1621), signed by the United States and Mexico, authorized the joint construction of the Rectification Project. The purposes of this project were to (1) provide flood protection and (2) to stabilize the international boundary between El Paso and Fort Quitman, Texas. Incidental benefits resulting from this project included a betterment of irrigation and drainage conditions to about 178,000 acres of valley lands in both countries, the construction of three toll-free bridges across the Rio Grande which provide access from one country to the other, and the simplification of the work of Federal agencies of both countries responsible for enforcing immigration laws.

Project works consist of Caballo Dam in New Mexico, 85.6 miles of rectified channel between El Paso and Fort Quitman, Texas,

flood levees, and bridges, grade control, and miscellaneous structures. In addition to project works constructed jointly by the United States and Mexico, each country built, at its own expense, irrigation canals and laterals and intercepting drains along the land side toe of levees on the rectified channel.

The construction of Caballo Dam was performed under the direction of the Bureau of Reclamation, Department of the Interior. The dam provides a 350,000 acre-foot reservoir, of which 100,000 acre-foot capacity is reserved for flood control purposes. The remaining capacity was provided for use by the Bureau of Reclamation as a recapture reservoir for releases of water from Elephant Butte Dam. This structure enabled the development of firm power generation at Elephant Butte Dam. Caballo Dam also provides greater control over irrigation water releases since it is located only a few miles upstream from the head of irrigation works.

The allocation of costs of the project between the United States and Mexico was based on the benefits to be derived from the project by each country. On this basis, 88 percent of the project costs were borne by the United States and 12 percent were borne by Mexico.

The United States Section transferred \$1,512,400 to the Bureau of Reclamation to pay the estimated cost of a dam required to create a 100,000 acre-foot flood control reservoir. Funds required to increase the height of the dam to create a 350,000 acre-foot reservoir were appropriated to the Bureau of Reclamation.

Construction of the project works began in 1934 and was substantially completed by 1938. In 1943 the construction of supplemental works to correct erosion and meandering of the pilot channel was begun and continued until 1950.

Operation and maintenance of the Canalization and Rectification Projects

Operation and maintenance activities consist of a number of work items, the more important of which are classified as clearing of floodways, levees, and channels; levee road maintenance; earthwork; revetment placement; canal and structure maintenance; floodway leveling; and surveying, planning, and other work.

Clearing of floodways, levees, and channels

This activity consists of the removal of brush and weeds growing on the levees and in the floodways and channel proper which impede the passage of water. Obstructions of this type are cleared so as to maintain design capacities of the project works.

Levee road maintenance

This activity consists of resurfacing 218 miles of levee roadways on a cycle basis every 10 to 12 years. Levee roads are used in transporting maintenance crews and equipment and in patrolling the project works.

Earthwork

This activity consists principally of the removal, by mechanical means, of silt, sand, and gravel which is carried by the waters of the Rio Grande and deposited in the pilot channel. These deposits form sand bars which cause the water carried by the channel to meander from side to side.

Revetment placement

This activity consists of trimming and filling eroded channel banks to bring them to their proper grade and alignment and then lining the banks with rock and other materials to prevent erosion. This work is done to maintain a stable and functional river channel.

Canal and structure maintenance

This activity consists of continuing general maintenance of about 15 miles of canals and 150 structures of various types on the projects, including 2 diversion dams (International Dam and American Dam), 3 river bridges, and numerous culverts and timber bridges.

Floodway leveling

This activity consists of the filling of gullies cut in the floodways by water overflowing the river channel and the leveling of sand dunes formed in the floodways. The floodways are kept level to enable flood waters to be carried off and to enable maintenance crews and equipment to traverse the floodways when clearing brush, weeds, and other obstructions.

Surveying, planning, and other work

This activity consists of surveying and collecting field data used in planning operation and maintenance work, maintaining and replacing equipment, and trapping and poisoning gophers whose tunnels damage levees and dykes.

Maintenance work not performed by Mexico

The Mexican Section of the Commission has not performed the maintenance work assigned to it on the Rectification Project, and as a result the danger of floods to both United States and Mexican lands bordering the project has increased.

In the past 17 years essentially no maintenance work has been performed by the Mexican Section. Since 1950 the United States Section has assumed the full responsibility and cost of maintaining and keeping strategic areas of the rectified low water channel free of obstructions although by agreement each country is required to maintain that half of the channel located within its border. The Mexican Section has allowed floodway areas between the river boundary and the Mexican levee to grow thick with brush in violation of Minute of Agreement No. 165, dated August 13, 1938, which reads in part:

"*** the required maintenance and preservation of the rectified channel will include the *** annual clearing of the entire right of way to insure a continued maximum flow capacity ***."

In July 1954 the United States Commissioner met with the Mexican Commissioner to discuss a number of Commission matters. At that meeting the United States Commissioner stressed the danger of flood caused by the Mexican Section's failure to keep its floodways clear of brush and other obstruction. On August 9, 1954, the United States Commissioner wrote the Mexican Commissioner on the same matter. In a letter dated August 24, 1954, the Mexican Commissioner gave assurance to the United States Commissioner that beginning next year his Government would allot funds necessary for performing maintenance work assigned to Mexico. We were informed by officials of the United States Section that the Mexican Section had received funds in fiscal year 1956 and was now performing the maintenance work assigned to it on the Rectification Project.

Lower Rio Grande Flood Control Project

An exchange of notes in 1932 between the United States and Mexico authorized the construction of flood protection works on the Lower Rio Grande, each country agreeing to perform work within its own border at its own expense. The Lower Rio Grande Flood Control Project extends from the town of Penitas, Texas, to the Gulf of Mexico, a distance of about 180 river miles. It provides flood protection to highly developed agricultural areas in both countries as well as the large towns of Brownsville, Harlingen, and McAllen, Texas, and Reynosa and Matamoros, Tamaulipas, Mexico.

The project works consist of a main river levee about 88 miles in length, 137 miles of off-river floodways which are bordered by 168 miles of levees, 31 timber bridges, 652 irrigation and

structure drains, and 411 cattle guards installed in the floodways. Part of the project works consisted of the revetment of the banks of the river.

River discharges in the Lower Rio Grande are erratic, varying in periods from little flow to floods of nearly 200,000 second-feet of water. Following a flood in 1922, Cameron and Hidalgo Counties, Texas, started to construct flood protection works based on a plan devised by the Bureau of Reclamation. By 1930 the counties had partially completed the works at a cost in excess of \$5,000,000. It was then concluded that adequate flood protection could be obtained only with the cooperation of Mexico.

In 1930 the International Boundary Commission was authorized to develop an international plan for flood control. The plan developed by the Commission was similar to that which had been devised by the Bureau of Reclamation. After the exchange of notes between the United States and Mexico in 1932, construction of project features was started by the United States Section with funds appropriated to the Public Works Administration in fiscal year 1934.

Under the provisions of the act of August 19, 1935 (22 U.S.C. 277-277d), the United States Section was given the authority, through the President and the Secretary of State, to construct, operate, and maintain all works or projects recommended for the Rio Grande River below Fort Quitman, Texas.

The construction of project works was completed by the Commission in 1951, with the exception of Anzalduas Dam and its appurtenant works. (See p. 28.)

Operation and maintenance of the Lower Rio Grande Flood Control Project

Operation and maintenance activities consist of a number of work items, the more important of which are classified as clearing of floodways and levee areas, levee reconditioning and levee road maintenance, structure maintenance, and surveying and planning. Work performed under each activity is similar to that described for activities carried out in operating and maintaining the Canalization and Rectification Projects. (See pp. 23 and 24.)

Costs to the United States Section of the Commission for operating and maintaining the Lower Rio Grande Flood Control Project were \$203,034 in fiscal year 1955 and \$268,248 in fiscal year 1954.

Local Benefits in Lower Rio Grande Flood Control Project

The Lower Rio Grande Flood Control Project is comprised of river levees, overflow floodways, and certain river bank stabilization and revetment. Although the work has international

considerations, each nation does its own work. The benefits from the work of each inures almost wholly to the respective nations and are largely local in effect. The local interests characteristic of the Lower Rio Grande Flood Control Project are substantial, as disclosed by these factors:

1. The United States Government through the United States Section has only easements to the floodway lands, and the floodways are farmed by the owners, in many cases intensively.
2. The channels in the floodways are used for drainage of irrigation waste waters of users outside the floodways.
3. The irrigation waste waters of users outside the floodways are used by irrigators within the floodways.
4. The irrigation drains serve to carry off excess waters from heavy rains that might occur.
5. Substantial reaches of the river levees and some reaches of the floodway levees also serve as embankments for irrigation canals.
6. The river levees and floodways have permitted intensive local development relatively free from hazards of extensive flood damage.
7. The construction of Falcon Dam has materially reduced the frequency of occurrence of the design floods requiring the river levees and floodways within the United States below Falcon Dam. There are no main streams entering the Rio Grande below Falcon Dam from the United States. On the Mexican side, Rio Alamo and Rio San Juan enter the Rio Grande below Falcon Dam. The Rio Alamo is highly erratic. Mexico has constructed, for water conservation exclusively, the Morte R. Gomez Dam and Reservoir on the Rio San Juan.

For local flood protection work, existing flood control law provides generally that local interests shall furnish free of cost to the United States all lands and rights-of-way required, alter and relocate highway bridges and certain other public utilities, hold the United States free from damages, and undertake to maintain and operate the project after completion. In the case of the Lower Rio Grande Flood Control Project, the maintenance is accomplished at Federal cost.

Rio Grande Bank Protection Project

The Rio Grande Bank Protection Project was authorized by the First Deficiency Appropriation Act, 1945 (59 Stat. 89). The purpose of the project was to correct and arrest bank erosion on the

north bank of the Rio Grande from the west boundary of Hidalgo County, Texas, to a point near the Gulf of Mexico beyond the city of Brownsville, Texas. The reach of river included by the project is about 200 miles in length.

Project works consist of 15,005 linear feet of bank revetment installed at nine critical points on the north bank of the Rio Grande where erosion imperiled existing improvements, 868 linear feet of special bank protection works at the city of Brownsville, and river bank and levee stabilization at Fort Brown. Construction of the project was started in 1945 and completed in 1952.

Anzalduas Dam

Anzalduas diversion dam was authorized for construction by the act of August 19, 1935, but has not been built. The dam is to be located on the Rio Grande near Mission, Texas, and it will be an integral part of the Lower Rio Grande Flood Control Project. The dam will provide the means for controlling flood waters of the Rio Grande by diverting them to off-river floodways and to the Anzalduas Canal in Mexico, thereby limiting the possibility of floods in the river above the city of Brownsville, Texas.

Based on existing plans, prepared by the Ministry of Hydraulic Resources of Mexico, the dam will be 540 feet wide between abutments and 140 feet in length along the Rio Grande. In accordance with Minute of Agreement No. 196, dated December 18, 1950, the cost of constructing the dam will be divided equally between the United States and Mexico. The cost of any additional improvements constructed by either country shall be the expense of the country in which the works are located.

At June 30, 1955, plans for the dam, cost estimates, and allocations of work items to the United States and Mexican Sections of the Commission had not been approved. An estimate of the cost of Anzalduas Dam contained in Minute of Agreement No. 196 shows the total cost to be \$5,250,000, of which the United States share is \$2,625,000. In addition to the dam, it is estimated that the cost of floodway improvements (\$1,072,888) and appurtenant works (\$621,528) to be constructed by the United States will increase the total estimated construction cost to the United States to \$4,319,416.

Rio Grande Emergency Flood Protection

The Department of State Appropriation Act, 1945 (58 Stat. 404), provided \$100,000 to remain available until expended for emergency flood control work including the protection, reconstruction, and repair of all structures under the jurisdiction of the United States Section, threatened or damaged by flood waters of the Rio Grande. The provisions of the act enable the United States Section to make emergency repairs to levees and structures under its jurisdiction without the need for obtaining special authorizations and funds from the Congress as each emergency arises.

In the years 1947-53 appropriations by the Congress have been made to provide \$200,000 at the beginning of each fiscal year to the United States Section for emergency flood protection work. Appropriations were not received for fiscal years 1954 and 1955, however, and at June 30, 1955, an unobligated balance of \$115,750 was available to the United States Section for emergency flood protection work.

INTERNATIONAL DAMS PROGRAM ON THE RIO GRANDE

The Water Treaty of February 3, 1944 (59 Stat. 1219), provided, in part, for an equitable distribution of the waters of the Rio Grande, below Fort Quitman, Texas, between the United States and Mexico. To achieve this aim, and also to obtain the maximum use of the waters of the Rio Grande, article 5 of the treaty authorized the joint construction of three major international storage dams on sections of the main channel of the Rio Grande between Santa Helena Canyon and the mouth of the Pecos River (upper river dam), Eagle Pass and Laredo (middle river dam), and Laredo and Roma (lower river dam). Provision was made, however, that one or more of the dams may be omitted and others built as determined by the International Boundary and Water Commission, subject to the approval of the two governments. The study, investigation, construction, and operation and maintenance of the dams, reservoirs, power plants, and incidental and appurtenant works at these sites in the international reach of the Rio Grande comprise the International Dams Program on the Rio Grande.

The treaty provided that the cost of construction, and operation and maintenance of each of the international storage dams shall be prorated between the two governments in proportion to the reservoir capacity allotted to each country for water conservation purposes. The treaty further provided that the cost of construction, and operation and maintenance of each of the dams and other joint works required for the diversion of the flows of the river shall be prorated between the two governments in proportion to the benefits which the respective countries receive therefrom as determined by the Commission and approved by the two governments.

The construction of the lower river dam, Falcon Dam, has been completed. Falcon Dam was dedicated October 19, 1953, by President Eisenhower of the United States and President Adolfo Ruiz Cortines of Mexico. Commercial operations of the power plants at Falcon Dam began in October 1954.

In the opinion of the United States Section, the construction of a major storage dam in the middle section of the Rio Grande would not be practical because of water seepage and evaporation losses. No formal decision has been reached by the Commission, however, on the middle river dam. Extensive investigations, started in 1948 to determine the most suitable location and the most economical and advantageous type of dam to construct in the upper section of the river, are expected to be completed in fiscal year 1956.

Upper river dam

In September 1948 the Commission initiated a comprehensive program of investigations of the relative merits of all probable dam sites in the entire reach of the Rio Grande from Fresno Creek downstream to Del Rio, Texas, a distance of 345 miles. (Del Rio is about 40 miles below the mouth of the Pecos River.) As part of the investigation program a total of 45 prospective dam sites were studied.

Principal elements of the preliminary investigation program consisted of topographic and geologic surveys, hydrologic research, and engineering-economic studies. Engineering designs and economic studies were made for each of the most promising dam sites. This initial phase of the preliminary investigation program culminated in a staff report prepared by the United States Section which described the nature and scope of the investigation work performed and the conditions found at each of the dam site locations investigated.

In November 1952 the staff report was presented to the Mexican Section for review and comment. This report was subsequently discussed at a joint meeting of the two Sections on July 11, 1953, at which the Mexican Section gave general concurrence to the report. Based on decisions reached at the July 1953 meeting, it was agreed to intensively investigate four sites, known as the Diablo sites, just below the confluence of the Devils River with the Rio Grande. In addition, a recommendation was made that preliminary engineering-economic studies be made of the four Diablo sites and of the various construction-type dams, to determine which location and type of dam would be the most economical and advantageous for flood control, water conservation, and power generation purposes. These studies were completed and the results and findings were presented to the two Sections of the Commission at a joint engineering conference on December 17, 1954.

One of the Diablo sites was proposed as the most desirable location for construction of the dam, and additional studies were requested for the purpose of determining the most economical type of dam to be constructed. This phase of the investigation is not expected to be completed until June 1956. Additional funds have not been requested for this phase of the project in fiscal year 1956.

The total cost of investigations for the Upper River Dams Project was \$1,408,238 through June 30, 1955.

Middle river dam

Joint preliminary investigations of several possible dam sites on the Rio Grande between Eagle Pass and Laredo, Texas, were made by the Commission after the ratification of the Water Treaty of 1944. Based on these preliminary studies, the United States Section believes that seepage and evaporation losses from a major storage reservoir at any of the possible dam site locations within this section of the Rio Grande would be excessive and that the construction of a major storage dam would result in a waste of water rather than conserving it for beneficial uses. No formal decision has been reached by the Commission, however, on the middle river dam.

Data on the costs incurred in conducting investigations of the middle river dam were not readily available from records maintained by the United States Section.

Falcon Dam and power plant

Article 5 of the Water Treaty provided that the first of the international storage dams was to be constructed in the section of the Rio Grande between Laredo and Roma, Texas. This article provided also that construction was to start within 2 years following the approval of the respective plans by the two governments and be completed within a period of 8 years after the effective date of the Water Treaty.

Minute 187 of the Commission, dated December 20, 1947, specified the Falcon Dam site as the site of the lower dam, and Minute 192, dated September 7, 1949, outlined the general plan of the dam and made an allocation of the construction work to each country. By the act of October 5, 1949 (63 Stat. 701), congressional approval was given to the negotiation of an agreement for the joint construction, operation, and maintenance of facilities for generating hydroelectric energy at Falcon Dam by the United States and Mexican Sections. Following the approval of Minute No. 192 by the two governments, detail plans and specifications for the dam and power plants were prepared by the Bureau of Reclamation, Department of the Interior, as agent for the Commission.

Actual construction of Falcon Dam was started in December 1950 and was substantially completed by the treaty date, November 8, 1953. The total cost of Falcon Dam and power plant to the United States to June 30, 1955, was \$34,606,172. The cost upon completion is estimated to be \$37,650,000.

The plan followed in construction

Article 5 of the Water Treaty provided that the cost of construction of each of the international storage dams shall be prorated between the United States and Mexico in proportion to the amount of conservation storage capacity of the reservoir allotted to each country. The conservation storage capacity of Falcon Reservoir allotted to the United States and to Mexico, as agreed upon in Minute 187 of the Commission, dated December 20, 1947, was 1,230,600 acre-feet (58.6 percent) and 869,400 acre-feet (41.4 percent), respectively. On this basis, 58.6 percent of the construction cost of the dam was to be financed by the United States and 41.4 percent was to be financed by Mexico. Article 7 of the Water Treaty provided that the cost of power plants proposed for construction at each of the international storage dams was to be prorated equally between the two governments.

In Minute 190, dated August 13, 1948, the United States and Mexican Sections agreed that the provisions of article 5 of the Water Treaty relating to the proration of construction costs between the two governments could best be effected, and construction of the project could best be expedited, by allocating construction work items to each Section on the basis of estimated project costs to be financed by each government. The construction cost of Falcon Dam and power plants was estimated to be \$46,065,000.

The allocation of the estimated total cost between the United States and Mexico, as provided by Minute 192 of the Commission, dated September 7, 1949, follows.

	<u>Total</u>	<u>United States</u>	<u>Mexico</u>
Cost of dam	\$33,407,000	\$19,576,500	\$13,830,500
Cost of power plants	<u>12,658,000</u>	<u>6,329,000</u>	<u>6,329,000</u>
Total	<u>\$46,065,000</u>	<u>\$25,905,500</u>	<u>\$20,159,500</u>

The construction work was divided into two schedules. Schedule No. 1 covered all work allocated to the United States for performance by the United States Section and amounted to an estimated cost of \$25,905,500. Schedule No. 2 included all work allocated to Mexico for performance by the Mexican Section and amounted to an estimated cost of \$20,159,500. Through this allocation each country financed its share of the cost of the dam and power plant in accordance with the provisions of the Water Treaty relating to proration of construction costs between the two countries. Construction was performed under separate contracts awarded by the United States Section of the Commission to an organization of United States firms known as the Falcon Dam Constructors and by the Mexican Section and the Ministry of Hydraulic Resources to a Mexican firm called Constructora Intercontinental, S.A. Falcon Dam Constructors is an organization of United States firms, which through means of a holding company organized under the laws of the State of Delaware owns the Mexican firm, Constructora Intercontinental, S.A. All work was supervised by the Commission, with each Section exercising direct supervision over the work performed under the contracts awarded by it.

Physical characteristics of dam and power plant

Falcon Dam is located on the Rio Grande about 130 miles upstream from Brownsville, Texas (Matamoras, Tamaulipas, Mexico), and about 75 miles downstream from Laredo, Texas (Nuevo Laredo, Tamaulipas, Mexico). The dam is 26,294 feet long (about 5 miles) and has a maximum height of 150 feet. When filled to its capacity of 4,085,000 acre-feet of water, the reservoir formed behind the dam is about 60 miles long and 11 miles wide.

Two power plants, one on each side of the river, are identical in equipment and generating capacity. Each power plant contains three vertical-shaft, single-runner, Francis-type turbines (each of which develops 14,750 hp at a rated head of 100 feet and a speed of 163.6 rpm) and three 3-phase, 60-cycle, vertical water wheel generators (rated at 10,500 kw, 6,900 volts). The hydroelectric power facilities of the two power plants have a total installed capacity of 63,000 kilowatts. Each power plant has a centralized control room with separate and independent facilities. The two power plants are interconnected for transfer of electric

energy from one to the other. The generation from each power plant is combined and the total combined generation is divided equally between the United States and Mexico. From the United States share of the total power generation, deductions are made for station service, local use, and one-half of total transmission loss. The remaining United States portion of the energy generated is available for delivery to the Bureau of Reclamation which markets the electric power generated at Falcon Dam.

Marketing operations

The act of June 18, 1954, authorized the Secretary of the Interior to market electric power generated at Falcon Dam which is available to the United States and not required in the operation of the project. The Secretary of the Interior delegated the authority given him by the act to the Bureau of Reclamation, by Secretarial Order No. 2765, dated July 30, 1954.

On October 1, 1954, the Bureau negotiated an interim contract with the Central Power and Light Company of Texas for the sale of power generated at Falcon Dam during the period October 1, 1954, through June 30, 1955. The contract provides that the company take delivery of power at the Falcon Dam switchyard and that the Bureau be paid a dump energy rate of 2.7 mills for each kilowatt-hour of energy delivered to the company. We were informed that by the expiration date of this contract, June 30, 1955, the Bureau was to have determined the classes of power available for marketing, and appropriate power rate schedules were to have been prepared. Before the expiration of the interim contract and the submission of power rate schedules to the Federal Power Commission for approval, the Solicitor of the Department of the Interior decided that in order for the Secretary of the Interior to comply with provisions of the act of June 18, 1954, a review of cost allocation data submitted by the United States Section would have to be made. To provide the Bureau of Reclamation with sufficient time to obtain and review additional cost allocation data necessary in the preparation of power rate schedules, the interim contract was extended through December 31, 1955.

At June 30, 1955, negotiations were being conducted by the United States Section with the Mexican Section to obtain an agreement with the Mexican Government to use downstream Mexican reservoirs to store off-peak irrigation water releases from Falcon Dam. The effect of such an agreement would be to permit the generation of some firm power at Falcon Dam. This in turn would require revision of power rate schedules which were in the process of being prepared by the Bureau based on the generation of dump energy only at Falcon Dam.

At the completion of our audit the Bureau had not completed its review of cost allocation data, nor had agreement been reached with Mexico for the storage of off-peak irrigation water releases.

Officials of the Bureau of Reclamation were of the opinion that an extension of the interim contract beyond December 31, 1955, would be necessary to enable the Bureau to complete the review of cost allocation data and to establish power rate schedules. Any delays in reaching agreement with Mexico for the storage of off-peak irrigation water releases will delay the Bureau's completion of power rate schedules for submission to the Federal Power Commission for approval. We were informed also that, in view of the proposed construction of the Diablo Dam Project by the Commission, the Bureau plans to negotiate another interim contract for a period of about 5 years.

The installation and testing of the generating units in the power plants were completed during the early part of fiscal year 1955, and the first generator was placed in commercial operation October 11, 1954.

A condensed statement of the results of power operations for fiscal year 1955, as shown in schedule 2 (p. 68), is as follows:

Revenues from sales of electric energy		\$249,105
Operation and maintenance expenses:		
Operation expenses	\$53,092	
Maintenance expenses	<u>27,697</u>	<u>80,789</u>
Net income from power operations before deductions for interest on investment and depreciation of power facilities		<u>\$168,316</u>

The receipts from the sale of the United States portion of the electric energy generated at the Falcon Dam power plants are collected by the Bureau of Reclamation and deposited into the United States Treasury as miscellaneous receipts. The United States portion of expenses of operating and maintaining the power plants are financed from annual appropriations to the United States Section by the Congress.

The United States Section has recorded no deductions from revenues for interest on the power portion of the United States Government's investment in the Falcon Dam Project and depreciation of power facilities. Officials of the United States Section consider interest on the power investment to be a proper charge; however, such a deduction will not be made until the allocation of construction costs to purposes are finalized. Likewise, a deduction for depreciation of power facilities will not be made until construction costs of Falcon Dam and power plant are classified in the plant in service accounts. We were informed by officials of the United States Section that the classification of construction costs in the plant in service accounts is expected to be completed by January 1956. At that time depreciation on power facilities will be computed and recorded in the accounts retroactive to October 11, 1954, the date commercial power operations began.

Reconciliation of gross generation and sales--A reconciliation of gross generation and sales for fiscal year 1955 is as follows:

	<u>Kilowatt- hours</u>
Gross generation:	
United States plant	93,916,900
Mexican plant	<u>95,214,000</u>
Total	189,130,900
Less Mexico's share of gross generation	<u>94,565,450</u>
United States share of gross generation	94,565,450
Less:	
Station service use	763,500
Local load use	602,100
Transmission losses	<u>938,650</u>
	<u>2,304,250</u>
Sales to Central Power and Light Company for account of United States Section	<u>92,261,200</u>

Allocation of estimated construction costs
to purposes

In the early part of fiscal year 1955, the Bureau of Reclamation, as marketing agent for energy generated at Falcon Dam, requested the United States Section to furnish (1) the total estimated construction cost of the Falcon Dam Project to the United States, including interest during construction, (2) allocations of the total estimated construction cost to purposes benefited, and (3) certain other project data which were required to prepare rate and repayment studies and power rate schedules necessary in negotiating contracts for the sale of power generated at the project. In March 1955 the United States Section reported to the Bureau that the total estimated construction costs of the Falcon Dam Project to the United States was \$39,247,744, including \$2,200,225 for interest during construction computed at a rate of 2.5 percent on the cumulative accrued expenditures. The estimated construction cost, interest during construction, and total estimated construction cost to the United States reported to the Bureau was allocated by the United States Section to purposes, as follows:

Features (note a)	Estimated construction cost to the United States (excluding interest during construction)	Interest during construction	Total estimated construction cost to the United States
Power	\$ 5,872,165	\$ 348,744	\$ 6,220,909
Flood control	30,117,536	1,788,658	31,906,194
Other	<u>1,057,818</u>	<u>62,823</u>	<u>1,120,641</u>
Total	<u>\$37,047,519</u>	<u>\$2,200,225</u>	<u>\$39,247,744</u>

^aInterest during construction was allocated to features on the ratio of the cost of each feature to the total cost of all features.

In reporting the total estimated construction cost to the United States of the Falcon Dam Project to the Bureau, the United States Section did not include costs totaling about \$603,000 for preliminary surveys and testing financed from the construction appropriations. These costs were incurred, for the most part, prior to the selection of the Falcon Dam site and were omitted from the total estimated construction cost to the United States reported to the Bureau of Reclamation because the United States Section did not consider them to be part of the costs applicable to the project.

The United States Section has not allocated the total estimated construction cost to the United States of the Falcon Dam Project to all purposes served by the project. Allocations of the United States total estimated construction costs to power, reported to the Bureau of Reclamation, include only the direct cost of specific power facilities plus a computed amount for interest during construction. No portion of the cost of joint facilities and features of the project was allocated to power.

The legislative background of the Falcon Dam Project was cited by the United States Section as the basis for allocating only the cost of specific power facilities to power. The Falcon Dam Project was authorized by the Water Treaty of 1944 with Mexico as a storage dam and reservoir for the purposes of conserving, storing, and regulating the waters of the Rio Grande. The treaty itself did not authorize the construction of hydroelectric power plants as part of the project, but it did provide that the joint Commission "shall study, investigate and prepare plans for plants for generating hydroelectric energy which it may be feasible to construct at the international storage dams on the Rio Grande." In Minute No. 192, dated September 7, 1949, the joint Commission approved the inclusion of hydroelectric generating plants in the construction plan for the Falcon Dam Project. The Congress authorized the joint development of hydroelectric power at Falcon Dam in the act of October 5, 1949. Designs and specifications prepared during the initial planning by the Bureau of Reclamation, and the

initial appropriations made by the Congress for construction of the project, provided for a multiple-purpose project which included hydroelectric power features.

The United States Section also has not allocated part of the total estimated construction cost to the United States of the Falcon Dam Project to irrigation. Testimony given by United States Section officials and discussions of the Falcon Dam Project before the Subcommittee of the Committee on Appropriations of the House of Representatives and United States Senate disclosed that the project would result in considerable benefits to irrigation interests in the Lower Valley in Texas. Officials of the United States Section testified that the construction of the Falcon Dam Project, in conjunction with other works contemplated by the Water Treaty of 1944, would obviate the need for certain major features of the Valley Gravity Canal and Storage Project. This project had previously been proposed by the Bureau of Reclamation and authorized for construction under the Interior Department Appropriation Act, 1942 (55 Stat. 303), primarily as an irrigation project. As such, if the project were constructed, a portion of the construction costs would have to be repaid to the Federal Government by the water users. Discussions of the Falcon Dam Project disclosed that members of the congressional committees considered the United States to be obligated to construct the project under the terms of the Water Treaty of 1944 with Mexico and the Congress did not require any portion of the United States share of the construction cost of the project to be repaid by the water users.

Recommendations to the
United States Commissioner

1. We believe that costs incurred in investigating, surveying, and testing prospective dam sites should be included as part of the total construction cost in the project. Costs incurred for work of this nature are as essential to the construction of the project as are costs incurred for materials and labor used in the erection of the dam.

We therefore recommend that the United States Section include the amount of \$603,000 of costs for investigations and surveys paid from funds appropriated for construction of Falcon Dam Project so that these costs are considered as a part of the total construction costs for allocation to purposes.

2. The allocation of total construction cost of Federal water resource projects to purposes is important in determining project costs to be repaid to the United States.

We recommend that the United States Section make the allocation to purposes of the total estimated construction costs of the Falcon Dam Project so that each purpose will bear to the extent appropriate a share of the joint costs.

We recommend also that the United States Section be guided to the extent appropriate by the allocation standards prescribed by the Bureau of the Budget in Circular No. A-47 in planning future water resource development projects.

3. We believe that costs of Federal water resource development projects should be allocated to all purposes benefiting from the projects, irrespective of the provisions made for repayment of project costs.

We therefore recommend that in the final allocation of the total construction costs of the Falcon Dam Project an appropriate portion of the cost of the project to the United States be allocated to irrigation.

Water conservation benefits
from Falcon Reservoir

Falcon Reservoir contains provision for 2,100,000 acre-feet of water for water conservation purposes. The water entering the reservoir is allocated to the United States and Mexico on the basis of the formula provided in the Water Treaty of 1944. Water is released to users of each nation below the dam from the shares of the water that enter and are stored in the reservoir. The water behind the dam, therefore, can be compared to a bank in which deposits and withdrawals are made and a balance is maintained for each depositor.

The United States users below the dam comprise about 15 major irrigation districts or associations, 15 of lesser size, and about 450 independent private users or small associations of users. These users have about 650,000 acres of land served by water from the Rio Grande obtained by pumping plants, some of huge size. Users representing about 450,000 acres are organized under a Falcon Water Compact for purposes of meeting common problems in the use of water stored in Falcon Reservoir.

Water releases from Falcon Reservoir are based on the requirements of these users which are communicated to the Board of Water Engineers, State of Texas. This Board in turn advises the United States Section's office at Falcon Dam, and water is released to suit these requirements. The demands of downstream water users take priority over all other uses of water in the Falcon Reservoir.

This arrangement is in keeping with paragraph (c) of the Senate Resolution of April 18, 1945 (59 Stat. 1265), ratifying the Water Treaty of 1944. Paragraph (c) provides:

"That nothing contained in the treaty or protocol shall be construed as authorizing the Secretary of State of the United States, the Commissioner of the United States Section of the International Boundary and

Water Commission, or the United States Section of said Commission, directly or indirectly to alter or control the distribution of water to users within the territorial limits of any of the individual States."

The water is discharged through the generators of the Falcon Dam power plants, to the extent of the capacity, and through supplemental tunnels should the requirements exceed the power plant capacity. These demands, however, are not coordinated since the Board of Water Engineers only tabulates the requirements communicated to the Board and each user pumps his needs from the stream without restriction of any kind. The water accounting group of the Commission measures the water pumped by the large users and estimates the water pumped by other users.

The construction of Falcon Dam has permitted an increase in the number of acres being irrigated in the Lower Rio Grande Valley. Moreover, the Falcon storage has provided a reasonably safe water supply to more acres than did the unregulated flow of the Rio Grande before the construction of Falcon Dam.¹ The uncontrolled development of irrigation and the unrestricted use of waters on deposit, however, may result in shortages to lower river users.

Use of Falcon Reservoir lands

During our audit we noted that persons were erecting, repairing, and strengthening fences on land which had been acquired by the Government for Falcon Reservoir. Upon inquiry we were informed by the resident engineer that the fences were being repaired by the former landowners who were using the land for farming and grazing livestock.

Further inquiry disclosed that the United States Section had in the past executed temporary leases with some former landowners who wanted to farm and graze livestock on lands acquired by the Government for Falcon Reservoir. When the leases expired, however, action was not taken by the Section to renew them.

This matter was brought to the attention of the United States Commissioner. The Commissioner informed us that he would take action to execute leases, licenses, or permits with individuals using Falcon Reservoir lands.

Unsettled claim of Falcon Dam Constructors

The construction of the Falcon Dam and power plant was accomplished jointly under an allocation of work items to each country,

¹See H. Rept. 1299, 81st Cong., to accompany H.R. 5773 which became the act of October 5, 1949.

with all work allocated for performance by the United States covered by schedule No. 1 and all work allocated for performance by Mexico included on schedule No. 2. The contract for the performance of work on schedule No. 1 was awarded by the United States Section to a firm known as the Falcon Dam Constructors, and the contract for the performance of the work on schedule No. 2 was awarded by the Mexican Section to a firm called Constructora Intercontinental S.A.

The Falcon Dam Constructors filed a petition in the United States Court of Claims February 23, 1955, against the United States, in the amount of \$1,937,520, alleging increased construction costs due to the failure of the United States Government to furnish timely drawings, materials, and equipment in conformity with contract provisions. In its petition Falcon Dam Constructors contended that there is a unified contractual obligation on the part of the Commission with respect to schedules Nos. 1 and 2, and that the United States and Mexico are jointly and severally obligated for the timely performance of work under both schedules. Consequently the claim filed against the United States comprises alleged increased costs of \$961,482 on schedule No. 1 and \$977,295 on schedule No. 2.

Falcon Dam Constructors were paid \$9,464,321 for the construction of the United States portion of the Falcon Dam and power plant, under contract IBM-4373, dated October 31, 1950. A release for all claims against the United States Government arising under and by virtue of the contract, except for those items included in the petition filed by Falcon Dam Constructors with the United States Court of Claims, was executed December 15, 1954.

The defense for the United States Government in the case of Falcon Dam Constructors, et al., vs. The United States, Court of Claims No. 72-55, is being prepared by attorneys of the Attorney General's Office, Department of Justice. On August 22, 1955, the United States filed its answer to the Falcon Dam Constructors' petition. A date for a hearing before the Court of Claims has not yet been set.

The Zapata problem

One of the problems that has faced the United States Section in the construction of the Falcon Dam and Reservoir has been the relocation of the communities to be inundated by the reservoir.

Principally because of uncertainties as to titles to lands required for the Project, the Section concluded that the necessary rights-of-way would have to be acquired by condemnation. Initially it was also the Section's view that in the absence of specific legislative authority it could not undertake the moving of communities within the reservoir area to locations outside that area. Accordingly petitions were filed in 1949 by the Government in the appropriate United States District Court for acquiring by

condemnation the necessary rights-of-way including the unincorporated county seat town of Zapata, Texas.

After the filing of petitions for condemnation by the Government, former Congressman Bentsen introduced identical bills, House bills 7443 and 1649 in the Eighty-first and Eighty-second Congresses, respectively, to expressly authorize the relocation of the town of Zapata and the several affected communities and provide for the construction of public buildings and facilities to replace similar buildings and facilities taken by the Government. However, in a letter dated May 16, 1951, regarding House bill 1649, the then President informed the Secretary of State that "While I agree that the Federal Government should assist in every way possible to permit the orderly relocation of Zapata County residents, I feel that the best way to accomplish this objective (relocation) is not through special legislation but through general legislative authority which now exists." He added that it was his understanding "*** that under the terms of the Mexican Water Treaty and the provisions of Public Law 786 of the 81st Congress, the Commissioner of the United States section of the International Boundary and Water Commission can, and should, furnish all necessary assistance to the residents of the area." Neither House bill 7443 nor House bill 1649 was enacted into law.

It was then determined on the basis of the authority of the American-Mexican Treaty Act of 1950, and the direction to the Secretary of State contained in the President's letter of May 16, 1951, to relocate the affected towns and communities in a new townsite in Zapata County. The United States Section thereupon entered into an agreement with the Commissioner's Court of Zapata County, the governing body of said county, and with the Board of Trustees of the Zapata County School District, which was evidenced by an order issued by the Commissioner's Court on June 25, 1952. This agreement provided for the payment of compensation for the taking of the courthouse, schoolhouses, and other public facilities by the exchange on a new townsite outside the reservoir area of certain public buildings, schools, and facilities to replace similar improvements situated in the communities which were to be inundated.

The United States Section proceeded to provide a townsite with modern public utilities and public buildings and to assist people to relocate. When these facilities were completed they were offered to the Commissioner's Court of Zapata County. The Commissioner's Court refused to accept the facilities because of alleged deviation from the approved material and design specifications of the facilities constructed and the refusal of the United States Section to supply new furniture and equipment for public buildings.

The demand for new furniture and equipment by Zapata County officials was based upon their contention that the President's letter, when read in the light of the Bentsen Bill and under

agreement as embodied in the Zapata County Court Order, authorized the United States Section and obligated the United States to remove or replace the public buildings in the old town of Zapata within the Falcon Reservoir site by construction of buildings of like character in the new townsite. In addition, the United States Section was thereby authorized and the United States was obligated to equip the public buildings with new furniture and equipment for their proper operation in the purposes for which they were supplied, at the cost of the United States. It was contended also that in the replacement of public facilities they must be serviceable and that, by using furniture and equipment formerly installed in the old buildings in the newly constructed buildings, the serviceability of the completed new structures would be unsatisfactory.

To induce the Commissioner's Court to accept the newly constructed facilities, the United States Section corrected most of the alleged specification deviations but did not agree to supply new furniture and equipment for public buildings. The Commissioner's Court, however, continued its refusal of acceptance of the facilities and, finally, the United States Commissioner requested that a bill-of-particulars be submitted to the United States Section with full and complete statements regarding the facilities and services which Zapata County understood it was to receive but had not received under the relocation program.

In December 1954 a "Report on Deficiencies and Exceptions in Buildings, Streets, and Utilities in new Zapata Townsite, Zapata County, Texas," prepared by a consulting engineer engaged by Zapata County, was submitted to the United States Section. The report contained about 60 exceptions relating to equipment furnished, materials used in construction, and the design of certain features of the elementary school, courthouse, water, sewage, and street systems, and the fire-fighting equipment. Thereafter the United States Section initiated action to review and correct conditions to which exception had been reported by the consulting engineer.

On March 9, 1955, the United States Commissioner wrote the Comptroller General requesting advice on the propriety of supplying furniture and equipment, at Government expense, for the public buildings, schools, and facilities constructed in the townsite of new Zapata.

On April 1, 1955, the United States Commissioner wrote Judge Bravo of the Commissioner's Court of Zapata County to inform him of what action had been taken, or was to be taken, on each deficiency and exception contained in the report of the consulting engineer. The United States Commissioner agreed to correct nearly all deficiencies and exceptions raised, except (1) where correction could be made only by the complete reconstruction of a facility and (2) where the deficiency and exception were based upon the refusal of the United States Section to supply new furniture and equipment to public buildings. As to the latter, the United States

Commissioner advised Judge Bravo that the question of furniture for public buildings in Zapata is before the General Accounting Office and the United States Section would be guided in its actions by the Comptroller General's ruling.

On June 9, 1955 (B-123240), the Comptroller General wrote the United States Commissioner that under the terms of the agreement between the United States Section and the Commissioner's Court of Zapata County and the Board of Trustees of the Zapata County School District, evidenced by an order issued by the Commissioner's Court on June 25, 1952, there appears no contractual requirement or obligation on the part of the International Boundary and Water Commission to furnish Zapata County or the County School District items of the nature of furniture and equipment for the replaced public buildings, schools, and facilities. The Comptroller General stated also that since there was no legal obligation to pay for the furniture and equipment, the appropriations made for the construction of the Falcon Dam were not available for expenditures of such nature.

In July 1955 the United States Section tendered deeds for the completed facilities in new Zapata which were accepted by the town officials.

LOWER COLORADO RIVER FLOOD CONTROL PROJECT

The act of August 19, 1935, and the Water Treaty of 1944 authorized the Commission to conduct investigations of international flood control problems on the lower Colorado River between Imperial Dam on the California-Arizona border and the Gulf of California. The Colorado River, like the Rio Grande, is a heavily silt laden stream and its delta and bed tend to meander and build up with silt and sand deposits. In times of flood the river overflows its natural bed and floods the low lying areas along its course. The flood control problem is complicated by tidal flows which in certain seasons of the year range up to about 25 feet in elevation. Attempts made to control the river by means of levees have been unsuccessful, and the Commission is of the opinion that adequate flood protection will require the rectification and relocation of the river channel. Studies to date have indicated that ultimate flood control of the lower Colorado River may not be feasible without construction of a flood control dam on the lower Gila River.

In the summer of 1944 a joint study with Mexico was undertaken to develop data needed in the preparation of preliminary plans and estimates for flood control works. Preliminary topographic and aerial cartographic surveys, made as part of the study, have been substantially completed and the project is now in the planning stage.

As a result of the study, two alternate routes for a rectified river channel are being considered, and consideration is also being given to the rehabilitation of the west bank levee in Mexico as a means of safeguarding the highly developed and fertile lands of the Imperial Valley in the United States.

The preliminary estimate of the total project cost is \$45,000,000. At June 30, 1955, \$590,532 of costs had been incurred by the United States Section for general surveys and investigations of the lower Colorado River Flood Control Project.

Colorado River levees (project supervision)

Article 12(a) of the Water Treaty of 1944 requires Mexico to construct, at its own expense, flood protection works necessary to protect United States lands from floods which might result from the construction of Morelos Dam by Mexico. Morelos Dam is a diversion dam located on the Colorado River south of Yuma, Arizona. The dam was completed by Mexico in 1950 to facilitate the taking of waters of the Colorado River allotted to her under the terms of the Water Treaty of 1944.

Studies and investigations have been made by both sections of the Commission to determine the facilities required to protect United States lands from floods. The Ministry of Hydraulic

Resources of Mexico worked with the Mexican Section, and the Bureau of Reclamation, Corps of Engineers, and state and local agencies worked with the United States Section. The studies showed that, prior to the construction of Morelos Dam, existing levees were inadequate to fully protect United States lands. On the basis of this finding, an agreement was reached by the Commission for the construction of certain flood control works by and at the expense of the United States in addition to those works, necessitated by Morelos Dam, to be constructed at Mexico's expense.

In July 1951 the Bureau of Reclamation began the construction of levees along the Colorado River upstream from Morelos Dam, which were completed in November 1952. The cost of flood control works constructed at the expense of the United States was financed from funds appropriated to the Department of the Interior, and costs of works constructed at Mexico's expense were financed from funds transferred to the Bureau of Reclamation by Mexico. The United States Section had the responsibility of supervising the construction of flood works in the United States which were paid for by Mexico.

Andrade properties (Alamo Canal)

Article 12(c) of the Water Treaty of 1944 provides in part that:

"The United States shall construct or acquire in its own territory the works that may be necessary to convey a part of the waters of the Colorado River allotted to Mexico to the Mexican diversion points on the international land boundary ***. Among these works shall be included: the canal and other works necessary to convey water from the lower end of the Pilot Knob Wasteway to the international boundary ***. Such works shall be constructed or acquired *** by the United States Section at the expense of Mexico."

The canal and other works necessary to convey water from the lower end of the Pilot Knob Wasteway to the international boundary, mentioned in article 12(c) of the treaty, are part of the Andrade properties owned by the Imperial Irrigation District of California. These properties include the Rockwood heading at the point where Pilot Knob Wasteway of the All-American Canal meets the Alamo Canal, the Alamo Canal from the Rockwood heading to the international boundary, the Hanlen heading on the Alamo Canal, and about 470 acres of land and protective levees on either side of the Alamo Canal.

The cost of these properties is to be borne by Mexico. Acquisition of the properties has been delayed because Mexico has requested and received all deliveries of Colorado River waters to date below the border and has received no deliveries by means of the All-American and Alamo Canals.

Settlement with Imperial Irrigation District
of California

The act of September 2, 1950 (64 Stat. 576), authorized credits to certain public agencies, including the Imperial Irrigation District of California, for costs of flood protection works located in, along, or adjacent to the lower Colorado River in Arizona, California, and Lower California, Mexico.

With respect to the Imperial Irrigation District the act provided:

"(b) A credit to and on behalf of Imperial Irrigation District of California to be applied against the next succeeding annual payments as the same become due and payable from said district to the United States under any repayment contract by and between the Imperial Irrigation District and the United States in an amount not greater than 80 per centum of such items of construction, operation, and maintenance costs heretofore paid or incurred by said district for flood-protection works, including among others, levees, railroads, quarries, river rectification works for flood control purposes, and appurtenant works and facilities, in, along, or adjacent to the Colorado River in Arizona, California, and Lower California, Mexico, as shall be determined and found to be equitable by the American Commissioner of the International Boundary and Water Commission, United States and Mexico, but in no event shall the total credit exceed \$3,000,000."

In the summer of 1952 the United States Commissioner appointed a Board of Engineers to assist and advise him in determining the costs paid or incurred by Imperial Irrigation District for flood-protection works on the lower Colorado River. The board rendered its report to the Commissioner on December 15, 1953, in which it stated that 66 miles of levee works heretofore acquired, constructed, operated, or maintained by the Imperial Irrigation District could be reasonably incorporated with and become a part of a future flood control project, and that the value of such works was \$3,947,813 based on costs paid or incurred by the Imperial Irrigation District. The board estimated the replacement cost of these works to be \$5,170,000, based on the then current costs of labor and materials.

In reaching its conclusion, the board made an exhaustive study of engineering and cost records maintained by the Imperial Irrigation District and in certain cases made independent determinations of costs.

Since 80 percent of the fair and reasonable cost of the flood-protection works, as determined by the board (\$3,947,813), exceeded the \$3,000,000 total credit permitted by the act, the United States Commissioner in his report of February 1, 1954, to the Secretary of State, found that a credit of \$3,000,000 to the Imperial Irrigation District would be equitable under the act. As of June 30, 1955, credit to the Imperial Irrigation District had been withheld pending the District's submission of evidence of title and a quitclaim deed granting to the United States a right-of-way on certain levee works in California.

NOGALES FLOOD CONTROL PROJECT

Flood control works were constructed under the Commission's supervision at Nogales, Arizona, between 1933 and 1936 with funds allotted by the Public Works Administration. These works were designed to alleviate flood conditions which had caused destruction to the Nogales, Arizona, area as far back as 1905. Additional works were constructed by the United States Section in 1948-49 under general authority contained in the act of August 19, 1935, and specific authority contained in the Department of State Appropriation Act, 1947 (60 Stat. 446).

Flood works constructed at a cost of \$815,946 consist of a series of channels and conduits which catch and carry off water flowing down toward the sister cities of Nogales, Arizona, and Mexico from the Mexican drainage area of the Nogales Wash.

SANITATION PROJECTS

Under general authorization set forth in the act of August 19, 1935, as amended, three sanitation projects have been constructed in cooperation with Mexico. These projects, the Tijuana Valley, Douglas-Agua Prieta, and Nogales Projects, were completed between 1938 and 1951. One other project, the Calexico-Mexicali Project, is in the preliminary investigation stage.

Sanitation projects are designed to relieve international sewage problems in areas along the United States-Mexico border. Commission-sponsored projects have developed out of local complaints where either United States or Mexican communities had been dumping improperly treated sewage across the border.

The three completed projects comprise facilities used jointly by the United States and Mexican border communities. In each case project works constructed in the United States have been turned over to the local United States communities for operation and maintenance.

Tijuana Valley Project

The Tijuana Valley Sanitation Project was built to convey sewage from the cities of San Ysidro, California, and Tijuana, Mexico, and the immediate surrounding areas to the Pacific Ocean. Each country constructed, at its own expense, the project works located within its boundary.

Project works in the United States consist of 34,372 linear feet of sewer mains, 56 reinforced concrete manholes, a reinforced concrete surge tank, and a wrought iron outfall line which extends into the Pacific Ocean. These works are located along the Tijuana River Valley in San Diego County, California, just north of, and parallel to, the international boundary line.

The construction of project works, started in July 1937, was completed in March 1938 at a cost to the United States of \$152,264.

Douglas-Agua Prieta Project

The Douglas-Agua Prieta Sanitation Project was built to treat raw sewage of the cities of Douglas, Arizona, and Agua Prieta, Mexico. Project works consist of a sewage treatment plant and an outfall line constructed in the United States and an outfall line constructed in Mexico. The two outfall lines connect to convey raw sewage of both communities to the sewage treatment plant where it is treated and disposed of. Mexico also constructed, as a domestic project, a collecting system for the city of Agua Prieta.

The construction of project works, started in July 1946, was completed in July 1947. The total project cost of \$205,000 was apportioned 90 percent to the United States and 10 percent to Mexico.

Nogales Project

The Nogales Sanitation Project was built to treat raw sewage of the cities of Nogales, Arizona, and Nogales, Mexico. Project works consist of a sewage treatment plant and an outfall line constructed in the United States and collecting lines and an outfall line constructed in Mexico. The two outfall lines connect at the international boundary and convey raw sewage of both communities to the sewage treatment plant where it is treated and disposed of.

The construction of project works, started in June 1950, was completed on September 14, 1951. The total project cost of \$560,000 was shared equally by the United States and Mexico.

Operation and maintenance of sanitation projects

The Douglas-Agua Prieta and Nogales Sanitation Projects are international projects constructed by the Commission, construction by the United States Section having been authorized in the former case by the act of August 19, 1935 (49 Stat. 660), and by the act approved July 2, 1942 (56 Stat. 477), and in the latter by the act approved July 5, 1946 (60 Stat. 455). Upon completion, both projects were turned over to the respective border cities for operation and maintenance. In both cases the treatment plants are located in the United States and in neither case have the two border cities been able to make satisfactory arrangements for reimbursement of the portion corresponding to the Mexican city of costs of operating and maintaining the plant. Accordingly such costs are borne entirely by the respective Arizona cities.

Partly to obtain an equitable contribution from Mexico and partly to assure satisfactory operation and maintenance of the Douglas plant, the American-Mexican Treaty Act approved September 13, 1950 (64 Stat. 846), authorized the Secretary of State to conclude an agreement with the appropriate official or officials of

Mexico for the joint operation and maintenance by the Commission of the Douglas-Agua Prieta Project, such agreement to provide for division of costs between the two governments and to be concluded only after the city of Douglas has given satisfactory assurances that, so long as the agreement remains in force, the city "will contribute an equitable proportion, as determined by the United States Section of said Commission, subject to the approval of the Secretary of State, of the costs of such operation and maintenance allocated to the United States."

Subsequently, and for the same reasons, similar authorization with respect to the Nogales Project was given the Secretary of State by the act of July 27, 1953 (67 Stat. 195).

In accordance with the provisions of the American-Mexican Treaty Act, an agreement was executed between the United States and the city of Douglas, Arizona, on June 9, 1952, which provides substantially that the city will contribute 75 percent of such part of the annual operation and maintenance cost of the Douglas-Agua Prieta Sanitation Project as may be allocated to the United States by agreement yet to be consummated with Mexico. The contract provides that if Congress should fail to appropriate funds, the city will resume operation and maintenance at its own expense of the portion of the project located within the United States.

Discussions of an agreement with the city of Nogales have been undertaken, but no agreement has been concluded.

On behalf of the Secretary of State, the United States Section of the Commission has had preliminary discussions with the Mexican Section relating to agreements for Commission operation and maintenance of the two plants, but such discussions were still in the exploratory stages as of June 30, 1955.

The effect of these agreements will be to obligate the Federal Government, in perpetuity, to pay part of the cost of operating and maintaining the sewage treatment plants constructed for the benefit of, and without cost to, the cities of Douglas, and Nogales, Arizona.

It should be noted that where the cities of Douglas, and Nogales, Arizona, have obtained sewage treatment plants and appurtenant works without cost, except for donation of lands on which the works are constructed, the American-Mexican Treaty Act of 1950 authorizing the Calexico-Mexicali Sanitation Project, which is now in the preliminary planning stage, provides that:

"*** the city of Calexico (California) will contribute an equitable proportion *** of the costs of construction *** allocated to the United States."

Recommendation to the United States Commissioner

We believe that the costs incurred by the United States Section in constructing sanitation projects for the cities of Douglas, and Nogales, Arizona, should be the extent of the Federal Government's contribution toward correcting the sewage problems which existed in those communities.

We recommend that, if the Commission assumes responsibility for operating and maintaining the Douglas-Agua Prieta and Nogales Sanitation Projects, the United States Section obtain full reimbursement from the cities of Douglas and Nogales for their share of the cost of operating and maintaining the projects.

WESTERN LAND BOUNDARY FENCE PROJECT

The act of August 19, 1935, as amended, authorized the construction of a fence between the United States and Mexico along the land boundary from El Paso, Texas, to the Pacific Ocean. From time to time between 1939 and 1951, about 222 miles of fence were constructed along the international boundary in the States of New Mexico, Arizona, and California at a total construction cost of \$765,789.

The fence was designed principally to assist the Bureau of Animal Industry of the Department of Agriculture in preventing the loss of American cattle and other livestock and controlling the spread of livestock diseases and to aid other agencies of the United States Government, such as the Border Patrol, Bureau of Customs, and the Immigration and Naturalization Service in preventing the illegal entry of persons and goods into the United States. The fence is located entirely within the United States and it was constructed by the United States Section of the Commission without the participation of Mexico. The total distance of the land boundary between the United States and Mexico, from El Paso, Texas, to the Pacific Ocean, is about 675 miles and the total cost to construct a fence along this land boundary was estimated in 1953 to be \$3,243,843. No work has been done by the United States Section since 1951.

Funds have not been provided to the United States Section to maintain the fence and it is not in good repair in many places.

A bill to authorize the International Boundary and Water Commission to construct the western land boundary fence (S. 76, 84th Cong., 1st sess.) was favorably reported on by the Senate Committee on Interior and Insular Affairs (Senate Rept. 373, 84th Cong., 1st sess.). The Bureau of the Budget, in its report to the committee dated March 8, 1955, suggested that, since the principal purpose to be served by the type of fence contemplated under the bill would be the control of livestock movements across the border to protect American livestock from diseases carried by Mexican animals, any legislation to authorize construction of the fence should designate the Department of Agriculture as the agency responsible for its construction and maintenance.

Matter for consideration by the Congress

The construction and maintenance of the Western Land Boundary Fence Project has not been pursued with vigor and no work on construction has been done by the United States Section since 1951. The primary purpose of the fence is to control livestock movements across the border to protect American livestock from diseases carried by Mexican animals. The fence also serves to control human traffic and smuggling.

The United States Commissioner states that the fence serves no useful purpose so far as the Commission is concerned and is recommending deletion of "fence" from the appropriation language. Under the circumstances the Congress may wish to review the authorization to the United States Section for construction and maintenance of the fence, and, if now justified, to assign the responsibility for its construction and maintenance to a Federal agency more directly concerned with responsibilities for its purposes.

WATER CONTROL AND DISTRIBUTION PROGRAM

Articles 4 and 10 of the Water Treaty of 1944 provide for the division of the waters of the Rio Grande and Colorado River between the United States and Mexico. To enable the Commission to keep complete records of river flows, diversions, consumptive uses, losses, allotments, deliveries, withdrawals, and waters belonging to each country, the construction of stream gaging stations on the main channels and tributaries of the Rio Grande and Colorado River was authorized by articles 9(j) and 12(d) of the treaty. General investigative authority provided by the treaty enables the Commission to engage in stream gaging activities on the Tijuana River and other international streams.

At June 30, 1955, the following gaging stations were being operated by the Commission.

<u>River</u>	<u>Number of gaging stations operated (note a)</u>		
	<u>Total</u>	<u>Mexico</u>	<u>United States</u>
Rio Grande	76	17	59
Colorado	9	1	8
Tijuana	1	1	-
Santa Cruz	<u>3</u>	<u>3</u>	<u>-</u>
	<u>89</u>	<u>22</u>	<u>67</u>

^aIncludes stations located on tributaries and at diversion points along the river.

Water measurement activities have been conducted jointly by Mexico and the United States since 1889 on the Rio Grande and since 1902 on the Colorado River. The program had relatively minor importance until the treaty of 1944 which gave considerable impetus to the activity of collecting hydrologic data. Statistics are gathered on the international streams and measured tributaries concerning streamflows, evaporation, rainfall, wind, humidity,

sediment loads, and sanitary and chemical qualities of water. Besides being used for water accounting purposes, these data are useful to the Commission in the planning of works to be constructed on the Rio Grande, Colorado River, Tijuana River, and other international streams.

Hydrologic data compiled by the Commission are made available to other Federal agencies, state and local authorities, and farmers. Irrigation districts at the lower valley canal diversions below Falcon Dam report water diversions from the Rio Grande to the Board of Water Engineers of the State of Texas. Since the United States Section measures diversions as part of its water accounting activity, it is able to furnish the irrigation districts with data required by the board. In consideration for this service, the irrigation districts have furnished all recording instruments for gaging stations located at its diversion points, in addition to providing the materials and labor to keep the gaging stations in proper repair. Diversion flows are measured by employees of the United States Section, but no part of these costs are reimbursed by the downstream beneficiaries.

The cost of the water control and distribution program to the United States Section for fiscal years 1955 and 1954 was \$210,451 and \$199,141, respectively.

TIJUANA RIVER DEVELOPMENT PROJECT
(PRELIMINARY SURVEYS)

Article 16 of the Water Treaty of 1944 authorized the Commission to conduct studies and investigations of the Tijuana River to determine an equitable distribution of its waters between the United States and Mexico and to recommend works to be constructed to promote and develop domestic, irrigation, and other feasible uses of the water.

The Tijuana River is about 17 miles long. It originates in Mexico and flows northerly across the international boundary through the southwestern edge of California to the Pacific Ocean.

Studies of the river carried on jointly by the United States and Mexican Sections of the Commission began in 1947. During fiscal year 1955 preliminary studies conducted by the United States Section were completed. Work on the investigative phase of the project will not commence until the interests of the State of California in the waters of the Tijuana River are clearly defined. At June 30, 1955, the cost to the United States Section for studies it had undertaken amounted to \$111,145.

SANTA CRUZ RIVER DEVELOPMENT PROJECT
(PRELIMINARY SURVEYS)

The study of the Santa Cruz River, although a joint undertaking by both sections of the Commission, has been conducted principally by the United States Section. The purpose of the study is to determine the uses made of the waters of the Santa Cruz River and to determine, if feasible, means for conserving flood runoffs so that they will benefit irrigation and municipal water needs in the United States and Mexico.

Neither legislation nor treaty has specifically provided for a study of the Santa Cruz River; however, work was started on the study in 1949 and each year thereafter the Congress has appropriated funds requested by the United States Section to continue the study.

The Santa Cruz River originates in the San Rafael Valley of Arizona. It crosses the international boundary and flows about 42 miles in Mexico before reentering the United States at a point 6 miles east of Nogales, Arizona. The river then continues northwesterly past Tucson, Arizona, until its confluence with the Gila River, at a point about 190 miles from its second boundary crossing near Nogales, Arizona.

The Santa Cruz River provides water for irrigating farmlands in both the United States and Mexico. The sister cities of Nogales in the United States and Mexico also depend on this river for their municipal water supply.

During fiscal year 1955 preliminary work on the study was completed and further work was suspended pending clarification of the interests of the State of Arizona in waters of the Santa Cruz River. The United States Commissioner considers that in order to properly represent the interests of the United States in any negotiations with the Mexican Commissioner relating to construction of works on the Santa Cruz River, the claim to the waters of the Santa Cruz by the State of Arizona should be clearly defined.

At June 30, 1955, costs incurred for the study totaled \$89,574.

On December 1, 1945, the Corps of Engineers issued a report¹ in which the feasibility of constructing flood control works on the Santa Cruz River was included as part of an over-all survey. The Corps estimated annual flood control benefits from a flood

¹Interim report on survey, flood control, Gila River and tributaries (including Santa Cruz River) above Salt River, Arizona, and New Mexico.

control project on the Santa Cruz River to be \$45,000 compared with an estimated annual charge for construction and operation costs of \$260,000. Because of the unfavorable ratio of benefit to cost, the construction of flood protection works on the Santa Cruz River was not recommended.

CHANGES IN THE FLUVIAL PORTIONS OF THE BOUNDARY

The Treaty of Guadalupe Hidalgo, signed February 2, 1848, as modified by the Gadsden Treaty of December 30, 1853, established the center of the Rio Grande, following the deepest channel, where it has more than one, from the southern boundary of New Mexico to the Gulf of Mexico, and the center of the Colorado River from the California-Baja California land boundary to the Arizona-Sonora land boundary, as the fluvial boundary between the two countries. No provision was made in these treaties for changes occurring in the courses of the two alluvial rivers. ?

In an attempt to resolve disputes arising because of natural changes in the river channels, the treaty of November 12, 1884 (24 Stat. 1011), was entered into. This treaty provided that the boundary line shall forever follow the center of the normal channel of the rivers notwithstanding any alterations in the banks or in the courses of the rivers provided that such alterations be effected by natural causes through slow and gradual erosion and deposition of alluvium and not by the abandonment of an existing riverbed and opening of a new one. Any other change wrought by the force of the current, whether by cutting a new bed, or when there is more than one channel, by the deepening of another channel than that which marked the boundary as fixed by the Boundary Commission survey in 1852, does not change the surveyed position of the boundary line, even though the original channel bed should become wholly dry or be obstructed by deposits.

To facilitate the carrying out of the principles contained in the 1884 treaty, the governments of the United States and Mexico by treaty dated March 1, 1889 (26 Stat. 1512), created the International Boundary Commission and delegated to the Commission exclusive jurisdiction for resolution of all differences or questions arising on the fluvial boundary between the two countries. In its functioning under the terms of the 1884 treaty, the Commission found that (1) there occurred in the fluvial boundary a typical class of changes owing to slow and gradual erosion coupled with avulsion which resulted in numerous cases of the river abandoning its old channel and separating from it small portions of land known as "bancos" bounded by the old riverbed which, according to the treaty of 1884, remain subject to the dominion and jurisdiction of the country from which they were separated, (2) such bancos left some distance from the river were difficult to delineate because of successive deposits of alluvium effacing the old channel during the process of banco formation, and (3) as a result, difficulties and controversies arose. For the solution

of such difficulties the two governments entered into the treaty of March 20, 1905 (35 Stat. 1863), to eliminate bancos from the effects of the treaty of 1884.

The treaty of 1905 referred to as the "Banco Treaty" resulted in the elimination of 58 bancos existing at that time, providing that the dominion and jurisdiction of so many of the bancos as may remain on the right bank of the river shall pass to Mexico and of those that remain on the left bank shall pass to the United States. The treaty further provided that the Commission shall in the future be guided by the principle of elimination of bancos to retain the center of the normal channel of the rivers as the fluvial boundary, with the exception that portions of land segregated by changes in the bed of the Rio Grande or Colorado River, having an area of over 250 hectares (618 acres) or a population of over 200 people, shall not be considered as bancos and shall not be eliminated, in which cases the old riverbed shall remain the boundary.

Stemming from these treaties, the Commission, in carrying out its responsibility for surveying, marking, and determining the sovereignty over lands which shift from one to the other bank of the Rio Grande and Colorado River, owing to natural changes in the courses of the rivers, is concerned with (a) islands, (b) detached tracts, and (c) bancos.

With reference to islands, the sovereignty over such lands existing at the time of the 1852 survey remains unchanged even though an island may later become attached to the mainland of the other country. Islands occurring in the rivers after the 1852 survey formed by the deepening of another channel or by the cutting of another channel by processes of slow and natural erosion are still under the sovereignty of the country to which they were originally subscribed.

The Commission has rendered decision concerning the sovereignty of an island known as Beaver Island, comprising 153 acres, determining it to be under the sovereignty of the United States.

Detached tracts are referred to as those segments of land which, owing to natural changes in the river, become separated from the mainland of one country and become attached to that of the other, and which have an area of more than 250 hectares (618 acres) or contain more than 200 people, and are therefore excepted from elimination under the Banco Treaty. One tract in this class upon which the Commission has rendered decision with respect to sovereignty is San Elizario Island, comprising 13,000 acres. Its sovereignty was determined to be under the United States.

Detached tracts have also been created by artificial changes in the channel of the river. In general, such changes are prohibited by the treaties. However, the two governments agreed in 1898 to one such artificial cut in the case of Cordova Island at El Paso.

With reference to bancos, the Commission has, pursuant to the 1905 Convention, rendered decisions eliminating from the effects of the 1884 treaty the following number:

<u>River</u>	<u>To United States</u>		<u>To Mexico</u>		<u>Total</u>	
	<u>Number</u>	<u>Acres</u>	<u>Number</u>	<u>Acres</u>	<u>Number</u>	<u>Acres</u>
Rio Grande	135	16,705	81	9,625	216	26,330
Colorado	<u>2</u>	<u>842</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>842</u>
Total	<u>137</u>	<u>17,547</u>	<u>81</u>	<u>9,625</u>	<u>218</u>	<u>27,172</u>

An exchange of sovereignty over bancos was last made in May 1948. During the flood of June-July 1954, a tract was cut from Mexico to the United States near Del Rio, Texas. This tract was surveyed by the United States Section in March 1955, found to contain 600 acres and less than 200 people, indicating that the tract is a banco. As of June 30, 1955, maps were being drawn of the tract preparatory to submission to the Commission together with a report of findings by the Principal Engineers, for determination by the Commission as to sovereignty over the tract. The determination of the Commission will be submitted to the respective governments of the two nations for formal recognition of the change in sovereignty over the tract.

In the reach of the fluvial boundary where the channel has been stabilized, i.e., in the Rio Grande Rectification Project, no changes will occur in the boundary. In the reach below Falcon Dam where frequency of floods is decreased, the likelihood of formation of islands, detached tracts, and bancos is decreased.

An additional related responsibility of the Commission in connection with the fluvial boundary is to guard against the construction or installation of works which could cause an artificial change in the course of the rivers, and which are prohibited by the terms of the 1884 treaty. With increased developments in both countries along the banks of the fluvial boundary, this is an increasing function of the Commission.

GENERAL AND FINANCIAL ADMINISTRATION

General and financial administration consists principally of the direction and coordination of administrative, fiscal, and financial programs of the United States Section in field and headquarters offices. An administrative division of the El Paso headquarters office handles personnel administration and requirements, fiscal, finance, cost and property accounting, purchasing and contracting, internal audits, and office services such as communications, records, and files.

BUDGETING AND ACCOUNTING

In fiscal year 1952 the United States Section, with the assistance of the Office of Budget and Finance, Department of State, and the Accounting Systems Division, General Accounting Office, designed and installed a revised accounting system. The revised accounting system is based on recognized principles of accounting with special emphasis on the accounting requirements for public utilities. The conversion to the new system was completed in March 1952. The new system has provided management with more effective data for reviewing operations than was possible under the previous accounting system and has established the basis and made possible more realistic and informative budget presentations to the Bureau of the Budget and the Congress.

The United States Section has assigned certain of its fiscal activities to field offices located in Laredo, and Harlingen, Texas. Each of these field offices maintains accounting records from which are prepared statements of assets and liabilities and results of operation for the activities conducted within its area. These statements are consolidated with similar statements prepared by the El Paso headquarters office to present consolidated statements of assets and liabilities and results of operation for all activities of the United States Section. Financial control of each field office is maintained through allotments made by the headquarters office in El Paso, Texas.

In the early part of 1955 accounting functions performed at the Laredo field office were discontinued, and all accounting and other related records and documents were transferred to the El Paso headquarters office.

SECTION 1311 REPORTS

Section 1311 of the Supplemental Appropriation Act, 1955, approved August 26, 1954, provided that the head of each Federal agency shall report each year as to each appropriation or fund under the agency's control, the amount remaining obligated but unexpended, and the amount remaining unobligated on June 30. The law also specified the documentary evidence required of an agency to support recorded obligations. Copies of reports required by the

law, starting with the report for the fiscal year ending June 30, 1954, were to be sent to the respective chairmen of the Committees on Appropriations of the Senate and House of Representatives, the Comptroller General, and the Director of the Bureau of the Budget.

A summary of the data reported by the United States Section under the provisions of section 1311 for the fiscal years ended June 30, 1954 and 1955, is as follows:

Appropriation title and symbol	<u>Fiscal Year Ended June 30, 1954</u>				
	<u>Obligated balance</u>			<u>Unobligated balance</u>	<u>Unexpended balance (note a)</u>
	<u>Gross unliquidated obligations</u>	<u>Receiv- ables</u>	<u>Net obligated balance</u>		
Salaries and expenses:					
1931069	\$ 622	\$ -	\$ 622	\$ 12,409	\$ 13,031
1941069	21,547	-	21,547	19,643	41,190
Operation and maintenance:					
1941084	111,444	4,919	106,525	20,766	127,291
Rio Grande emergency flood protection:					
19X1067	10	-	10	124,286	124,296
Construction:					
19X1078	<u>751,906</u>	<u>19,716</u>	<u>732,190</u>	<u>6,105,464</u>	<u>6,837,654</u>
Total	<u>\$885,529</u>	<u>\$24,635</u>	<u>\$860,894</u>	<u>\$6,282,568</u>	<u>\$7,143,462</u>
	<u>Fiscal Year Ended June 30, 1955</u>				
Salaries and expenses:					
1941069	\$ 36	\$ -	\$ 36	\$ 18,332	\$ 18,368
1951069	42,257	1,332	40,925	154	41,079
Operation and maintenance:					
1941084	180	-	180	25,731	25,911
1951084	105,194	4,118	101,076	1,080	102,156
Rio Grande emergency flood protection:					
19X1067	436	-	436	115,750	116,186
Construction:					
19X1078	<u>124,395</u>	<u>775</u>	<u>123,620</u>	<u>5,697,479</u>	<u>5,821,099</u>
Total	<u>\$272,498</u>	<u>\$ 6,225</u>	<u>\$266,273</u>	<u>\$5,858,526</u>	<u>\$6,124,799</u>

^aThe amounts of unexpended balances shown in the above tabulation agree with unexpended appropriation balances shown by U.S. Treasury accounts. The totals of the unexpended balances at June 30, 1954 and 1955, differ from those shown in the statement of assets and liabilities (schedule 1) because they do not include (1) special deposit funds and (2) disbursements recorded in the agency's accounts before June 30, which were recorded by the Treasury after June 30.

As part of our audit of the United States Section, we evaluated the accuracy of reports rendered pursuant to section 1311. Our evaluation disclosed that the amounts reported by the United States Section were fairly and accurately stated in accordance with the requirements of section 1311 of the Supplemental Appropriation Act, 1955.

SCOPE OF AUDIT

Our audit of the United States Section, International Boundary and Water Commission, United States and Mexico, included a review of operating activities of the United States Section and a selective examination of financial transactions in the following manner:

1. We reviewed the basic treaties and laws authorizing the activities, and the pertinent legislative history, to ascertain the purposes of the activities and their intended scope.
2. We ascertained the policies adopted by the United States Section and reviewed those policies for conformance with basic treaties and legislation.
3. We reviewed the procedures followed by employees of the United States Section to determine the effectiveness of the procedures.
4. We did not make a detailed audit, but we examined certain selected transactions to the extent we deemed appropriate under the existing circumstances in order to settle the accounts of the United States Section's fiscal officers for the years ended June 30, 1954 and 1955. The examination of transactions was conducted at the El Paso, Texas, headquarters office and the Harlingen and Laredo, Texas, field offices of the United States Section.

OPINION OF FINANCIAL STATEMENTS

The accompanying statement of assets and liabilities (schedule 1) and statement of power operations (schedule 2) were prepared from records maintained by the United States Section. The statement of assets and liabilities presented in this report differs from that published by the United States Section. To present a more accurate and meaningful statement of assets and liabilities, reclassifications and adjustments have been made to various account balances as follows:

1. Costs recorded in the construction work in progress accounts which represent the cost of completed plant in service and preliminary survey and investigation costs have been reclassified.

2. The balance of unexpended funds in accounts with the United States Treasury has been increased to include funds in transit to the agency at year end.

3. Interoffice accounts receivable and accounts payable balances have been eliminated by offset to reduce the account balances to amounts due from and payable to outsiders.

4. Costs incurred on active project investigations recorded in the nonreimbursable cost account have been reclassified as preliminary survey and investigation costs.

5. Costs incurred on abandoned projects recorded in the preliminary survey and investigation account have been reclassified as nonreimbursable costs.

6. Funds contributed to finance the cost of construction of project works recorded in the net congressional appropriation account have been reclassified as contributions in aid of construction.

7. Allotment of National Industrial Recovery Administration and Public Works Administration funds recorded in the net congressional appropriation account have been reclassified and shown separately.

8. Revenues from sale of power and costs of power operations recorded in the nonreimbursable cost account have been reclassified and presented in the statement of power operations for the fiscal year ended June 30, 1955.

We are unable to state that the accompanying financial statements fairly present the financial position of the United States Section at June 30, 1954 and 1955, and the results of its operations for the years then ended, for the following reasons:

1. The United States Section is in the process of inventorying plant in service and analyzing project construction costs to

establish firm plant costs in accordance with the revised accounting system. Pending the establishment of firm plant costs, depreciation on plant in service, other than for vehicles and heavy equipment, is not being recorded as an item of cost.

2. The United States Section has not recorded interest during construction on the power portion in determining the United States Government's investment in Falcon Dam.

3. Net income from power operations does not include deductions for interest on the power investment and depreciation of power facilities. Such deductions will not be possible until the construction cost of Falcon Dam, including interest during construction, has been allocated to the various purposes served by the dam, and the cost of power facilities has been classified in the plant in service accounts.

FINANCIAL STATEMENTS

DEPARTMENT OF STATE
UNITED STATES SECTION
INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

STATEMENT OF ASSETS AND LIABILITIES--JUNE 30, 1955 AND 1954

<u>A S S E T S</u>	<u>June 30</u>		<u>L I A B I L I T I E S</u>	<u>June 30</u>	
	<u>1955</u>	<u>1954</u>		<u>1955</u>	<u>1954</u>
<u>PLANT, PROPERTY, AND EQUIPMENT:</u>			<u>INVESTMENT OF U.S. GOVERNMENT:</u>		
Plant in service (note 1)	\$22,638,440	\$22,593,252	Appropriations by the Congress, net	\$79,441,420	\$77,630,545
Construction work in progress:			Allotments of National Industrial		
Falcon Dam	34,432,183	33,419,813	Recovery Administration (\$4,733,000)		
All other	<u>67,528</u>	<u>39,638</u>	and Public Works Administration		
Total	57,138,151	56,052,703	(\$1,101,088) funds	<u>5,834,088</u>	<u>5,834,088</u>
Less accumulated depreciation	<u>483,901</u>	<u>477,017</u>		<u>85,275,508</u>	<u>83,514,733</u>
Total plant, property, and equipment	<u>56,654,250</u>	<u>55,575,686</u>	Less:		
			Payments to U.S. Treasury	275,603	46,693
			Transfers of property or cost, net	1,880	2,163
			Total expenses of nonreimbursable		
			operations (note 4)	<u>20,427,766</u>	<u>19,168,443</u>
<u>CURRENT ASSETS:</u>				<u>20,705,249</u>	<u>19,217,324</u>
Unexpended funds in accounts with U.S.			Excess of revenues over costs of power		
Treasury (note 2)	6,164,084	7,876,126	operations, exclusive of interest on		
Accounts receivable	29,878	13	investment allocable to power, and		
Accrued power revenues	40,012	-	depreciation of power facilities		
Materials and supplies	188,138	184,875	(schedule 2)	<u>168,316</u>	<u>-</u>
Prepayments and advances	<u>400</u>	<u>52,628</u>			
Total current assets	<u>6,422,512</u>	<u>8,113,642</u>	Net investment of U.S. Govern-	<u>64,738,575</u>	<u>64,237,409</u>
			ment		
<u>DEFERRED CHARGES:</u>			<u>CURRENT LIABILITIES:</u>		
Preliminary survey and investigation			Accounts payable	140,425	150,517
costs (note 3)	2,084,877	1,721,800	Liability for deposit funds	<u>49,015</u>	<u>755,786</u>
Other deferred charges	<u>7,428</u>	<u>15,490</u>			
Total deferred charges	<u>2,092,305</u>	<u>1,737,290</u>	Total current liabilities	<u>189,440</u>	<u>916,303</u>
			<u>DEFERRED CREDITS</u>	<u>28,146</u>	<u>-</u>
			<u>CONTRIBUTIONS IN AID OF CONSTRUCTION</u>	<u>212,906</u>	<u>212,906</u>
			Total liabilities and invest-		
			ment of U.S. Government	<u>\$65,169,067</u>	<u>\$65,426,613</u>
<u>Total assets</u>	<u>\$65,169,067</u>	<u>\$65,426,618</u>			

The notes to the financial statements are an integral part of this schedule.

DEPARTMENT OF STATEUNITED STATES SECTIONINTERNATIONAL BOUNDARY AND WATER COMMISSION,UNITED STATES AND MEXICOSTATEMENT OF POWER OPERATIONSFOR THE FISCAL YEAR ENDED JUNE 30, 1955

	Kilowatt- <u>hours</u>	Rate per kwh (mills)	<u>Total</u>
Revenues:			
Sales of electric energy to Central Power and Light Company	<u>92,261,200</u>	<u>2.7</u>	<u>\$249,105</u>
Operation and maintenance expenses:			
Operation:			
Supervision and engineering		\$ 5,816	
Hydraulic expenses		9,926	
Electric expenses		33,530	
Miscellaneous expenses		<u>3,820</u>	53,092
Maintenance:			
Supervision and engineering		6,461	
Structures and improvements		4,760	
Electric plant		14,890	
Miscellaneous plant		<u>1,586</u>	<u>27,697</u>
Total operation and maintenance expenses			<u>80,789</u>
Net income from power operations before deductions for interest on investment allocable to power and depre- ciation of power facilities (to schedule 1)			<u>\$168,316</u>

NOTES TO FINANCIAL STATEMENTS

1. Plant in service

The gross investment in plant in service at June 30, 1955 and 1954, consisted of:

	June 30	
	1955	1954
Flood control plant	\$10,606,047	\$10,597,086
Rectification and canaliza- tion improvements	8,896,602	8,893,909
Sanitation and water supply plant	778,809	778,809
Western land boundary fence	765,789	765,789
Bank protection improvements	240,088	236,281
Multipurpose plant	212,954	209,697
Other plants and improvements	1,138,151	1,111,681
Total	\$22,638,440	\$22,593,252

The United States Section is in the process of inventorying plant in service and analyzing project construction costs to establish firm plant costs in its accounts. Amounts shown in the preceding tabulation are subject to adjustment at the completion of the plant in service inventory and project construction cost analysis. Pending the establishment of firm plant costs, depreciation on plant in service, other than for vehicles and heavy equipment, is not being recorded in the accounts.

2. Unexpended funds in accounts with United States Treasury

Unexpended funds in accounts with the United States Treasury and with disbursing officers at June 30, 1955, are classified as follows:

	Cash balances	Available to U.S. Section for			Not available
		Payments of liabilities	Liquidation of obligations	Obligation	
Salaries and expenses:					
1951069	\$ 40,932	\$ 38,803	\$ 2,129	\$ -	\$ -
1941069	18,368	-	36	-	18,332 ^a
Construction 19X1078	5,816,587	49,565	68,904	2,647,284	3,050,834 ^a
Operation and maintenance:					
1951084	97,270	51,838	45,432	-	-
1941084	25,910	-	180	-	25,730
Rio Grande emergency flood protection 19X1067	116,002	219	33	115,750	-
Special deposits for payment of specific and miscellane- ous liabilities	49,015	49,015	-	-	-
Total	\$6,164,084	\$189,440	\$116,714	\$2,763,034	\$3,094,896

^aReserved by the Bureau of the Budget.

Appropriations for salaries and expenses and operation and maintenance are available for obligation for the specific year only. The unobligated balances of these appropriations shown in the above tabulation are not available for new obligations by the Section.

Special deposits for payment of specific and miscellaneous liabilities consist principally of taxes withheld from salaries of employees.

3. Preliminary survey and investigation costs

Expenditures by the United States Section for examinations, surveys, and studies made in pursuance of applicable treaties and agreements for the development of specific projects, formulation of plans, and preparation of designs and similar activities prior to starting construction have been incurred for the following projects:

<u>Project</u>	<u>June 30</u>	
	<u>1955</u>	<u>1954</u>
Rio Grande dams--upper	\$1,267,484	\$ 971,781
Lower Colorado River flood control	577,014	529,075
Tijuana River development	111,145	99,269
Santa Cruz River development	89,574	82,792
Sanitation	23,516	7,102
Anzalduas Dam	-	12,774
Other	16,144	19,007
Total	<u>\$2,084,877</u>	<u>\$1,721,800</u>

These expenditures have been made from appropriations for salaries and expenses and for construction.

With the beginning of construction of a project, part of a project, or extension of a project, the applicable investigation costs are transferred to, and become a part of, the total cost of the project.

4. Total expenses of nonreimbursable operations

A reconciliation of the total expenses of nonreimbursable operations for the fiscal years ended June 30, 1955 and 1954, follows.

	<u>Fiscal year</u>	
	<u>1955</u>	<u>1954</u>
Total expenses of nonreimbursable operations at beginning of fiscal year	\$19,168,443	\$17,993,523
Results from operations	\$1,169,373	\$1,239,105
Add (or -deduct) adjustments applicable to current and prior years' operating results, net	<u>89,950</u>	<u>-64,185</u>
Net change for the year	<u>1,259,323</u>	<u>1,174,920</u>
Total expenses of nonreimbursable operations at end of fiscal year	<u>\$20,427,766</u>	<u>\$19,168,443</u>