

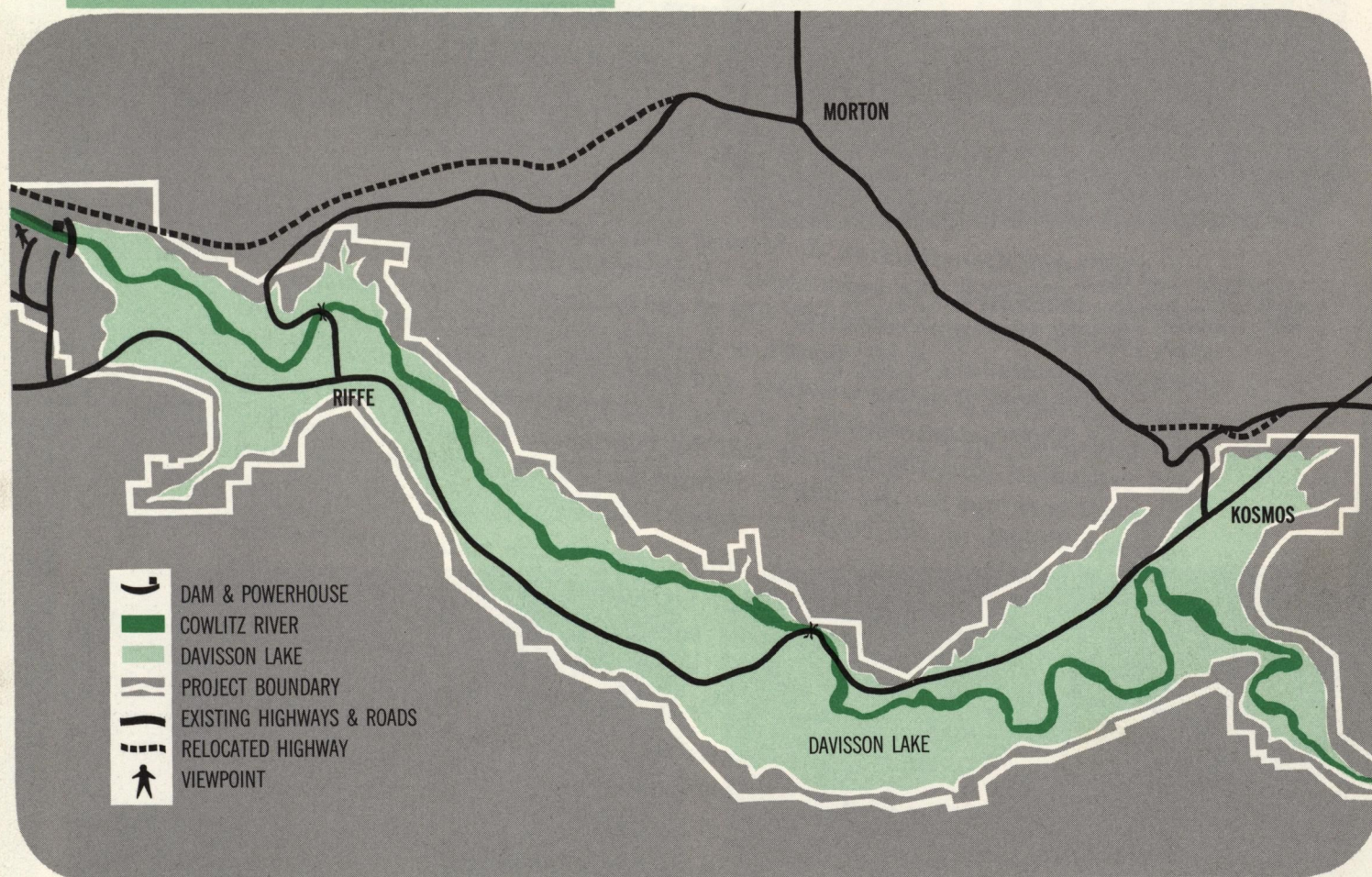


QUARTERLY REPORT • DEC. 31, 1964

TACOMA CITY LIGHT

COWLITZ RIVER PROJECT

MOSSYROCK DAM



CITY OF TACOMA
Department of Public Utilities

PUBLIC UTILITY BOARD

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A. J. Benedetti

PROJECT MANAGER

Frankland Smith

CITY LIGHT SUPERINTENDENT

J. D. Ferguson

CONSULTING ENGINEERS

Harza Engineering Company

Davisson Lake will have the greatest storage capacity in Western Washington — 1,586,285 acre feet — ranking only third in the state to Roosevelt Lake and John Day Reservoir, both on the Columbia River.

HARZA ENGINEERING COMPANY
CONSULTING ENGINEERS
RIVER PROJECTS
400 WEST MADISON STREET
CHICAGO 6, ILLINOIS

TELEPHONE RANDOLPH 6-3451

CABLE ADDRESS "HARZENG CHICAGO"

MOSSYROCK DEVELOPMENT QUARTERLY CONSTRUCTION PROGRESS REPORT OCTOBER 1, 1964 TO DECEMBER 31, 1964

The Utah Construction & Mining Co., contractors for the diversion tunnels, completed the excavation of the crown section in the two diversion tunnels and approximately 40% of the excavation of the downstream channel. Excavation of the bench, or lower section of the tunnel, has been started. Though freezing weather and the holidays contributed to a slow-down in construction activities during the latter part of December, it is still estimated that the tunnels will be completed during March, 1965. Contract earnings for the quarter totaled \$1,028,820.60 making the total earnings 53.88% of the contract amount.

Contract documents for the dam, powerhouse and appurtenances were issued to prospective bidders October 5, 1964. Bids were received December 17, 1964 from five joint ventures comprising 15 firms. The apparent low bid was submitted jointly by the Dravo Corporation and the Al Johnson Construction Co. in the amount of \$42,592,195.00.

Examination of the bids has started, and the recommendation for award of contract will be submitted to the Public Utility Board in January, 1965.*

Bids for the turbines and governors were received November 9, 1964, and the low bid of \$1,687,500, submitted by NOHAB of Sweden, has been accepted. Bids for the generators were received December 21, 1964, and the apparent low bid of \$1,890,000 was submitted by ASEA of Sweden.**

HARZA ENGINEERING COMPANY

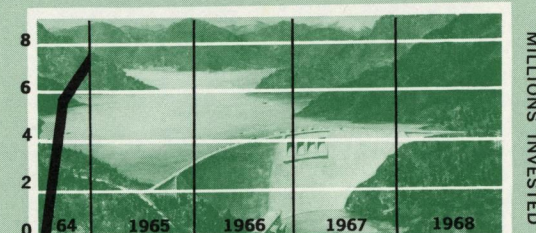
E. Montford Fucik

E. Montford Fucik,
President

*The general contract was awarded to Dravo-Johnson January 13, 1965.
**The contract for generators was awarded to ASEA February 24, 1965.

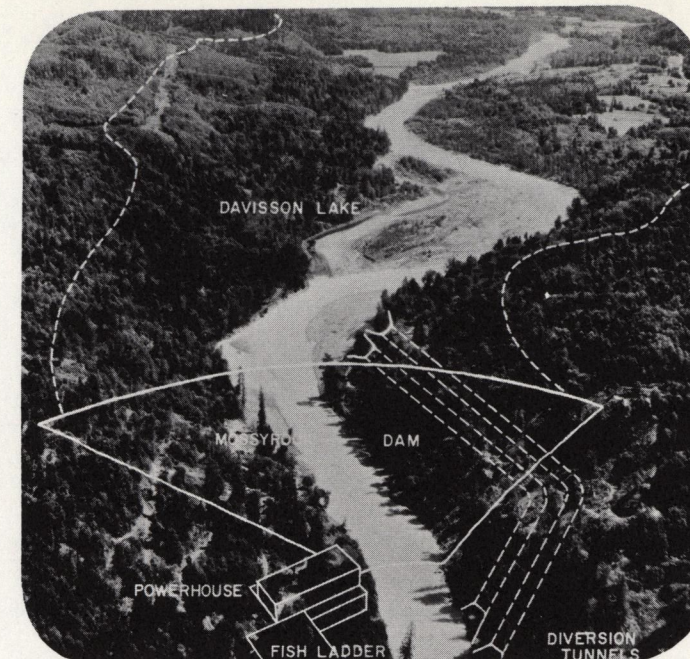
FISCAL SUMMARY CONSTRUCTION EXPENDITURES

	To Date DEC. 31, 1964	Estimate DEC. 31, 1968
Land Acquisition	\$1,754,500	\$ 14,982,629
Dam (inc. fish facilities)	1,176,534	42,948,237
Powerhouse	—	11,528,304
Switchyard & Transmission	—	3,232,042
Engineering & Overhead	4,373,568	9,609,968
Misc. & Contingencies	—	8,743,820
Interest & Financing	293,441	11,530,000
Total:	\$7,598,043	\$102,575,000



CURRENT MAJOR CONTRACTS:

Utah Construction & Mining Co.	\$2,065,074
(diversion tunnels)	
NOHAB	\$1,759,680
(turbines and governors)	



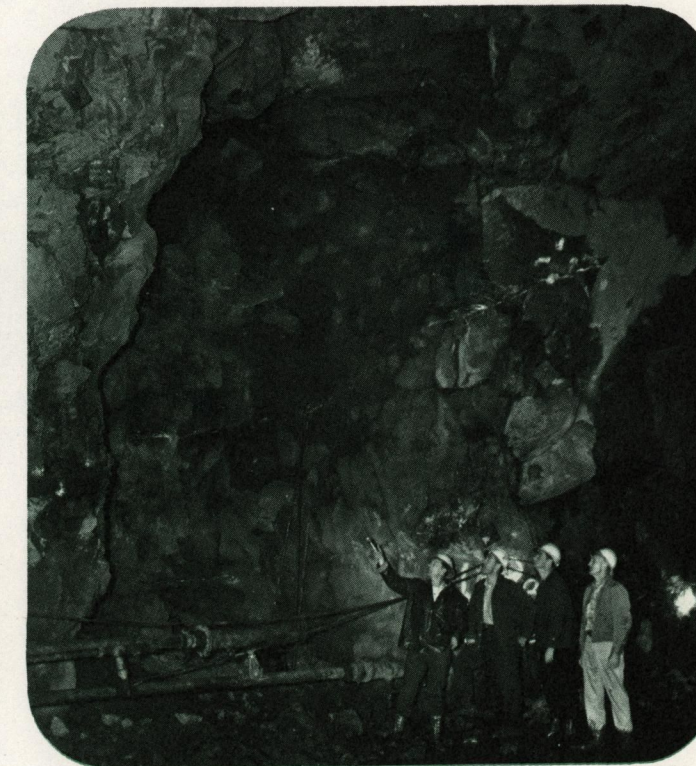
MOSSYROCK DAM

... is listed in The World Almanac among "Major World Dams," one of 21 dams in the United States and only the 4th in Washington State to receive the distinction. When completed in 1968, Mossyrock will become:

- (1) The highest dam in Washington State.
- (2) The 5th highest dam in the United States.
- (3) The 17th highest dam in the world.
- (4) The 11th longest concrete dam in the United States.
- (5) The 5th most powerful non-federal hydroelectric project in the United States.



Diversion tunnels, to carry the Cowlitz River around the dam construction area, are being completed in two stages. After removing the arch, or crown section, the contractor returned to the upstream end of the tunnels to scoop out the bench, or lower half. The tunnels are scheduled for completion in March.

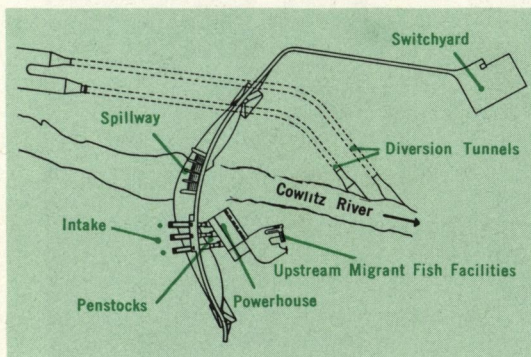
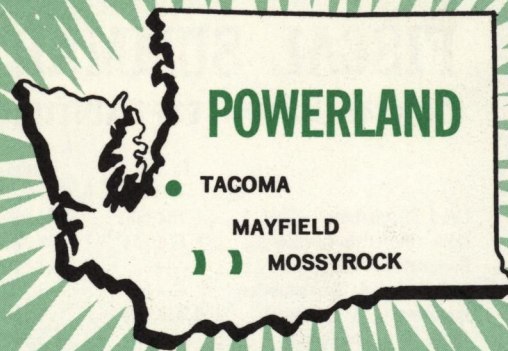


Fish swimming to spawning grounds in the Cowlitz River will have an opportunity to rest in the diversion tunnels at Mossyrock Dam. Both tunnels will feature fish resting pools, six feet deep, ten feet long and spaced approximately 100 feet apart. The river is scheduled for diversion in September.

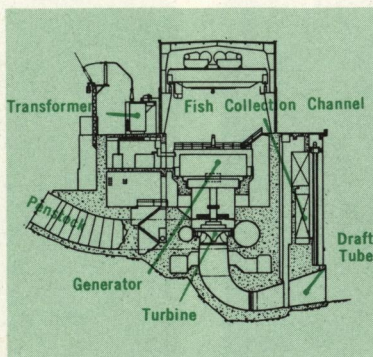
PROGRESS PROFILE

SCHEDULED
 ACTUAL

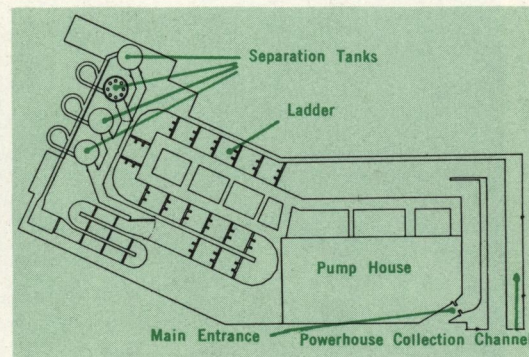
	1964	1965	1966	1967	1968	COMPLETE
DIVERSION TUNNELS AND COFFERDAMS	<div style="width: 33%;"></div>					33%
EXCAVATION		<div style="width: 50%;"></div>				
DAM			<div style="width: 60%;"></div>	<div style="width: 10%;"></div>		
POWERHOUSE			<div style="width: 70%;"></div>	<div style="width: 10%;"></div>		
FISH FACILITIES			<div style="width: 50%;"></div>	<div style="width: 10%;"></div>		
TURBINES AND GENERATORS— INSTALLATION			<div style="width: 60%;"></div>	<div style="width: 10%;"></div>		
PROPERTY ACQUISITION	<div style="width: 60%;"></div>	<div style="width: 10%;"></div>				36%
RESERVOIR CLEARING	<div style="width: 5%;"></div>	<div style="width: 55%;"></div>	<div style="width: 10%;"></div>			5%



DAM and SPILLWAY



POWERHOUSE



UPSTREAM MIGRANT FISH FACILITIES

MOSSYROCK STATISTICS

DAM:

Height—Above River-bed375 ft.
 From Bedrock595 ft.
 Length1,750 ft.
 Volume of Concrete1,270,000 cu. yds.
 Width — Top27 ft.
 Base125 ft.

MISCELLANEOUS:

Maximum Employment During Construction....1,200
 Estimated Completion DateDecember 31, 1968
 90 miles to Tacoma, 100 miles to Portland, 115 miles to Yakima

DAVISSON LAKE:

Named for Ira S. Davison,
 City Light Commissioner, 1918-1940
 Length23½ miles
 Shoreline52 miles
 Area at Maximum Elevation11,335 acres

POWERHOUSE:

Turbines2 - 206,000 hp.
 Generators2 - 150,000 kw.
 Installed Capacity300,000 kw.
 Ultimate Capacity450,000 kw.