

JUSTIFICATION FOR APPROPRIATIONS
for
THE COLUMBIA BASIN PROJECT

Prepared by
Columbia Basin Commission
Ephrata, Washington
November 30, 1947

Foreword

To provide the State of Washington Congressional Delegation with information concerning the need for appropriations to continue construction of the irrigation system of the Columbia Basin project, the Columbia Basin Commission submits its version of a justification for additional appropriations.

Two Appropriations Needed

Two separate requests for appropriations will be placed before the second session of the 80th Congress. The first request will be for a supplemental appropriation to sustain in part the progress on construction contracts already started. Unless supplemental funds are granted, all major construction now in progress will be suspended about February 1, 1948. Several operations were slowed down or suspended immediately after the amount of the 1948 appropriation became known in August 1947.

The second request for appropriations will be included in the regular Interior budget request for 1949 fiscal year. If the Columbia Basin project is to be speeded toward completion, the 1949 appropriation will have to be very large. The Columbia Basin Commission is not in a position to forecast the amount needed nor the probable request of the Department of Interior for the project. Let it be said, however, that the 1949 appropriation should be two or three times as large as the 1948 appropriation for the Columbia Basin project.

The Columbia Basin Commission cannot be advised at this time the amount the Bureau will request for the supplemental appropriation for 1948, but it appears that

not less than \$15,000,000 will be needed to continue during the remainder of 1948 contract work suspended or retarded on account of depletion of the current appropriation.

Early Completion Economical

It seems essential from the standpoint of economy to finish the construction of the Columbia Basin project without delay in order that the millions already invested in project works may be made productive in foodstuffs to the needy and cash return to the government at the earliest possible date. Delay only means additional expense to the Federal treasury and loss to the prospective water users who have pledged themselves to repay their share of the construction charges as required by the Repayment Contract made pursuant to law.

Vast quantities of equipment and many carloads of material are awaiting the resumption of work when additional funds are made available.

History of Appropriations for the Columbia Basin Project

To give the appropriation history of the Columbia Basin project from 1933 to 1948, the following table has been compiled from information furnished by the Bureau of Reclamation:

From fiscal years 1933 to 1943, inclusive—

State of Washington for investigations	\$ 313,439.53
National Industrial Recovery Act	15,000,000.00
Emergency Relief Act	20,050,000.00
P.W.A. Act	12,005,000.00
General treasury funds	131,592,459.19
Subtotal	\$178,960,898.72

From fiscal years 1944 to 1948, inclusive—

General treasury for fiscal year 1945.	\$ 1,900,000.00
General treasury for fiscal year 1946.	16,275,000.00
General treasury for fiscal year 1947.	18,000,000.00
General treasury for fiscal year 1948.	17,500,000.00
Total for construction, surveys & land purchase.	\$232,635,898.72

First Purpose of Grand Coulee Dam is Reclamation

Funds available for the current fiscal year are inadequate to carry on the several contracts on project works, completion of which is necessary for delivery of water to the land. In order to realize the first purpose of building Grand Coulee dam, irrigation canals must be built to the first units of irrigable land.

Building of Grand Coulee dam required a sequence of operations involving excavation, river control by huge coffer dams during construction, placing of concrete, and installation of penstocks drum gates, turbines and generators. All this work had to be carried on in a river canyon where the engineers and contractors had to "live with the river" during every phase of construction. The river itself, alternating its flood and low water stages, determined the rate of construction until the dam reached a height above high water mark.

The irrigation system is a type of construction spread over many square miles on the various project features. The excavation of canals, the boring of tunnels, and the building of the off stream dams can be done independent of progress elsewhere on other project works. Sequence of operations is not determined by river stages. On the irrigation project there is no problem of traffic congestion as the operations are scattered all the way from Grand Coulee dam to the Potholes dam 75 miles south. On the irrigation project there is no rushing water to manage, no problem of housing and feeding thousands of workers in a single construction area. Under forced conditions it would be possible to virtually complete the whole irrigation project in two years. That rate of progress may not be desirable, but it is entirely possible from an engineering standpoint.

Reclamation of Project Will Furnish Food

Food is an item of major political and economic importance in the post-war period. From the experience of ruinous surpluses which impoverished farmers during the 1930's, we have come into an epoch when food shortages have become a cause of inflation at home—a threat of starvation abroad. All the ancient arguments against

expanding the arable acreage of our country by reclamation now appear outworn when the principal commodities which reclamation can supply are scarce and expensive. These commodities are meat, milk and sugar. Favorable weather conditions enabled American farmers to produce record breaking crops during the war years. Had conditions been less favorable, food shortages at home might have been truly serious. At any rate the food supply for 1940 will not suffice in 1948 because our population is growing.

Population Growth Creates Demand for Food

Expanding population needs expanding agriculture to support it. According to estimates made recently by the Bureau of Census, the population of the United States has increased 11,000,000 in the last eight years. Each inhabitant requires three acres of land for food, fibre and shelter. There has been no corresponding expansion of agriculture during the period from 1940 to 1947 to support the additional demand for human support. Furthermore, agricultural production during that period was phenomenally high. The 1947 wheat crop was the largest in our history, about twice the natural harvest of 1934, which at this time would barely supply bread to our own population.

During 1947 we have watched food prices spiral to dangerous heights. No surplus of staple foods is in sight or to be reasonably expected. To add irrigated land to the arable land of the nation seems the best way to augment production of farm products salable at prices which will be profitable to farmers and beneficial to consumers by reason of increased quantities available.

Farms for Veterans

One prime incentive to complete the Columbia Basin project is to provide farm homes for veterans of World War II. Every post-war offering of irrigated farms for veterans has been over subscribed. Rigid selection of applicants for farmsteads to find veterans most highly qualified for farming by irrigation has been exercised.

Then the drawing of names of those deemed eligible has resulted in disappointing many veterans who have the capital and previous experience to qualify them as settlers on Federal reclamation projects. If the veterans of World War II residing in the Northwest are to be provided with an opportunity to develop farm homes on the Columbia Basin project, that opportunity must be made available soon. The Columbia Basin Commission has been obliged to inform many inquiring veterans that Columbia Basin lands will not be available for settlement before 1953 or 1954 unless construction progress is accelerated by adequate funds made available by appropriations.

Photographs of Project Features

In order to provide a pictorial approach to the effect of insufficient appropriations for construction of the project irrigation system, captioned photographs of operations, suspended after August 1947, are attached to and made a part of this justification.

Other operations which will be suspended by February 1, 1948, unless additional funds are secured through a supplemental appropriation, are listed below:

South Dam, Coulee City
Bacon Tunnel, North Portal
Long Lake Dam, Stratford
Potholes Dam south of Moses Lake

Payout of Columbia Basin Project Costs

Reimbursement of project construction costs has been in controversy in Congress from time to time. Original allocations of estimated costs, benefits and reimbursement obligations were made in House Document 172, First Session 79th Congress, January 31, 1945. The following table is taken from page 26 of the above mentioned report:

Table 11.—Revenues required to repay total reimbursable costs plus interest at 3 percent on investment allocated to power (over repayment period to 2017, inclusive.)

Requirements:

Reimbursable construction cost.	¹ \$486,030,228
Replacements	72,920,000
Other operating expenses	² 151,567,042
Interest on unamortized balances of investment allocated to power.	70,786,815
Total.	<u>\$781,304,085</u>

Revenues:

From water users:

For pumping power	\$50,500,000
Construction cost repayment	<u>87,465,000</u>
	² 137,965,000
Balance required from commercial power. . .	643,339,085
Revenue for river regulation at the Bonneville Project	<u>9,378,500</u>
Balance required from sale of power generated at Grand Coulee.	⁴ \$633,960,585

¹ Total cost of project, \$487,030,228, less \$1,000,000 allocated to navigation and flood control.

² Not including operation and maintenance expenses of the irrigation system, amounting to several million dollars annually.

⁴ This amount is in excess of that required by law to the extent of about \$70,786,815, the interest on the investment allocated to power.

Power Use By Class of Customer Bonneville-Grand Coulee System

August 7, 1947*

Aluminum	530,000 kw
Other Industry	80,000 kw
Private Utilities	440,000 kw
Public Agencies	181,000 kw
System Losses	<u>93,000 kw</u>
Total	1,324,000 kw

*Generator L-7 at Grand Coulee was not in operation at date of this report. (As the report is written October 27, 1947, all generators at Grand Coulee are operating at near capacity despite the fact that rainfall in the Columbia drainage area during October 1947 is the heaviest on record.)

Increased Costs Considered

It is no secret that construction costs have mounted sharply since 1940. But there is an off-setting factor that should be considered. The demand for and sale of

electric energy from Grand Coulee dam exceeds greatly estimates of 1940. Therefore, the income of the project has exceeded 1940 estimates by a margin which should amortize increased project costs within the statutory period.

Generators at Grand Coulee

Grand Coulee dam has now in operation, November 1, 1947, the following generating equipment:

	Name Plate Capacity	Peaking Capacity
2 house generators	20,000 kw	25,000 kw
7 standard generators	756,000 kw	945,000 kw
Total	776,000 kw	970,000 kw

An additional standard generator will be placed in operation in February 1948; another in May 1948. When the seventh generator was placed on the line October 21, 1947, it immediately assumed a load of 110,000 kw, or 2,000 kw above its rated capacity. There is no reserve generating capacity at either Grand Coulee or Bonneville dams.

Earnings of Grand Coulee High

Gross earnings of the Grand Coulee generators after May 1948 are estimated to reach the high mark of \$50,000 per day or \$18,000,000 per year. After May 1948, nine additional generators will eventually be installed in the East power house. Three of these generators are now on order and will be available for operation in 1949 or 1950. High earnings derived from the generators are amortizing construction costs ahead of schedule. Substantial progress in paying for the project has been accomplished before an acre of ground is watered from canals.

Power Demand Grows

One of the phenomena of the post-war period is the amazing rise in the demand for power. Predictions that the power demand would drop sharply after surrender of Japan in 1945 were wrong. There was a short lull when light metal plants were being shifted from war production to peace time production, but it now appears that the

power supply in the Northwest will never catch up with the demand for power.

Metal Plants Closed for Lack of Power

At Spokane the Electrometallurgical plant cannot be operated because there is insufficient power to operate it. At the Permanente Metals plant at Mead only five of the six pot lines can be operated on the power supply available to that plant. The Wenatchee Alloys plant at Rock Island in custody of W.A.A. is idle. In full operation it would require 28,000 kw. Its conversion must await additional power supply.

Northwest Power Pool

It should be pointed out that there is no waste of generating capacity in the Northwest. The Northwest Power Pool which combines the generating capacities of all power plants, federal, private, and municipal, makes for the utmost economy in the use of hydro and steam generating capacity. When hydro power is available, steam plants are shut down to save wood, coal, and petroleum. When hydro power from natural flow of streams is available, stored water is conserved for future periods of water shortage. This demonstration of cooperation between federal, private, and municipal power agencies has led to a high degree of efficiency and economy in Northwest power production. There is no duplication of transmission lines beyond the alternate grid connections necessary to maintain service if certain lines are knocked out of service by storms or accidents.

Are Power Rates Sufficient

Repeated charges are made that power rates established by the Bonneville Power Administration, with approval of the Federal Power Commission, for Grand Coulee power are too low; that the net revenues from sale of power may be insufficient to amortize the capital outlay allocated to power for repayment. Probably the subject of power rates will be a topic of debate for several decades, but all studies made to date indicate that the costs allocable to power for repayment will be amortized according to law.

To date every audit of costs and income has proved that the estimates are in line with actual fiscal experience since Grand Coulee generators started delivery of power in 1941. The question is not are the rates too high or too low; the question is this: Will the power rates now in effect enable the power and water users to liquidate the reimbursable investment in accordance with the Reclamation Project Act of 1939 under which the allocations for the Columbia Basin project were determined. An arbitrary increase in Bonneville rates for no better reason than the fact that power rates elsewhere are higher seems unreasonable. If the Columbia Basin project is favored by nature which provided big rivers flowing through walled channels, then the regional advantage should not be denied the Columbia River area.

Control of Speculation

Experience of the Bureau of Reclamation during the early history of federal reclamation convinced the Bureau and Congress that settlers on new irrigation projects financed by federal funds should be protected in the prices they are asked to pay for dry land. In line with that experience, Congress in 1937 wisely passed the first Columbia Basin Act requiring that project lands be appraised at their dry land value and that in the sale of project lands in excess of the appraisal, one-half of excess consideration should be paid to the irrigation district as a credit on construction obligations. This provision was included in the authorizations for Owyhee, Roza, and Kittitas projects.

In 1943 Congress enacted another Columbia Basin Act amending the 1937 Act to set appraised prices on project lands in conformity with their dry land use and providing that such appraisals, unless they be amended by the appraisal board, continue until five years after water is made available to the land. Appraisals have been made in accordance with law and the price of project lands is being controlled.

It should be remembered that lands included in municipal corporate limits are excluded from the project; they are not project lands and therefore are not subject

to price control under the Columbia Basin Act of 1943. As yet there is no state or federal authority for prices on property located within corporate limits of towns and cities.

Stories of wild speculation in Columbia Basin town property are hugely exaggerated, but in any case, there is no legal remedy if over optimistic speculators want to pay outlandish prices for town lots. To a large extent the success of farmers on the project will eventually determine the value of urban real estate. Some speculators will lose shoestring investments in city property if they insist upon paying more than the property is worth. That result must be the penalty for rough and tumble competition for unearned increments on frenetic real estate speculation.

Control of speculation in farm lands until the fifth year of production after water is delivered will go far towards insuring a fair degree of solvency among settlers. The Bureau of Reclamation and the land owners who have signed the recordable contracts are faithfully complying with the spirit and letter of the Columbia Basin Act of 1943.

It should also be pointed out that many thousands of acres of project lands will remain subject to anti-speculation features of the project act for 15 or 20 years after the Recordable Contracts covering the land were executed. This limitation on project land prices has to prevail for five years after water is available to the land. Parts of the project may not be supplied with water before 1965 or later. This price control program is one more reason why the project should be completed rapidly. In good faith the landowners have signed the Recordable Contracts. That good faith is entitled to reasonably prompt reward.

Consideration of Businessmen

Most of the emphasis in writing and conversation relating to the speedy development of the Columbia Basin project has considered only the application of water to land. The Commission recognizes that the businessmen who established stores,

hotels, and restaurants, play a substantial part in project development because they make provision for the increasing population during the construction and settlement periods. When it was announced in 1946 that the project construction was being planned to irrigate 400,000 acres by 1951, a great many people, anxious to locate after the dislocation of war, established themselves in Soap Lake, Ephrata, Moses Lake, Othello, Warden, Quincy, and Coulee City. The slowing down of construction has dimmed the hopes of settlers and caused financial loss and prospects of more loss to people who invested in business property and enterprise. While certain instances of untimely speculation are to be deplored, in the majority of cases the new enterprises have been established by people who understand the business they are undertaking and are able and anxious to make a substantial contribution to the welfare and comfort of the construction workers and project settlers. We believe they are entitled to collateral consideration in the matter of adequate appropriations for project construction.

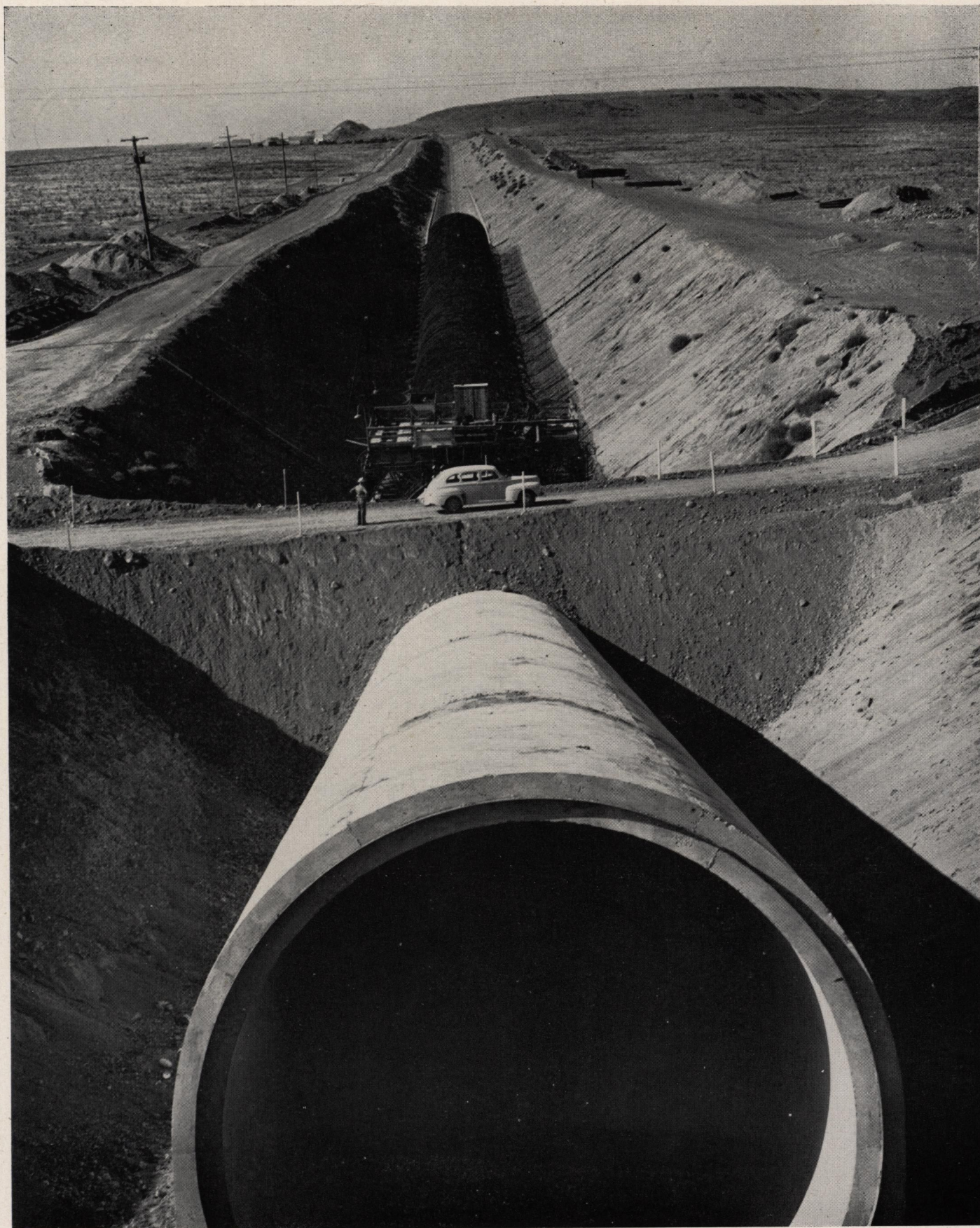
Conclusion

The official justification for the appropriations herein requested will be made by the Department of Interior through the Commissioner of Reclamation. This justification made on behalf of the Columbia Basin project is addressed primarily to the Senators and Representatives from the State of Washington with the hope that it may be useful in presentation of the case of our project needs to the Congressmen from other states.

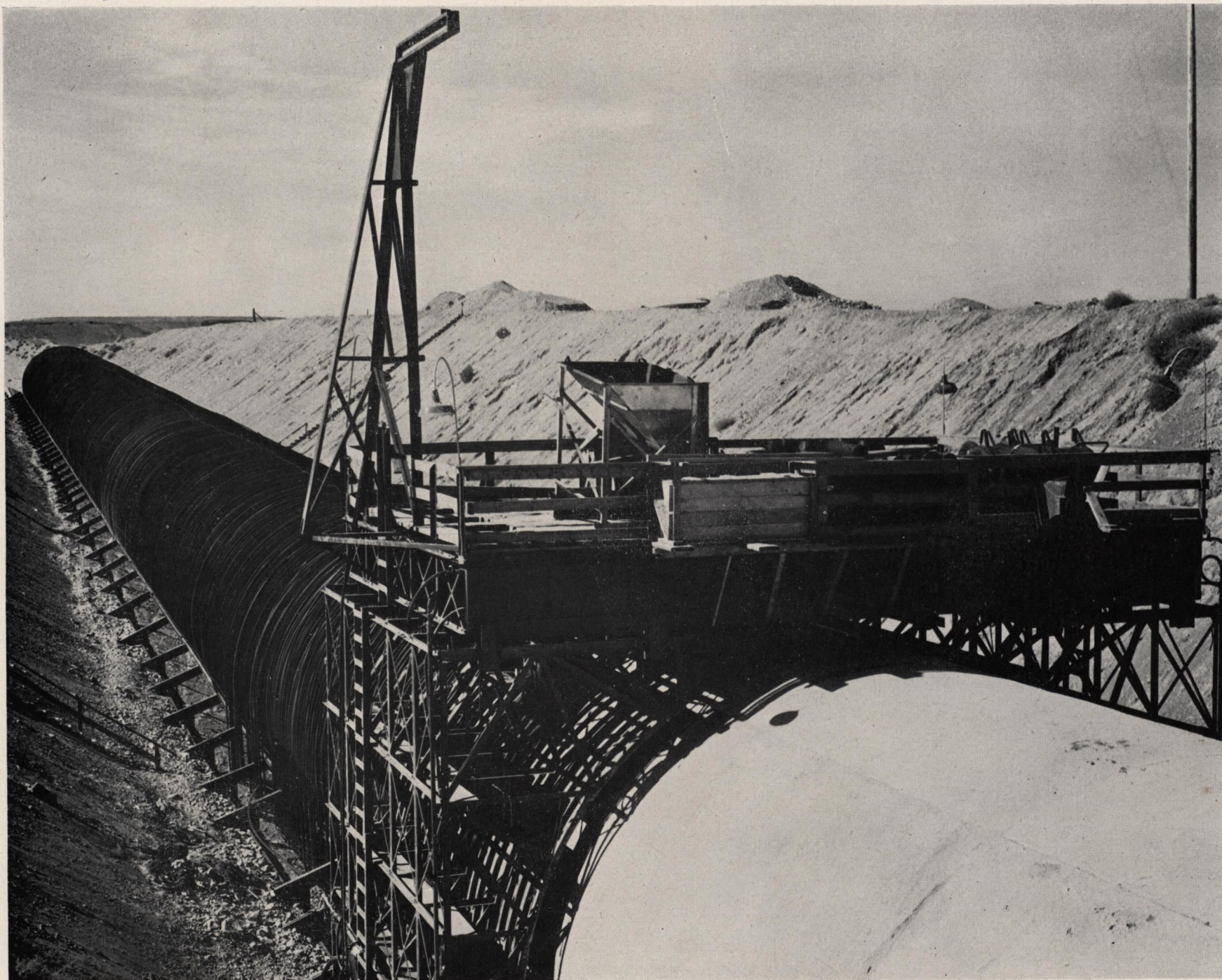
COMPARISON OF IRRIGATED ACREAGE IN SEVENTEEN RECLAMATION STATES
As Given By 1940 Census

<u>State</u>	<u>Total Acreage</u>
WASHINGTON	615,114
Oregon	1,048,076
California	5,177,650
Nevada	832,253
Idaho	2,273,949
Montana	1,696,063
Wyoming	1,486,498
Utah	1,176,239
Arizona	652,806
Colorado	3,220,685
New Mexico	553,174
North Dakota	21,615
South Dakota	60,198
Nebraska	610,379
Kansas	99,980
Oklahoma	4,160
Texas	1,040,114
Total	20,568,953

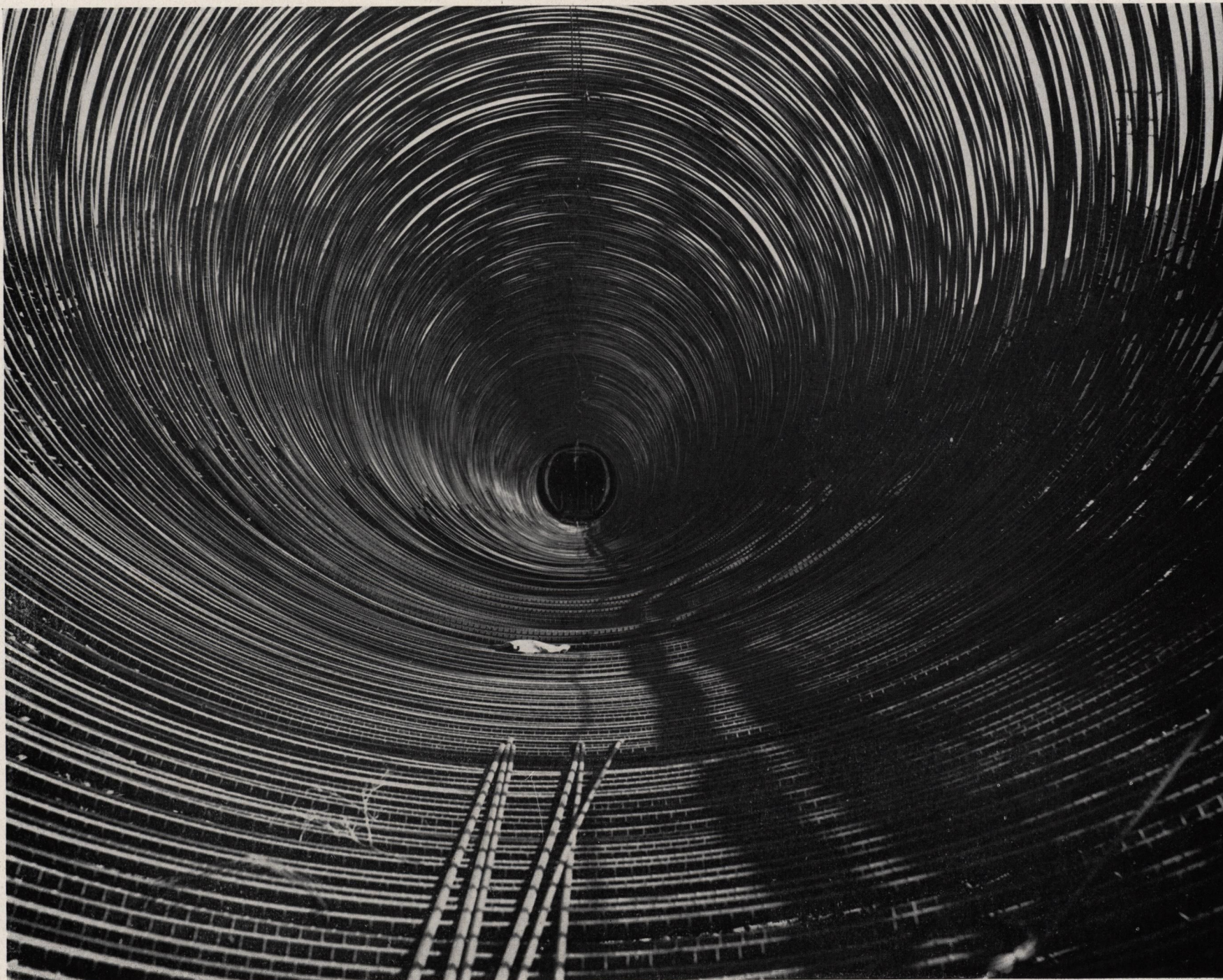
Washington stands eleventh in irrigated acreage.



838-4 Abandoned Unfinished Portion of Dry Coulee Siphon, West Canal 9-24-47. Specs. 1286. Winston Bros. and Utah Construction Company, Contractors.



839-4 Abandoned Unfinished Portion of Dry Coulee Siphon, West Canal 9-22-47. Specs. 1286.
Winston Bros. and Utah Construction Company, Contractors.



841-4 Abandoned Unfinished Portion of Dry Coulee Siphon, West Canal 9-24-47. Specs. 1286.
Winston Bros. and Utah Construction Company, Contractors.



834-4 Idle Equipment West Canal 9-22-47. Specs. 1286. Winston Bros. and Utah Construction Company, Construction.



831-4 Abandoned Unfinished Portion of West Canal 9-24-47. Specs. 1286. Winston Bros. and Utah Construction Company, Contractor.



833-4 Idle "Whisker Jumbo" and Special Lining Equipment Designed for West Canal Costing in Excess of \$300,000. West Canal 9-24-47.
Specs. 1286. Winston Bros. and Utah Construction Company, Contractors.



844-4 Stored Reinforcing Steel for West Canal 9-22-47. Specs. 1286, Winston Bros. and Utah Construction Company, Contractors.



847-4 Abandoned Outlet Portal Bacon Tunnel 9-9-47. Specs. 1236. Sch. No. 2. T. E. Connolly, Contractor.



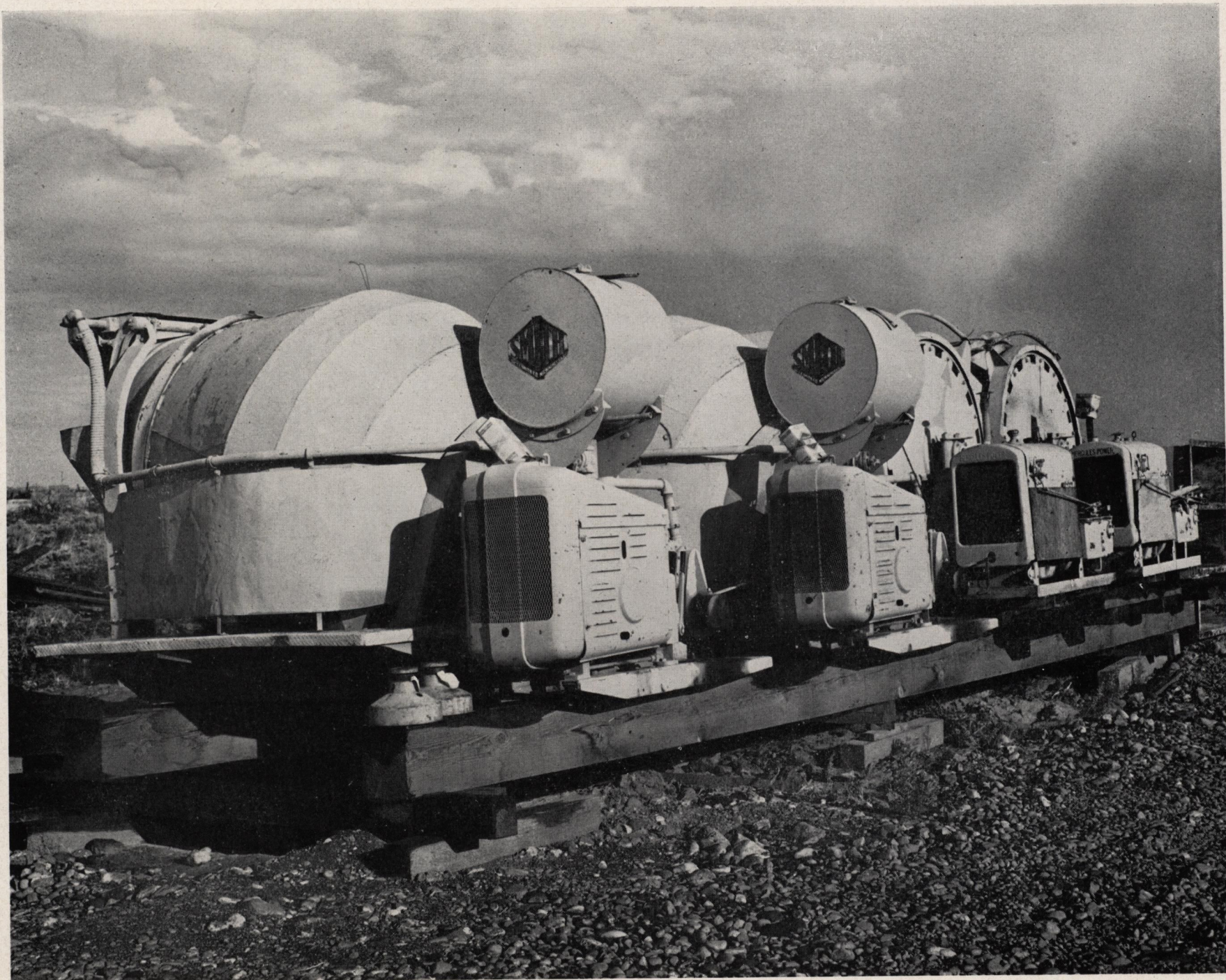
855-4 Abandoned Site and Groundwork for Bacon Siphon 9-9-47. Specs. 1236. Sch. No. 2. T. E. Connolly, Contractor.



849-4 Stored Reinforcing Steel for Use in Bacon Siphon and Tunnel 9-9-47. Specs. 1236. Sch. No. 2. T. E. Connolly, Contractor.



859-4 Idle Tunnel Equipment and "Boarded Up" Machine Shed, Bacon Tunnel, 9-25-47. Spec. 1236. Sch. No. 2. T. E. Connolly, Contractor.



857-4 Idle Concrete Mixers 9-25-47. Specs. 1236. Sch. No. 2. T. E. Connolly, Contractor.