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RELEASED

Federal Financial Assistance
Provided To
Lancaster, New Hampshire,
For Construction Of
Waste Treatment Facilities B-166506

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

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090756

DEC. 9, 1971



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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CR
Dear Mr. Cleveland:

In accordance with your request of May 26, 1971, we have examined into (1) the delays encountered by the town of Lancaster, New Hampshire, in obtaining Federal financial assistance for the construction of waste treatment facilities and (2) the increase in project construction costs that occurred during the delays. Our review included discussions with officials of the Environmental Protection Agency (EPA); the Department of Housing and Urban Development (HUD); the town of Lancaster; the New Hampshire Water Supply and Pollution Control Commission; and Anderson-Nichols & Co., Inc., the consulting engineering firm for the town of Lancaster. We examined project records at EPA headquarters and its Northeast Regional Office and at the offices of the consulting engineering firm and the Commission. 0.01316

PROJECT DELAYS

In 1959 the town of Lancaster began planning for the construction of waste treatment facilities, and in February 1963 it submitted final plans to the Housing and Home Finance Agency (predecessor to HUD) for a project estimated to cost \$706,000. In November 1963 Lancaster requested Federal financial assistance for constructing the facilities, which were then estimated to cost \$766,900. As of January 1970 the estimated project cost was \$3,467,200.

During the years 1959 through 1970, Lancaster requested financial assistance from the predecessor agencies of EPA and HUD and from the Economic Development Administration (EDA), Department of Commerce, and the Farmers Home Administration, Department of Agriculture. Lancaster was awarded grants in the amount of \$242,400 by EDA in June 1969 and in the amount of \$2,053,700 by the Federal Water Quality Administration, Department of the Interior--now the Office of Water Programs in EPA--in June and August 1970. (See app. I for a chronology of events leading to Federal approval of a waste treatment project for the town of Lancaster.)

We found that a number of factors had contributed to the delays in Lancaster's receiving Federal approval for financial assistance, as follows:

- The inclusion in Lancaster's grant applications of project costs considered as ineligible for Federal financial assistance.
- A lack of Federal funds for the HUD accelerated public works and EDA programs at the time Lancaster submitted its applications.
- The increased scope of the project over the years.
- The necessity for Lancaster's dealing with several Federal agencies.

An official of the New Hampshire Water Supply and Pollution Control Commission told us that the delays, in large part, had been caused by a lack of funds under the HUD accelerated public works and EDA programs. He said that HUD and EDA officials had informed the Commission that, although the project appeared eligible for Federal financial assistance, funds had not been available at the time that Lancaster submitted its applications but might be available at a later date. He stated that, in view of the uncertainty as to the future availability of funds under the HUD and EDA programs, Lancaster officials did not know whether they should seek alternative sources of financing and that consequently the project was delayed.

Although the Lancaster project encountered a number of delays, the consulting engineering firm, in a May 1970 report to Lancaster officials, stated that the financial assistance provided by EDA:

**** together with the probability of increased financial participation by the State and Federal Pollution Control Agencies in other phases of the project has reduced the net cost to the Town in comparison with the benefits to be gained."

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The Commission, in a June 22, 1971, letter to us, stated that the treatment plant then approved for Lancaster was considerably superior to that originally planned. The Commission stated that:

"Although we realize the type of treatment now approved for Lancaster is considerably superior to the original design, we must again point to the fact that the original plans and specifications were acceptable at an estimated cost in 1964 of \$1,050,000 plus \$321,000 more for replacement of sanitary sewers and storm drains.

"At today's prices, the total of \$1,471,000 in 1964 would be at least \$2,500,000, and with added requirements, redesign, standby power and chlorination, we have arrived at an estimated project cost of \$4,100,000."

In June 1971 a Commission official told us that other projects in the State had encountered delays similar to those encountered by the Lancaster project. Although he did not cite specific examples of projects that had encountered such delays, the official agreed to provide us with a listing of such projects. As of November 1, 1971, however, he had not furnished us with the listing.

INCREASED PROJECT COSTS

The total estimated cost of constructing waste treatment facilities for Lancaster increased from \$706,000 in 1963 to \$3,467,200 in 1970. On the basis of our analysis of the 1963 and 1970 cost estimates (see app. II) and our discussions with an official of the consulting engineering firm which prepared both cost estimates, we classified the \$2,761,200 increase as follows:

Increase in project scope	\$1,447,300
Inflation	541,400
Other	<u>772,500</u>
	<u>\$2,761,200</u>

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The official of the consulting engineering firm concurred with the methods we used and our classifications of the increased costs.

Increased scope

As a result of increased Federal and State requirements and the addition of facilities to serve an industrial park, the project as finally approved differed substantially from the project initially proposed by Lancaster in 1963. The Federal and State pollution control agencies required that the approved project include the capacity to handle storm-water flows and standby generators for all pumping stations and plant equipment.

In addition, the approved project included the following items that were not included in the original proposal: (1) sewer lines for the industrial park, (2) a main pumping station having a capacity of 26.5 million gallons a day, rather than 2.5 million gallons a day as originally proposed, and a proportional increase in the capacity of the second pumping station, (3) a third pumping station, (4) a 36-inch-force main line, (5) chlorination facilities, and (6) weirs and overflows for storm water.

Inflation

According to the Engineering News Record (which the consulting engineer told us was the best available source for determining building-cost increases), the building-cost index increased about 43 percent between January 1963 and December 1969. In addition, an official of the consulting engineering firm told us that the cost of pumping stations doubled during the same period. On the basis of this data, we estimate that \$541,400 of the increased project cost can be attributed to inflation.

Other

An official of the consulting engineering firm told us that about \$772,500 of the increased project cost had been

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due to a combination of increasing project scope and under-estimating the original project costs. He said that he could not segregate these costs. He told us also that the 1963 estimate did not include all the items in the 1970 estimate, particularly legal and other administrative costs and interest during construction.

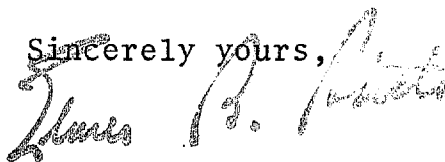
FEDERAL COORDINATION

Representatives of EPA, EDA, HUD, and the Farmers Home Administration are members of an interagency committee which meets once each month to coordinate and promote uniformity in providing Federal financial assistance for water, sewer, and waste treatment projects. The agencies have adopted a plan of operation and coordination which includes an agreement on the processing of grant applications. The agencies use a standard application form for financial assistance (1) to facilitate processing the applications and (2) as a device for determining the appropriate Federal agency primarily responsible for a particular project.

As part of an ongoing review, we are examining into the coordination between the various Federal agencies which provide assistance for sewer and waste treatment projects. At the conclusion of that review, we expect to issue a report on our findings to the Congress.

We plan to make no further distribution of this report unless copies are specifically requested, and then we shall make distribution only after your agreement has been obtained or public announcement has been made by you concerning the contents of the report.

Sincerely yours,



Comptroller General
of the United States

The Honorable James C. Cleveland
House of Representatives

GENERAL ACCOUNTING OFFICE
CHRONOLOGY OF EVENTS
LEADING TO FEDERAL APPROVAL
OF A WASTE TREATMENT PROJECT
FOR THE TOWN OF LANCASTER, NEW HAMPSHIRE

- May 1959 to Nov. 1963--The town of Lancaster hired the firm of Anderson-Nichols & Co., Inc., to prepare preliminary and final plans for construction of sewers and a waste treatment facility. The Housing and Home Finance Agency (HHFA) approved an advance of planning funds in the amount of \$35,000 for preparation of preliminary and final plans. In February 1963 final plans were submitted to HHFA for a project estimated to cost about \$706,000. Between February and November 1963, Lancaster changed the proposed location for the treatment project and the estimated costs increased to about \$766,900.
- Nov. 19, 1963--HHFA acknowledged receipt of Lancaster's application dated November 17, 1963, for an accelerated public works (APW) grant in the amount of \$373,450 for a sewer project. HHFA stated that grant funds requested in approvable applications totaled more than authorizations provided by the APW Act, that approval of this project was therefore doubtful, and that it would notify the town if the application could be approved.
- Dec. 2, 1963--HHFA returned Lancaster's application and notified the town that applications for grants to finance projects involving interceptor sewers, treatment facilities, and pumping stations must be submitted to the Public Health Service (PHS) of the Department of Health, Education, and Welfare. HHFA said that, if APW funds were available, it would consider a grant award for those parts of the sewer system not eligible for PHS assistance. HHFA stated again that, due to a lack of funds, approval of this project by HHFA was doubtful.

- Jan. 10 to 15, 1964--Applications for the construction of Lancaster's waste treatment facilities were made to PHS for an APW grant in the amount of \$308,650 and to HHFA for an APW grant in the amount of \$42,500.
- Jan. 20, 1964--PHS notified Lancaster that its application was being reviewed and requested additional information relating to the project.
- Feb. 7, 1964--HHFA notified the New Hampshire Water Supply and Pollution Control Commission that the Lancaster application appeared to include all the costs related to the waste treatment project. HHFA asked the Commission to furnish an application including only those costs not included in the application to PHS.
- Feb. 12, 1964--PHS reminded Lancaster that it had not responded to PHS's January 20, 1964, request for additional information.
- Feb. 17, 1964--Lancaster furnished the information requested by PHS on January 20, 1964.
- Feb. 25, 1964--A meeting was held by PHS, the Commission, and the consulting engineering firm. PHS took the position that certain parts of the sewer system were ineligible for Federal assistance because some proposed sewer lines would replace existing lateral sewers and others would allow bypassing of sewage without treatment. PHS stated that an eligible project must result in operable treatment facilities, or parts thereof. PHS stated also that it would hold the application pending further clarification from the applicant.
- Mar. 2, 1964--PHS advised the Commission, by telephone, that Lancaster's application must be corrected to comply with eligibility requirements. The Commission requested that the application be returned.
- Mar. 25, 1964--The Commission requested HHFA to defer further action on Lancaster's application because the voters of Lancaster had failed to authorize funds for construction of the project.

- Apr. 20, 1965--The Commission notified HHFA that the town had voted to proceed with construction and asked HHFA to reactivate Lancaster's application for APW funds if additional appropriations were made for the program.
- May 26 to July 27, 1965--Correspondence passed between the Commission and PHS concerning the project items considered ineligible by PHS. On July 27 the Commission requested PHS to return Lancaster's application so that it could be updated.
- Sept. 1, 1965--The Economic Development Administration (EDA) was established by the Secretary of Commerce.
- Sept. 13, 1965--HHFA notified Lancaster that APW funds had been exhausted for more than a year.
- Oct. 2, 1965--The Water Quality Act of 1965 was passed.
- Nov. 9, 1965--HHFA became part of the Department of Housing and Urban Development (HUD).
- Feb. 28, 1966--HUD forwarded Lancaster's application for Federal aid to the Federal Water Pollution Control Administration (FWPCA) (formerly within PHS) which, in turn, sent the application to the Commission for necessary action.
- Apr. 13, 1966--Lancaster, in response to an inquiry as to the status of the project, informed HUD that it was not proceeding with the project because Federal financial assistance had not been approved.
- June 10, 1966--FWPCA informed Lancaster that EDA had assumed responsibility for the project and that Lancaster should address all further correspondence regarding the project to EDA in Washington, D.C.
- Apr. 25, 1967--Lancaster inquired of EDA as to the status of its request for Federal assistance.
- May 4, 1967--EDA informed Lancaster that, if assistance was desired for the sewer system, it should contact the EDA area office in Portland, Maine, to obtain

application forms and assistance in their preparation. Regarding the treatment facility, EDA suggested that Lancaster first apply for FWPCA assistance through the Commission and that, if the application was approved and additional funds were necessary, Lancaster could then apply to EDA for a supplemental grant.

May 17, 1967--Lancaster again advised HUD that it was not proceeding with the project due to a lack of Federal financial assistance.

June 1967--The New Hampshire water quality standards implementation plan approved by the State in June 1967 included the following schedule for construction of the Lancaster waste treatment facilities.

Preliminary plan--March 1960
 Final plan--March 1963
 Arrange financing--May 1969
 Complete construction--May 1971

Nov. 13, 1968--The Commission recognized that many communities were ready to proceed with construction of waste treatment projects but that sufficient FWPCA funds were not available. The Commission approved the allocation to the Lancaster project of \$600,000 of the \$1,000,000 of Federal funds available to New Hampshire.

Nov. 18, 1968--Lancaster applied to the Farmers Home Administration for assistance in funding new sewers to serve a proposed industrial park. Total cost of the project was estimated to be \$406,000.

Dec. 30, 1968--Lancaster applied for an FWPCA grant of \$589,900 on the basis of an estimated eligible cost of \$1,474,800 for constructing the Lancaster project. (The application indicates that it was received by FWPCA on March 19, 1969.)

Mar. 24, 1969--FWPCA acknowledged receipt of the Lancaster application and stated that funds were available but that it needed more engineering information to determine whether the interceptor sewer system was eligible for Federal financial assistance.

- Apr. 1, 1969--The Commission sent FWPCA a copy of the specifications and drawings for the Lancaster project and stated that it was requiring (1) standby power at pumping stations and (2) chlorination facilities. The Commission also said that, since the preparation of the plans and specifications, the project had been expanded to include facilities to serve the north end of the town. The Commission added that it would submit additional documents concerning these items at the earliest possible date.
- May 1 to June 20, 1969--Correspondence in the Commission's files indicated that delays were encountered because of uncertainty as to whether EDA would have grant funds available for the project.
- June 20, 1969--EDA approved a grant in the amount of \$242,400 to Lancaster for sewer construction.
- July 18, 1969--FWPCA, in a letter to the Commission, summarized its position with regard to the eligibility of the Lancaster project. FWPCA referred to the February 25, 1964, meeting of PHS, the Commission, and the consulting engineering firm, during which major parts of the project had been declared ineligible for Federal financial assistance by PHS and to a subsequent mutual agreement that further processing of the Lancaster application was to be suspended until an EDA application had been acted upon. FWPCA said that it had been advised of the EDA approval of a grant to Lancaster. FWPCA stated that parts of the project were still considered ineligible and asked whether the application should be processed as submitted or whether the town wished to revise it.
- July to Dec. 1969--The town had various contacts with the Farmers Home Administration regarding its purchasing the town's bonds for financing the project. Meetings were held with officials of the Commission and the consulting engineering firm to resolve the the ineligibility of certain sections of the sewer system.
- Dec. 1, 1969--FWPCA returned the Lancaster application to the Commission for updating and resubmission.

- May 12, 1970--The consulting engineering firm submitted to Lancaster a report to be used as a basis for preparation of the final project plans and specifications. The report indicated that both storm-flow and sanitary wastes would be treated at the facility and that the effluent would be chlorinated.
- May 27, 1970--Lancaster applied for a grant from the Federal Water Quality Administration (FWQA) (formerly FWPCA).
- June 12, 1970--The FWQA's Northeast Regional Office recommended approval of the Lancaster application.
- June 26, 1970--FWQA awarded to Lancaster a grant in the amount of \$1,767,000.
- June 29, 1970--The Federal grant was increased to \$1,867,000.
- Aug. 10, 1970--The Federal grant was further increased to \$2,053,700.
- May 17, 1971--The Commission forwarded final plans to the Environmental Protection Agency (formerly FWQA).
- June 8, 1971--The Environmental Protection Agency approved the plans and authorized Lancaster to advertise for bids for construction of the project.
- Aug. 5, 1971--Bids were opened and contracts were awarded for the construction of the project.
- Sept. 1971--Construction was started during the second week of September.

APPENDIX II

GENERAL ACCOUNTING OFFICE
 ANALYSIS OF 1963 AND 1970 COST
 ESTIMATES FOR A WASTE TREATMENT PROJECT
 FOR LANCASTER, NEW HAMPSHIRE

Construction item	1963 cost estimate		1970 cost estimate		Classification of cost increases (note a)			Total increases
	Quantity	Cost	Quantity	Cost	Inflation	Added scope	Other (note b)	
SEWERS AND MANHOLES:								
Sanitary and storm Interceptor	7,275 ft.	\$ 61,700	13,795 ft.	\$ 293,800	\$ 26,500	\$ 205,600	\$ -	\$ 232,100
	12,630 ft.	184,500	11,100 ft.	434,900	79,300	-	171,100	250,400
DIVERSION CHAMBERS								
	2	8,100	-	-	-	-8,100	-	-8,100
PUMPING STATIONS:								
Main	-	140,000	-	1,235,800	279,900	815,900	-	1,095,800
Other	1	14,000	2	262,400	28,000	220,400	-	248,400
TREATMENT FACILITIES:								
Lagoons	20 acres	150,000	20 acres	380,000	64,500	-	165,500	230,000
Chlorination	-	-	-	169,400	-	169,400	-	169,400
Test pits	7	700	-	-	-	-700	-	-700
Outfalls	-	21,000	-	126,800	9,000	-	96,800	105,800
Weirs and overflows for storm water	-	-	-	44,800	-	44,800	-	44,800
TECHNICAL SERVICES, CONTINGENCIES, ADMINISTRATIVE COSTS, AND SITE ACQUISITION								
	-	126,000	-	519,300	54,200	-	339,100	393,300
		<u>\$706,000</u>		<u>\$3,467,200</u>	<u>\$541,400</u>	<u>\$1,447,300</u>	<u>\$772,500</u>	<u>\$2,761,200</u>

^aOur analysis was discussed with an official of Anderson-Nichols & Co., Inc., the engineering firm which prepared both cost estimates, and he concurred with the methods we used and our classifications of cost increases.

^bOther cost increases were due to a combination of increasing project scope and underestimating the original project costs which could not be segregated. In addition, the 1963 estimate did not include all the items in the 1970 estimate, particularly legal and other administrative costs and interest during construction.