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Department of Energy

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Richland Operations Office
P.O. Box 550
Richland, Washington 99352

DEC 14 1994

94-LWB-072

Mr. Roger Stanley
State of Washington
Department of Ecology
Post Office Box 47600
Olympia, Washington 98504-7600

Dear Sir:

REQUEST FOR APPROVAL TO INSTALL LONGER WELL SCREENS IN THE 216-U-12 CRIB
GROUNDWATER MONITORING WELLS

Appendix D to the Action Plan of the Hanford Federal Facility Agreement and Consent Order (Milestone M-24-00) stipulates that, "Installation of groundwater wells shall mean that wells have been drilled, adequately sealed, and screened over no more than 15 feet of the aquifer unless otherwise approved by Ecology". The U. S. Department of Energy, Richland Operations Office (RL) proposes the installation of longer screens in future Resource Conservation and Recovery Act groundwater monitoring wells at the 216-U-12 Crib to accommodate declining groundwater levels at this site. Longer screens will extend the life of new wells constructed at this site and lead to fewer replacement wells, hence optimizing use of resources, and reducing costs.

The 216-U-12 Crib is located south of U-Plant in the southeast corner of the 200 West Area of the Hanford Site (Enclosure 1). Liquid effluent discharges, principally in the 200 West Area, had resulted in a rise in the water table beneath the U-12 Crib of at least 45 feet since 1944. Since the decommissioning of U-Pond, water levels in the area have been declining.

The water table at the U-12 Crib has been lowered by approximately four feet since the end of 1990, principally as a result of decreased effluent discharge to U-Pond. This decrease is shown by the hydrograph (Enclosure 2). A continuation of water table decline at the current rate will cause water levels to drop below the bottom of the screens on the existing monitoring wells at the U-12 Crib in less than ten years, and the wells will become unusable at that time.

Because of the magnitude of water table decline in and around the U-12 Crib it is prudent to install longer screens in new wells. The increased screen length will greatly extend the useful life of the wells and may eliminate the need for future replacement of these wells. On this basis, it is recommended that 30 foot screens be placed in all new wells at the U-12 Crib and that the screens be placed so that no more than five feet of the screen extends above the water table.



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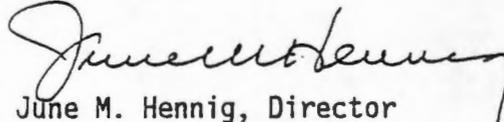
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Written approval of this request is needed to facilitate planning for wells at the U-12 Crib. This action will reduce groundwater monitoring well construction costs by reducing the number of replacement wells.

If there are any questions regarding this matter, please contact Mr. M. J. Furman of my staff on (509) 376-7062.

Sincerely,

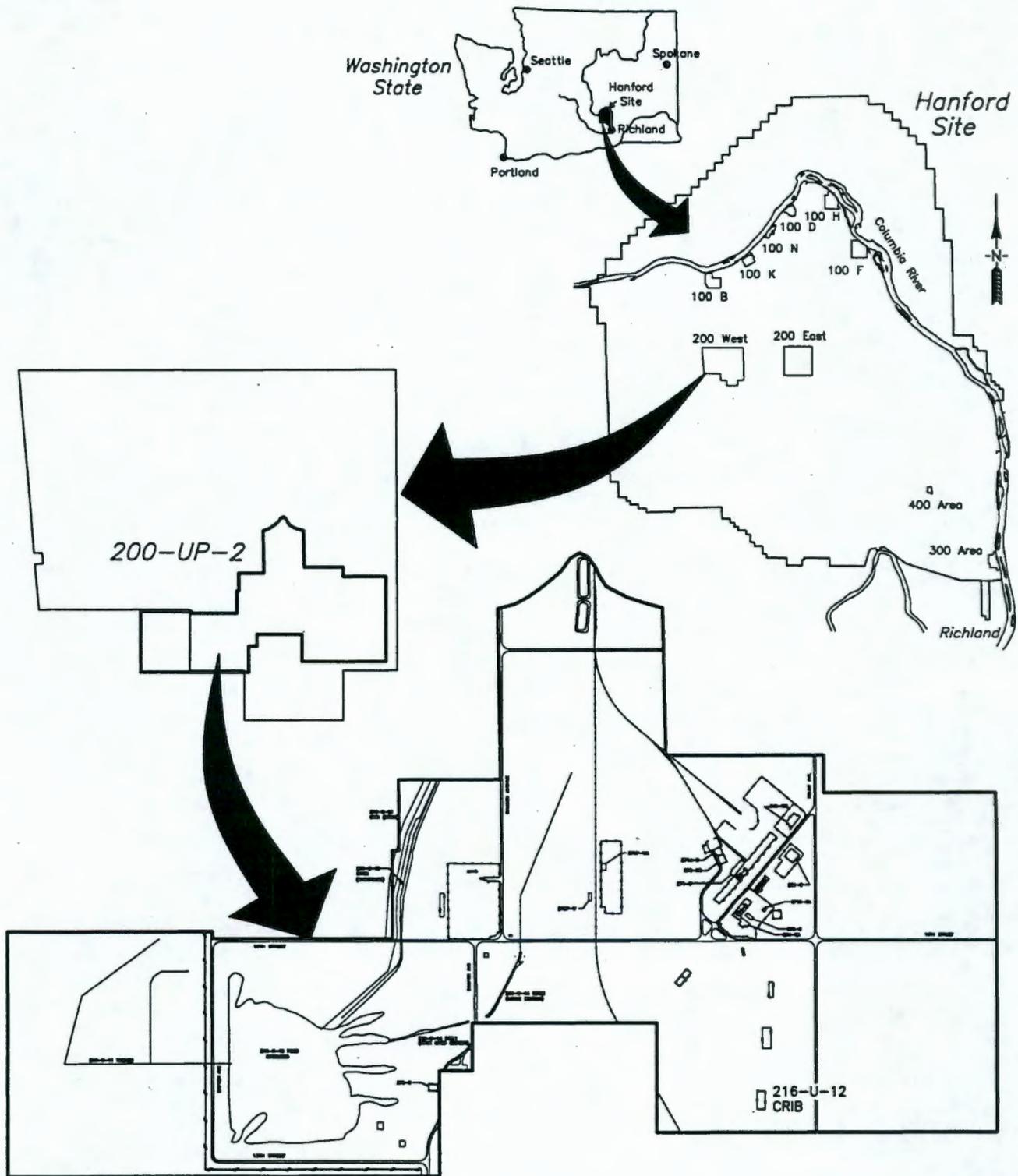


June M. Hennig, Director
Waste Programs Division

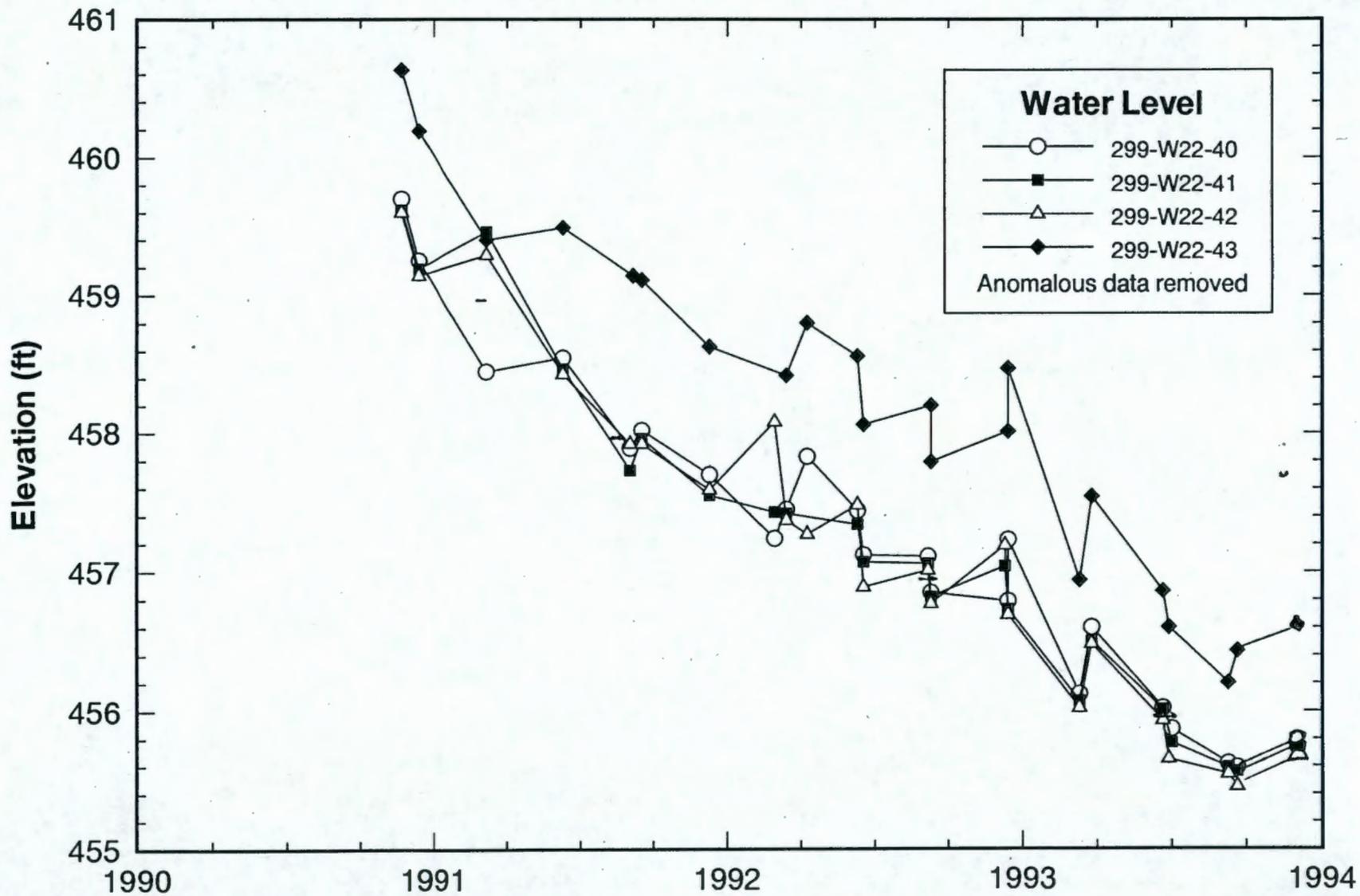
WPD:MJF

Enclosures:
Hanford Site Location Map
Hydrograph for Well Surrounding the 216-U-12 Crib

cc w/o encl:
J. W. Cammann, WHC
R. R. Thompson, WHC



216-U-12 Crib Location Plat



Hydrograph for Wells Surrounding the 216-U-12 Crib

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author

Addressee

Correspondence No.

J. M. Hennig, RL
(B. A. Williams, 376-3416)

R. Stanley, Ecology

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Subject: REQUEST FOR APPROVAL TO INSTALL LONGER WELL SCREENS IN THE 216-U-12
CRIB GROUNDWATER MONITORING WELLS

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