- Argo, D. G., "Wastewater Reuse and Ground Water Recharge, *The Role of Desalting Technol*ogy in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Series of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 71-96.
- Bechtel Group, Inc., "Desalination Technology Report on the State of the Art," Rogers, A. N., Siebenthal, C. D., Battey, R. F., et al. for the Metropolitan Water District of Southern California, February 1983, p. 46.
- 3. Beck, L., San Joaquin District, California State Department of Water Resources, personal communication, July 1987.
- Birkett, J.D., "A Brief Illustrated History of Desalination: From the Bible to 1940, *Desalination*, 1984, vol. 50, pp. 17-52.
- Black and Veatch, "Economic Effects of Mineral Content in Municipal Water Supplies," Office of Saline Water, Research and Development Report # 260, Kansas City, Missouri, May 1967, p. 190.
- Booth, J. R., Jr., Shepard, B. P., and McIlhenny, W.F., "Final Disposal of Effluent Brines from Inland Desalting Plants, Research and Development Progress Report No. 817, Office of Saline Water, Dept. of Interior, Washington, D, C., May 1972, p. 181.
- Brandt, D. C., "Seawater Reverse Osmosis—An Economic Alternative to Distillation, *Desalination*, 1985, vol. 52, PP. 177-186.
- Buros, O. K., et al. 'The USAID Desalination Manual, United States Agency for International Development, Washington, D. C., CH2M Hill International Corp., August 1980, p. 233.
- 9. Burton, J. S., "History of the Saline Water Conversion and Focused Water Research, Development, and Demonstration Programs, U.S. Geological Survey, 1987, Open-File Report, in press.
- 10. California Senate Office of Research Issue Brief, "Who Pays and Who Benefits: An Update on Water Development in California," June, 1987, p. 11.
- 11 Catalytic, Inc., "Desalting Handbook for Planners," 2nd ed., OWRT TT/80 3, National Technical Information Service, Springfield, VA, PB 80-202518, September 1979, p. 321.
- Ohannabasappa, K. C., "Status of Reverse Osmosis Desalination Technology, *Desalination*, 1975, vol. 17, pp. 31-67.
- 13 Chesher, R. H., "Biological Impact of a Large-scale Desalination Plant at Key West," EPA Water Pol-

lution Control Research Series, 18080 GBX, December 1971, p. 150.

- 14 Congressional Budget Office, "Financing Municipal Water Supply Systems, " May 1987, p. 44.
- 15 Cywin, A., Rey, G., Dea, S.J., et al., "Distillation of Wastewaters: A Water Resource for Arid Regions, " in Water Quality Management Problems in Arid Regions, J.P. Law, Jr., and J.L. Witherow, (eds.) Federal Water Quality Administration Water Pollution Control Research Series 13030 DYY, October 1970, pp. 85-94.
- Dea, S.J., "Water Quality Requirements and Reuse of Wastewater Effluents, 'in Water Quality Management Problems in Arid Regions, J.P. Law, Jr., andJ.L. Witherow, (eds.) Federal Water Quality Administration Water Pollution Control Research Series 13030 DYY, October 1970, pp. 37-44.
- 17. Delyannis, A. A., and Delyannis, E., "Solar Desalination," *Desalination, 1984*, vol. 50, pp. 71-81.
- Dunham, D. C., *Fresh Water from the Sun*, Agency for International Development, Department of State, Washington, D. C., 1978, p. 133.
- Dykes, G. M., "Desalting in Florida, "Journal of the American Water Works Association, vol. 75, No. 3, March 1983, pp. 104-107.
- "Drinking the Sea Gets Cheaper and Tastier," *Economist*, May 16, 1987, pp. 89-90.
- E1-Nashar, A. M., and El Baghdadi, A. M., "Seawater Distillation by Solar Energy, *Desalination,* 1987, vol. 16, No. 1, pp. 49-66,
- El-Rarely, N. A., and Congdon, C. F., "Desalting Plants Inventory, Report No. 6," Office of Saline Water, October 1977, National Technical Information Center, PB-274 896, p. 113.
- Eliassen, R., "Water Desalting, Present and Future, 'Journal of the American Water Works Association, vol. 61, No. 11, November 1969, pp. 572-574.
- Evans, R. H., "Operation of Sea Water Distillation Plants," *Journal of the American Water Works Association*, vol. 61, No. 12, December 1969, pp. 663-666.
- Feth, J. H., et al., "Preliminary Map of the Conterminous United States Showing Depth to and Quality of Shallowest Ground Water Containing More than 1,000 PPM Dissolved Solids, " Elydro-Zogic Investigations, Atlas HA-199, Washington, D. C., U.S. Geological Survey, 1965.
- 26. Furukawa, D. H., "Examining Desalting Processes for Regional and Local Water Problems," *The Role of Desalting Technology in Water Supply, Wastewater Reuse and Industrial Applications: A Com-*

pilation of Papers Presented as a Series of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 49-57.

- 27. Garvey, T., Westlands Water District, personal communication, October 1987.
- Goeldner, R. W., Stewart, J. M., and Disi, S. A., "Vapor Compression Revisited," Proceedings of the First Biennial Conference entitled "Is Current Technology the Answer?," National Water Supply Improvement Assoc., June 8-12, 1986, p. 18.
- Hamner, W. G., "Joint Discussion of Electrodialysis in Buckeye: Operation, "Journal of the American Water Works Association, vol. 56, No. 12, 1964, pp. 1537-1542.
- Hedlund, J. D., "USDA Planning Process for Colorado River Basin Salinity Control, *SaZinity in Watercourses and Reservoirs,* Proceedings of the 1983 International Symposium on State-of-the-Art Control of Salinity, Salt Lake City, Utah, R.H. French, (cd.) 1983, pp. 63-78.
- Holburt, M. B., "Colorado River Salinity-The User's Perspective, " *Salinity in Watercourses and Reservoirs,* Proceedings of the 1983 International Symposium on State-of-the-Art Control of Salinity, Salt Lake City, Utah, R.H. French, (cd.) 1983, p. 13-22.
- Homer, W. A., "New Concepts for Desalting Brackish Water, "Journal of the American Water Works Association, vol. 60, No. 8, August 1968, pp. 869-881.
- International Desalination Associates, ' 'IDA Worldwide Desalting Plants Inventory, ' Wangnick Consulting Engineers, February 1987, p. 197.
- 34. Johnson, W. E., "Desalting by Freezing," The Role of Desalting Technology in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Series of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 39-48.
- 35 Jorgensen J., National Water Supply Improvement Association, personal communication, October 1987.
- 36. Katz, W. E., "Treating Brackish Water for Community Supply, *The Role of Desalting Technol*ogy in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Seri"es of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 97-108.
- Koelzer, V. A., "Desalting," National Water Commission, May 1972, p. 134.
- 38. Krous E. S., Wagner, J. P., Parkinson, H. L., et al.,

"Desalting Saline Water for Irrigation: A Case Study, Coachella Area, California, "Water Resources Bulletin, 1971, vol. 7, No. 4, pp. 810-822.

- Lamb, J. C., "Economic Aspects of Saline-water Conversion," *Journal of the American Water Works Association*, vol. 54, July 1962, pp. 781-788.
- Lauer, W. C., Rogers, S. E., and Ray, J. M., "The Current Status of Denver's Water Reuse Project, *Journal of the American Water Works Association*, vol. 77, No. 7, 1985, pp. 52-59.
- Lawand, T. A., "Systems for Solar Distillation," *AnnaZs of Arid Zone, 1976*, vol. 15, No. 3, pp. 177-205.
- 42. Leeper, S. A., Stevenson, D. H., Chiu, P. Y. C., et al., EG&G Idaho, Inc., "Membrane Technology and Applications: An Assessment, EGG-2282, February 1984, p. 135.
- Leighton, D., Nusbaum, I., and Mulford S., "Effects of Waste Discharge from Point Loma Saline Water Conversion Plant on Intertidal Marine Life, "Journal of the Water Pollution Control Federation, vol. 39, No. 7, July 1967, pp. 1190-1202.
- Lindsten, D. C., "Development of U.S. Army Reverse Osmosis Water Purification Equipment, U.S. Army Belvoir Research and Development Center, Report 2418, January, 1986, p. 70.
- McLaughlin, G. R., and Pizzino, J. F., "Reverse Osmosis for Naval Facilities and Ships at Pierside," draft report, TM-27-86-34, p. 108.
- Miller, W. H., ' 'Denver's Plans for Water Reuse, Journal of the American Water Works Association, voi. 77, No. 7, 1985, pp. 13-22.
- Moore, D. M., "Greenfield, Iowa, Reverse Osmosis Desalting *Plant, "Journal of the American Water Works Association*, vol. 64, No. 11, 1972, p. 781.
- National Water Commission, "New Directions in U.S. Water Policy," Washington, D. C., 1973, p. 197.
- 49 National Technical Information Service, "National Statistical Assessment of Rural Water Conditions, What is the Most Effective Water Policy for the United States, Congressional Research Service, U.S. Senate Document 99-2, 1985, pp. 856-876.
- O'Shaughnessy, F., "Desalting Plants Inventory, Report No. 4," Office of Saline Water, March 1973, National Technical Information Center, PB-251575, p. 27.
- Office of Technology Assessment, "Protecting the Nation's Groundwater from Contamination," OTA-O-233, October 1984, p. 244.
- Office of Technology Assessment, "Wastes in Marine Environments, "" OTA-O-334, April 1987, p. 312.
- 53. Parsons Company, R. M., "Engineering Study of

the Potentialities and Possibilities of Desalting for Northern New Jersey and New York City, "Office of Saline Water, R&D Progress Report 207, 1966, pp. 297.

- 54, Patterson, W. L., and Banker, R. F., "Effects of Highly Mineralized Water on Household Plumbing and Appliances, *Journal of the American Water Works Association*, vol. 60, No. 9, 1968, pp. 1060-1069.
- PRC TOUPS, "Evaluation of Desalination Technology for Wastewater Reuse, 'OffIce of Water Research and Technology, Washington, D. C., OWRT/14-34-0001-7802, August 1982, p. 46.
- Pye, V. I., and Patrick, R., "Ground Water Contamination in the United States, '*Science, vol.* 221, Aug. 19, 1983, Pp. 773-818.
- Reed, S. A., "Desalting Seawater and Brackish Water: 1981 Cost Update," DE82020482, ORNI-J TM-8191, Office of Water Research and Technology, Washington, D. C., August 1982, p. 46.
- Repetto, R., "Skimming the Water: Rent-seeking and the Performance of Public Irrigation Systems, World Resources Institute, Research Report No. 4, December 1986, p. 47.
- Robinson, M. P., Jr., Westerhoff, G. P., and Leahy, T. M., "Desalting—A Water Supply Alternative for Virginia Beach," *Journal of the American Water Works Association,* vol. 75, No. 3, 1983, pp. 109-117.
- 60. Rozelle, L. T., ' 'Point-of-Use/Point-of-Entry Drinking Water Treatment: General State-of-the-Art, paper presented at American Water Works Association National Conference, Kansas City, June 1987, p. 24.
- Sackinger, C. T., "RO vs MSF for High-Capacity Seawater Desalination Plants, *Power Enq"neering*, August 1982, pp. 56-58.
- Savage, W. F., "A Review of Desalination Processes and Product Water Costs, *Water Resources Research*, vol. 6, No. 5, October 1970, p. 1449.
- 63. Schad, T. M., "Western Water Resources: Means to Augment the Supply," Western Water Resources: Coming Problems and Policy Alternatives, symposium sponsored by the Federal Reserve Bank of Kansas City, Sept. 27-28, 1979, pp. 113-133.
- 64. Scheffer, S. L., Holloway, H. D., and Miller, E. F., (R.M. Parsons Company), "The Economics of Desalting Brackish Waters for Regional, Municipal and Industrial Water Supply in West Texas, Office of Saline Water, R&D Progress Report 337, 1967, p. 305.
- 65(Schmauss, L. R., "A Review of Electrodialysis, Proceedings of the First Biennial Conference entitled "Is Current Technology the Answer?, Na-

tional Water Supply Improvement Association, June 8-12, 1986, p. 28.

- Schroeder, P.J., Khan, A. R., and Mulford, S. F., "Desalting Plans and Progress: Am Evaluation of the State-of-the-Art and Future Research and Development Requirements (2nd cd.)," OffIce of Water Research and Technology, T-0024 (#7707) (l), Washington, D. C., January 1978, p. 163.
- 67. Sliger, H. B., "Seawater Desalination by Reverse Osmosis," The Role of Desalting Technology in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Series of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 145-163.
- Solley, W. B., USGS. The 1985 data on water use in the U.S. is scheduled for publication by the U.S. Geological Survey at the end of 1987. Personal communication, 1987.
- Solley, W. B., Chase, E. B., and Mann IV, W. B., "Estimated Use of Water in the United States in 1980," U.S. Geological Survey Circular 1001, 1983, p. 56.
- Starmer, R., and Lowes, F., "Nuclear Desalting: Future Trends, and Today's Costs, " *Chemical Engineering,* September 1968, pp. 127-134.
- 71, Sullivan, J., American Water Works Association, personal communication, April 1987.
- 72 Talbert, S. G., Eibling, J. A., and Lof, G. O. G., "Manual on Solar Distillation of Saline Water," Battelle Memorial Institute, for the OffIce of Saline Water, U.S. Department of Interior Research and Development Progress Report No. 546, NTIS No. PB 201029, April 1970.
- 73. Taylor, T. B., "Ice Ponds" *Energy Sources: Con*servation and Renewable, American Institute of Physics, ch. 28, 1985.
- 74. Taylor, T. B., personal communication, August 1987.
- 75. Trompeter, K. M., "The Yuma Desalting Plant, The Role of Desalting Technology in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Series of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 229-238.
- 76. Trompeter, K. M., "The Yuma Desalting Plant—A Status Report, "Proceedings of the First Biennial Conference entitled "Is Current Technology the Answer?, "National Water Supply Improvement Association, June 8-12, 1986, p. 13.
- 77. United Nations, "The Use of Non-conventional Water Resources in Developing Countries, " O.K. Buros (of CH2M Hill International Corporation)

and Frank Rogalla, Department of Technical Cooperation for Development, Natural Resources/ Water Series No. 14, Sales No. E.84.11.A.14, ST/ESA/149, 1985, p. 278.

- United Nations, "Progress Report on the International Drinking Water Supply and Sanitation Decade, 1985.
- U.S. Bureau of Reclamation, "Desalting Handbook for Planners," First edition, OWRT/S—76/47, National Technical Information Service, Springfield, VA, PB 253755, May 1972, p. 315.
- 80< U.S. Bureau of Reclamation, "Colorado River Salinity-Economic Impacts on Agricultural, Municipal, and Industrial Users, 1980.
- U.S. General Accounting OffIce, "Desalting Water Probably Will Not Solve the Nation's Water Problems, But Can Help," GAO/CED-79-60, May 1979, p. 22.
- 82 U.S. General Accounting OffIce, "Water Issues Facing the Nation: An Overview, "GAO/CED-82-83, May 1982, p. 30.
- 83, U.S. OffIce of Saline Water, *Manual on Solar Distillation of Saline Water, 1970.*
- 84 U.S. Office of Saline Water, "Desalting Plant Inventory Report No. 3, Dept. of Interior, Washington, D. C., 1971.
- 85. Wade Miller Associates, "The Nation's Public Works: Report on Water Supply, " National Council on Public Works Improvement, May 1987, p. 216.
- 86, Wangnick, K., "1986 World Market of Desalting

Plants, "The IDA Magazine, vol. 1, No. 4, 1987.

- 87 Warne, W. E., "A Problem in Technology Transfer: Making Desalination a Factor in Total Water Management, The Role of Desalting Technology in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Series of Technology Transfer Workshops, Office of Water Research and Technology, Washington, D. C., 1981, pp. 1-8.
- Water Desalination Report, Maria Carmen Smith

 publisher, PO Box 35-K, Tracey's Landing, MD 20779.
- 89. Water Resources Council, "The Nation's Water Resources, 1975 -2000," 1978, vol. 1, pp. 86.
- Weinberg, A. A., "Nuclear Energy and the Agro-Industrial Complex," *Nature*, vol. 222, April 1969, pp. 17-21.
- 91. Wesner, G. M., "Desalting Processes and Pretreatmerit," *The Role of Desalting Technology in Water Supply, Wastewater Reuse and Industrial Applications: A Compilation of Papers Presented as a Series of Technology Transfer Workshops,* Office of Water Research and Technology, Washington, D. C., 1981, pp. 9-38.
- 92 Wilson, G., "Kesterson: The Agricultural Sump That Shook the West, " Aqueduct, Metropolitan Water District of Southern California, 1987, vol. 53, pp. 22-25.
- Young, G., "Dry Lands and Desalted Water," Science, 1970, vol. 167, No. 3917, pp. 339-343.

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