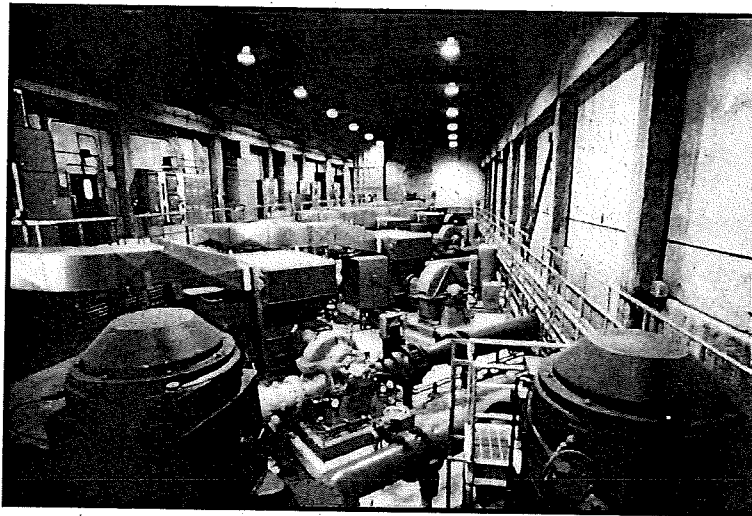
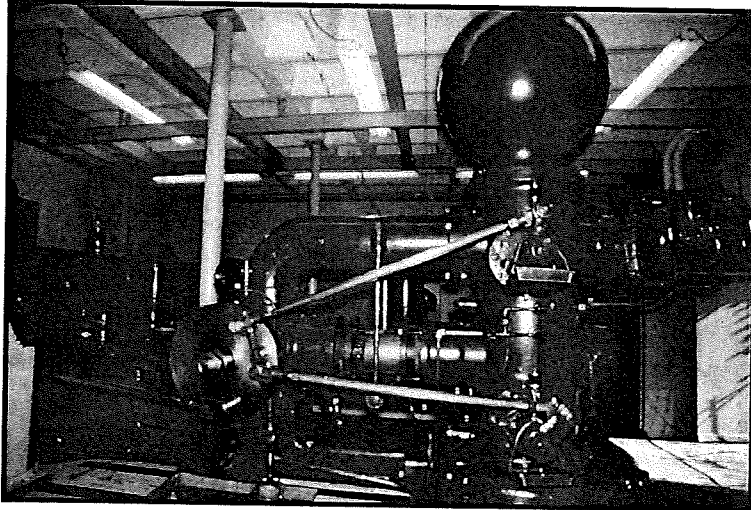


FINAL DRAFT REPORT

Infrastructure Master Plan



PREPARED FOR

Portland Water Bureau

PREPARED BY

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October 2000

TABLE ES-1
Recommended IMP Improvements

Good Infrastructure Master Plan

Improvement	Purpose	Timing and Cost			Total
		0-5 Years	5-10 Years	10-20 Years	
Planning Studies					
Distribution Master Plan	Identify distribution system facility needs	\$0.75 million			\$0.75 million
Conservation Plan	Define conservation programs to meet conservation targets established in the RWSP	\$0.2 million			\$0.2 million
ESA Planning	Define changes needed to meet requirements of ESA	\$0.5 million			\$0.5 million
RWSP Update	Update the RWSP to reflect current circumstances	\$0.3 million			\$0.3 million
IMP Update	Update the IMP as uncertainties are resolved	\$0.3 million			\$0.3 million
Treatment Projects					
Treatment Options and Siting Study	Decide whether to install interim UV disinfection or final filtration to meet regulations. Determine location for facility.	\$ 1.5 million			\$ 1.5 million
Interim Treatment (UV)	Install UV disinfection at headworks		\$15 million		\$ 15 million
Final Treatment (Membranes)	Install final treatment facility, assumed to be membrane filtration			\$0 to \$150 million	\$0 to \$150 million
Conduit 5 Route Evaluation	Determine a route for Conduit 5 in case portions are needed in conjunction with filtration plant	\$ 1 million			\$ 1 million
Bull Run Source Development					
Raise Dams 1 and 2 Feasibility	Determine feasibility of raising Dams 1 and 2 to provide 2.4 BG of additional storage.	\$ 1 million			\$ 1 million
Bull Run GW/ASR Feasibility	Determine feasibility of developing groundwater and ASR in the Bull Run. Construction not included.	\$2 million			\$2 million
Bull Run Lake Refill Feasibility	Determine feasibility of developing a pump station to refill Bull Run Lake. Construction not included.	\$0.5 million			\$0.5 million
Bull Run Source Development Construction	Construction of whatever increment of Bull Run source development that is determined feasible and best.		\$11 million		\$11 million
Dam 3 Feasibility	Studies to determine the feasibility of constructing this dam	\$2 million	\$0 to \$38 million		\$2 million to \$40 million
Storage and Transmission Projects					
Powell Butte II	Construction of a second 50-MG reservoir at Powell Butte	\$28 million			\$28 million
Powell Butte III	Construction of a third 50-MG reservoir at Powell Butte			\$28 million	\$28 million
Open Reservoir Study	Evaluate the current state of the open reservoirs, identify alternatives, develop a plan for future use, obtain permits for future construction.	\$1 million			\$1 million