U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
CITY OF PORTLAND BUREAU OF WATER WORKS,
INTERGOVERNMENTAL RESOURCE CENTER, AND
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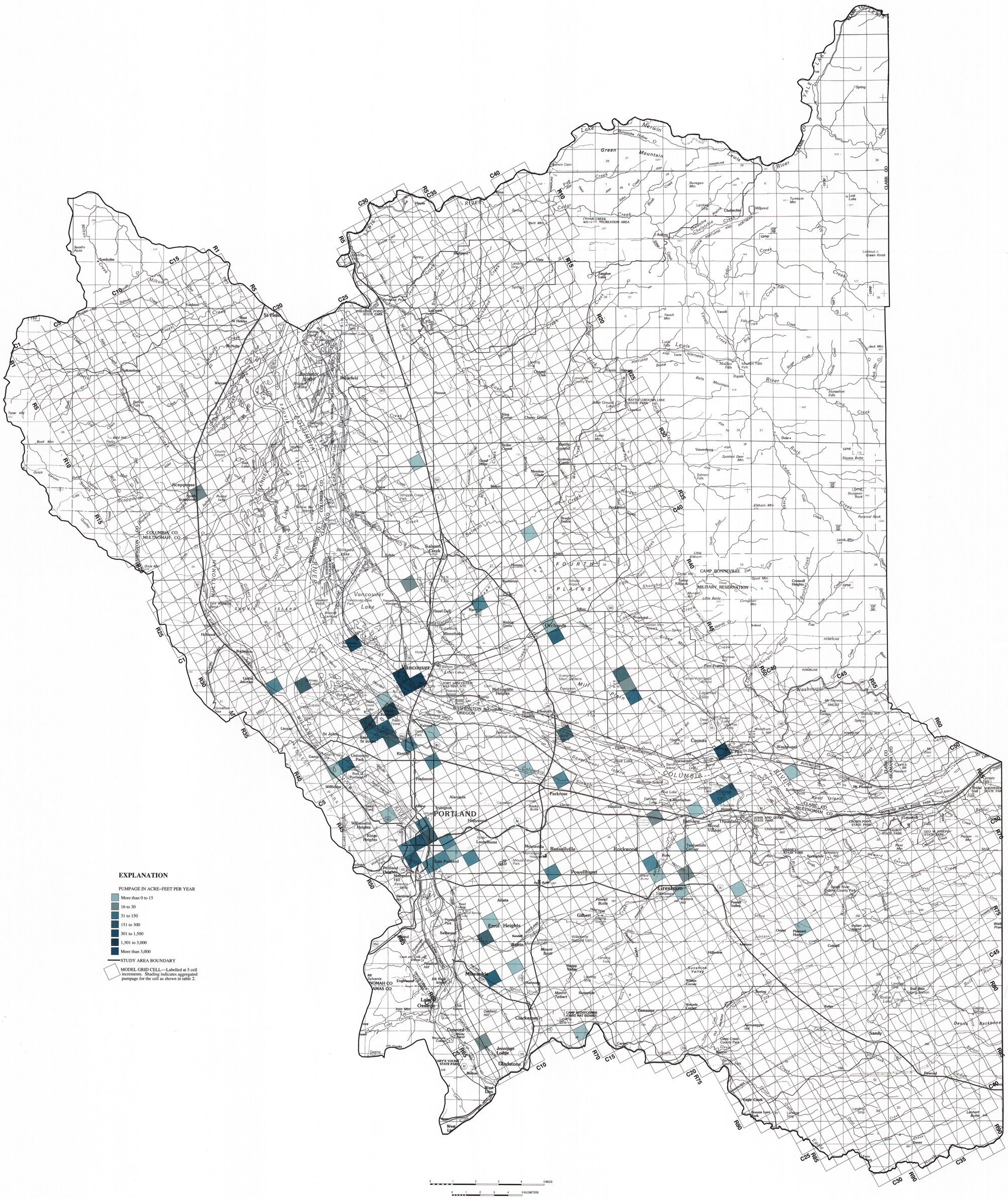
WATER RESOURCES INVESTIGATIONS REPORT 91-4018
Estimated average annual ground-water pumpage for irrigation – PLATE 3
Collins, C.A. and Broad, T.M., Estimated average annual ground-water pumpage in the Portland Basin, Oregon and Washington, 1987-88: U.S. Geological Survey Water Resources Investigations Report 91-4018



Base modified from U.S. Geological Survey
1:100,000 topographic quadrangles, 1978–84.

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ESTIMATED AVERAGE ANNUAL GROUND–WATER PUMPAGE FOR INDUSTRIAL USE IN THE PORTLAND BASIN, OREGON AND WASHINGTON, 1987–88

By
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1993