SUMMARY

Since 1953 the Federal Government, through the Office of Saline Water, Department of the Interior, has invested $211 million in developing the technology of low-cost desalting of saline waters. During this period many possible desalting processes have been examined and the most promising ones developed through research, test beds, pilot plants and test modules.

Distillation using multiple stage flash evaporation has proved best for desalting sea water. In a medium size plant, (7.5 million gallons per day) fresh water can now be produced for 65 cents per 1000 gallons. Technical developments now in the experimental stage together with economics of scale in large size plants can reduce this cost.

For brackish water, two processes, electrodialysis and reverse osmosis are most suitable. Water costs using these processes depend on the quality of the input water. Costs today for desalted brackish water are 35¢/1000 gallons in a 1.2 mgd electrodialysis plant and would be approximately 50¢/1000 gallons in a 1 mgd reverse osmosis plant.