PNL-10196
NC-2010

Predicted Impacts of Future Water Level Decline on Monitoring Wells Using a Ground-Water Model of the Hanford Site

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December 1994

Prepared for
the U.S. Department of Energy
under Contract DE-AC06-76RLO 1830

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Executive Summary

Since Hanford Site operations were curtailed in 1987, and the Site mission has shifted from the production of nuclear materials to environmental restoration, waste management, and technology development, the volume of water discharged to the ground has been greatly reduced. As a result, the water table has begun to decline, potentially impacting existing monitoring wells used by contractors on the Hanford Site. Pacific Northwest Laboratory conducted a study for the U.S. Department of Energy, as part of the Hanford Site Ground-Water Surveillance Project, to evaluate the impacts of declining water levels on existing monitoring wells in the unconfined aquifer system at the Hanford Site.

A ground-water flow model was used to predict water level decline in selected wells in the operating areas (100, 200, 300, and 400 Areas) and the 600 Area. To predict future water levels, the unconfined aquifer system was simulated with the two-dimensional version of a ground-water model of the Hanford Site, which is based on the Coupled Fluid, Energy, and Solute Transport (CFEST) Code in conjunction with the Geographic Information Systems (GIS) software package. The model was developed using the assumption that artificial recharge to the unconfined aquifer system from Site operations was much greater than any natural recharge from precipitation or from the basalt aquifers below. However, artificial recharge is presently decreasing and projected to decrease even more in the future. As the flow system approaches pre-Hanford conditions, this assumption will become invalid and it will be crucial to include natural recharge in the model to accurately represent the water balance and the driving forces that control water movement.

Wells currently used for monitoring at the Hanford Site are beginning to go dry or are difficult to sample, and as the water table declines over the next 5 to 10 years, a larger number of wells is expected to be impacted. The water levels predicted by the ground-water model were compared with monitoring well completion intervals to determine which wells will become dry in the future. Predictions of wells that will go dry within the next 5 years have less uncertainty than predictions for wells that will become dry within 5 to 10 years. Each prediction is an estimate based on assumed future Hanford Site operating conditions and model assumptions. Future conditions that differ from those used in the model will result in a different hydrologic response.

Dewatering of the unconfined aquifer in response to decreased wastewater discharge in the future will be transient, and portions of the aquifer will release water at different times. The effects of declining discharges at the Hanford Site will be observed in the unconfined aquifer system for several decades to come.

Acknowledgments

Several people contributed to the development of this report. The authors would like to thank John McDonald for generating the hydrographs and compiling the effluent discharge data for the model inputs. The following people provided information on effluent volumes and projections for future Site operations: Sandy Thomas, Westinghouse Hanford Company (WHC); Scott Meyer, City of Richland; Marvin McCarthy, WHC; Jim Chasse, Washington Public Power Supply System (WPPSS); Kristi Lueck, WHC; Craig Perkins, WHC; A. J. (Tony) Diliberto, WHC; Michael Brown, WHC; and Joseph Thrasher, WHC. Mickie Chamness compiled the well screen data, and Bill Webber provided selected results from his letter report for inclusion in this study. Thanks and appreciation also go to Charlie Cole, Evan Dresel, and Stuart Luttrell for providing technical peer reviews.

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Introduction

The purpose of this study was to predict the impacts of declining water levels on monitoring wells in the unconfined aquifer system at the Hanford Site. The scope of this effort includes evaluation of monitoring wells in the operating areas (100, 200, 300, and 400 Areas) and across the Site in the 600 Area.

Discharges of wastewater to the ground at the Hanford Site have created ground-water mounds in the unconfined aquifer system near each of the major operating areas (Woodruff et al. 1993). Water levels have changed continually during Site operations because of variations in the volume of wastewater discharged (Zimmerman et al. 1986; Newcomer 1990). Since 1987, the Site mission has shifted from the production of nuclear materials to environmental restoration, waste management, and technology development. To restrict further degradation of the ground water, DOE and the Washington Department of Ecology have signed Consent Order Number 91NM-177. Under this order, disposal of untreated effluent to the soil column will be discontinued after June 1995. The Consent Order identifies Phase I and II streams. Tri-Party Agreement (TPA) Milestone M-17-00 "Complete Liquid Effluent Treatment Facilities/Upgrades for all Phase I Streams" requires DOE to cease disposal of all untreated effluent to the soil column by June 1995. In response to this drastic decrease in the volume of wastewater discharged to the ground, the water table has begun to decline, potentially impacting existing monitoring wells used by contractors on the Hanford Site.

This evaluation of impacts to existing monitoring wells was conducted under the Hanford Site Ground-Water Surveillance Project for the U.S. Department of Energy. A ground-water model of the unconfined aquifer system at the Hanford Site (Wurstner and Devary 1993) based on the Coupled Fluid, Energy, and Solute Transport (CFEST) Code was used in conjunction with the commercially available Geographic Information Systems (GIS) software package, Arc/Info. Model predictions developed for this study are compared with those of a companion study, funded by Westinghouse Hanford Company, which makes estimates on a straight-line projection of well hydrographs[a].

(a) Webber, W. D., and J. P. McDonald. 1994. *Impact of Declining Water Levels on Ground-Water Monitoring Networks at the Hanford Site, Richland, Washington.* Letter Report for Westinghouse Hanford Company by Pacific Northwest Laboratory, Richland, Washington.

Technical Approach

The approach used in this study was to predict water level decline in selected wells with a ground-water flow model. The future water levels were then compared with completion depths and screened intervals of wells used for monitoring the unconfined aquifer system.

To predict future water levels for the monitoring well evaluation, the aquifer was simulated with the two-dimensional model based on CFEST (Wurstner and Devary 1993). The transmissivity distribution and initial conditions were derived from the inverse calibration performed for 1979 (Jacobson and Freshley 1990). The distribution of hydraulic heads from the inverse calibration (1979 data) was used as initial conditions for the simulation. The simulation was conducted in two stages. The first stage consisted of predicting water levels through 1993 and comparing with observed maps of hydraulic heads. The second stage consisted of continuing the simulations to project the future water table response.

The hydraulic heads predicted with the ground-water flow model were compared with the bottom of screened or perforated intervals recorded for wells in the unconfined aquifer system (Chamness and Merz 1993). This comparison provides an estimate of whether the well is "dry" or how much head is available in the well for operating sample pumps. Because CFEST predicts hydraulic heads at nodes that may not coincide with well locations, Arc/Info was used to interpolate head values from CFEST to the well locations. Arc/Info was also used to generate plots of wells in categories according to the height of the water column available for sampling. All Hanford Site wells located within the model boundary, and for which screen interval information was available, were included in the study and are illustrated in Figure 1.

Monthly effluent discharges from 1980 to 1992 were based on WHC effluent reports. Figure 2 shows the location of these discharge sites, and Figure 3 summarizes and compares the aggregate volumes in the 200 East, 200 West, 100-BC, and 100-N areas. The discharge estimates were revised based on input from staff members responsible for effluent monitoring. The revised estimates, with an assessment of their quality, is provided in Appendix A. Effluent discharges for 1993 to 2005 are also based on projected Site operations and decreased wastewater discharges. These estimates are also summarized in Appendix A. No natural recharge was included in these simulations, although it is recognized to occur on the Hanford Site (Gee et al. 1992). Natural

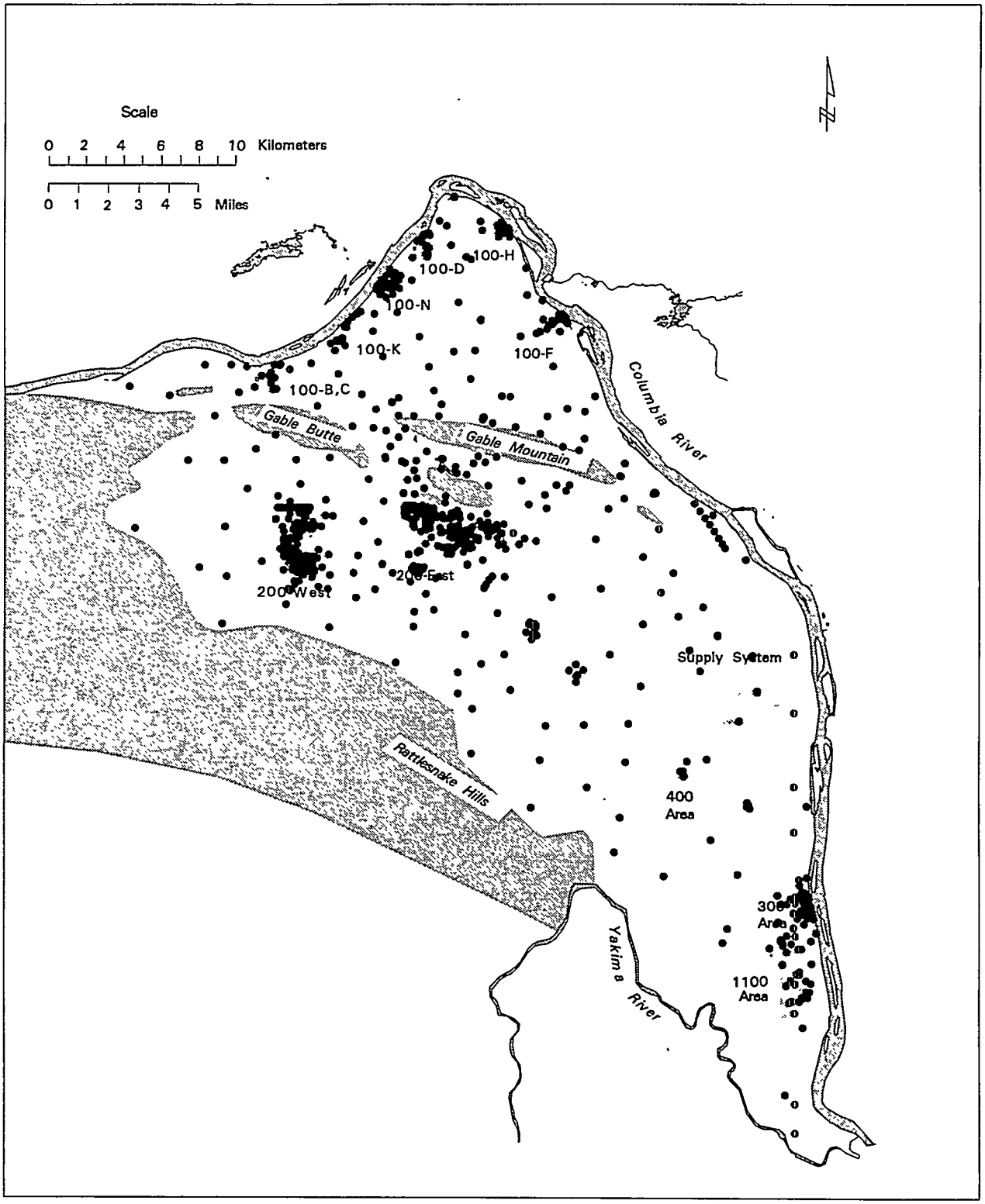

Figure 1. Map of Wells Used in this Study.

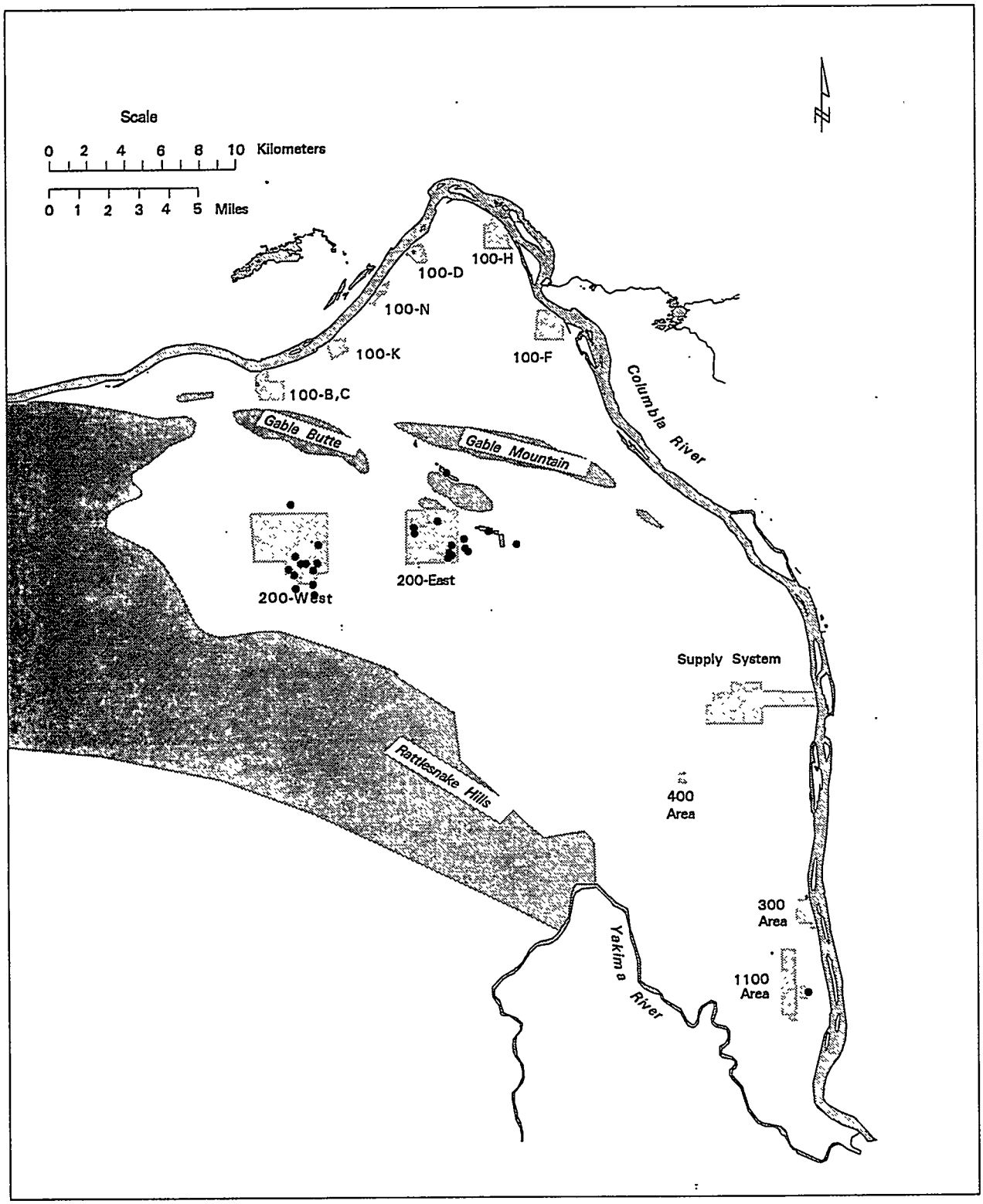

Figure 2. Hanford Effluent Discharge Sites Included in the Model.

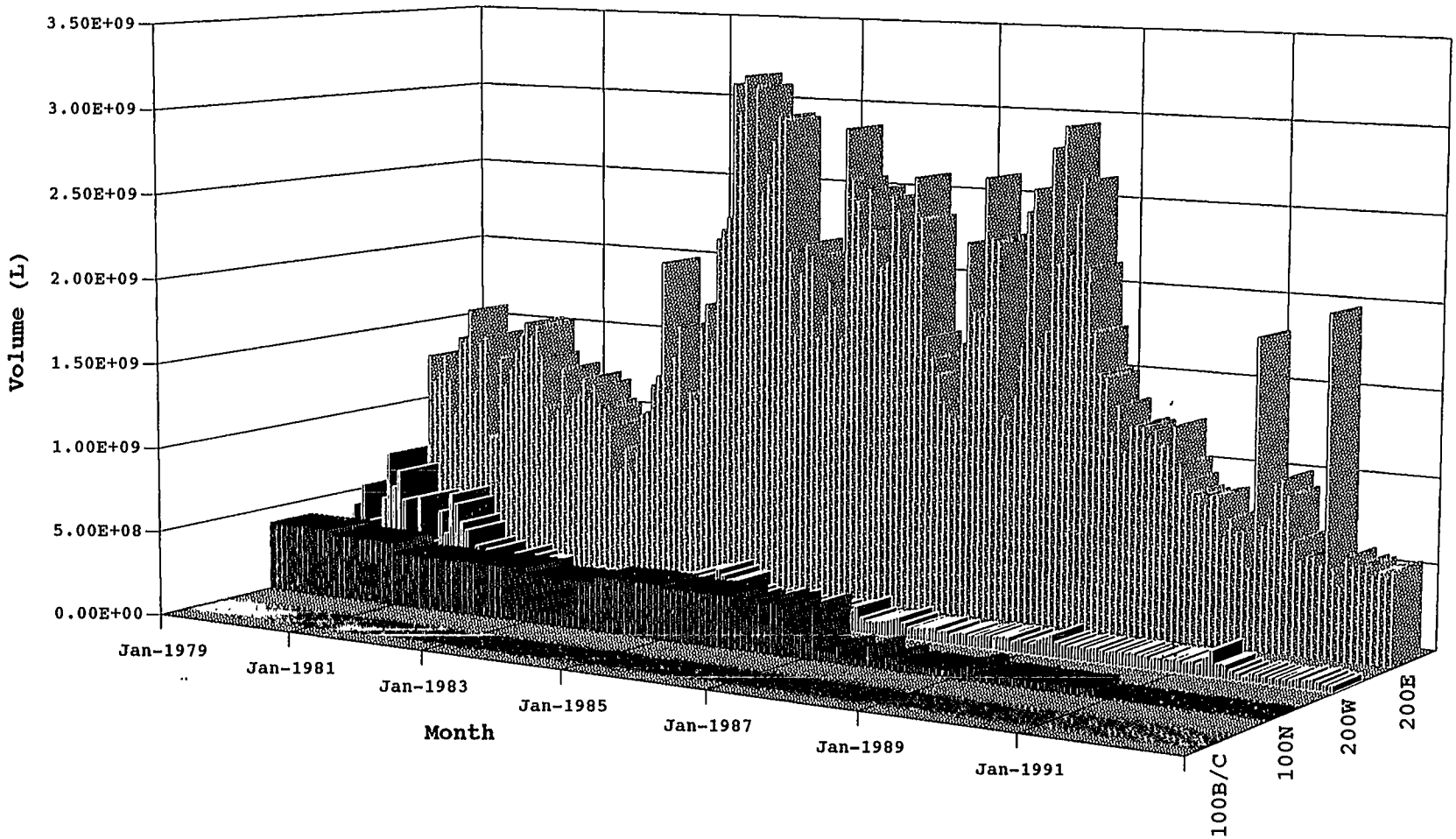

Figure 3. Bar Graph of Waste Streams in the 200 East, 200 West, 100-BC, and 100-N Areas of the Hanford Site, 1979 through 1993.

Table 1. Specific Yield Data from the Hanford Site

Well	Storativity	Specific Yield	Reference
199-K-10	0.00007	0.04	Bierschenk 1957
699-S22-E9B	0.005	0.02	Swanson 1992
699-S27-E9A	0.013	0.37	Swanson et al. 1994
699-36-61B		0.05	Kipp and Mudd 1973
699-37-82A	0.02	0.18	Graham et al. 1981
699-43-88		0.05	Graham et al. 1981
699-47-35C	0.002	0.15	Graham et al. 1981
699-55-50B		0.2	Bierschenk 1957, Thorne and Newcomer 1992
699-62-43B		0.06	Bierschenk 1957

recharge will be included in future work with the two- and three-dimensional models being developed by the Ground-Water Surveillance Project.

Boundary conditions are the same as those described in Wurstner and Devary (1993). These consist primarily of prescribed head along the Columbia and Yakima rivers, no-flow boundaries at the bottom of the aquifer and along the basalt outcrops and subcrops, and constant flux along a portion of Rattlesnake Mountain (reflecting discharges from springs) and along the Dry Creek valley. A prescribed head boundary was also used at the entrance of Cold Creek Valley onto the Hanford Site. This boundary is impacted by offsite irrigation upgradient from the Hanford Site boundary. A value of 150 m was used to reflect recent water level observations in well 699-43-104, located near the boundary. No natural recharge from precipitation was included and no interconnection between the unconfined aquifer and the deeper basalt aquifers was accounted for.

The transient simulation used in this study required specification of the storativity, or specific yield, as it is labeled for an unconfined aquifer. Relatively few specific yield values have been measured for the unconfined aquifer at the Hanford Site because determination of this parameter requires a multiple-well pumping test. The values that have been reported (summarized in Table 1) are similar to the normal range of specific yield (0.01 to 0.30) reported for unconfined aquifers (Freeze and Cherry 1979).

The approach used for treating specific yield was to assume a constant value for the entire aquifer. While specific yield is recognized to vary spatially with transmissivity, the few measurements did not provide a basis to assign different values to different elements or zones. This will be investigated as part of the three-dimensional model development because it will be important for transient simulations with that model, and the effects of spatial variability between layers may be important. Several values were tried until the predicted heads for 1992 provided a good match to the interpretation of measured values (Figure 4). A specific yield of 0.35 provided the best match. As shown in Figure 4, the predicted and observed contours match in most locations on the Site, subject to interpretation of the measured and predicted values. Several areas of interpretation are different around Gable Mountain. The area north of Gable Mountain is the location of a possible zone of perched water and the interpretations south and east of Gable Mountain reflect measurements at only a few well locations. For most of the 200 East and 200 West Areas, the model is in good agreement with observations. Once the match between predicted and observed heads was judged to be adequate by visual inspection, the simulations were continued through the year 2005. The model predicted flow conditions 12 years into the future (1993 - 2005), approximately the same duration for which it had reproduced observations (1979 - 1992).

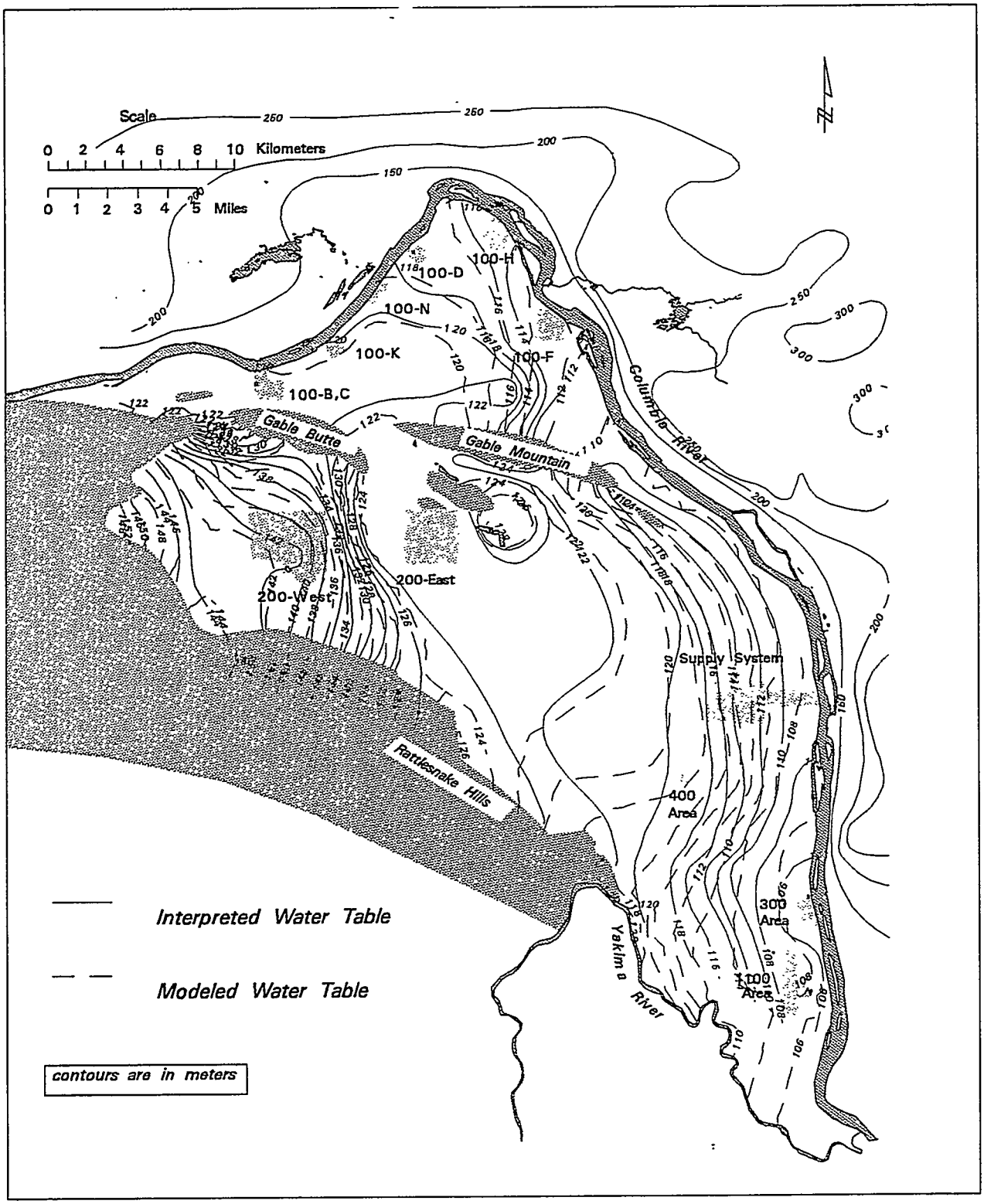

Figure 4. Comparison of Model Results to Interpreted Water Table Contours for June 1992.

Assumptions and Limitations

There is a degree of uncertainty inherent in all models that comes from the assumptions made when developing and applying them. Predictions with models can be made confidently for a time period comparable to the period that was matched historically, provided that future conditions do not invalidate some of the model assumptions. In making longer predictions, the cumulative errors arising from making inappropriate assumptions for the conceptual model, model structure, and parameter estimates may become significantly large (Bredehoeft and Konikow 1993).

Many assumptions that are associated with the current Hanford Site regional ground-water model may no longer be appropriate. Since the conceptual model was developed, new hydrogeologic data have been collected, new interpretations have been made, and the hydrogeologic conditions and driving forces (e.g., boundary conditions) at the Hanford Site have changed. The current model was developed based on the assumption that artificial recharge from Site operations was much greater than any natural recharge from precipitation or the basalt aquifers below the unconfined aquifer system at the Hanford Site. In the past, it was reasonable to ignore natural recharge because the flow system was dominated by effects from artificial recharge. However, artificial recharge is presently decreasing and is projected to decrease even more in the future. As the flow system approaches pre-Hanford conditions, this assumption becomes invalid, and it is crucial to include natural recharge in the model to accurately represent the water balance and the driving forces that control water movement.

Additional sources for uncertainty include the use of a constant value for specific yield and a constant "average" head value assigned to the Columbia and Yakima rivers. In addition, the hydraulic conductivity distribution used in the model is based on an averaging of properties across Hanford and Ringold formation layers into a transmissivity value for each element. The flow system response to water being released from storage in the Hanford formation, for example, will be quite different from the response observed in the Ringold sediments because of the difference in hydraulic properties. This assumption may greatly influence the results of a transient two-dimensional simulation. In the 100 and 300 Areas, the finite elements are large, resulting in poor resolution for the solution of ground-water flow and the interpolation of results from the CFEST nodes to the well locations.

The straight-line projection model used in a companion study has limitations because it assumes that water levels will continue to decline at the same rate in the future as they have in the past. As a result, projecting recent changes onto future conditions will not necessarily reflect the water table response to future changes in discharge unless these changes in discharge are like those of the recent past.

Both analysis methods are subject to error in the well screen elevation values. Well screen information is reported in the Hanford Environmental Information System (HEIS) database as depth from ground. However, ground surface elevation is not available for most wells, although casing elevation is. Therefore, well screen elevations were calculated from casing elevations with 2 ft subtracted to provide elevation from ground surface (most Hanford wells have a stick-up height between 2 and 3 ft). This error is consistent between the two methods since the same well data were used in both.

Results and Discussion

Simulation of future flow conditions in the unconfined aquifer system estimate how water level elevations may change in response to projected decreases in effluent discharges. Figures 5, 6, and 7 show the predicted water table for 1995, 2000, and 2005. The change (decline) in the water table that is projected to occur from 1993 to 2005 can be seen in Figure 8. The analysis comparing well screen elevations to the water table is presented for 1995, 2000, and 2005. Because of the uncertainty in the model associated with the assumptions previously described, the model should not be relied on for exact dates and water levels. However, it is reasonable to use the modeling results as a semi-quantitative representation of future conditions.

The model results may be assessed by comparison with straight-line method results for the 200 Areas. Figure 9 shows wells located in the 200 East Area that may be affected by declining water levels by the year 2000 as predicted by the CFEST simulations. Results of the straight-line projections for the same time are shown in Figure 10. Most wells fall in the same category for both analysis methods, although in this area the straight-line method tends to predict more wells going dry than does the ground-water model. Figures 11 and 12 show results for the 200 West Area. CFEST simulation results (Figure 11) generally provide higher water levels and therefore predict less wells going dry than does the straight-line projection method (Figure 12).

Appendix B contains maps of selected areas showing wells that may be affected by the change in water table elevation predicted by the model. In general, the predictions indicate that wells in the 100-N, 200-West and B-pond areas will be impacted the most by water level changes. Estimates of the water column in selected wells are presented in tabular form in Appendix C. A few wells were selected to compare with the hydrographs generated from observed data and the straight-line projection analysis (Appendix D). In most cases, the results of the model predictions show wells going dry later than do the results of the straight-line projection. This is because the straight-line projection is an extension of the current rate of decline of the water table. However, in the real system, the water levels in the unconfined aquifer system should approach a steady state asymptotically. Therefore, the straight-line projection method will overestimate the true water level decline until the curve nears steady state. The rate of decrease in discharges at the Site has been greater in the past than it will be in the future, and the straight-line projection method does not account for this. The method using a ground-water model considers this non-linear approach to steady state, and thus, in general, provides a better prediction of future water levels than the

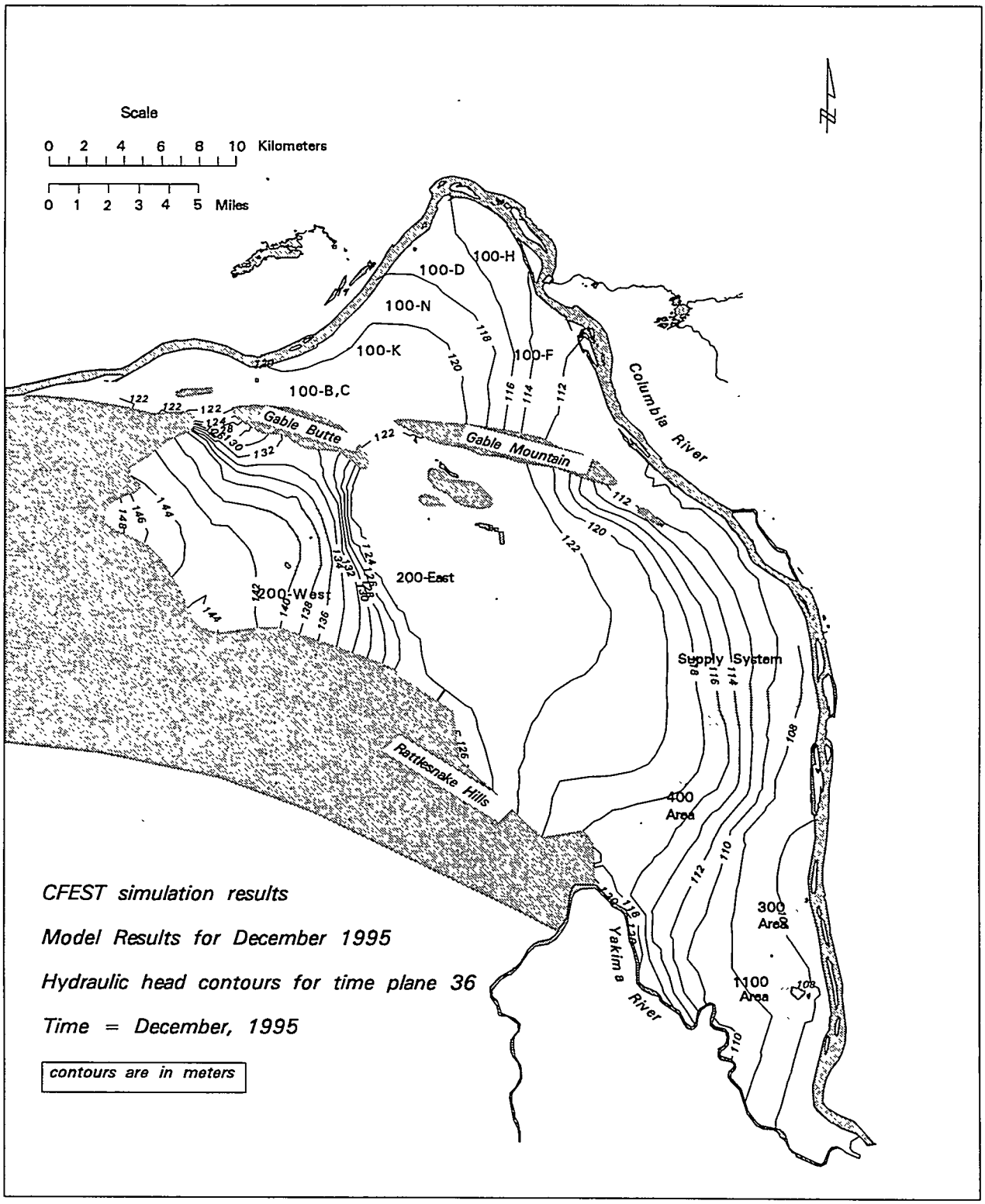

Figure 5. Model Results for December 1995

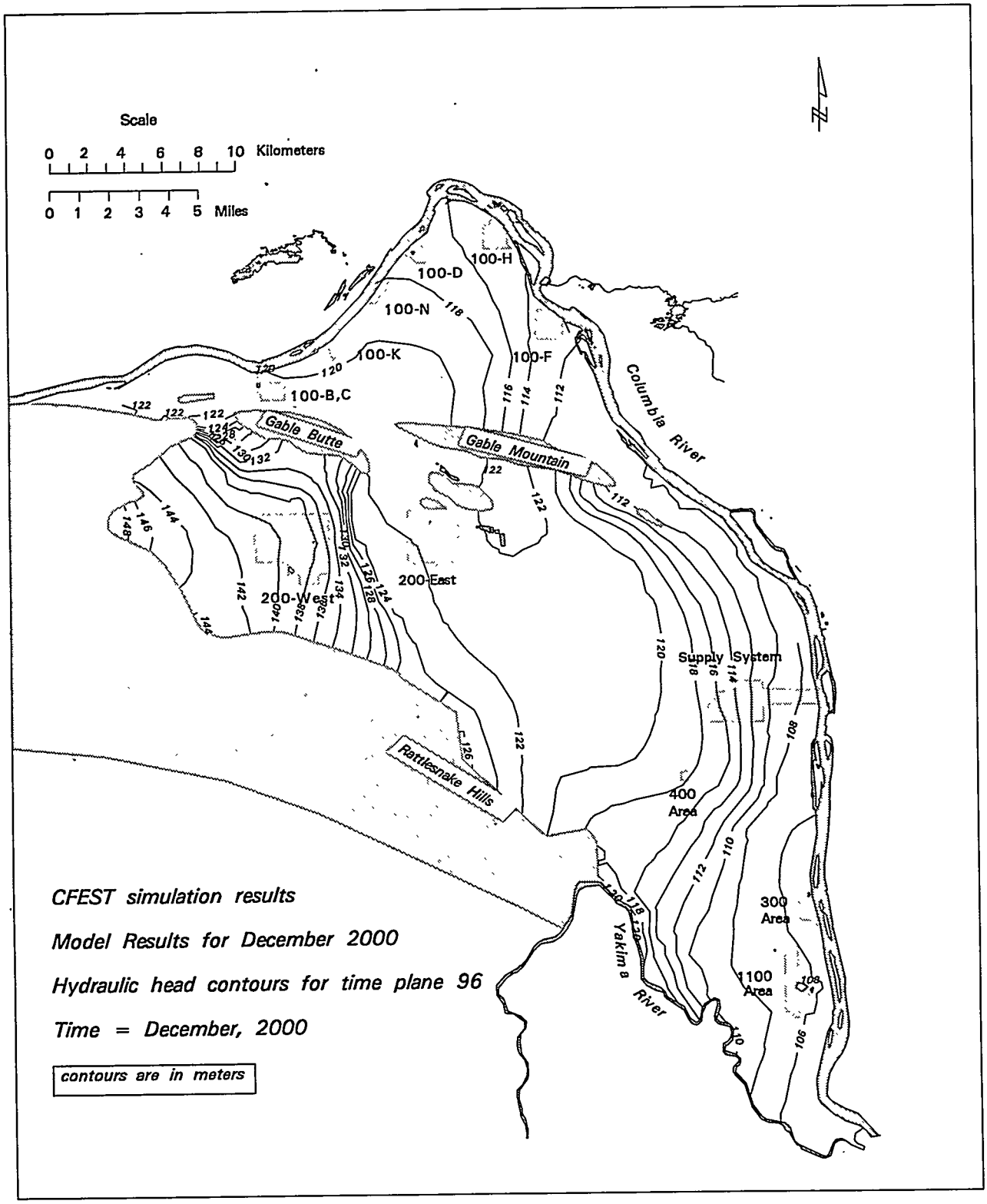

Figure 6. Model Results for December 2000

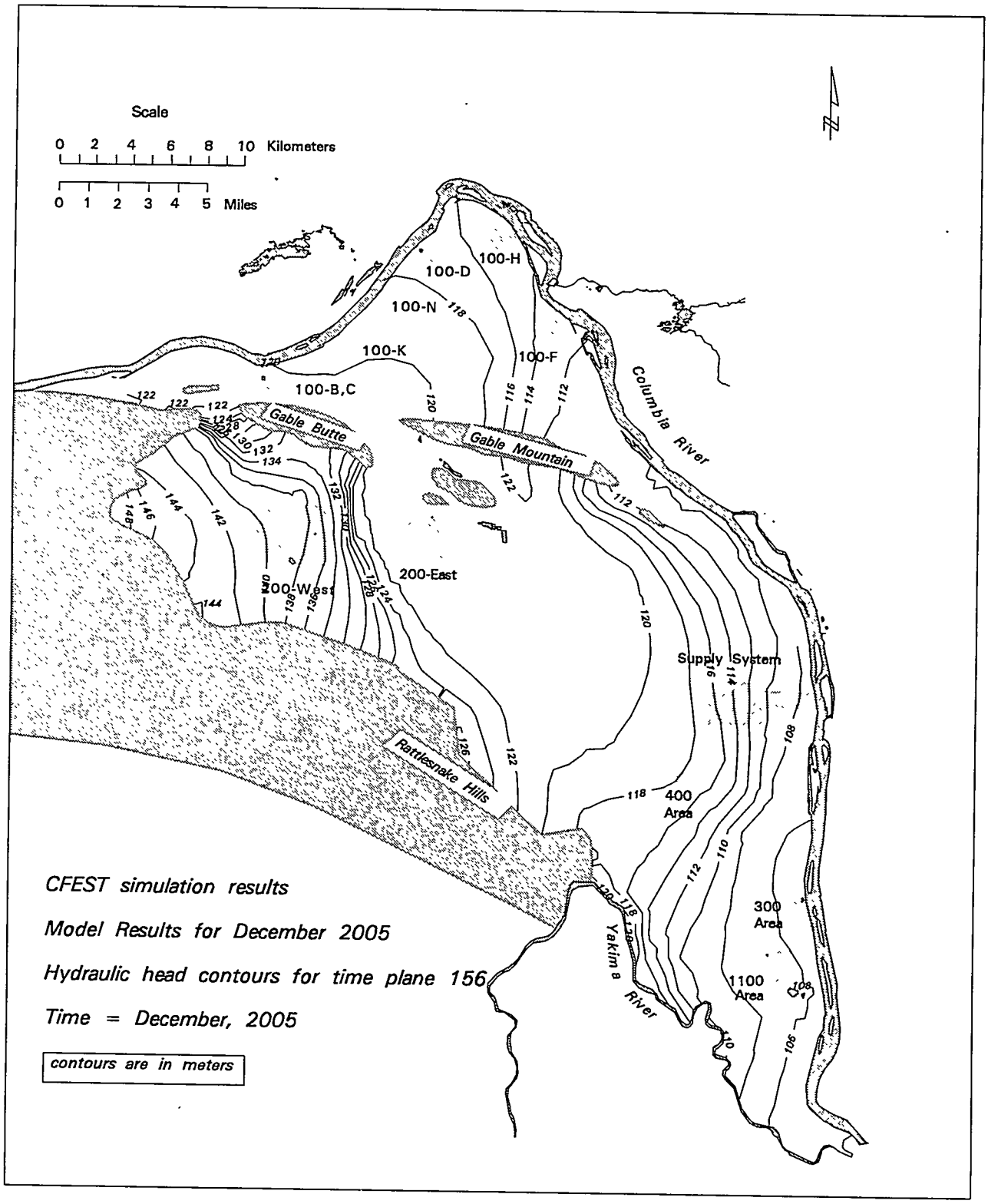

Figure 7. Model Results for December 2005

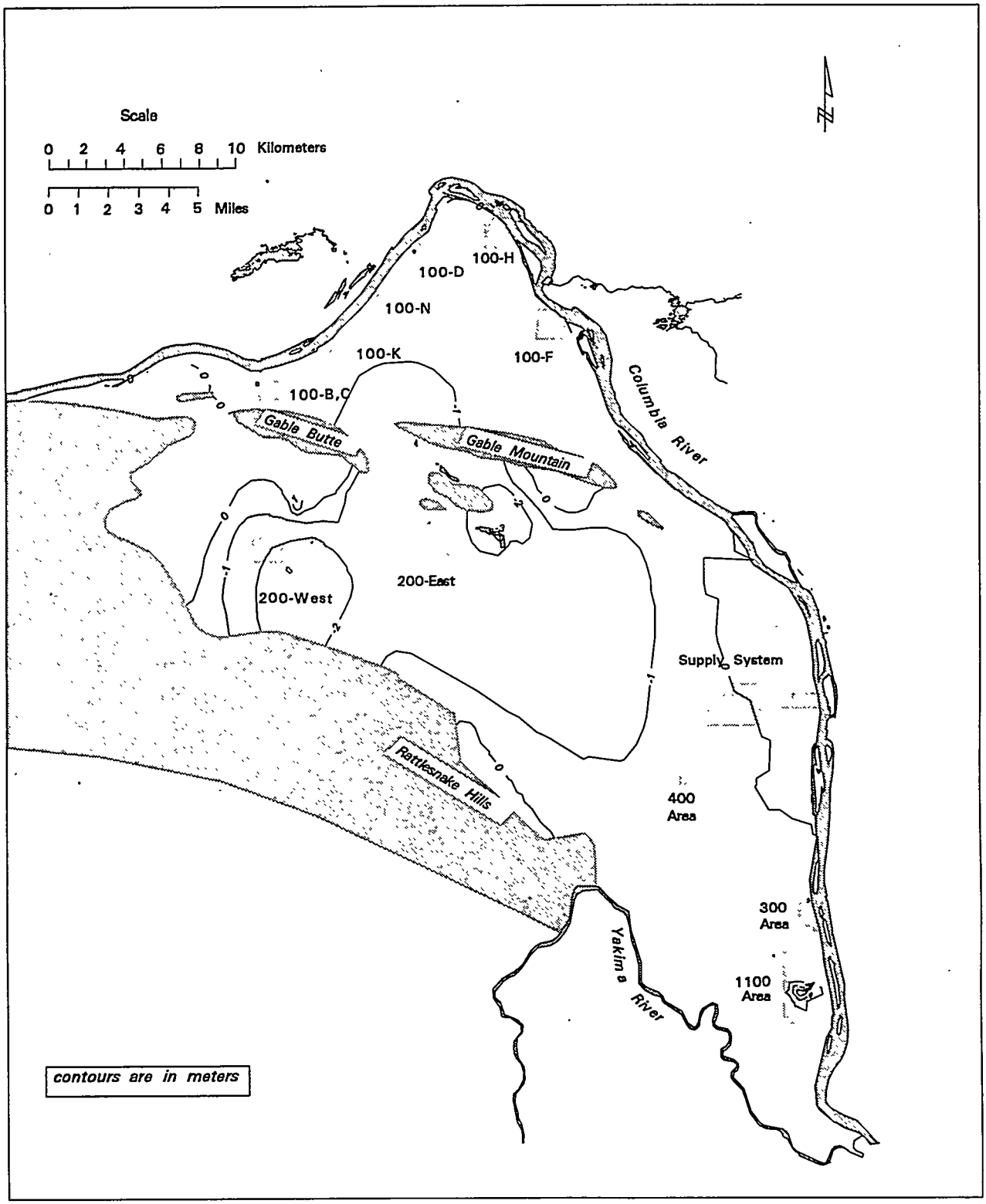

Figure 8. Modeled Water Table Changes From December 1993 to December 2005

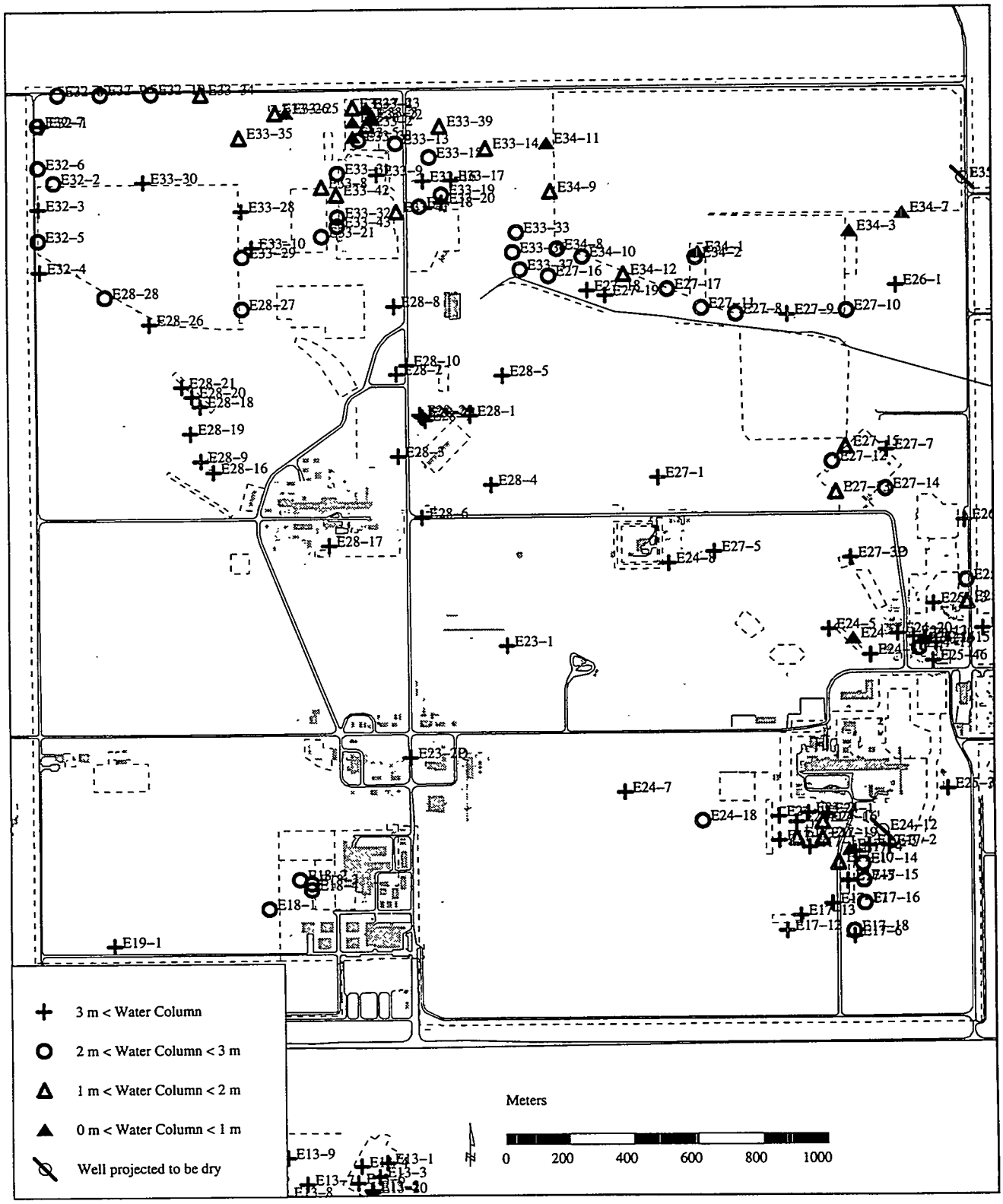

Figure 9. Predicted Impact of Declining Water Levels on 200 East Area Wells for January 2000, Determined Using the Ground-Water Model

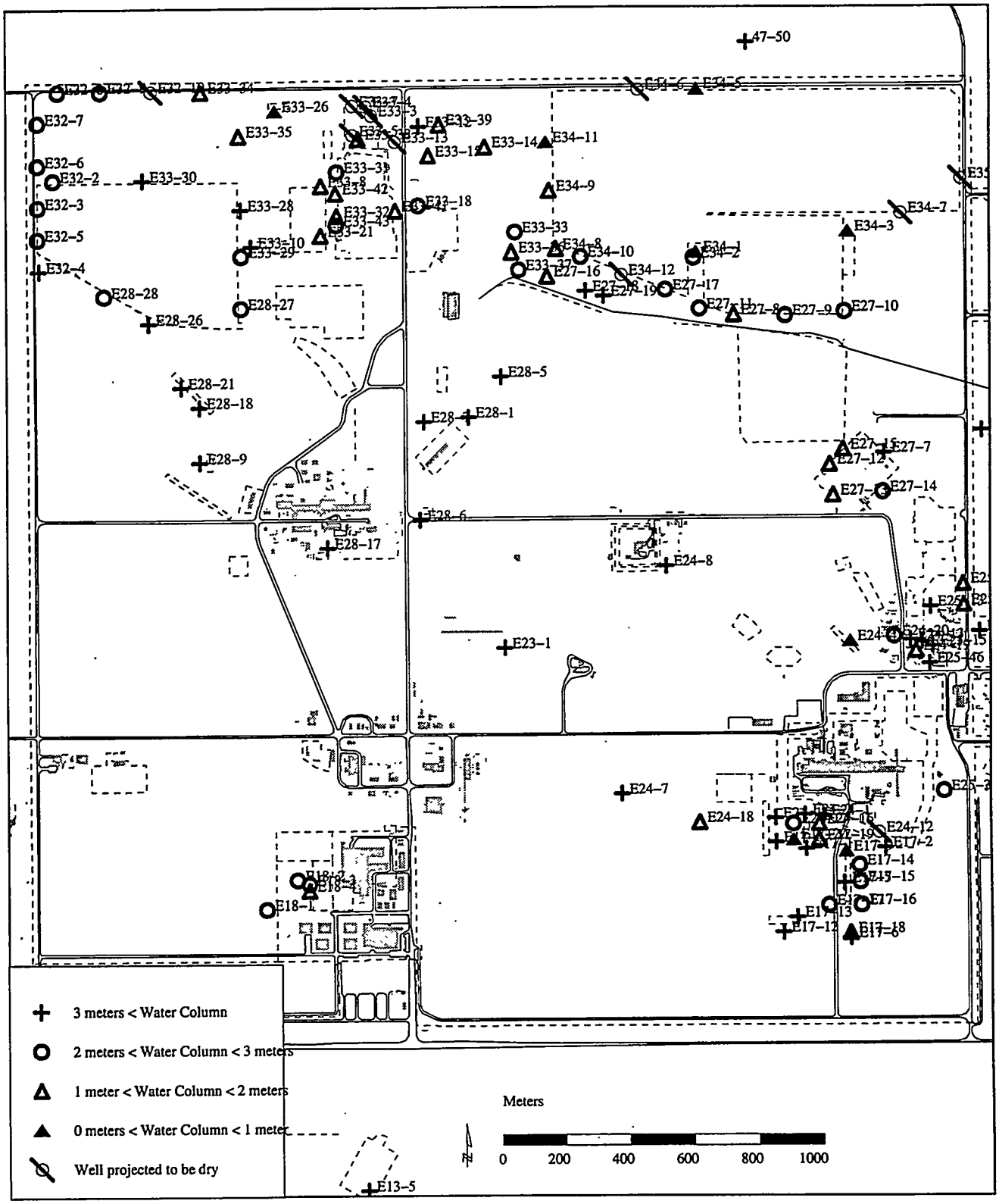

Figure 10. Projected Impact of Declining Water Levels on 200 East Area Wells for January 2000, Determined Using the Straight-Line Projection Method

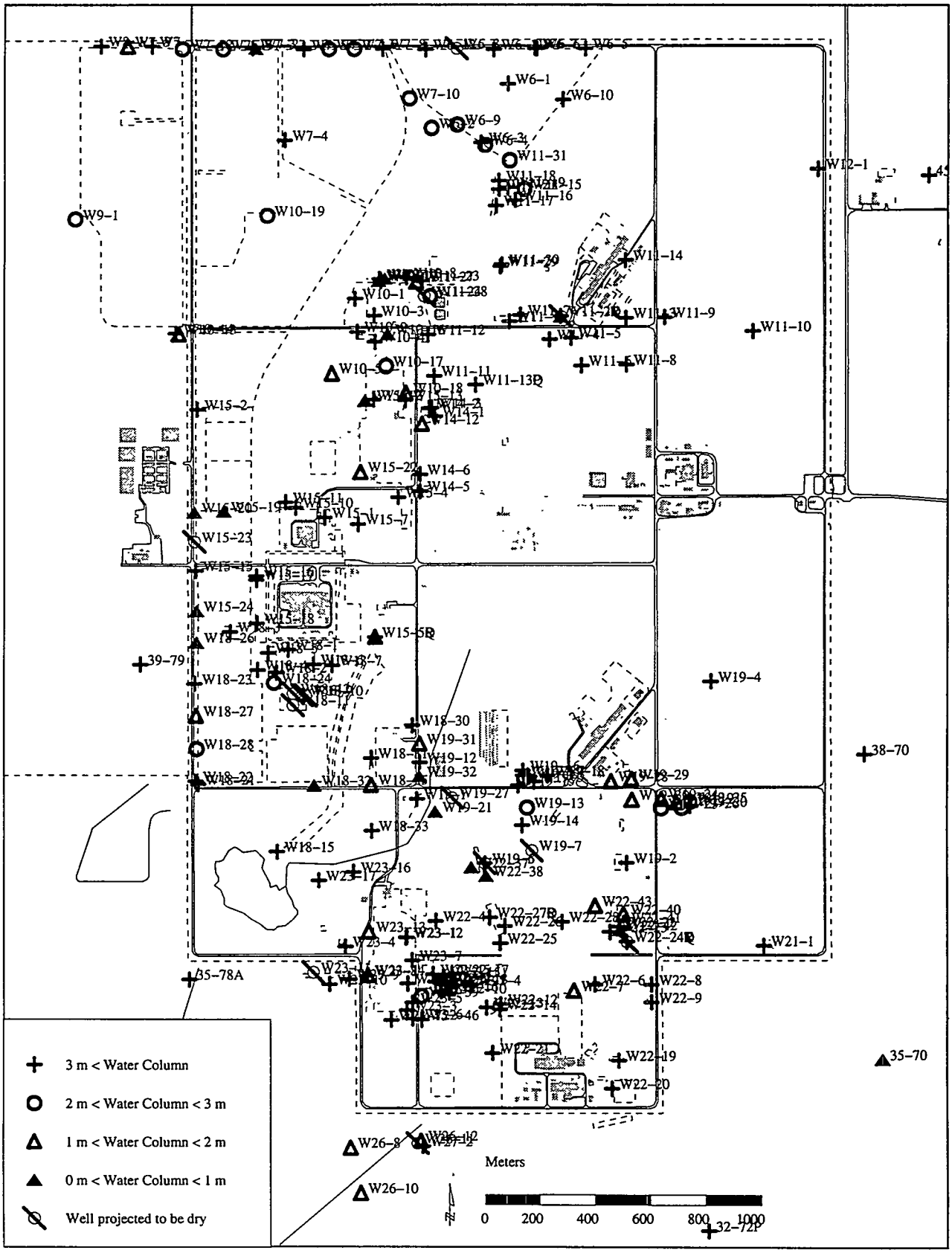

Figure 11. Predicted Impact of Declining Water Levels on 200 West Area Wells for January 2000, Determined Using the Ground-Water Model

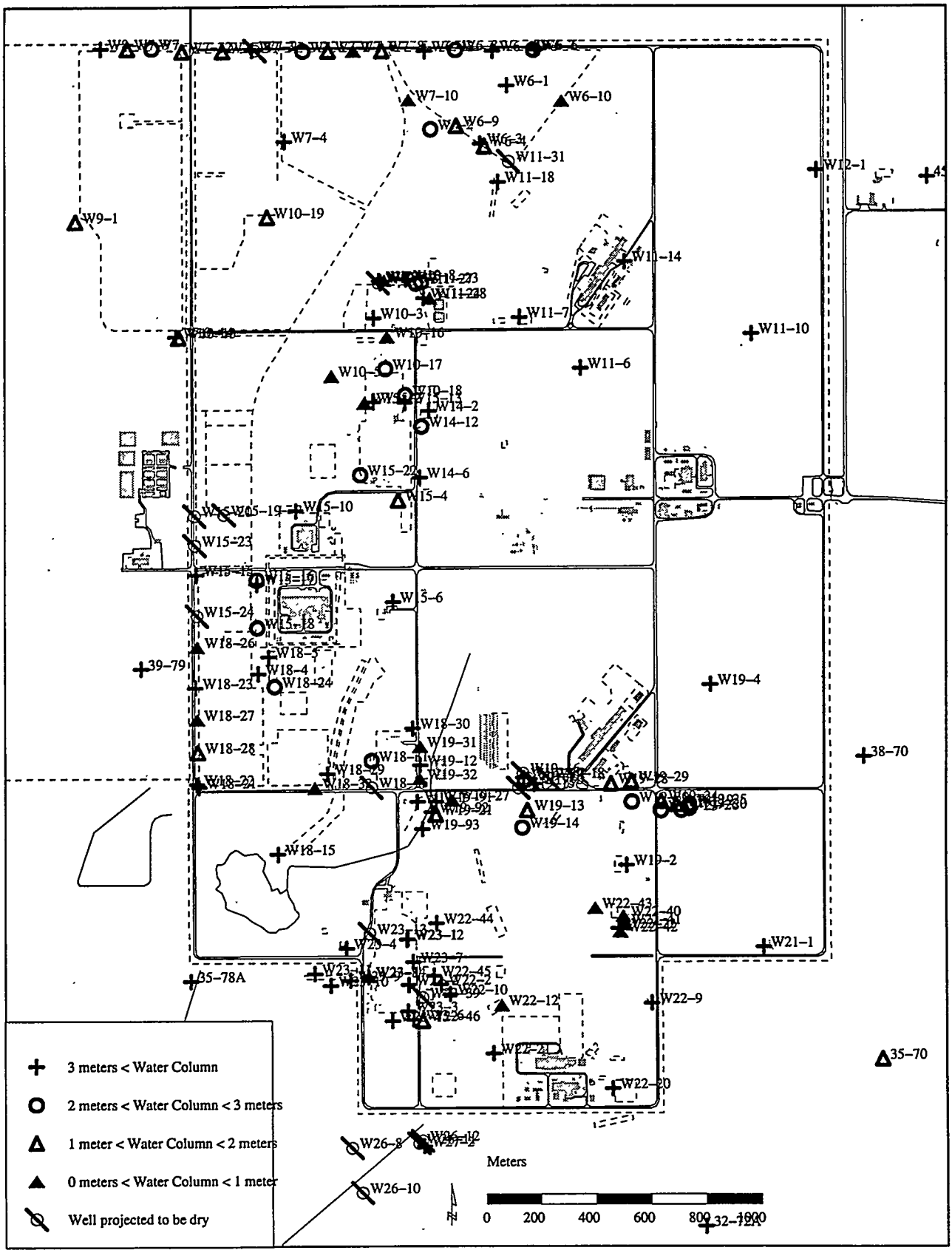

Figure 12. Projected Impact of Declining Water Levels on 200 West Area Wells for January 2000, Determined Using the Straight-Line Projection Model

straight-line projection method. For one example (well 299-E34-11), the straight-line projection suggests that the water level in the well will be above the bottom of the screen long after the model results show the well going dry. This may be accounted for by the fact that the ground-water model is regional in scale, with the result that some local flow system characteristics may not be captured as well by the model. Both analysis methods are models, so a comparison does not represent a calibration of the ground-water flow model.

It is clear that within the next 5 to 10 years, more wells currently used for monitoring will begin to go dry or will be difficult to sample. Predictions of wells that will go dry within the next 5 years have less uncertainty than predictions of wells that will become dry within 5 to 10 years. Each of these predictions is an estimate based on assumed future Site operational conditions and model assumptions. Future conditions that differ from those used in the model will result in a different hydrologic response.

Dewatering of the unconfined aquifer system in response to decreased wastewater discharge will be transient. Different portions of the aquifer will release water at different times in the future. As Site operations cease, the flow system in the unconfined aquifer will approach conditions similar to pre-Hanford conditions, although irrigation in the Cold Creek Valley area will provide more recharge to the unconfined aquifer than was present during pre-Hanford time. Zimmerman et al. (1986) observed that storage changes occurred in the unconfined aquifer through 1970 in response to discharges to the ground at the Hanford Site. Similarly, it can be expected that the effects of declining discharges at the Site will be observed in the unconfined aquifer for several decades into the future.

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Appendix A

Estimates of Effluent Discharge Volumes for the Hanford Site

Release Site	1980 Average Effluent Volume (m3/d)	1980 Data Quality Indicator	1981 Average Effluent Volume (m3/d)	1981 Data Quality Indicator	1982 Average Effluent Volume (m3/d)	1982 Data Quality Indicator
216-A-10	0.00E+00	Good	1.63E-01	Good	3.44E+01	Good
216-A-25	2.72E+04	Good Estimate	1.69E+04	Good Estimate	1.89E+04	Good Estimate
216-A-3	8.04E-02	Estimate(?)	4.30E-02	Good	0.00E+00	Good
216-A-30	2.30E+02	Good	4.18E+02	Good	4.77E+02	Good
216-A-36B	0.00E+00	Good	0.00E+00	Good	6.50E+00	Good
216-A-37-1	8.23E+01	Good	2.67E+01	Good	4.00E+01	Good
216-A-37-2	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-45	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-8	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-B-3	1.20E+04	Good	1.67E+04	Good	1.42E+04	Good
216-B-55	1.11E+02	Good	1.12E+02	Good	5.65E+01	Good
216-B-62	4.32E+01	Good	4.89E+01	Good	3.36E+01	Good
216-B-63	8.90E+02	Good	9.77E+02	Good	8.60E+02	Good
216-S-10	5.04E+02	Estimate(?)	5.45E+02	Estimate(?)	5.44E+02	Estimate(?)
216-S-19	1.41E+02	Good	2.35E+02	Good	1.25E+02	Good
216-S-25	6.94E+01	Good	0.00E+00	Good	0.00E+00	Good
216-S-26	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-10	9.76E+03	Good Estimate	5.19E+03	Good Estimate	1.36E+03	Good Estimate
216-U-12	0.00E+00	Good	4.38E-02	Good	5.18E-01	Good
216-U-14	0.00E+00	Estimate	0.00E+00	Estimate	0.00E+00	Estimate
216-U-16	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-17	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-W-LC	0.00E+00	Good	1.23E+02	Good	4.90E+02	Good
216-Z-20	0.00E+00	Good	3.00E+02	Good	1.04E+03	Good
North Richland Well Field	1.69E+04	Average	1.72E+04	Estimate	1.10E+04	Estimate

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Average = Data value is some type of average

Poor = Data is most likely inaccurate

Release Site	1983 Average Effluent Volume (m3/d)	1983 Data Quality Indicator	1984 Average Effluent Volume (m3/d)	1984 Data Quality Indicator	1985 Average Effluent Volume (m3/d)	1985 Data Quality Indicator
216-A-10	8.41E+01	Good	2.83E+02	Good	2.77E+02	Good
216-A-25	4.05E+04	Good Estimate	6.41E+04	Good Estimate	5.19E+04	Good Estimate
216-A-3	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-30	4.45E+02	Good Estimate	7.91E+02	Good Estimate	1.30E+03	Good Estimate
216-A-36B	2.71E+01	Good	1.30E+02	Good	2.06E+02	Good
216-A-37-1	3.93E+01	Good	1.46E+02	Good	1.34E+02	Good
216-A-37-2	1.67E+02	Good Estimate	3.96E+02	Good Estimate	6.49E+02	Good Estimate
216-A-45	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-8	3.58E-01	Good	2.91E+00	Good	6.88E-01	Good
216-B-3	1.93E+04	Good	1.45E+04	Good	1.46E+04	Estimate
216-B-55	1.05E+02	Good	9.28E+01	Good	2.44E+01	Good
216-B-62	6.52E+01	Good	1.91E+01	Good	1.07E+01	Good
216-B-63	8.51E+02	Good	8.26E+02	Good	8.52E+02	Good
216-S-10	5.46E+02	Estimate(?)	5.46E+02	Estimate(?)	5.55E+02	Estimate(?)
216-S-19	1.77E+02	Good	9.74E+01	Good	0.00E+00	Good
216-S-25	0.00E+00	Good	0.00E+00	Good	8.64E+01	Good
216-S-26	0.00E+00	Good	3.15E+01	Good	1.23E+02	Good
216-U-10	9.65E+02	Good Estimate	3.24E+03	Good Estimate	0.00E+00	Good
216-U-12	3.49E+00	Good	1.50E+01	Good	1.30E+01	Good
216-U-14	0.00E+00	Estimate	0.00E+00	Estimate	1.15E+03	Good
216-U-16	0.00E+00	Good	7.81E+02	Good	3.50E+02	Good
216-U-17	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-W-LC	1.07E+03	Good	2.36E+02	Good	1.98E+02	Good
216-Z-20	1.44E+03	Good	1.90E+03	Good	1.06E+03	Good
North Richland Well Field	1.31E+04	Estimate	2.29E+04	Good Estimate	2.02E+04	Good Estimate

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Release Site	1986 Average Effluent Volume (m3/d)	1986 Data Quality Indicator	1987 Average Effluent Volume (m3/d)	1987 Data Quality Indicator	1988 Average Effluent Volume (m3/d)	1988 Data Quality Indicator
216-A-10	2.02E+02	Good	1.74E+01	Good	0.00E+00	Good
216-A-25	0.00E+00	Poor	0.00E+00	Good	0.00E+00	Good
216-A-3	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-30	1.40E+03	Good	1.09E+03	Good Estimate	6.81E+02	Good
216-A-36B	1.55E+02	Good	7.64E+01	Good	0.00E+00	Good
216-A-37-1	1.37E+02	Good	6.77E+01	Good	1.34E+02	Good
216-A-37-2	6.98E+02	Good	5.37E+02	Good Estimate	3.35E+02	Good
216-A-45	0.00E+00	Good	1.22E+02	Good	1.36E+02	Good
216-A-8	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-B-3	6.24E+04	Good Estimate	5.39E+04	Estimate	7.30E+04	Good Estimate
216-B-55	1.17E+01	Good	0.00E+00	Good	7.23E+00	Good
216-B-62	1.07E+01	Good	0.00E+00	Good	0.00E+00	Good
216-B-63	1.41E+03	Good	9.59E+02	Good	7.90E+02	Good
216-S-10	5.45E+02	Estimate(?)	5.45E+02	Estimate(?)	5.75E+02	Estimate(?)
216-S-19	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-S-25	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-S-26	1.13E+02	Good	9.41E+01	Good	5.17E+01	Good
216-U-10	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-12	1.08E+01	Good	1.76E+00	Good	2.85E-01	Good
216-U-14	1.49E+03	Good	9.81E+02	Good	7.86E+02	Good
216-U-16	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-17	0.00E+00	Good	0.00E+00	Good	2.00E+00	Good
216-W-LC	1.22E+02	Good	1.66E+02	Good	3.84E+01	Good
216-Z-20	8.14E+02	Good	5.61E+02	Good	6.02E+02	Good
North Richland Well Field	1.94E+04	Good Estimate	1.48E+04	Good Estimate	1.00E+04	Good

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Average = Data value is some type of average

Poor = Data is most likely inaccurate

Release Site	1989 Average Effluent Volume (m3/d)	1989 Data Quality Indicator	1990 Average Effluent Volume (m3/d)	1990 Data Quality Indicator	1991 Average Effluent Volume (m3/d)	1991 Data Quality Indicator
216-A-10	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-25	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-3	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-30	9.44E+02	Good Estimate	6.15E+02	Good Estimate	4.92E+02	Good Estimate
216-A-36B	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-A-37-1	3.72E+01	Good	0.00E+00	Good	0.00E+00	Good
216-A-37-2	4.72E+02	Good Estimate	3.08E+02	Good Estimate	2.46E+02	Good Estimate
216-A-45	2.48E+01	Good	0.00E+00	Good	0.00E+00	Good
216-A-8	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-B-3	4.04E+04	Good Estimate	2.79E+04	Estimate	2.51E+04	Estimate
216-B-55	1.79E+00	Good	2.65E-02	Good	0.00E+00	Good
216-B-62	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-B-63	1.05E+03	Good	6.40E+02	Good	7.54E+02	Good
216-S-10	5.99E+02	Estimate(?)	5.46E+02	Estimate(?)	3.20E+02	Estimate(?)
216-S-19	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-S-25	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-S-26	3.62E+01	Good	3.83E+01	Good	2.37E+01	Good
216-U-10	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-12	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-14	1.05E+03	Good	6.29E+02	Good	8.82E+02	Good
216-U-16	0.00E+00	Good	0.00E+00	Good	0.00E+00	Good
216-U-17	3.79E+00	Good	0.00E+00	Good	0.00E+00	Good
216-W-LC	6.48E+01	Good	8.09E+01	Good	1.08E+02	Good
216-Z-20	6.88E+02	Good	8.28E+02	Good	7.44E+02	Good
North Richland Well Field	1.82E+04	Good	1.30E+04	Good	1.41E+04	Good

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Average = Data value is some type of average

Poor = Data is most likely inaccurate

Release Site	1992 Average Effluent Volume (m3/d)	Data Quality Indicator
216-A-10	0.00E+00	Good
216-A-25	0.00E+00	Good
216-A-3	0.00E+00	Good
216-A-30	0.00E+00	Good
216-A-36B	0.00E+00	Good
216-A-37-1	0.00E+00	Good
216-A-37-2	0.00E+00	Good
216-A-45	0.00E+00	Good
216-A-8	0.00E+00	Good
216-B-3	2.14E+04	Estimate
216-B-55	0.00E+00	Good
216-B-62	0.00E+00	Good
216-B-63	1.40E+02	Good
216-S-10	0.00E+00	Good
216-S-19	0.00E+00	Good
216-S-25	0.00E+00	Good
216-S-26	4.50E+01	Good
216-U-10	0.00E+00	Good
216-U-12	0.00E+00	Good
216-U-14	7.60E+02	Good
216-U-16	0.00E+00	Good
216-U-17	2.71E+00	Good
216-W-LC	7.50E+01	Good
216-Z-20	2.45E+02	Good
North Richland Well Field	7.07E+03	Good

Data Quality Indicators:

Good = All indications are that the data value is the actual amount released

Good Estimate = a reliable estimate

Estimate = an estimate, but not as reliable as a "good estimate"

Estimate(?) = There is reason to suspect that the data value may be an estimate

Average = Data value is some type of average

Poor = Data is most likely inaccurate

Projected Effluent Discharge Volumes

Projected Average Annual Flow Rate (m^3/day):											
Release Site	1993	1994	Jan-95	Feb-95	Mar-95	Apr-95	May-95	Jun-95	Jul-95	Aug-95	Sep-95
216-A-25	0	0	0	0	0	0	0	0	0	0	0
216-B-3	14950	8700	2460	2460	2460	2460	2460	370	370	370	370
216-B-63	0	0	0	0	0	0	0	0	0	0	0
216-S-10	0	0	0	0	0	0	0	0	0	0	0
216-S-19	0	0	0	0	0	0	0	0	0	0	0
216-U-14	760	760	760	760	760	760	760	0	0	0	0
216-U-10	0	0	0	0	0	0	0	0	0	0	0
216-A-8	0	0	0	0	0	0	0	0	0	0	0
216-A-3	0	0	0	0	0	0	0	0	0	0	0
216-A-10	0	0	0	0	0	0	0	0	0	0	0
216-A-30	0	0	0	0	0	0	0	0	0	0	0
216-A-36B	0	0	0	0	0	0	0	0	0	0	0
216-A-37-1	0	0	0	0	0	0	0	0	0	0	0
216-B-55	0	0	0	0	0	0	0	0	0	0	0
216-B-62	0	0	0	0	0	0	0	0	0	0	0
216-S-26	36	27	18	18	18	18	18	0	0	0	0
216-U-12	0	0	0	0	0	0	0	0	0	0	0
216-U-16	0	0	0	0	0	0	0	0	0	0	0
216-W-LC	75	75	75	75	75	75	75	0	0	0	0
216-Z-20	245	245	245	245	245	245	245	0	0	0	0
216-S-25	0	0	0	0	0	0	0	0	0	0	0
216-A-45	0	0	0	0	0	0	0	0	0	0	0
216-U-17	2.7	2.7	2.7	2.7	2.7	2.7	2.7	0	0	0	0
W-049H (TEDF)	0	0	0	0	0	0	0	2882	2882	2882	2882
C-018H	0	0	0	0	0	0	0	940	940	940	940

	Average (Jan 88-Dec 92)		Actual	
	net recharge (m^3/day)		net recharge (m^3/day)	
Richland Well Field	JAN	8.87E+03	Jan-93	1.87E+03
	FEB	6.45E+03	Feb-93	7.17E+03
	MAR	3.72E+03	Mar-93	1.24E+03
	APR	1.17E+04	Apr-93	1.03E+02
	MAY	1.31E+04	May-93	4.00E+04
	JUN	1.28E+04	Jun-93	5.83E+04
	JUL	1.44E+04	Jul-93	4.82E+04
	AUG	2.00E+04	Aug-93	3.65E+04
	SEP	1.68E+04	Sep-93	4.26E+04
	OCT	1.44E+04	Oct-93	3.89E+04
	NOV	1.44E+04	Nov-93	4.34E+04
	DEC	1.31E+04	Dec-93	3.53E+04

Projected Effluent Discharge Volumes

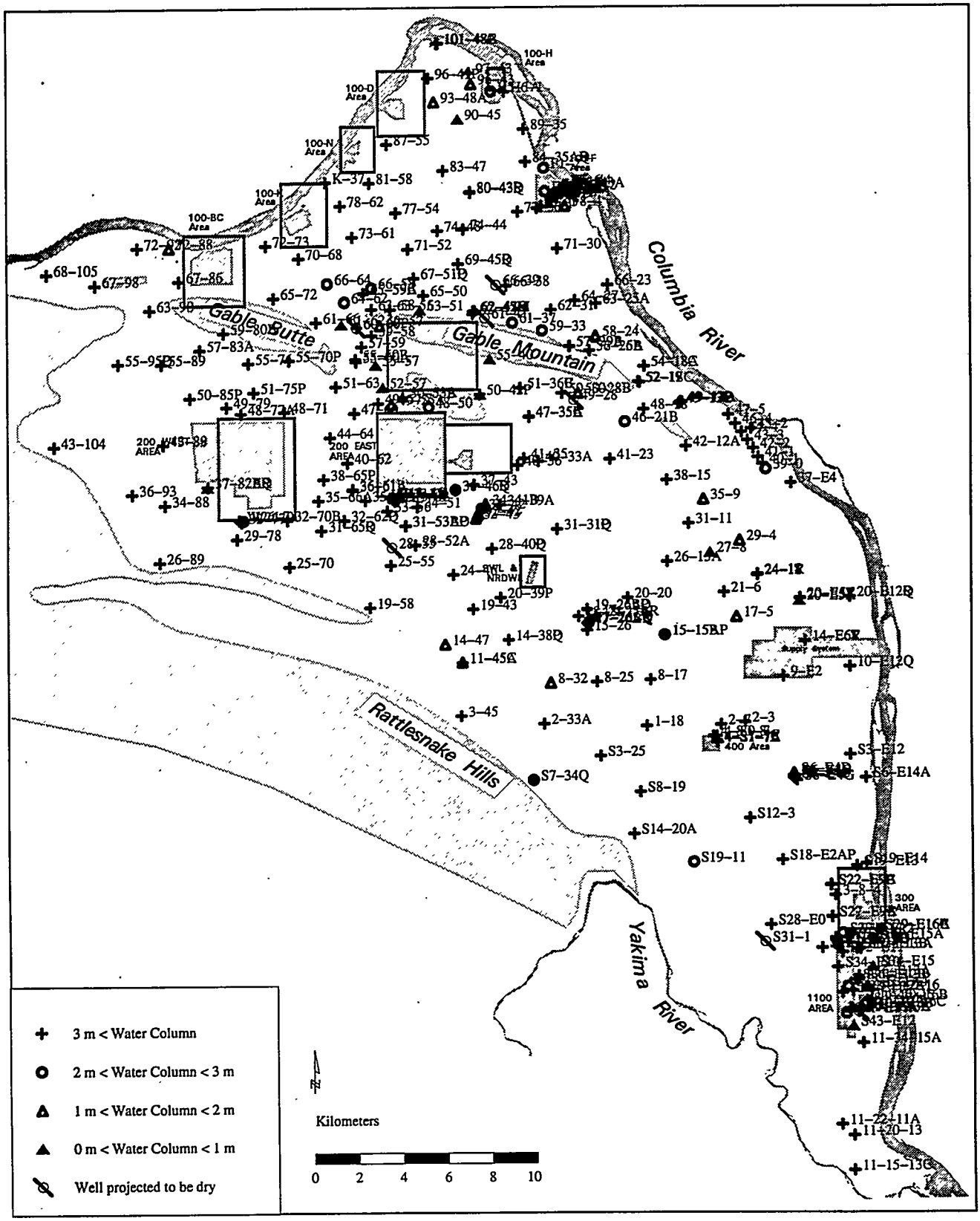
Oct-95	Nov-95	Dec-95	1996	Jan-97	Feb-97	Mar-97	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97
0	0	0	0	0	0	0	0	0	0	0	0	0
370	370	370	370	370	370	370	370	370	370	370	370	370
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2882	2882	2882	2882	2882	2882	2882	2882	2882	2882	2882	2882	2882
940	940	940	940	940	940	940	940	940	940	940	940	940

Projected Effluent Discharge Volumes

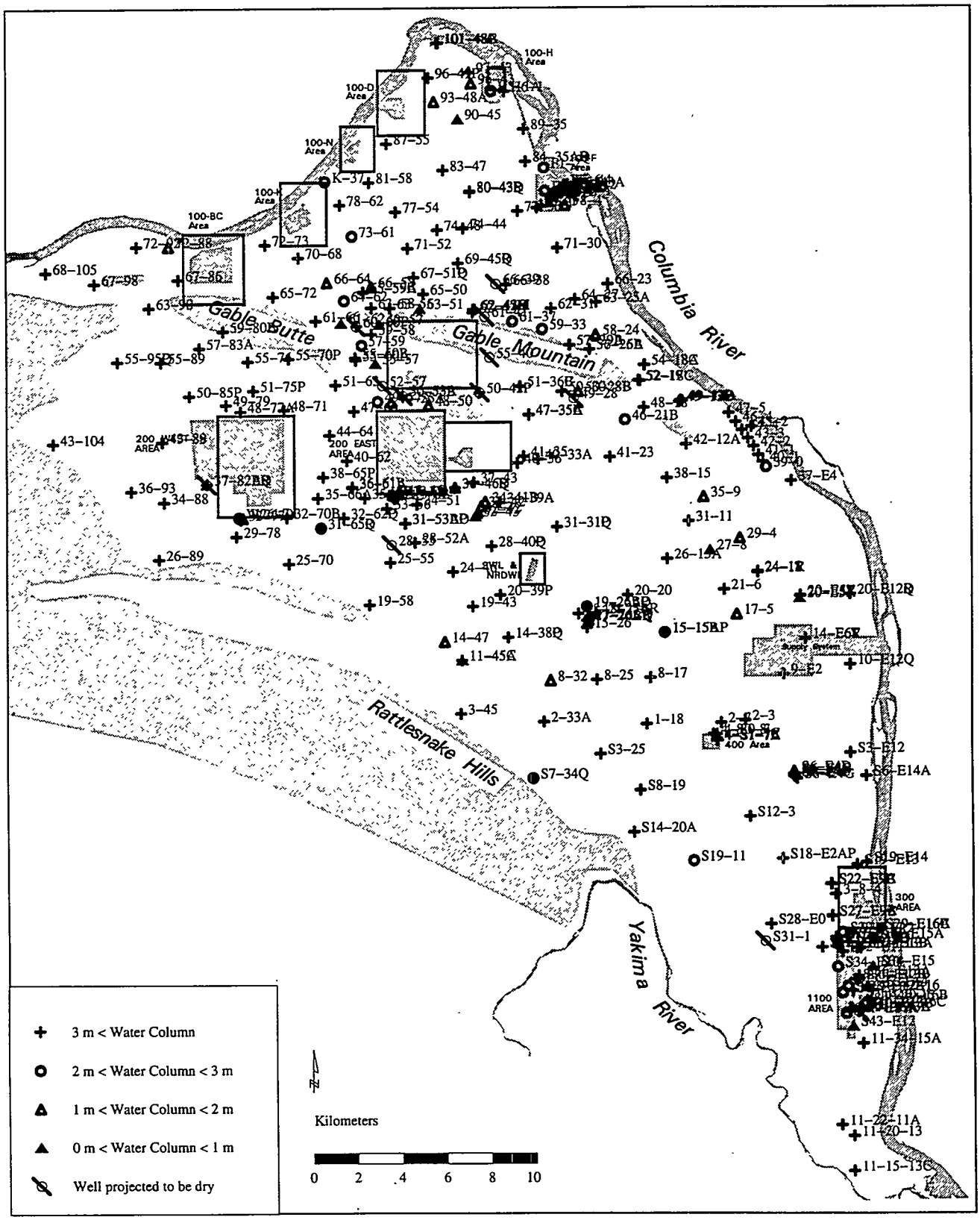
Oct-97	Nov-97	Dec-97	1998	1999	2000	2001	2002	2003	2004	2005
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
3250	3250	3250	3250	3250	3250	3250	3250	3250	3250	3250
940	940	940	940	940	940	940	940	940	940	940

Appendix B

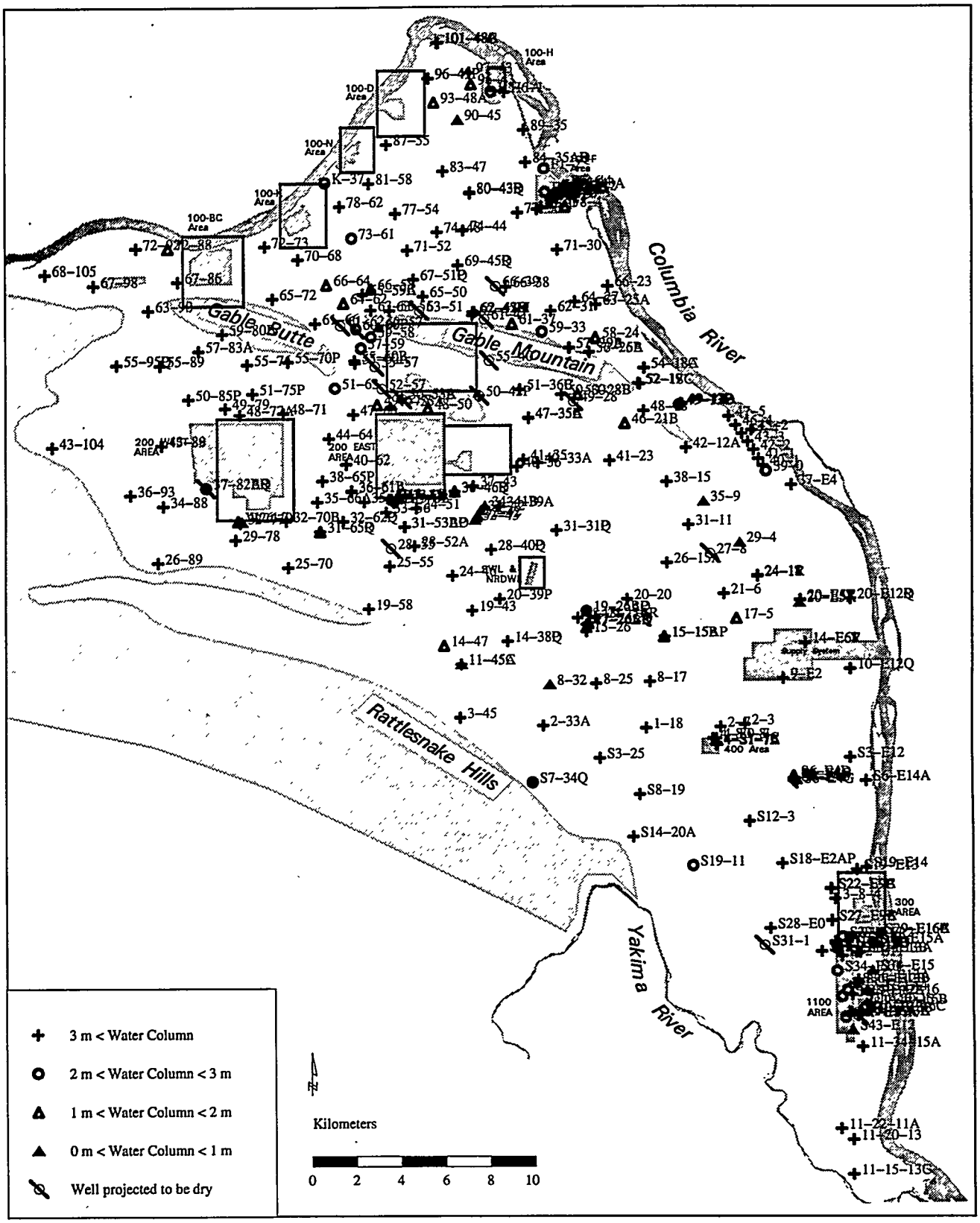
Maps Showing Wells That May be Affected by Declining Water Levels at the Hanford Site



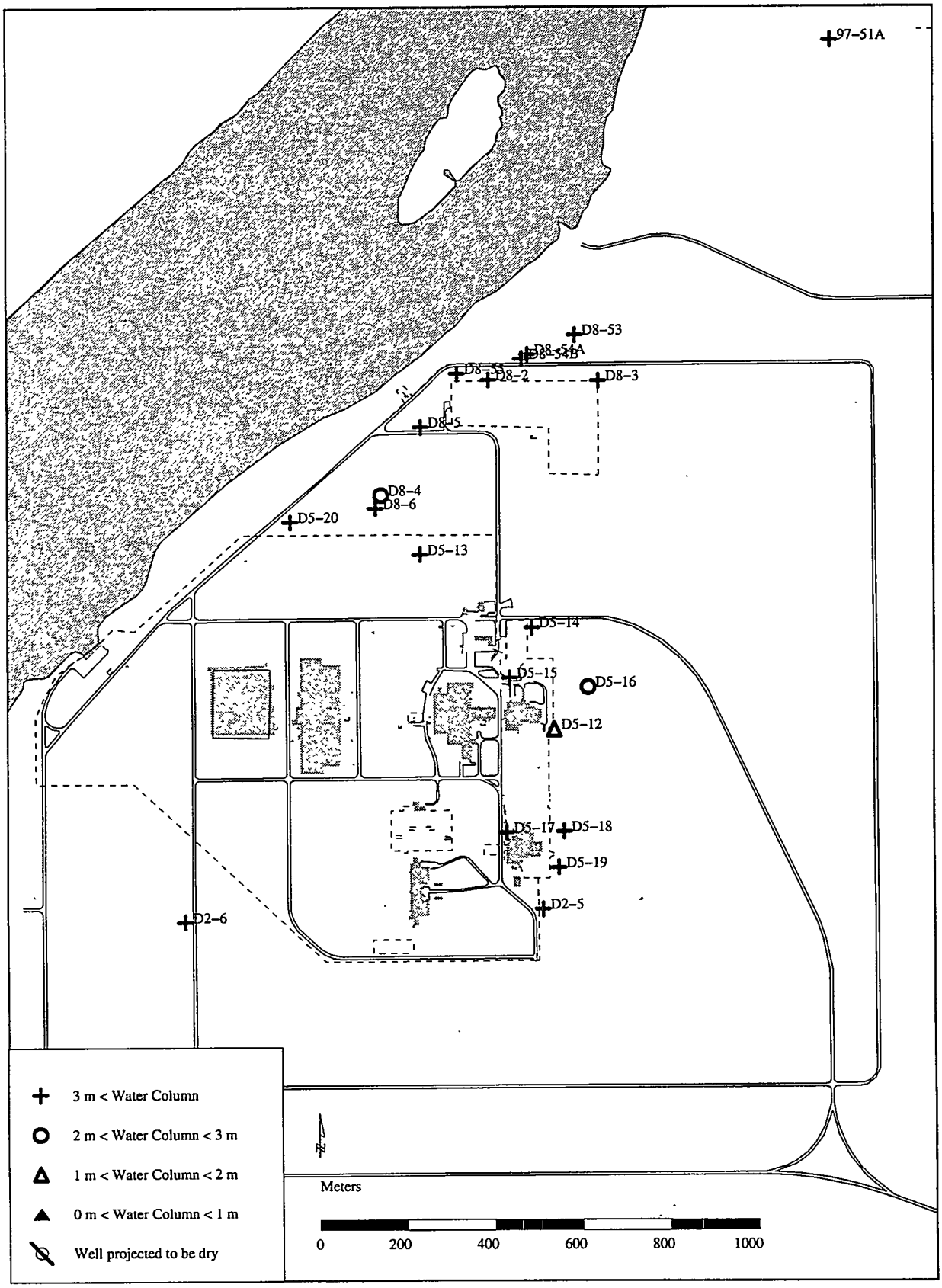
600 Area selected wells which may be impacted by declining water levels before 1 January 1995



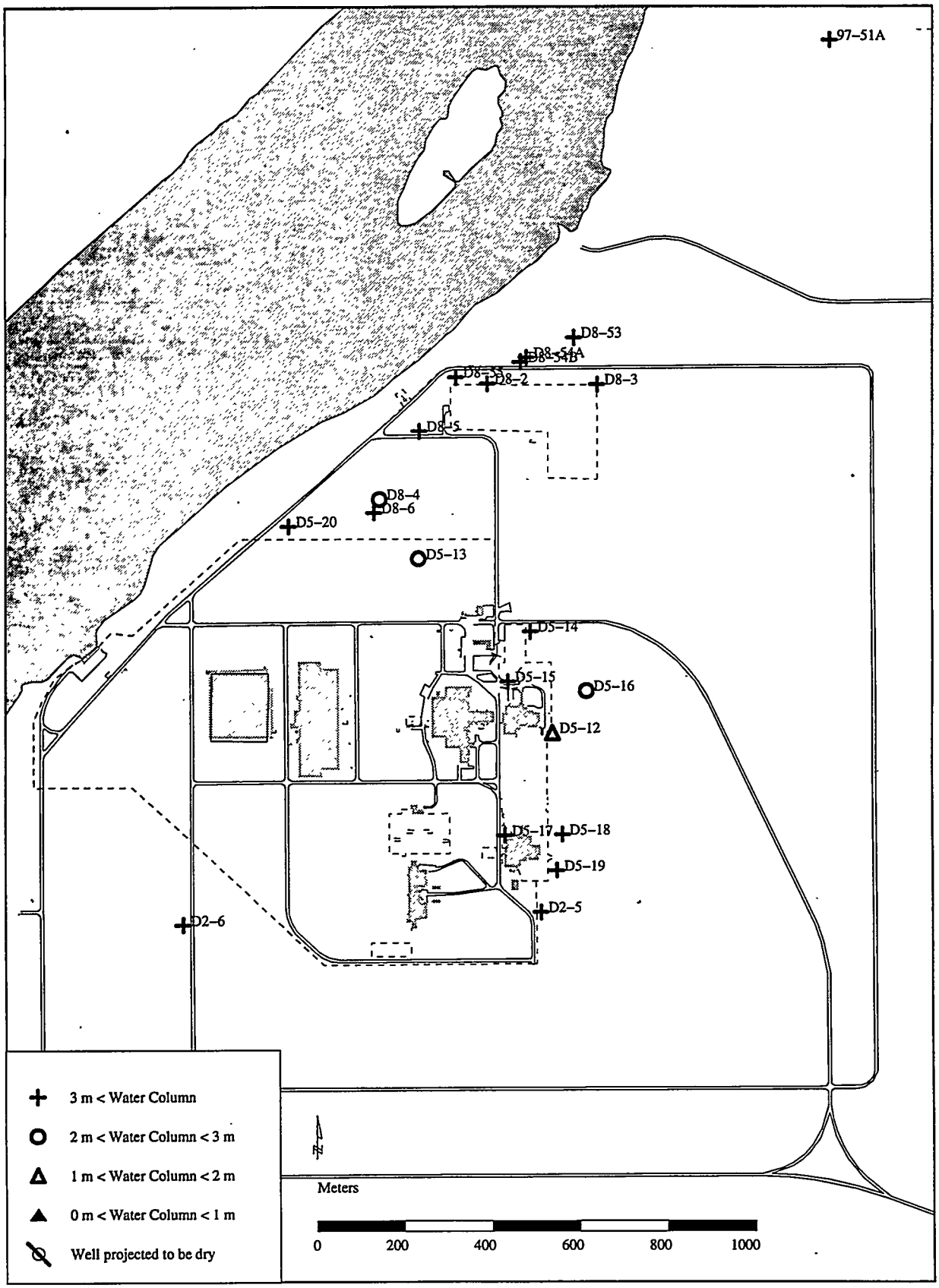
600 Area selected wells which may be impacted by declining water levels before 1 January 2000



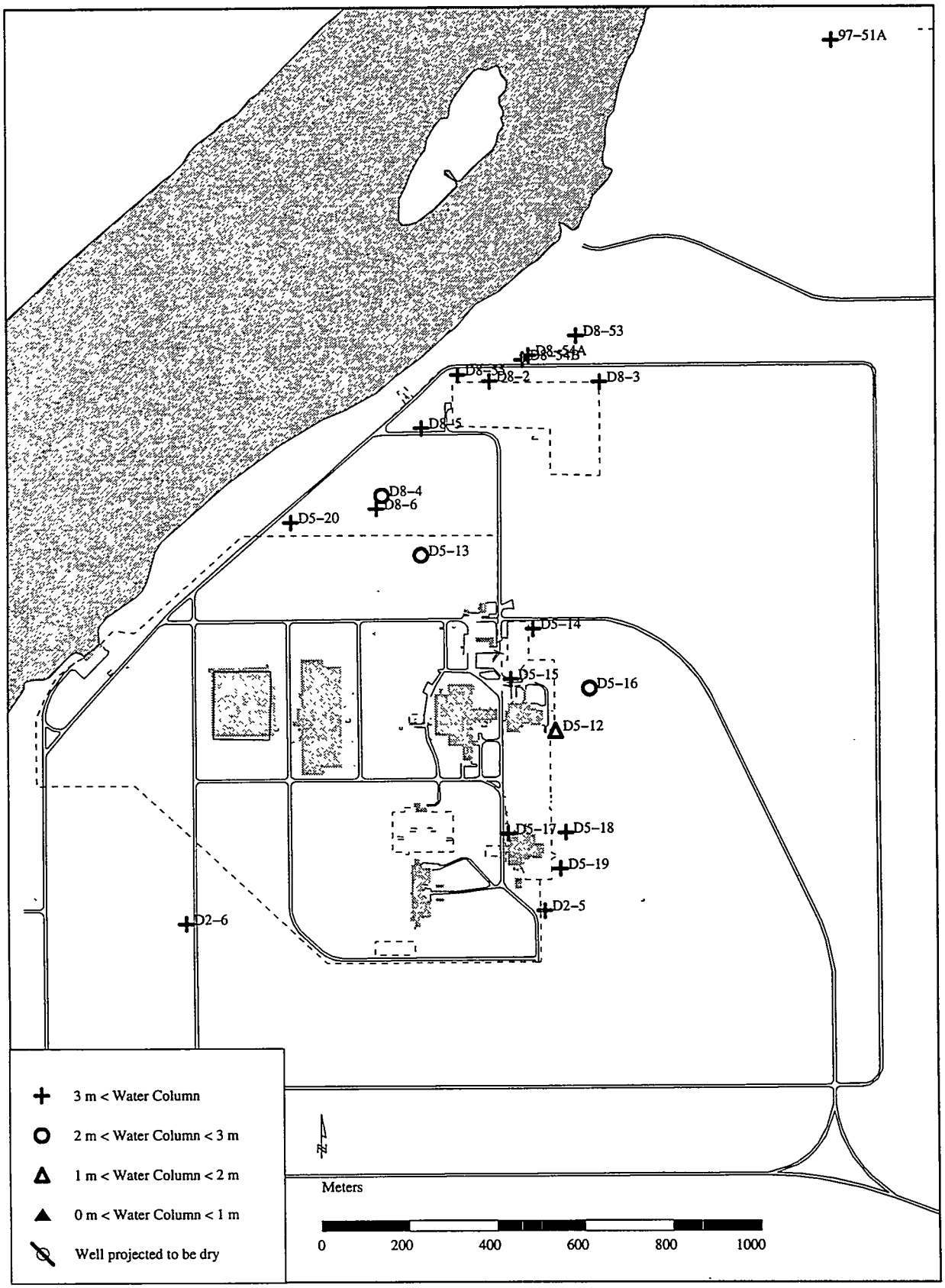
600 Area selected wells which may be impacted by declining water levels before 1 January 2005



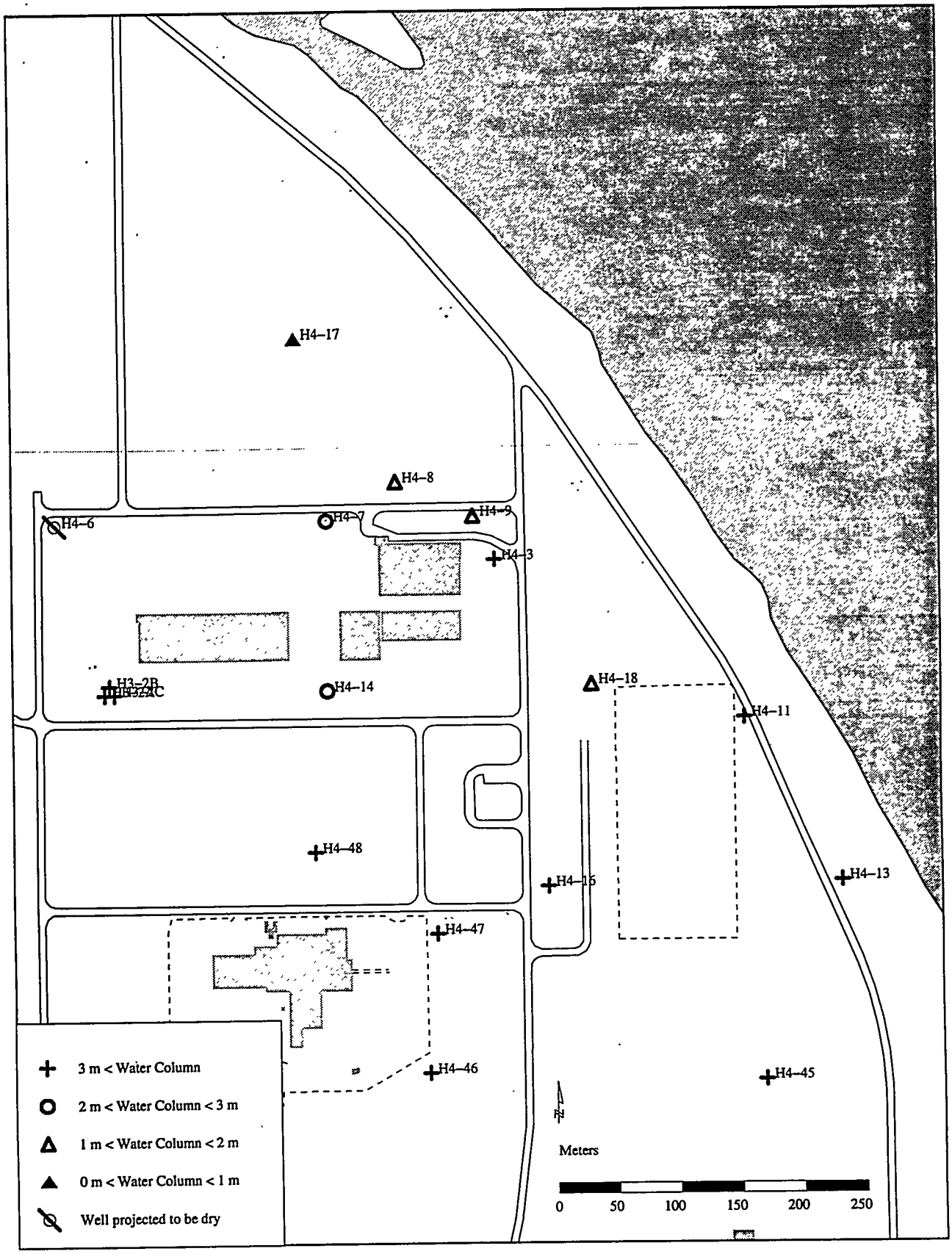
100–D Area selected wells which may be impacted by declining water levels before 1 January 1995



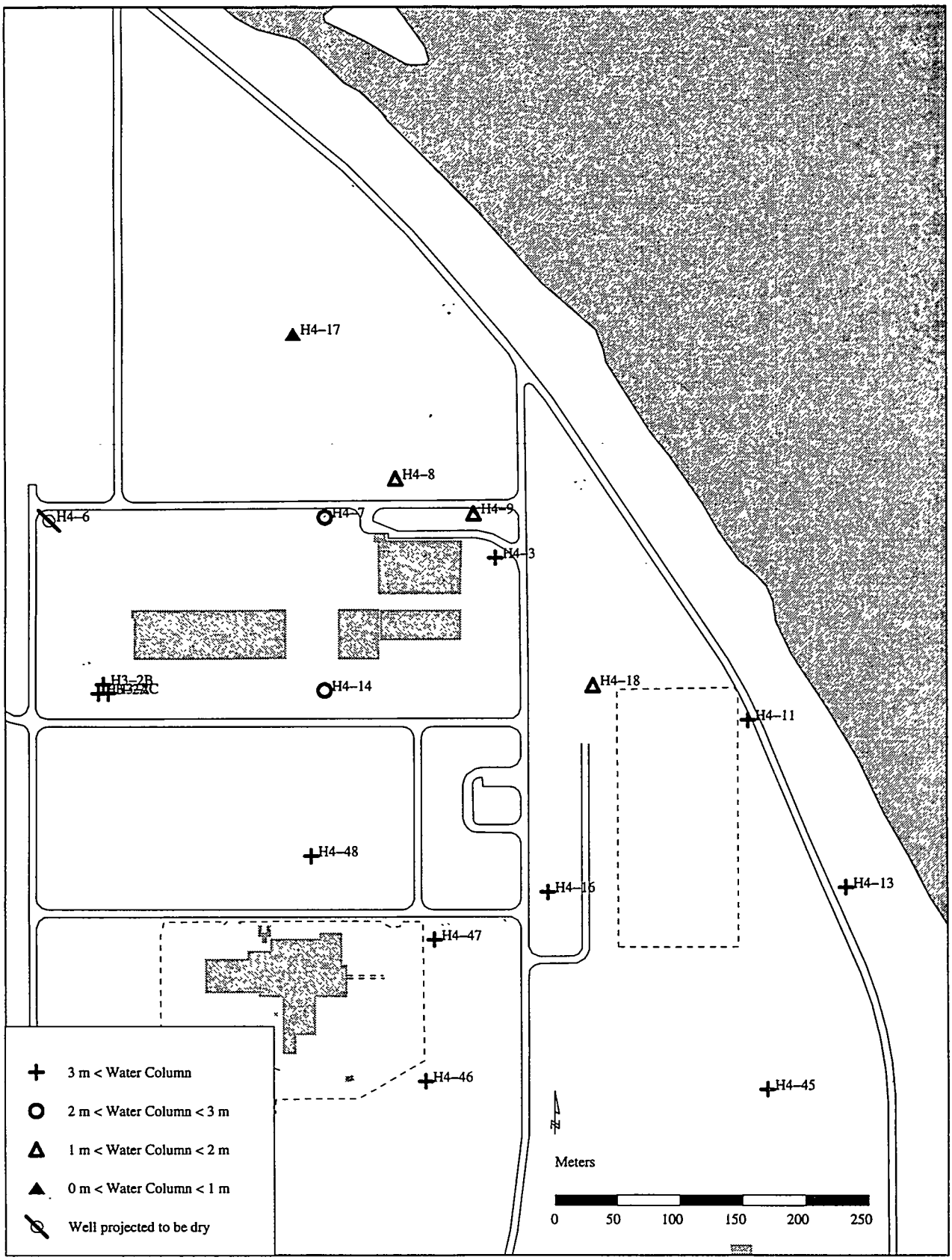
100-D Area selected wells which may be impacted by declining water levels before 1 January 2000



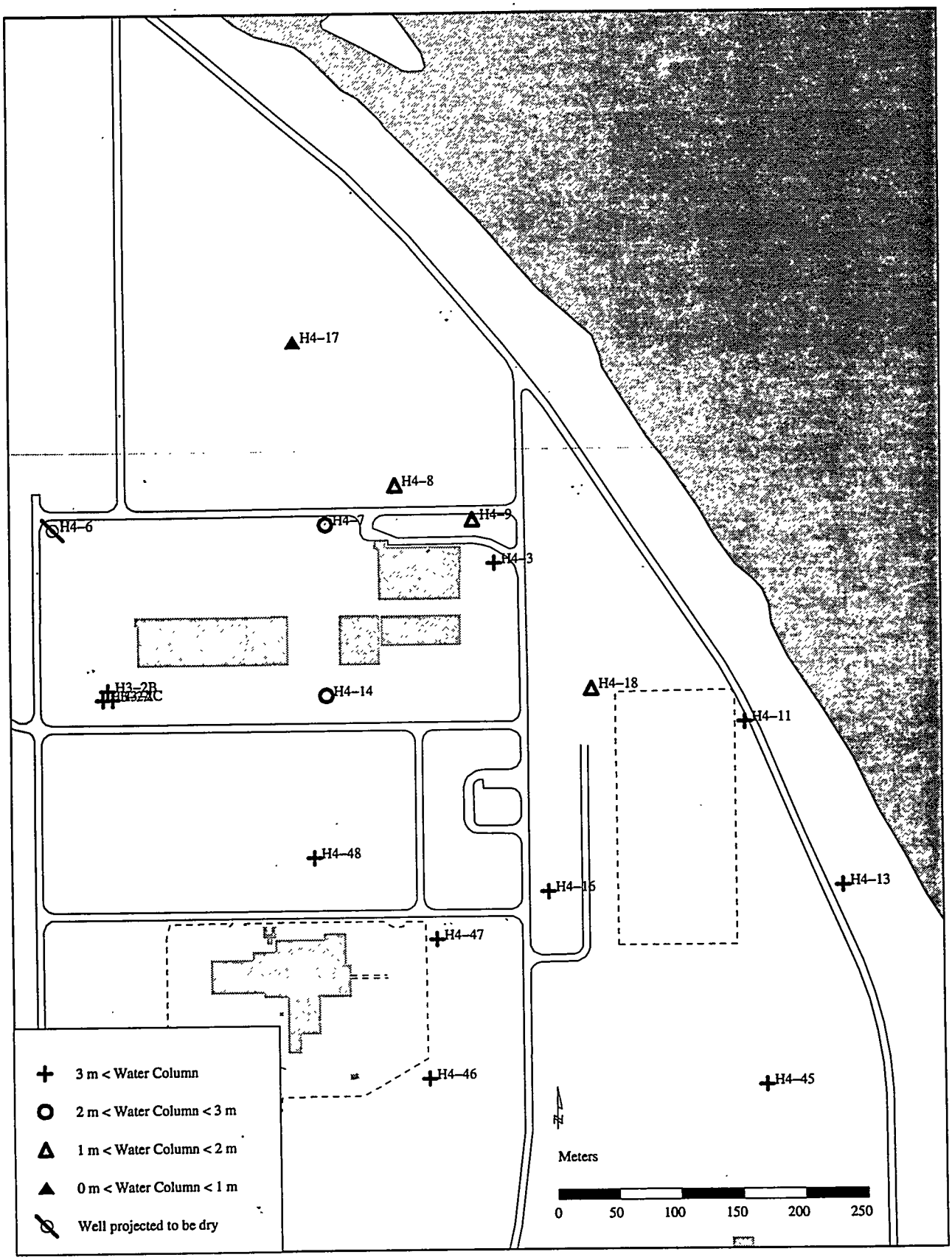
100–D Area selected wells which may be impacted by declining water levels before 1 January 2005



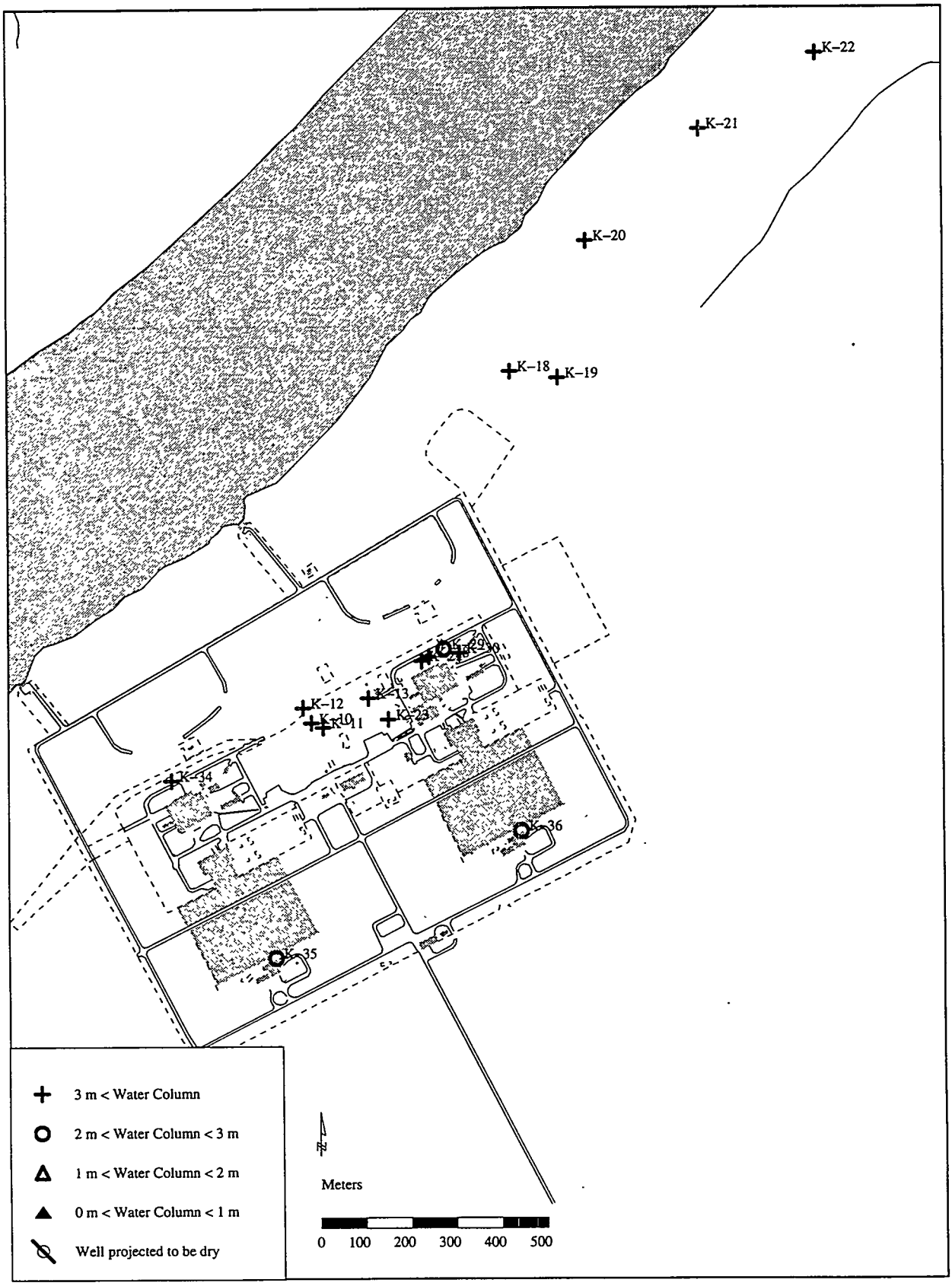
100-H Area selected wells which may be impacted by declining water levels before 1 January 1995



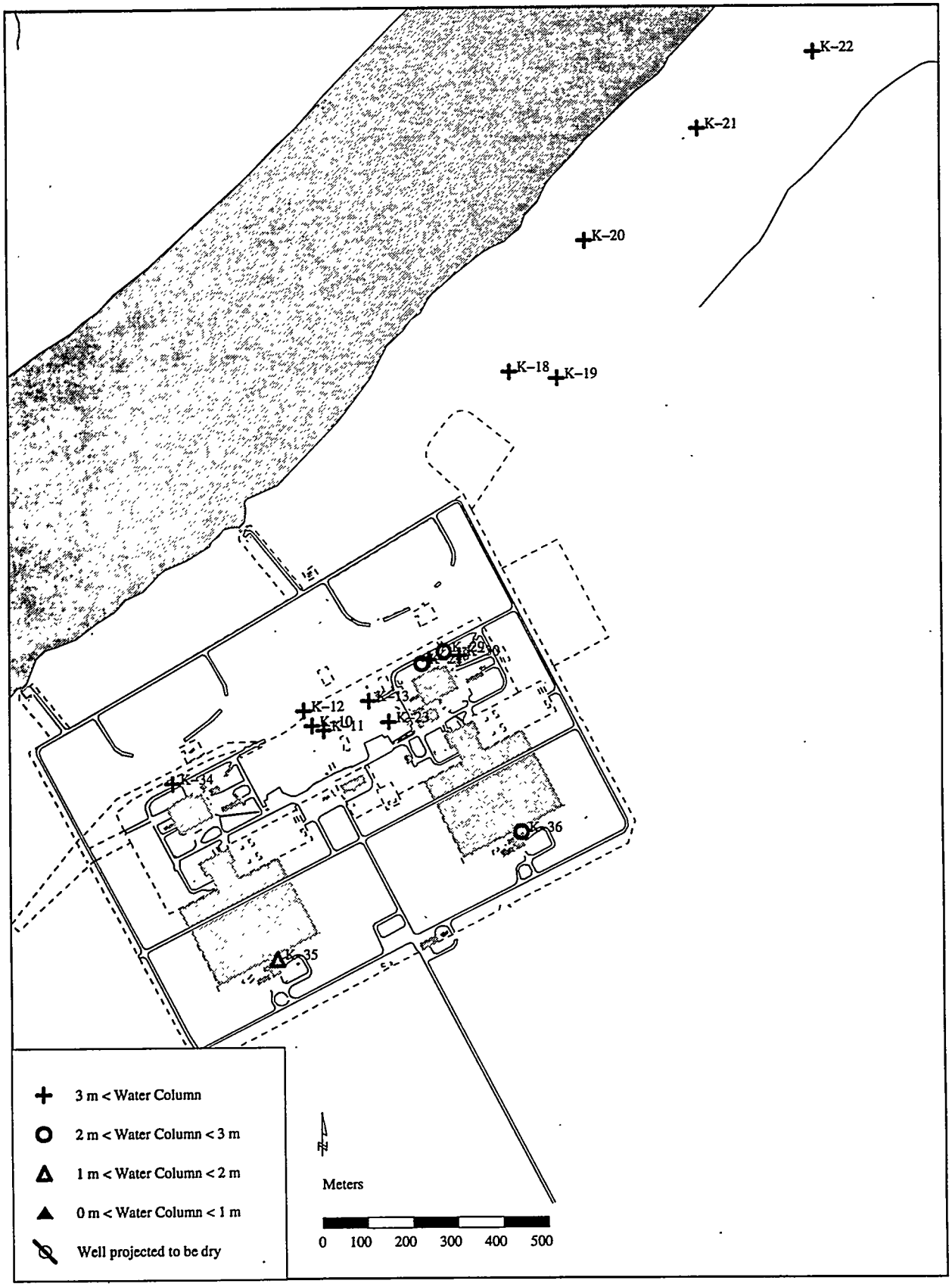
100–H Area selected wells which may be impacted by declining water levels before 1 January 2000



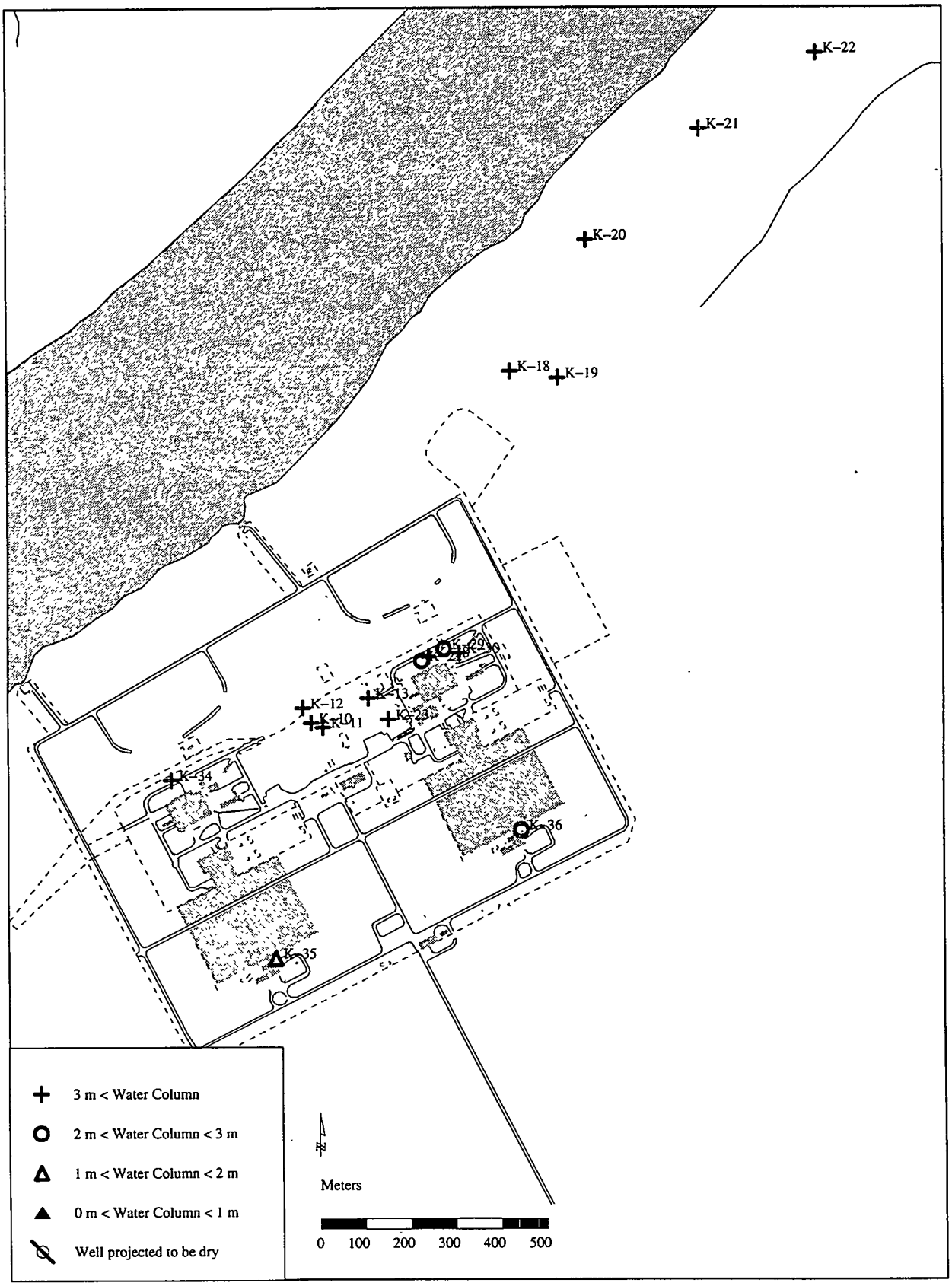
100–H Area selected wells which may be impacted by declining water levels before 1 January 2005



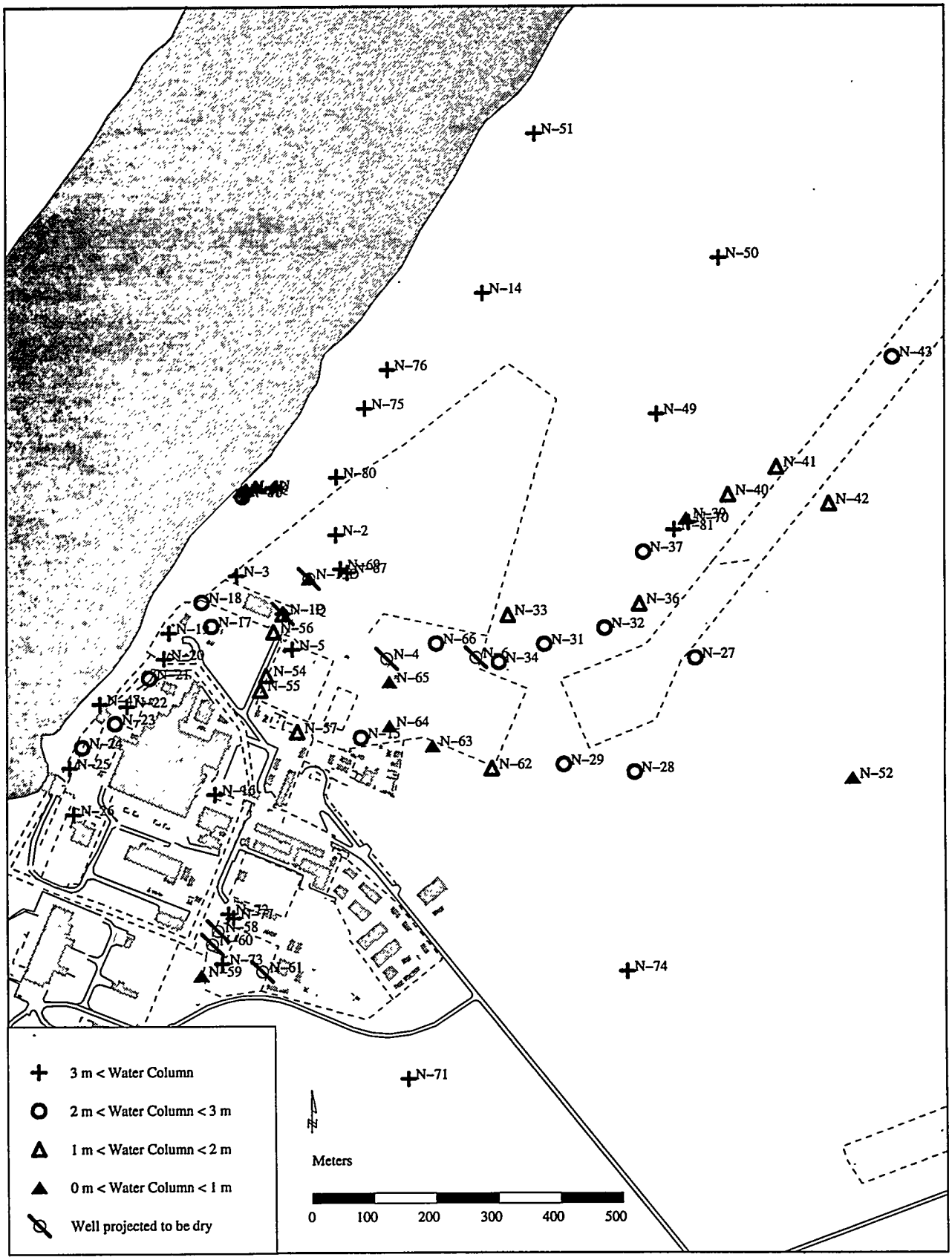
100–K Area selected wells which may be impacted by declining water levels before 1 January 1995



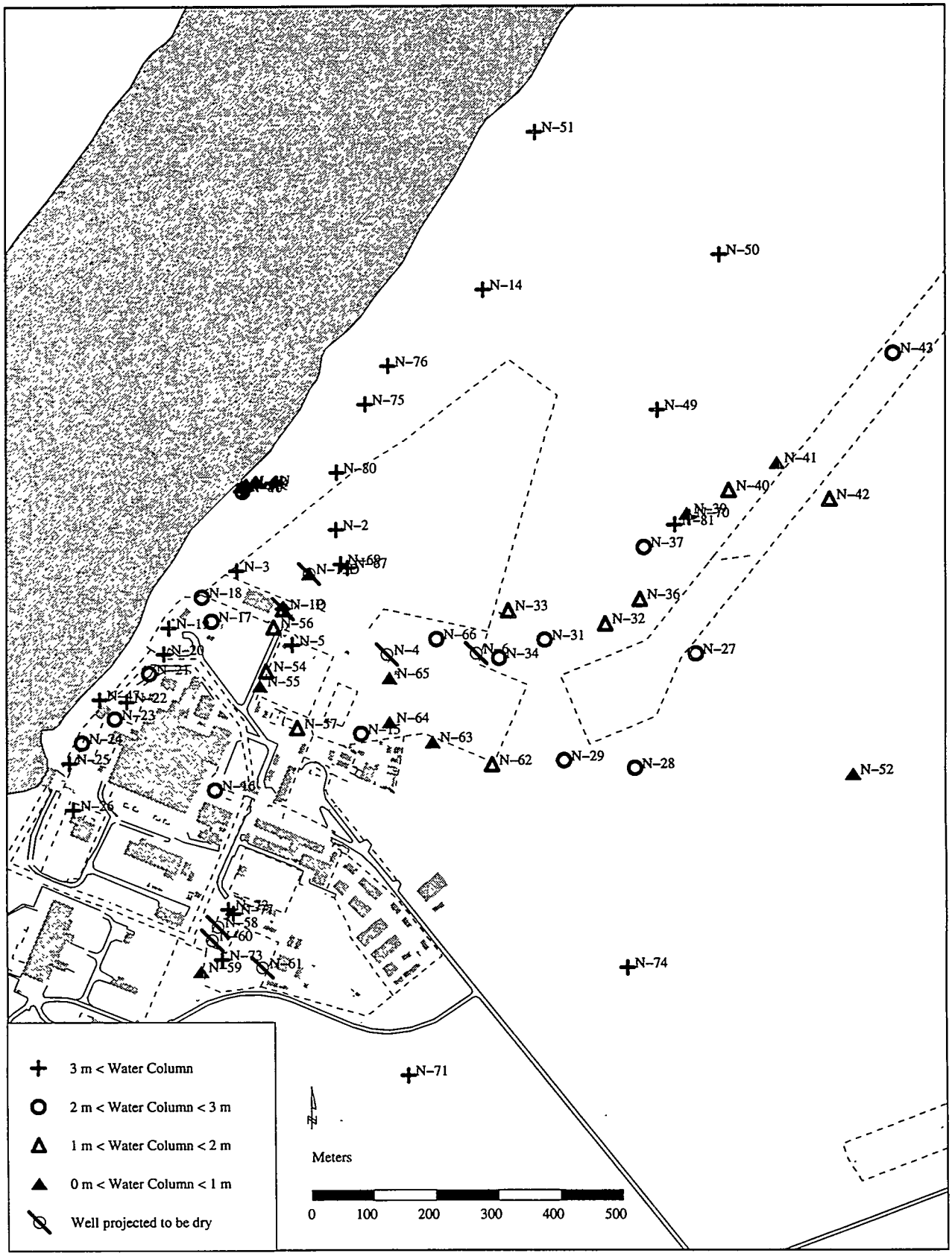
100–K Area selected wells which may be impacted by declining water levels before 1 January 2000



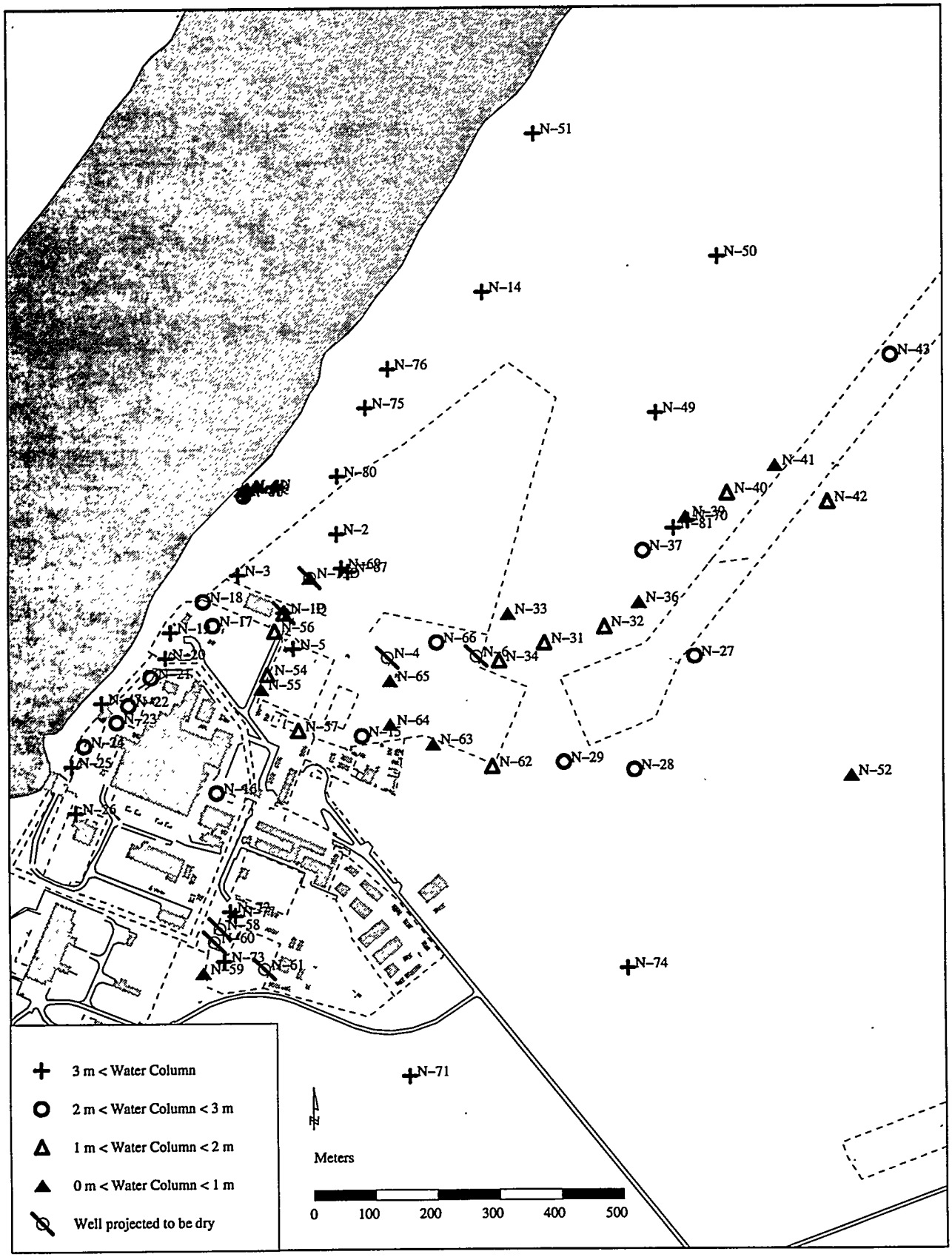
100–K Area selected wells which may be impacted by declining water levels before 1 January 2005



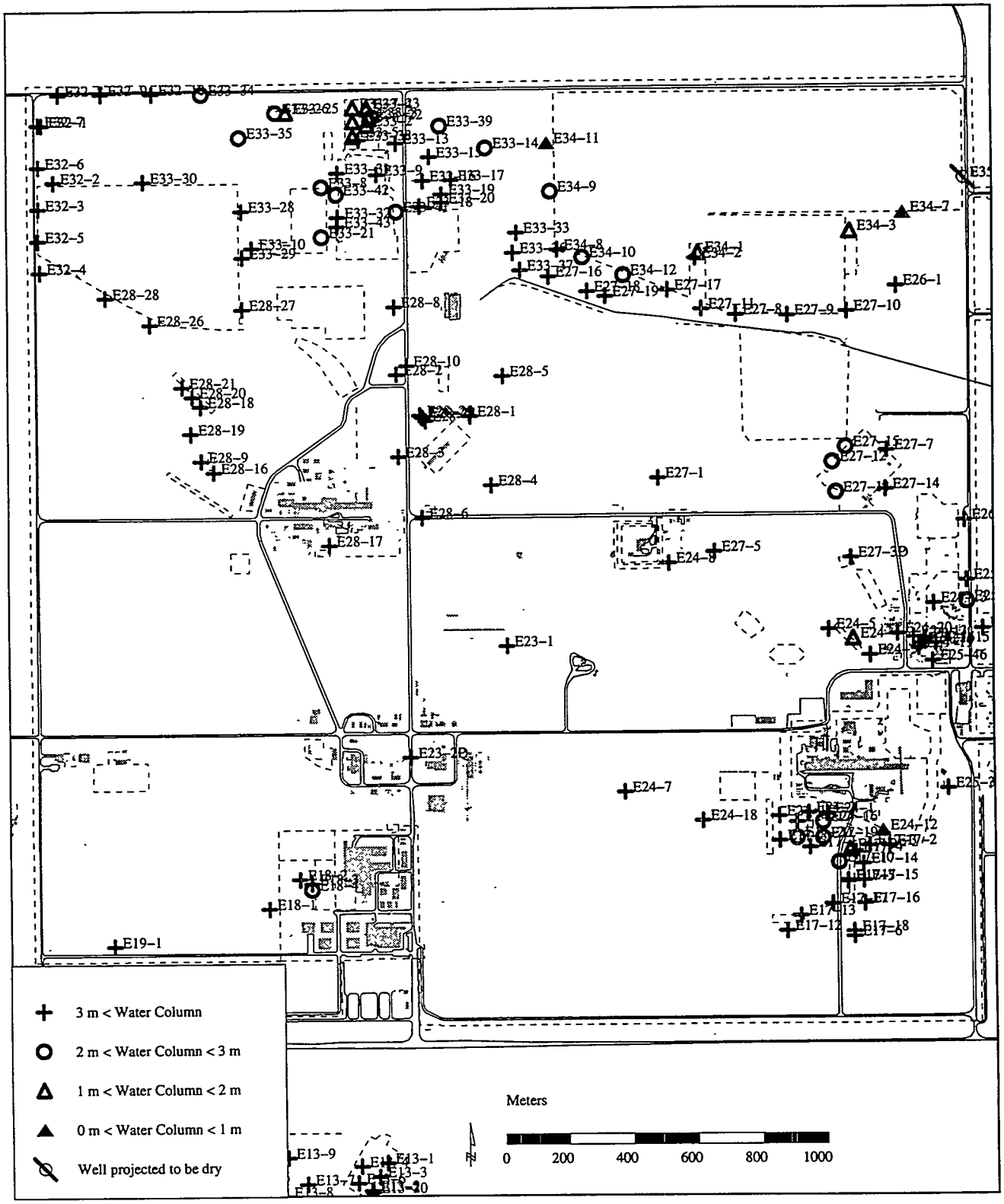
100–N Area selected wells which may be impacted by declining water levels before 1 January 1995



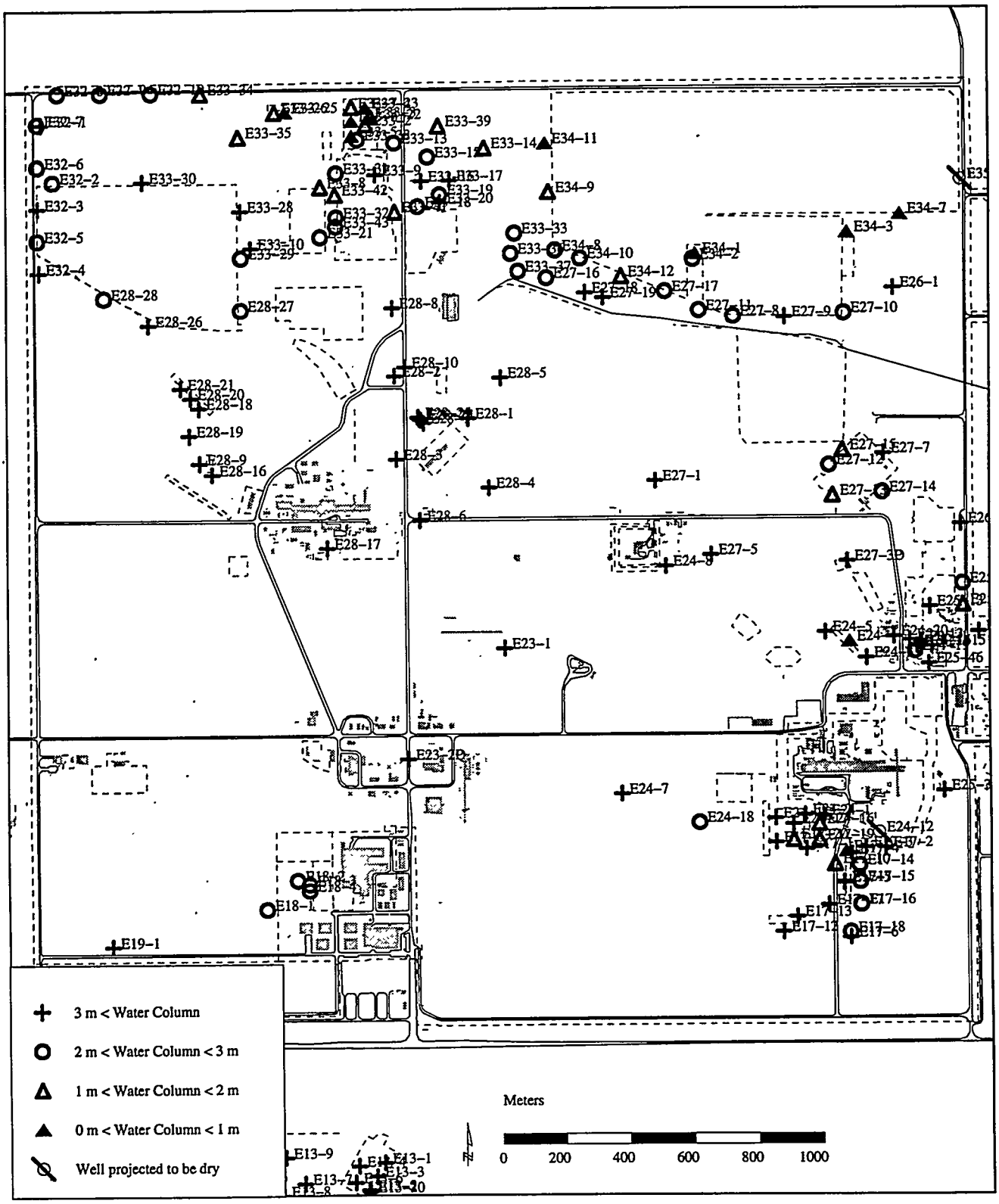
100–N Area selected wells which may be impacted by declining water levels before 1 January 2000



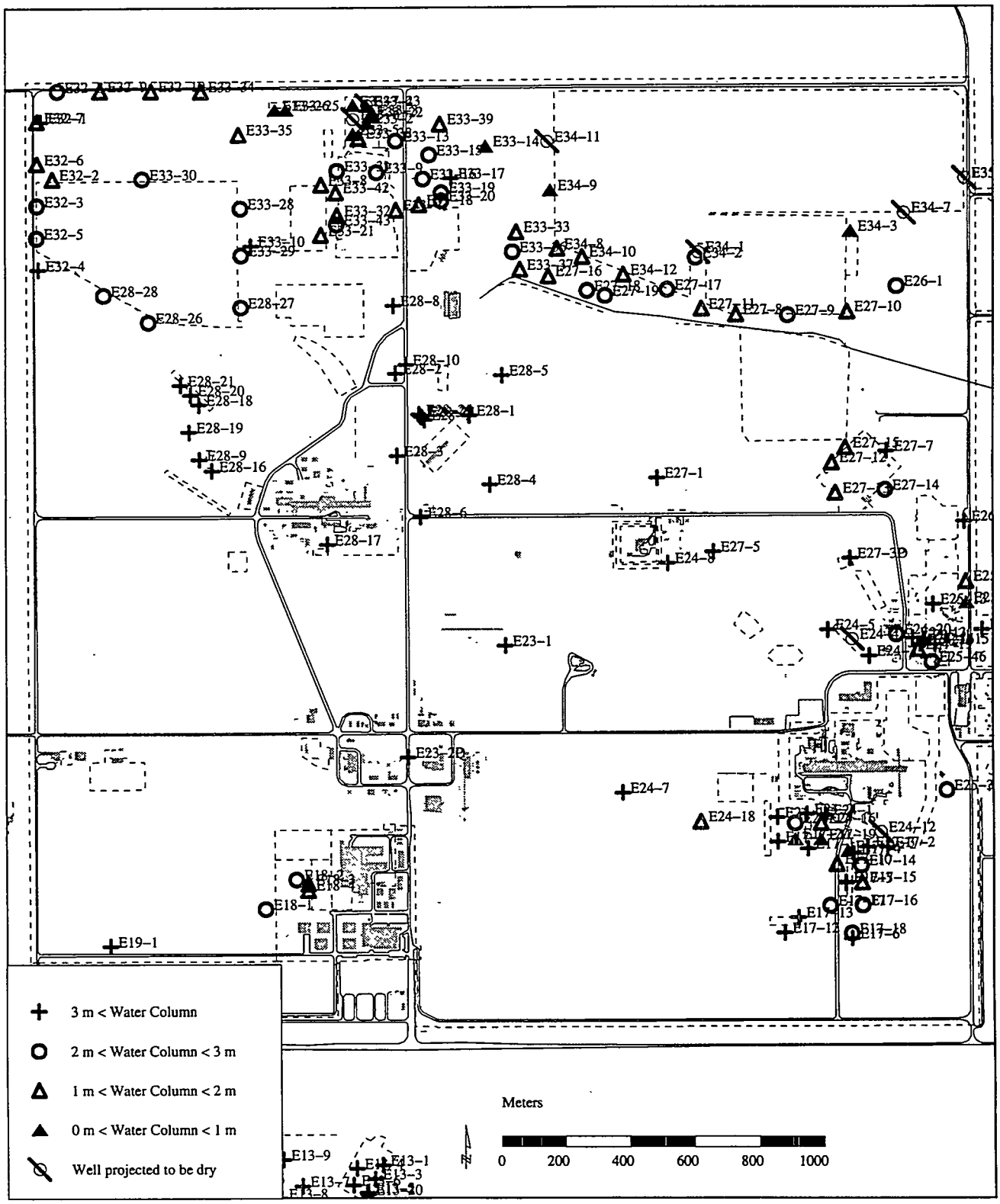
100–N Area selected wells which may be impacted by declining water levels before 1 January 2005



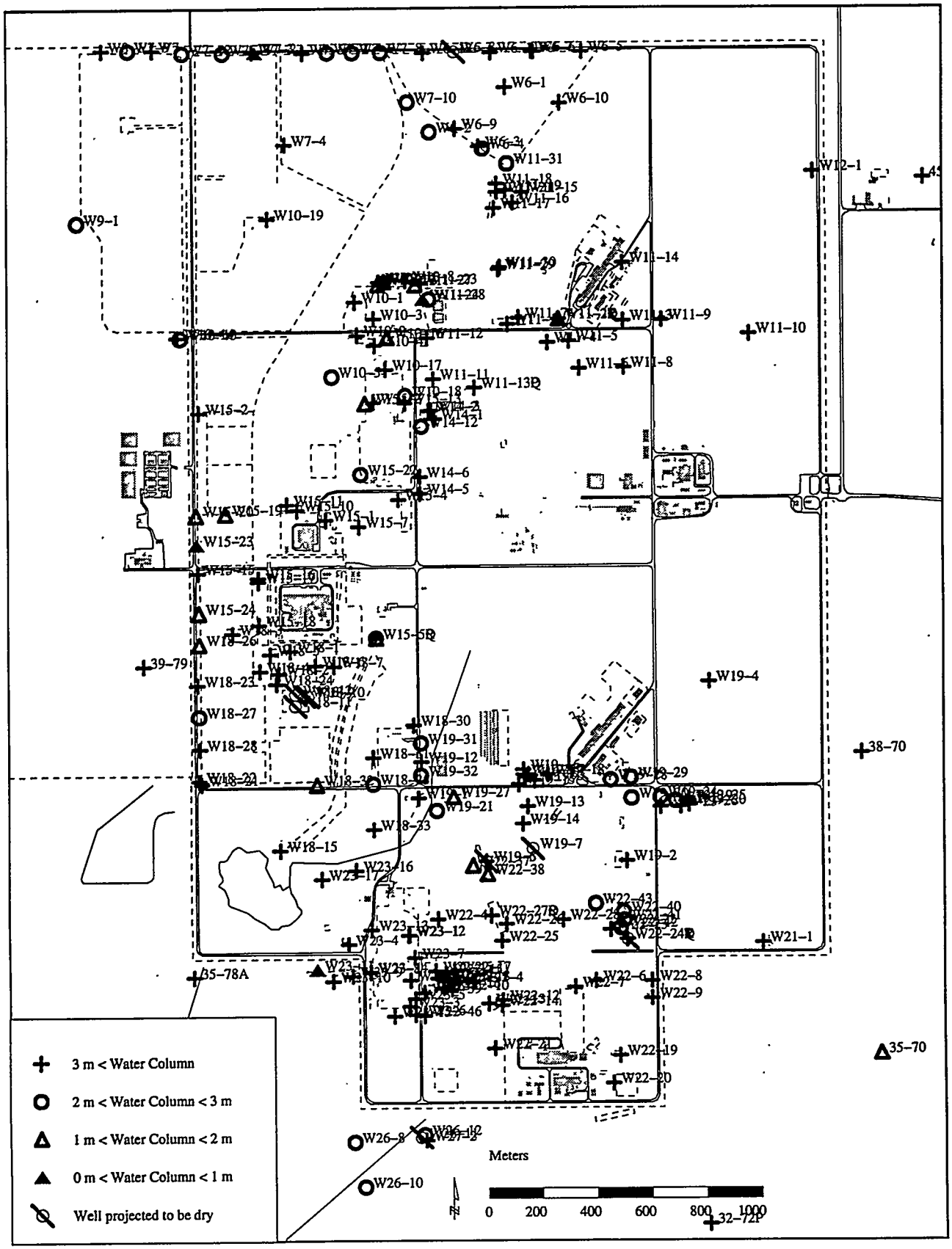
200–East Area selected wells which may be impacted by declining water levels before 1 January 1995



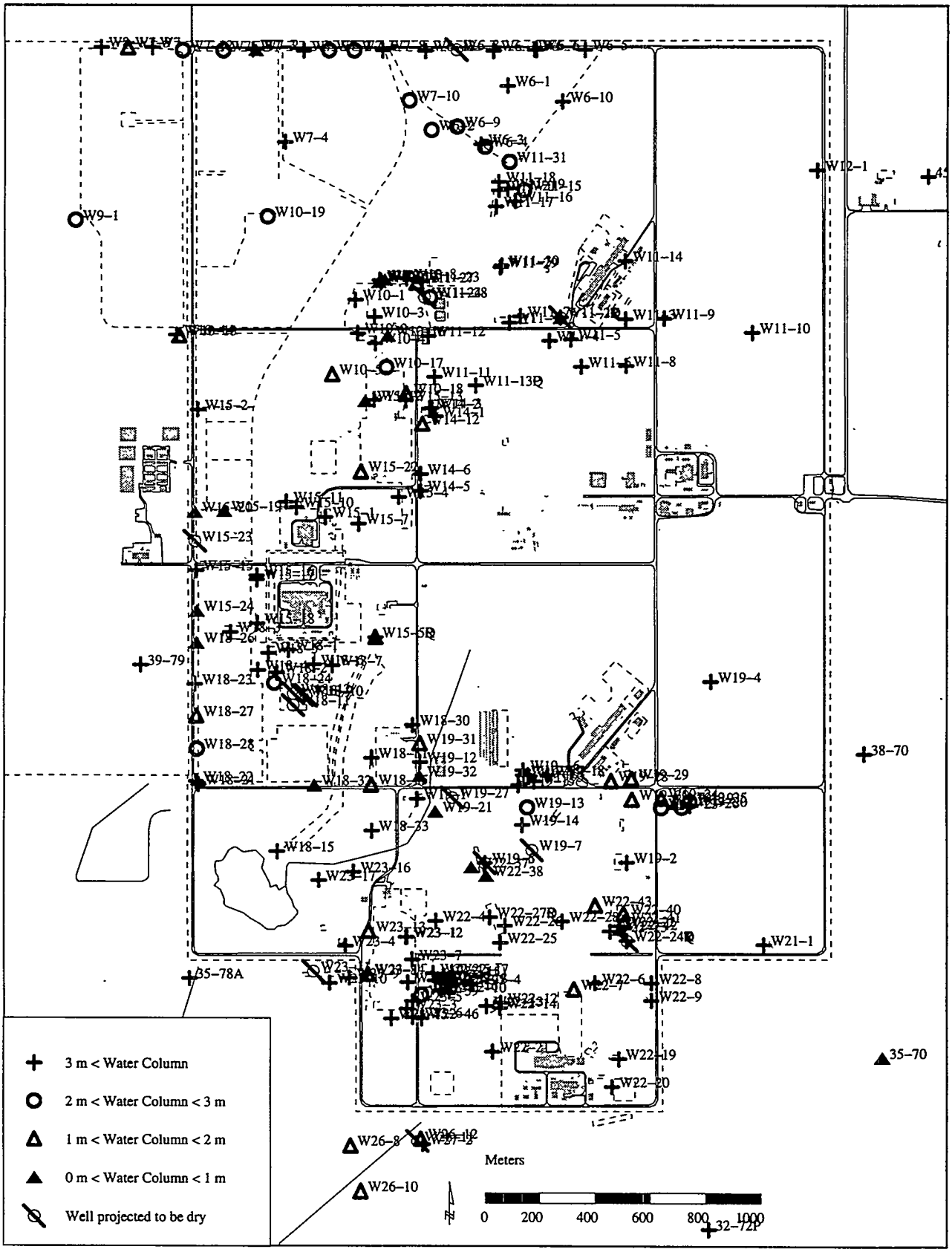
200–East Area selected wells which may be impacted by declining water levels before 1 January 2000



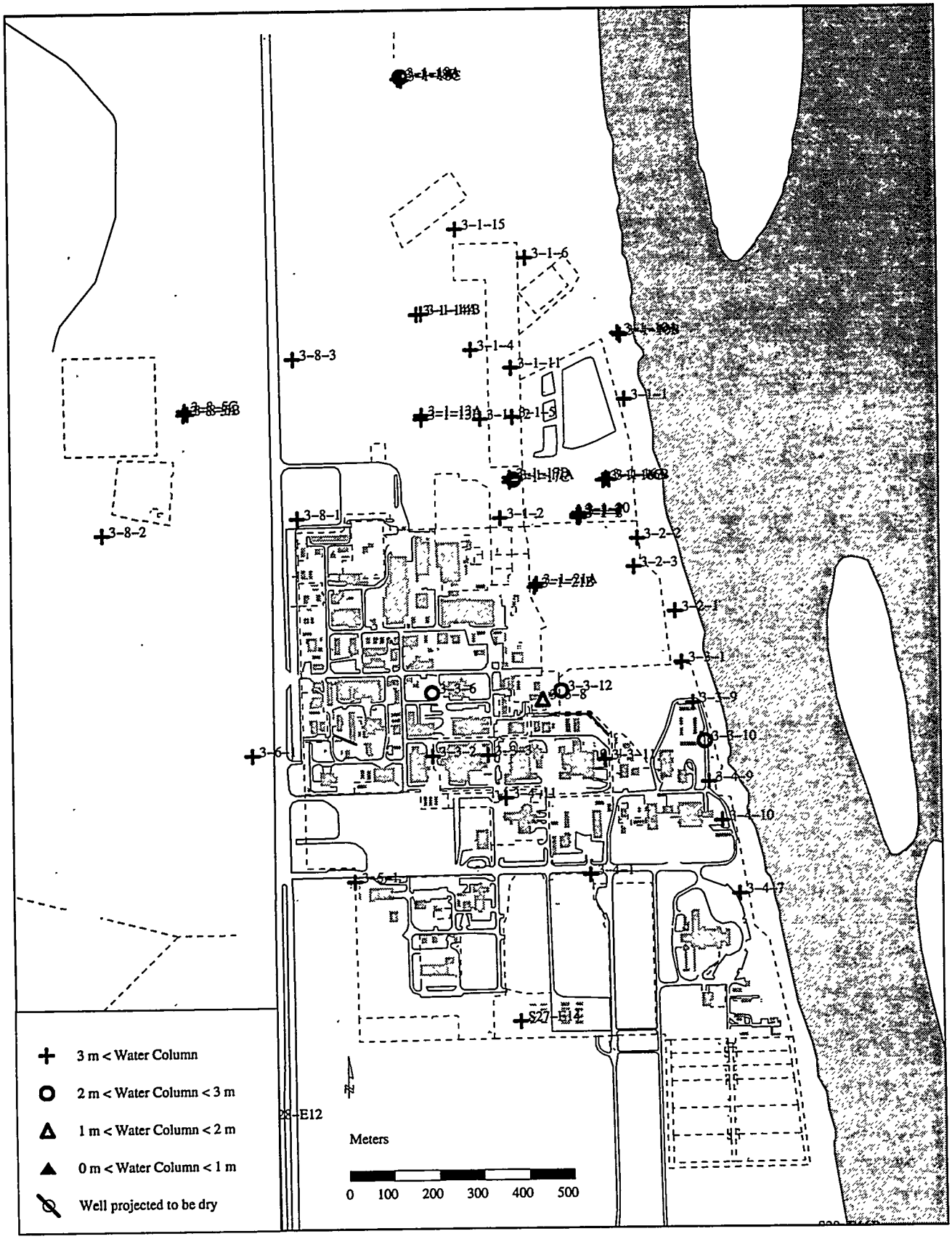
200–East Area selected wells which may be impacted by declining water levels before 1 January 2005



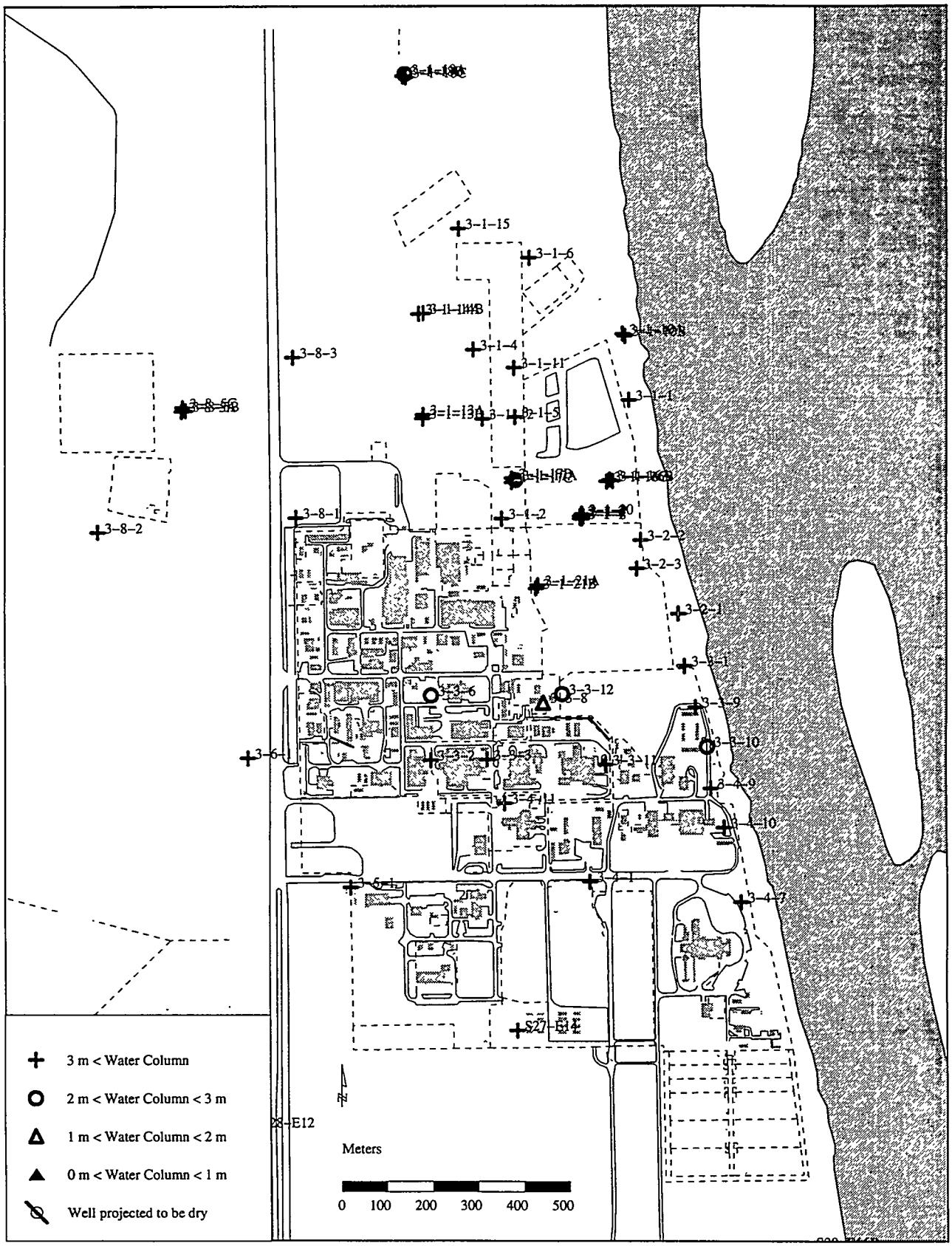
200–West Area selected wells which may be impacted by declining water levels before 1 January 1995



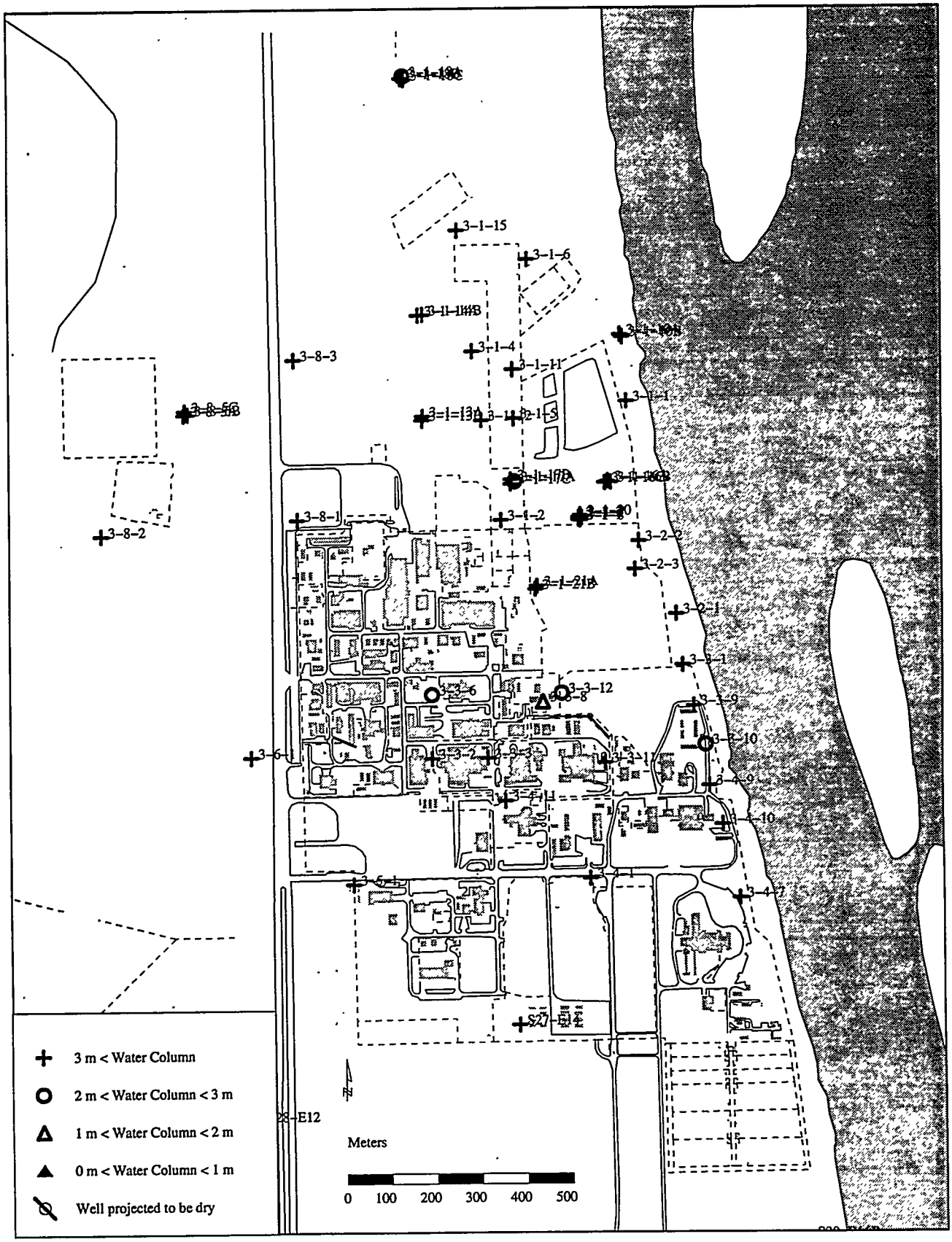
200–West Area selected wells which may be impacted by declining water levels before 1 January 2000



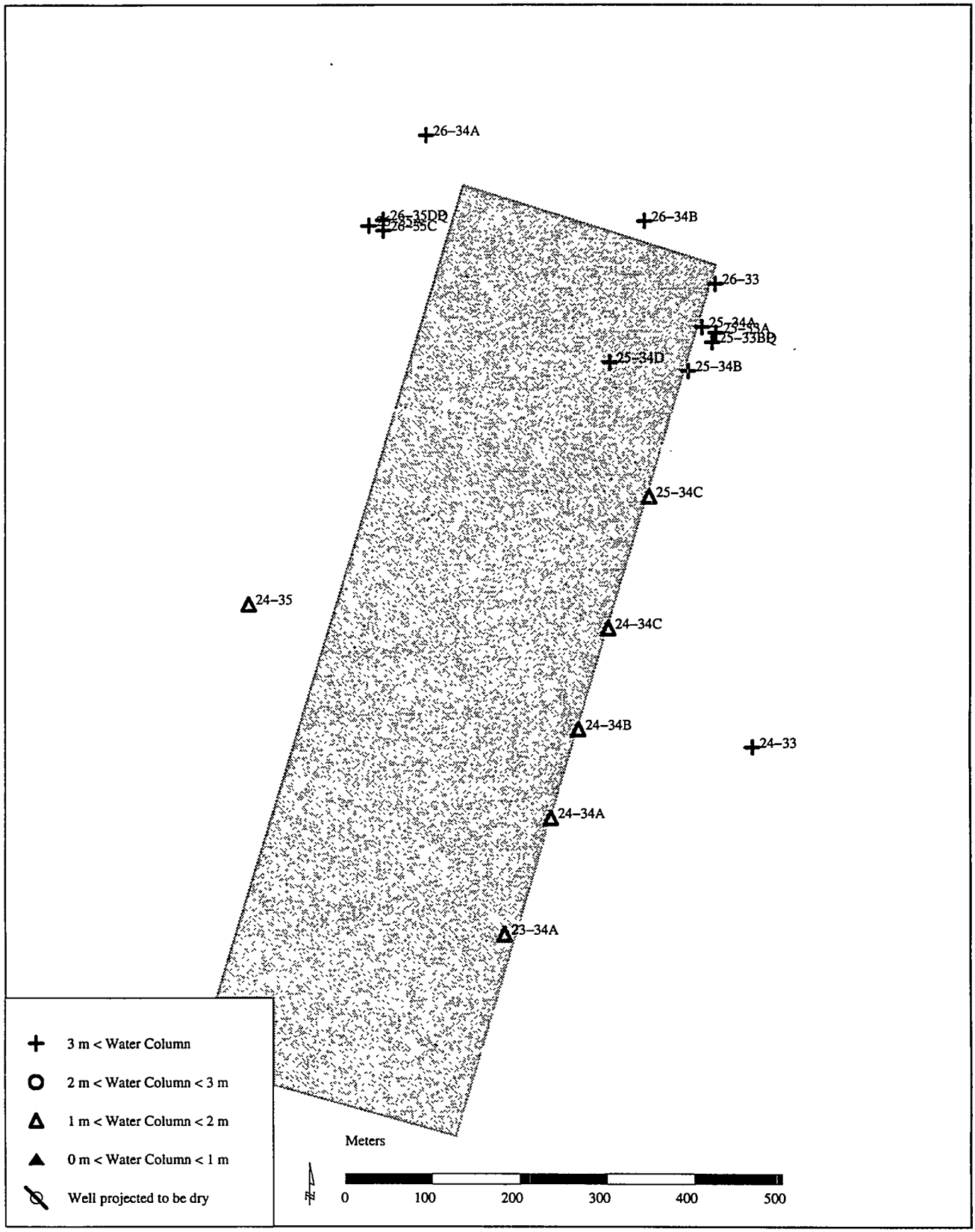
300 Area selected wells which may be impacted by declining water levels before 1 January 1995



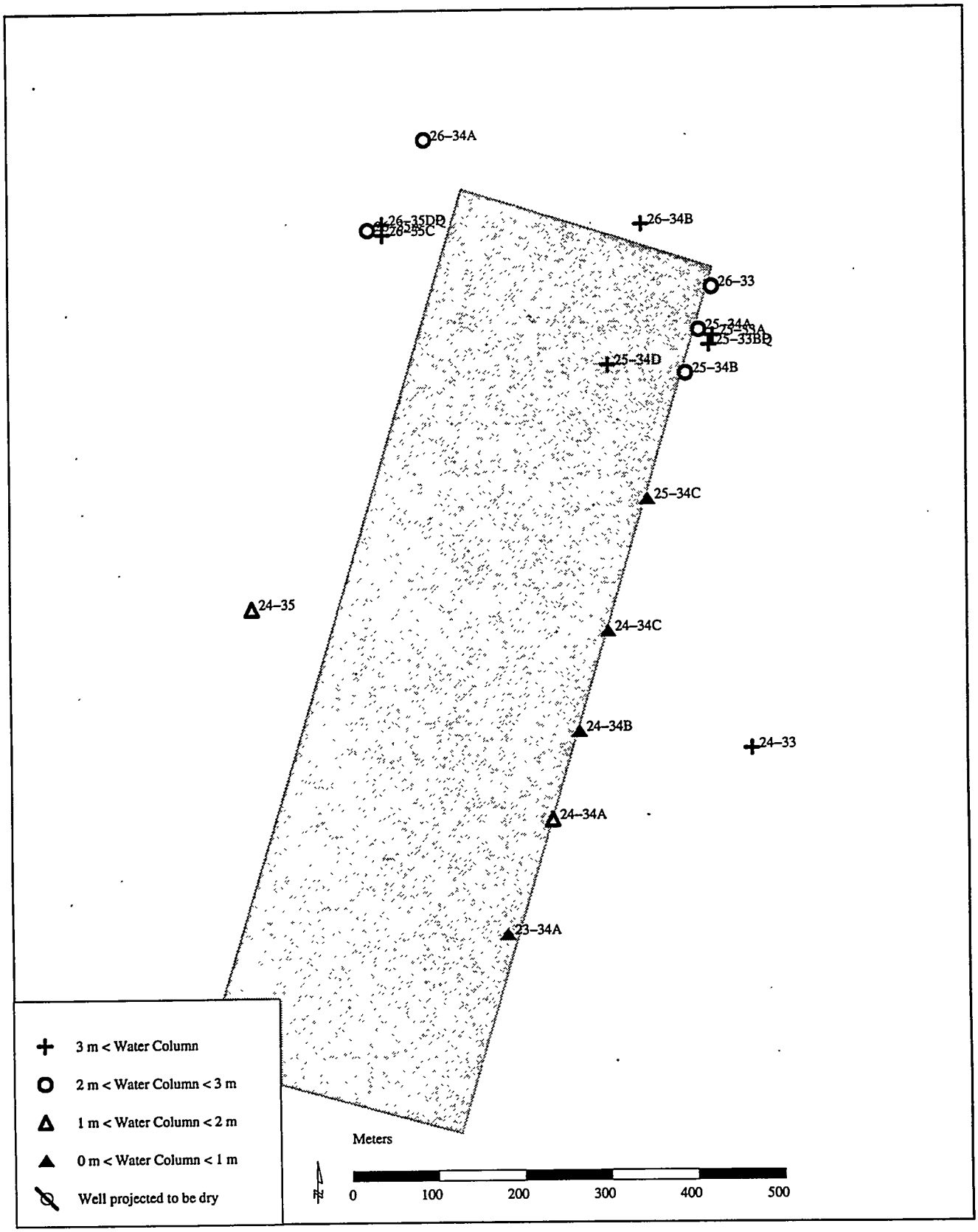
300 Area selected wells which may be impacted by declining water levels before 1 January 2000



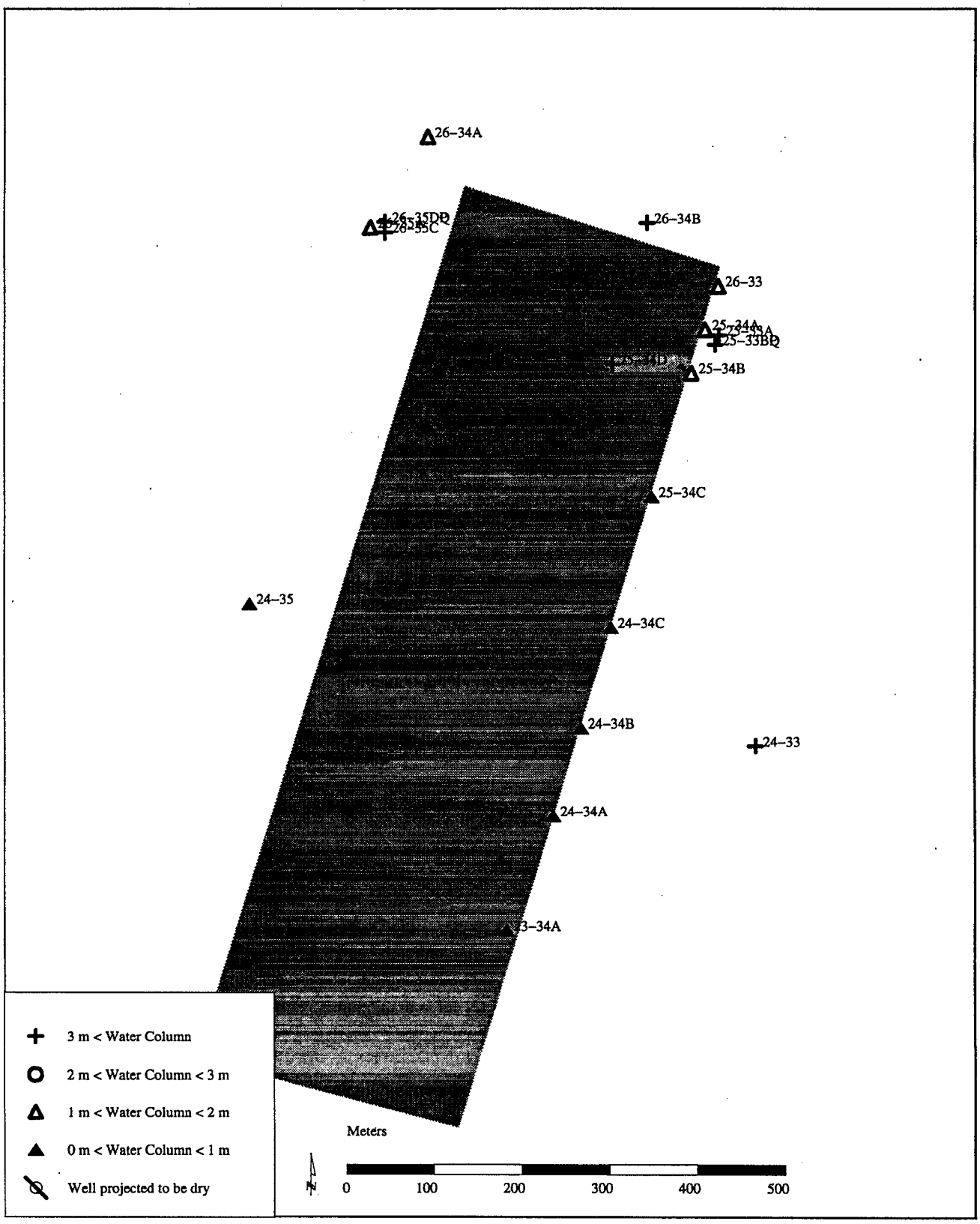
300 Area selected wells which may be impacted by declining water levels before 1 January 2005



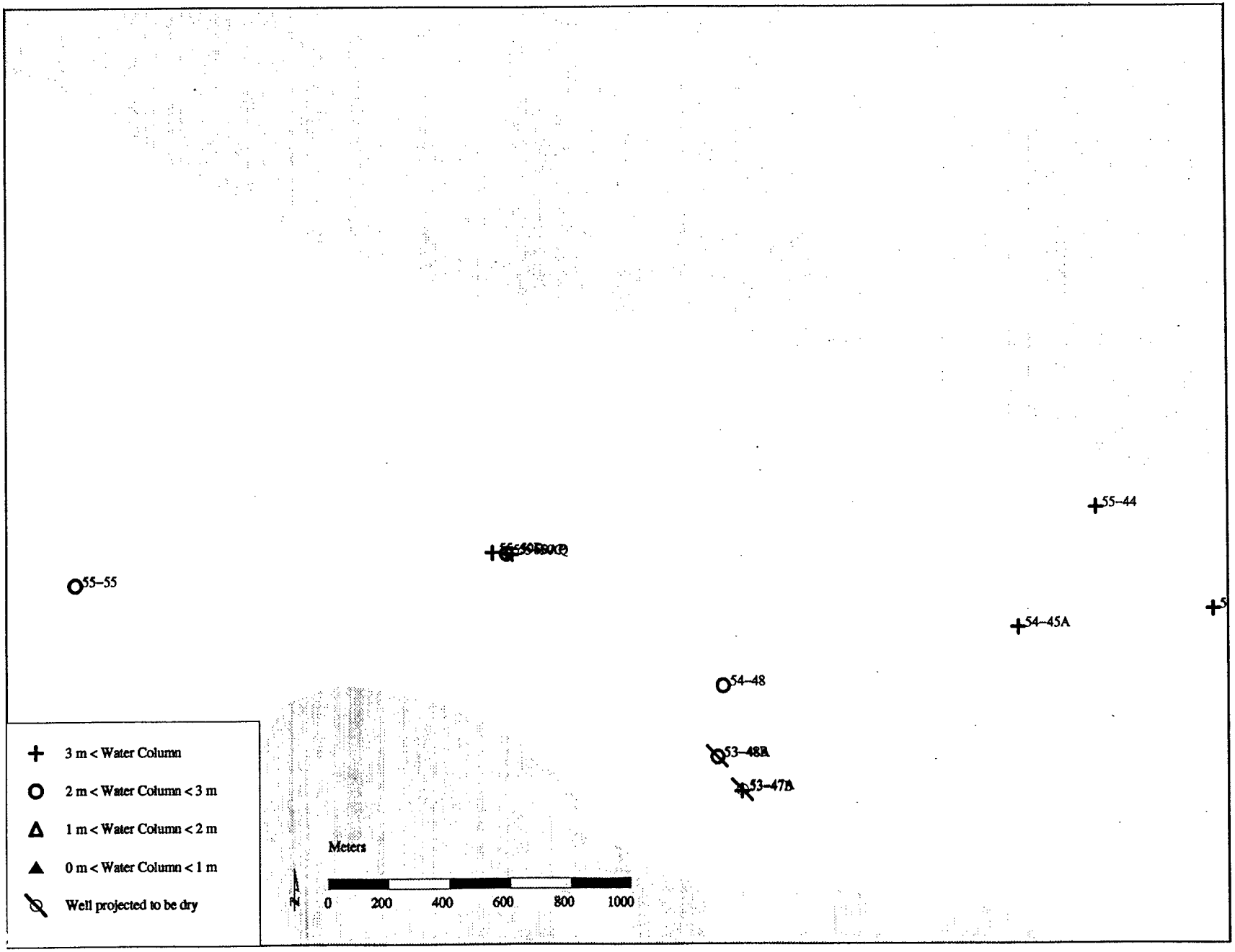
SWL_&_NRDWL Area selected wells which may be impacted by declining water levels before 1 January 1995



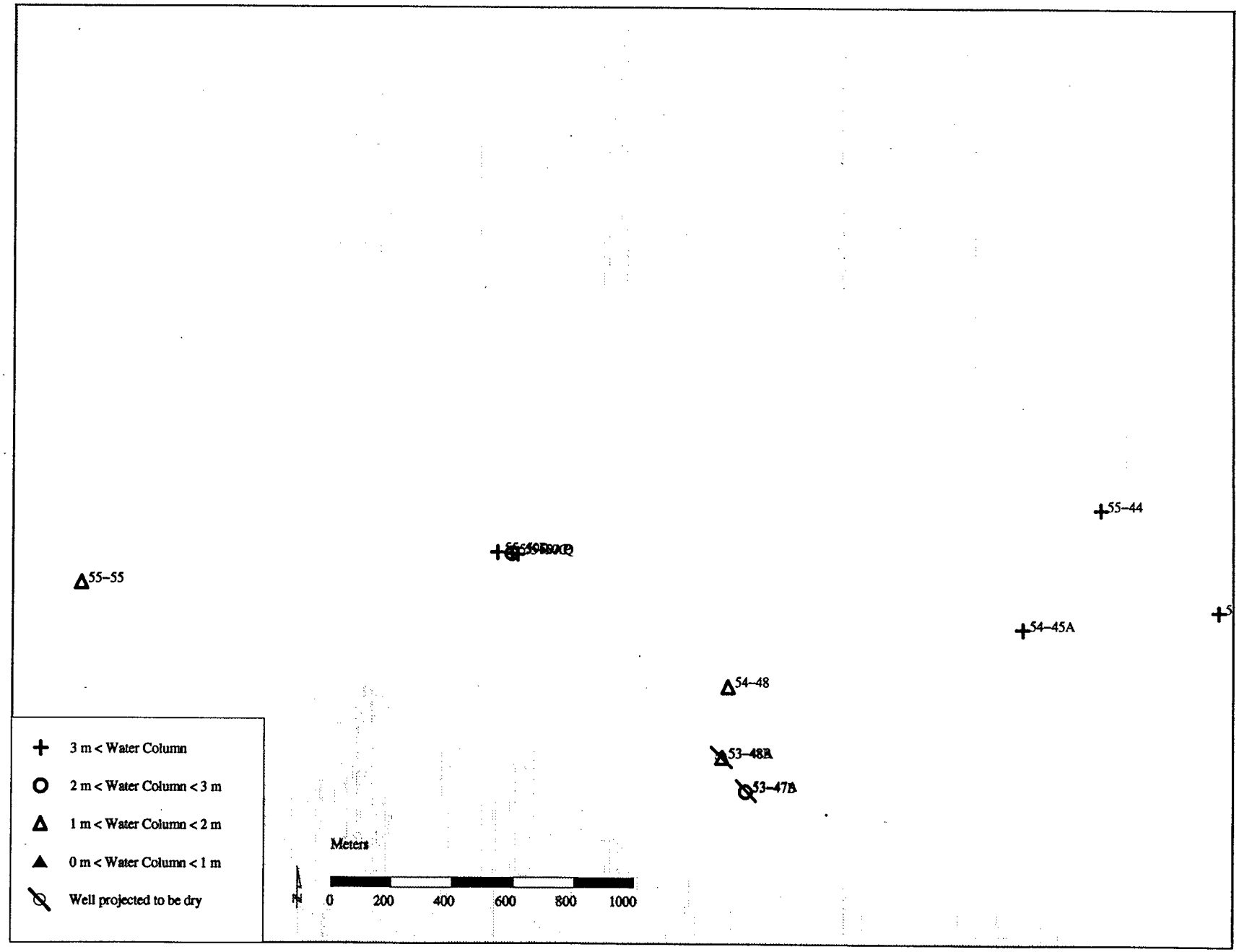
SWL_&_NRDWL Area selected wells which may be impacted by declining water levels before 1 January 2000



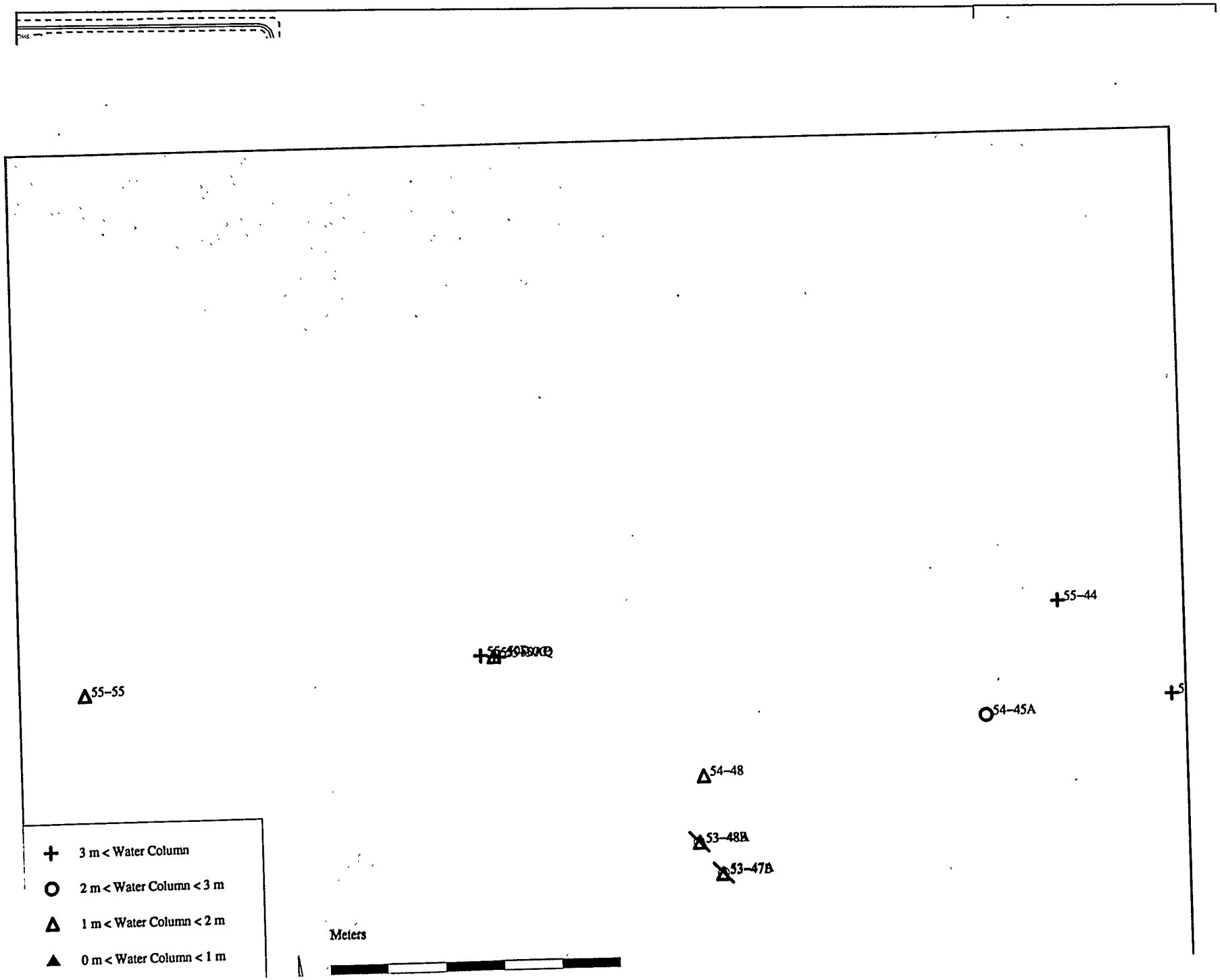
SWL_&_NRDWL Area selected wells which may be impacted by declining water levels before 1 January 2005

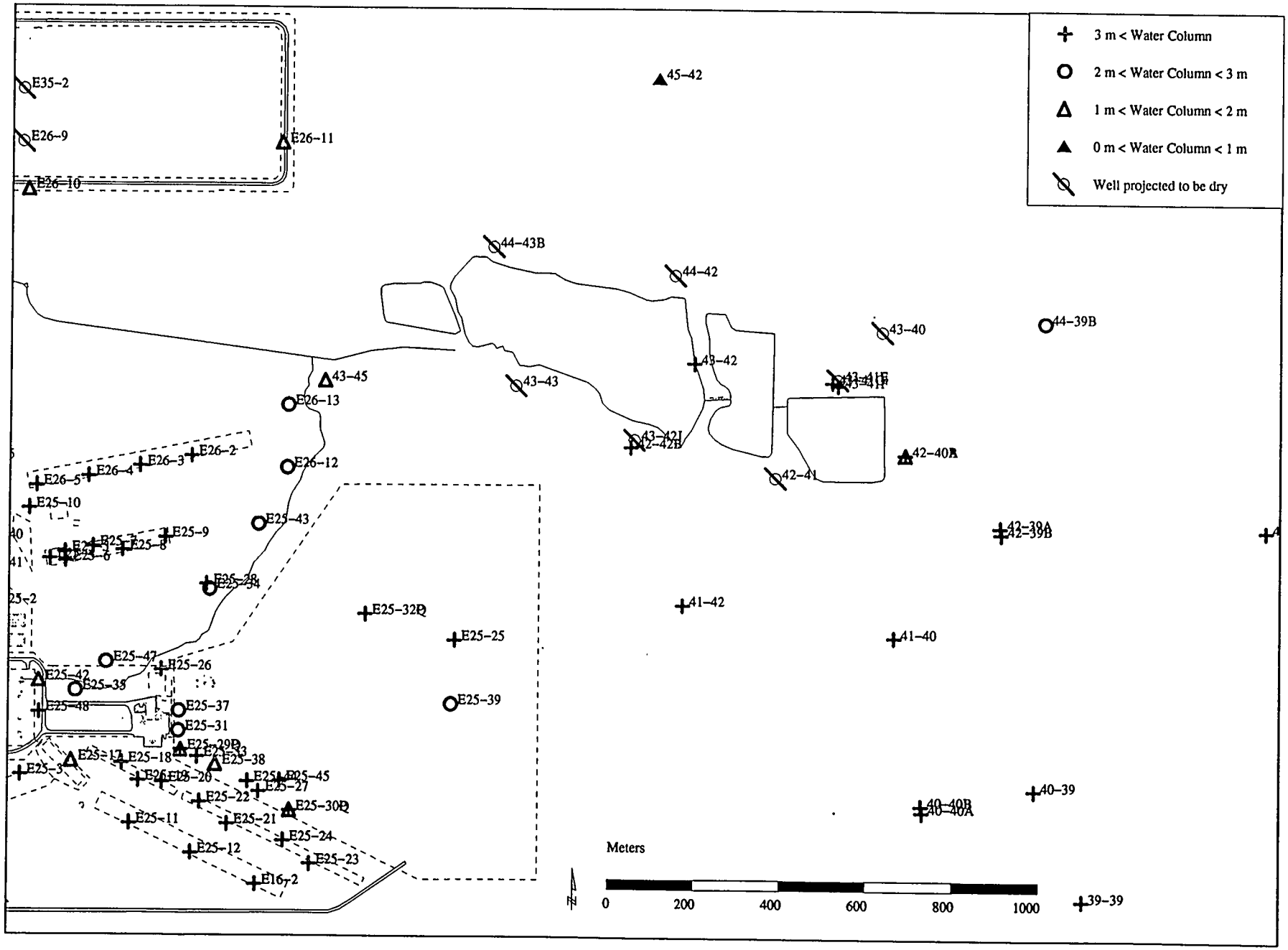


Gable_Mountain Area selected wells which may be impacted by declining water levels before 1 January 1995

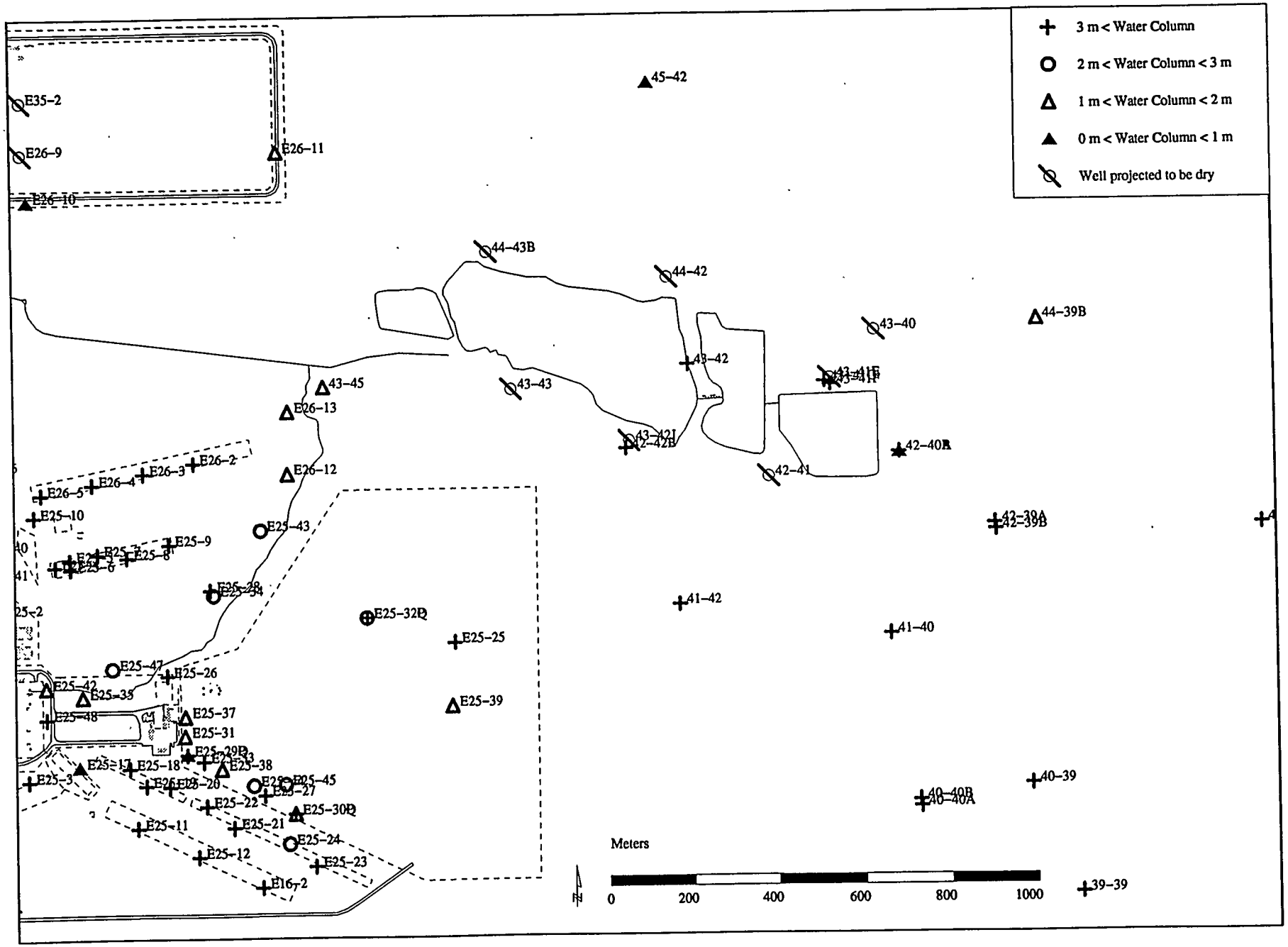


Gable_Mountain Area selected wells which may be impacted by declining water levels before 1 January 2000


55-44
55-55
54-45A
54-48
53-48A
53-47A
3 m < Water Column
2 m < Water Column < 3 m
1 m < Water Column < 2 m
0 m < Water Column < 1 m
Meters



LERF, Grout, A-29 Ditch, and B Pond Area selected wells which may be impacted by declining water levels before 1 January 2000.



LERF, Grout, A-29 Ditch, and B Pond Area selected wells which may be impacted by declining water levels before 1 January 2005.

Appendix C

Projected Head Above Bottom of Screen for Selected Monitoring Wells on the Hanford Site

Key for Appendix C

Key for Company:

Orphan = Not claimed by a Contractor Program
PNL = Pacific Northwest Laboratory
WHC = Westinghouse Hanford Company
USACE = U. S. Army Corps of Engineers
PNL-GLDR = Pacific Northwest Laboratory - Golder Associates
WPPSS = Washington Public Power Supply System

Key for Well Owner:

ES&M (ROM) = RCRA/Operational
Sitewide = Ground-Water Surveillance Project
ER = CERCLA
TWRS = Tank Farms
PNL-GOLDER = Ground-Water Surveillance Project
WPPSS = Washington Public Power Supply System
FFTF = Fast Flux Test Facility Drinking Water Wells

Key for Pump Type:

H = Hydrostar
S = Submersible
B = Bailer

			Pump	Estimated Water Column (m)		
Wellname	Company	Owner	Type	Dec. 1995	Dec. 2000	Dec. 2005
1199-15-13C	Orphan	ES&M (ROM)		16.24	16.24	16.24
1199-20-13	Orphan	ES&M (ROM)		12.6	12.6	12.6
1199-22-11A	Orphan	ES&M (ROM)		34.55	34.53	34.53
1199-34-15A	PNL	Sitewide		21.91	21.73	21.71
1199-39-16C	PNL	Sitewide		11.01	10.85	10.83
1199-40-15	PNL	Sitewide		11.69	11.53	11.51
1199-40-16B	PNL	Sitewide		13.14	13	12.99
199-B2-13	WHC	ER	H	3.51	3.51	3.51
199-B3-1	WHC	ER	S	4.32	4.31	4.3
199-B3-2Q	PNL	Sitewide		180.57	180.55	180.53
199-B3-46	WHC	ER	H	5.18	5.17	5.15
199-B4-1	WHC	ER	S	7.11	7.08	7.05
199-B4-2	WHC	ER	B	5.85	5.82	5.79
199-B4-3	WHC	ER	B	5.74	5.71	5.68
199-B4-4	WHC	ER	S	7.59	7.54	7.49
199-B4-5	PNL	Sitewide	H	3.13	3.07	3.02
199-B4-6	WHC	ER	H	3.16	3.1	3.05
199-B4-7	PNL	Sitewide	H	2.93	2.86	2.81
199-B4-8	WHC	ER	H	2.09	2.03	1.99
199-B4-9	WHC	ER	H	1.05	1	0.95
199-B5-1	WHC	ER	S	11.92	11.89	11.87
199-B5-2	WHC	ER	H	2.83	2.8	2.77
199-B8-6	WHC	ER	H	2.79	2.76	2.73
199-B9-1	WHC	ER	S	8.07	8	7.94
199-B9-2	WHC	ER	H	2.53	2.46	2.4
199-B9-3	WHC	ER		2.29	2.21	2.15
199-D2-5	WHC	ES&M (ROM)	S	3.13	3.09	3.04
199-D2-6	WHC	ES&M (ROM)		4.32	4.3	4.26
199-D5-12	WHC	ES&M (ROM)	S	1.36	1.33	1.29
199-D5-13	WHC	ES&M (ROM)	H	3.01	2.99	2.97
199-D5-14	WHC	ES&M (ROM)		3.2	3.18	3.15
199-D5-15	WHC	ES&M (ROM)	H	3.31	3.28	3.25
199-D5-16	WHC	ES&M (ROM)		2.82	2.79	2.76
199-D5-17	WHC	ES&M (ROM)		3.38	3.35	3.3
199-D5-18	WHC	ES&M (ROM)		3.4	3.37	3.32
199-D5-19	WHC	ES&M (ROM)		4.52	4.48	4.44
199-D5-20	WHC	ES&M (ROM)		3.9	3.89	3.88
199-D8-2	Orphan	ES&M (ROM)	B	4.26	4.25	4.24
199-D8-3	WHC	ES&M (ROM)	S	4.01	4	3.99
199-D8-4	WHC	ES&M (ROM)	H	2.78	2.77	2.76
199-D8-5	WHC	ES&M (ROM)	H	4.33	4.32	4.31
199-D8-53	WHC	ES&M (ROM)		3.86	3.85	3.85
199-D8-54A	WHC	ES&M (ROM)		4.04	4.03	4.02
199-D8-54B	WHC	ES&M (ROM)		24.82	24.81	24.8

199-D8-55	WHC	ES&M (ROM)		4.14	4.14	4.13
199-D8-6	WHC	ES&M (ROM)	H	4.64	4.63	4.61
199-F1-2	WHC	ER		2.82	2.81	2.81
199-F5-1	WHC	ES&M (ROM)	S	7.93	7.93	7.92
199-F5-2	Orphan	Orphan		17.35	17.35	17.34
199-F5-3	WHC	ES&M (ROM)	B	7.31	7.31	7.31
199-F5-4	WHC	ES&M (ROM)	S	11.9	11.89	11.87
199-F5-42	WHC	ER		4.11	4.11	4.11
199-F5-43A	WHC	ER		4.43	4.43	4.43
199-F5-44	WHC	ER		4.66	4.66	4.66
199-F5-45	WHC	ER		2.57	2.57	2.55
199-F5-46	WHC	ER		2.89	2.89	2.88
199-F5-47	WHC	ER		3.65	3.64	3.62
199-F5-48	WHC	ER		2.27	2.26	2.25
199-F5-5	Orphan	Orphan		11.55	11.55	11.54
199-F5-6	WHC	ES&M (ROM)	S	9.68	9.68	9.67
199-F6-1	WHC	ER		4.13	4.13	4.12
199-F7-1	WHC	ER	S	12.97	12.95	12.91
199-F7-2	WHC	ER		2.62	2.61	2.58
199-F7-3	WHC	ER		3.06	3.05	3.01
199-F8-1	WHC	ER	S	5.77	5.76	5.73
199-F8-2	WHC	ER	B	4.26	4.25	4.23
199-F8-3	WHC	ER		0.95	0.93	0.9
199-F8-4	WHC	ER		1.52	1.52	1.5
199-H3-1	WHC	ES&M (ROM)	H	9.1	9.09	9.08
199-H3-2A	WHC	ES&M (ROM)	H	3.21	3.2	3.2
199-H3-2B	WHC	ES&M (ROM)	H	4.24	4.24	4.24
199-H3-2C	WHC	ES&M (ROM)	H	21.07	21.07	21.06
199-H4-11	WHC	ES&M (ROM)	H	3.9	3.9	3.9
199-H4-13	WHC	ES&M (ROM)	H	3.15	3.15	3.15
199-H4-14	WHC	ES&M (ROM)	H	2.9	2.9	2.9
199-H4-16	WHC	ES&M (ROM)	H	3.09	3.09	3.08
199-H4-17	WHC	ES&M (ROM)	H	0.93	0.93	0.93
199-H4-18	WHC	ES&M (ROM)	H	1.52	1.52	1.52
199-H4-3	WHC	ES&M (ROM)	H	3.55	3.54	3.54
199-H4-45	WHC	ES&M (ROM)		3.89	3.89	3.88
199-H4-46	WHC	ER		3.75	3.75	3.74
199-H4-47	WHC	ER		3.56	3.56	3.55
199-H4-48	WHC	ER		3.32	3.32	3.32
199-H4-49	WHC	ER		1.85	1.85	1.84
199-H4-6	WHC	ES&M (ROM)	H	-2.19	-2.19	-2.19
199-H4-7	WHC	ES&M (ROM)	H	2.9	2.9	2.9
199-H4-8	WHC	ES&M (ROM)	H	1.53	1.53	1.53
199-H4-9	WHC	ES&M (ROM)	H	1.48	1.48	1.48
199-H5-1A	WHC	ER		2.45	2.45	2.44
199-H6-1	WHC	ES&M (ROM)		3.96	3.96	3.95

199-K-10	Orphan	ES&M (ROM)		27.51	27.41	27.32
199-K-11	WHC	ES&M (ROM)	S	25.69	25.59	25.5
199-K-12	Orphan	ES&M (ROM)		19.29	19.19	19.11
199-K-13	WHC	ER		26.49	26.38	26.29
199-K-18	WHC	ER		12.71	12.65	12.61
199-K-19	WHC	ES&M (ROM)	S	5.75	5.67	5.6
199-K-20	WHC	ES&M (ROM)	S	5.41	5.36	5.32
199-K-21	WHC	ER		5.64	5.58	5.54
199-K-22	WHC	ES&M (ROM)	H	5.71	5.63	5.56
199-K-23	WHC	ER		20.45	20.32	20.23
199-K-27	WHC	ES&M (ROM)	S	3.1	2.99	2.9
199-K-28	WHC	ES&M (ROM)	S	4.23	4.12	4.02
199-K-29	WHC	ES&M (ROM)	S	2.89	2.77	2.67
199-K-30	WHC	ES&M (ROM)	S	3.88	3.76	3.66
199-K-34	WHC	ER		3.3	3.2	3.13
199-K-35	WHC	ER		2.14	1.98	1.85
199-K-36	WHC	ER		2.44	2.25	2.09
199-K-37	WHC	ER		3	2.92	2.86
199-N-1	Orphan	ES&M (ROM)		8.21	8.17	8.12
199-N-13O	Orphan	ES&M (ROM)		-4.89	-4.93	-4.98
199-N-13P	Orphan	ES&M (ROM)		0.61	0.57	0.53
199-N-14	WHC	ES&M (ROM)	S	3.69	3.67	3.64
199-N-15	Orphan	ES&M (ROM)	S	2.95	2.88	2.82
199-N-16	WHC	ES&M (ROM)	S	3.01	2.95	2.9
199-N-17	WHC	ES&M (ROM)	S	2.98	2.94	2.9
199-N-18	WHC	ES&M (ROM)	B	2.55	2.52	2.49
199-N-19	WHC	ES&M (ROM)	S	3.66	3.63	3.6
199-N-1O	Orphan	ES&M (ROM)		-2.54	-2.58	-2.63
199-N-1P	Orphan	ES&M (ROM)		9.04	9	8.95
199-N-1Q	Orphan	ES&M (ROM)		1.73	1.69	1.64
199-N-2	WHC	ES&M (ROM)	S	7.02	6.98	6.93
199-N-20	WHC	ES&M (ROM)	B	3.08	3.04	3.01
199-N-21	WHC	ES&M (ROM)	S	2.75	2.72	2.69
199-N-22	PNL	Sitewide	B	3.05	3.01	2.98
199-N-23	WHC	ES&M (ROM)	H	3	2.97	2.93
199-N-24	PNL	Sitewide	B	2.95	2.92	2.89
199-N-25	WHC	ES&M (ROM)	B	3.39	3.36	3.33
199-N-26	WHC	ES&M (ROM)	H	3.53	3.49	3.46
199-N-27	WHC	ES&M (ROM)	S	2.7	2.59	2.49
199-N-28	WHC	ES&M (ROM)	S	2.43	2.32	2.22
199-N-29	WHC	ES&M (ROM)	S	2.38	2.28	2.19
199-N-3	WHC	ES&M (ROM)	S	7.13	7.09	7.06
199-N-31	WHC	ES&M (ROM)	S	2.13	2.04	1.96
199-N-32	WHC	ES&M (ROM)	S	2.01	1.92	1.83
199-N-33	WHC	ES&M (ROM)	B	1.09	1.01	0.94
199-N-34	WHC	ES&M (ROM)	S	2.12	2.04	1.97

199-N-36	WHC	ES&M (ROM)	S	1.12	1.03	0.94
199-N-37	PNL	Sitewide	S	2.24	2.15	2.07
199-N-39	PNL	Sitewide	S	0.32	0.24	0.16
199-N-4	PNL	Sitewide	S	-3.15	-3.22	-3.28
199-N-40	WHC	ES&M (ROM)		1.49	1.41	1.33
199-N-41	WHC	ES&M (ROM)	S	1.07	0.99	0.91
199-N-42	WHC	ES&M (ROM)	S	1.87	1.78	1.69
199-N-43	Orphan	Orphan		2.91	2.84	2.77
199-N-46	WHC	ES&M (ROM)		2.09	2.07	2.04
199-N-47	WHC	ES&M (ROM)	S	5.34	5.31	5.28
199-N-49	WHC	ES&M (ROM)	S	3.69	3.63	3.58
199-N-5	PNL	Sitewide	B	13.02	12.97	12.92
199-N-50	WHC	ES&M (ROM)	S	6.01	5.97	5.94
199-N-51	WHC	ES&M (ROM)	S	3.17	3.17	3.16
199-N-52	WHC	ES&M (ROM)	S	0.58	0.44	0.31
199-N-54	WHC	ES&M (ROM)	H	1.13	1.09	1.04
199-N-55	WHC	ES&M (ROM)	H	1.04	0.99	0.95
199-N-56	WHC	ES&M (ROM)	H	1.22	1.17	1.13
199-N-57	WHC	ES&M (ROM)	B	1.14	1.08	1.02
199-N-58	PNL	Sitewide	H	-1.05	-1.12	-1.18
199-N-59	WHC	ES&M (ROM)	H	0.35	0.28	0.21
199-N-6	PNL	Sitewide	S	-2.27	-2.34	-2.41
199-N-60	WHC	ES&M (ROM)	H	-0.79	-0.86	-0.93
199-N-61	PNL	Sitewide	H	-1.88	-1.95	-2.03
199-N-62	WHC	ES&M (ROM)		1.18	1.09	1
199-N-63	WHC	ES&M (ROM)		0.94	0.86	0.78
199-N-64	WHC	ES&M (ROM)	B	0.91	0.84	0.77
199-N-65	WHC	ES&M (ROM)		0.92	0.86	0.79
199-N-66	WHC	ES&M (ROM)	H	2.34	2.27	2.2
199-N-67	WHC	ES&M (ROM)	B	3.6	3.55	3.5
199-N-69	WHC	ES&M (ROM)	H	8.88	8.84	8.79
199-N-70	WHC	ES&M (ROM)	H	10.13	10.05	9.97
199-N-71	WHC	ES&M (ROM)	H	3.55	3.41	3.28
199-N-72	WHC	ES&M (ROM)	H	3.74	3.67	3.6
199-N-73	WHC	ES&M (ROM)	H	3.75	3.67	3.6
199-N-74	WHC	ES&M (ROM)	H	3.57	3.43	3.29
199-N-75	WHC	ES&M (ROM)	H	4.72	4.68	4.65
199-N-76	WHC	ES&M (ROM)	H	5.08	5.05	5.02
199-N-77	WHC	ES&M (ROM)	H	7.37	7.3	7.24
199-N-80	WHC	ER		15.41	15.38	15.34
199-N-81	WHC	ES&M (ROM)	H	5.79	5.71	5.63
199-N-8P	WHC	ES&M (ROM)	B	25.13	25.1	25.07
199-N-8Q	WHC	ES&M (ROM)		13.09	13.06	13.03
199-N-8R	WHC	ES&M (ROM)	B	9.28	9.26	9.23
199-N-8S	WHC	ES&M (ROM)	B	6.4	6.37	6.34
199-N-8T	WHC	ES&M (ROM)	S	3.95	3.92	3.89

199-N-8U	WHC	ES&M (ROM)		0.9	0.88	0.85
299-E13-1	WHC	ES&M (ROM)		7.64	6.82	6.21
299-E13-10	WHC	ES&M (ROM)		1.9	1.08	0.47
299-E13-11	WHC	ES&M (ROM)		9.77	8.95	8.34
299-E13-12	WHC	ES&M (ROM)		9.68	8.86	8.25
299-E13-13	Orphan	ES&M (ROM)		10.05	9.23	8.62
299-E13-14	WHC	ES&M (ROM)	S	3.34	2.52	1.91
299-E13-15	WHC	ES&M (ROM)		10.25	9.42	8.81
299-E13-16	WHC	ES&M (ROM)		7.18	6.36	5.75
299-E13-17	WHC	ES&M (ROM)		8.04	7.21	6.6
299-E13-18	WHC	ES&M (ROM)		25.59	24.76	24.15
299-E13-19	WHC	ES&M (ROM)	B	10.54	9.72	9.11
299-E13-2	WHC	ES&M (ROM)		7.46	6.64	6.03
299-E13-20	WHC	ES&M (ROM)		74.39	73.57	72.96
299-E13-3	WHC	ES&M (ROM)		7.16	6.34	5.73
299-E13-4	WHC	ES&M (ROM)		8.12	7.29	6.69
299-E13-5	PNL	Sitewide	S	7.59	6.77	6.16
299-E13-6	WHC	ES&M (ROM)		6.88	6.06	5.45
299-E13-7	WHC	ES&M (ROM)		7.64	6.82	6.21
299-E13-8	WHC	ES&M (ROM)	B	7.42	6.59	5.98
299-E13-9	WHC	ES&M (ROM)		6.4	5.58	4.97
299-E16-2	WHC	ES&M (ROM)	B	17.58	16.76	16.15
299-E17-1	WHC	ES&M (ROM)	S	5.07	4.25	3.65
299-E17-10	WHC	ES&M (ROM)	S	2.46	1.64	1.03
299-E17-12	WHC	ES&M (ROM)	S	5.82	5	4.4
299-E17-13	WHC	ES&M (ROM)	S	6.26	5.45	4.84
299-E17-14	WHC	ES&M (ROM)	H	3.69	2.87	2.26
299-E17-15	WHC	ES&M (ROM)	H	3.23	2.42	1.81
299-E17-16	WHC	ES&M (ROM)	H	3.66	2.84	2.24
299-E17-17	WHC	ES&M (ROM)	H	3.94	3.12	2.51
299-E17-18	WHC	ES&M (ROM)	H	3.49	2.67	2.06
299-E17-19	WHC	ES&M (ROM)	H	2.42	1.6	0.99
299-E17-2	PNL	Sitewide	B	9.06	8.24	7.64
299-E17-20	WHC	ES&M (ROM)	H	2.21	1.39	0.78
299-E17-3	WHC	ES&M (ROM)	B	26.62	25.8	25.19
299-E17-4	WHC	ES&M (ROM)	B	25.53	24.71	24.1
299-E17-5	WHC	ES&M (ROM)	S	5.82	5	4.4
299-E17-6	WHC	ES&M (ROM)	S	43.49	42.67	42.07
299-E17-7	WHC	ES&M (ROM)	B	20.91	20.09	19.49
299-E17-8	WHC	ES&M (ROM)	S	8.06	7.24	6.63
299-E17-9	WHC	ES&M (ROM)	S	1.57	0.75	0.15
299-E18-1	WHC	ES&M (ROM)	H	3.59	2.77	2.16
299-E18-2	WHC	ES&M (ROM)	H	3.48	2.66	2.05
299-E18-3	WHC	ES&M (ROM)	H	3.3	2.48	1.87
299-E18-4	WHC	ES&M (ROM)	H	2.99	2.16	1.55
299-E19-1	WHC	ES&M (ROM)	B	11.5	10.67	10.06

299-E23-1	WHC	ES&M (ROM)	B	9.99	9.17	8.56
299-E23-2	WHC	ES&M (ROM)	B	35.74	34.92	34.31
299-E23-2O	WHC	ES&M (ROM)		6.6	5.77	5.17
299-E23-2P	WHC	ES&M (ROM)		41.95	41.13	40.52
299-E23-2Q	WHC	ES&M (ROM)		24.88	24.06	23.46
299-E24-1	PNL	Sitewide	B	8.41	7.59	6.99
299-E24-11	PNL	Sitewide	B	7.14	6.32	5.72
299-E24-12	PNL	Sitewide	S	0.16	-0.66	-1.27
299-E24-13	WHC	ES&M (ROM)	B	6	5.18	4.58
299-E24-14	WHC	ES&M (ROM)		15.09	14.27	13.66
299-E24-16	WHC	ES&M (ROM)	H	2.72	1.9	1.29
299-E24-17	WHC	ES&M (ROM)	H	3.98	3.16	2.56
299-E24-18	WHC	ES&M (ROM)	H	3.37	2.55	1.94
299-E24-19	WHC	ES&M (ROM)	H	3	2.18	1.58
299-E24-2	WHC	ES&M (ROM)	S	10.16	9.34	8.74
299-E24-20	WHC	ES&M (ROM)	H	4.02	3.2	2.59
299-E24-3	WHC	ES&M (ROM)		10.82	10	9.39
299-E24-4	PNL	Sitewide	S	1.26	0.44	-0.17
299-E24-5	WHC	ES&M (ROM)	B	10.13	9.3	8.7
299-E24-7	WHC	ES&M (ROM)	S	11.23	10.41	9.8
299-E24-8	WHC	ES&M (ROM)	S	26.23	25.4	24.8
299-E25-1	WHC	ES&M (ROM)	B	6.78	5.96	5.36
299-E25-10	WHC	ES&M (ROM)	S	11.58	10.75	10.15
299-E25-11	WHC	ES&M (ROM)	H	17.22	16.4	15.8
299-E25-12	WHC	ES&M (ROM)	B	18.23	17.41	16.81
299-E25-13	WHC	ES&M (ROM)	B	7.74	6.92	6.31
299-E25-15	WHC	ES&M (ROM)		15.57	14.75	14.15
299-E25-16	WHC	ES&M (ROM)		15.14	14.31	13.71
299-E25-17	PNL	Sitewide	B	2.38	1.56	0.95
299-E25-18	WHC	ES&M (ROM)	S	5.41	4.59	3.98
299-E25-19	WHC	ES&M (ROM)	S	6.28	5.45	4.85
299-E25-2	WHC	ES&M (ROM)	B	13.22	12.4	11.79
299-E25-20	WHC	ES&M (ROM)	S	5.94	5.12	4.51
299-E25-21	WHC	ES&M (ROM)	S	5.64	4.82	4.22
299-E25-22	WHC	ES&M (ROM)	S	7.24	6.42	5.82
299-E25-23	PNL	Sitewide	S	5.37	4.55	3.95
299-E25-24	WHC	ES&M (ROM)	S	4.03	3.21	2.6
299-E25-25	WHC	ES&M (ROM)	H	6.84	6.01	5.41
299-E25-26	WHC	ES&M (ROM)	S	7.4	6.58	5.98
299-E25-27	WHC	ES&M (ROM)	B	6.31	5.49	4.88
299-E25-28	WHC	ES&M (ROM)	S	24.5	23.68	23.07
299-E25-29P	WHC	ES&M (ROM)	H	1.9	1.08	0.47
299-E25-29Q	WHC	ES&M (ROM)		18.29	17.46	16.86
299-E25-3	PNL	Sitewide	B	6.64	5.82	5.21
299-E25-30P	WHC	ES&M (ROM)	H	16.63	15.81	15.21
299-E25-30Q	WHC	ES&M (ROM)		2.55	1.73	1.12

299-E25-31	WHC	ES&M (ROM)	H	2.82	2	1.4
299-E25-32P	WHC	ES&M (ROM)	H	19.4	18.58	17.97
299-E25-32Q	WHC	ES&M (ROM)		4.32	3.49	2.89
299-E25-33	WHC	ES&M (ROM)	H	10.6	9.78	9.17
299-E25-34	WHC	ES&M (ROM)	H	3.52	2.7	2.09
299-E25-35	WHC	ES&M (ROM)	H	2.87	2.05	1.44
299-E25-36	WHC	ES&M (ROM)	H	3.85	3.03	2.42
299-E25-37	WHC	ES&M (ROM)	H	2.9	2.08	1.47
299-E25-38	WHC	ES&M (ROM)	H	2.71	1.89	1.29
299-E25-39	WHC	ES&M (ROM)	H	2.87	2.04	1.44
299-E25-4	WHC	ES&M (ROM)	B	7.45	6.62	6.02
299-E25-40	WHC	ES&M (ROM)	H	3.09	2.26	1.66
299-E25-41	WHC	ES&M (ROM)	H	2.41	1.59	0.98
299-E25-42	WHC	ES&M (ROM)	H	2.57	1.74	1.14
299-E25-43	WHC	ES&M (ROM)	H	3.77	2.94	2.33
299-E25-44	WHC	ES&M (ROM)	H	4.08	3.26	2.66
299-E25-45	WHC	ES&M (ROM)	H	4.25	3.43	2.82
299-E25-46	WHC	ES&M (ROM)	H	4.36	3.54	2.93
299-E25-47	WHC	ES&M (ROM)	H	3.73	2.91	2.3
299-E25-48	WHC	ES&M (ROM)	H	4.6	3.78	3.17
299-E25-5	WHC	ES&M (ROM)		11.01	10.18	9.58
299-E25-6	WHC	ES&M (ROM)	B	9.91	9.09	8.48
299-E25-7	WHC	ES&M (ROM)		10.88	10.05	9.45
299-E25-8	WHC	ES&M (ROM)		8.69	7.87	7.26
299-E25-9	WHC	ES&M (ROM)	B	10.97	10.14	9.53
299-E26-1	WHC	ES&M (ROM)	B	3.84	3.01	2.41
299-E26-10	WHC	ES&M (ROM)	H	2.28	1.45	0.85
299-E26-11	WHC	ES&M (ROM)	H	2.75	1.91	1.3
299-E26-12	WHC	ES&M (ROM)	H	3.27	2.44	1.83
299-E26-13	WHC	ES&M (ROM)	H	3.1	2.27	1.66
299-E26-2	WHC	ES&M (ROM)	B	9.92	9.09	8.49
299-E26-3	WHC	ES&M (ROM)	B	10.26	9.43	8.83
299-E26-4	WHC	ES&M (ROM)	B	11	10.17	9.57
299-E26-5	WHC	ES&M (ROM)	B	12.73	11.9	11.3
299-E26-6	WHC	ES&M (ROM)	B	14.65	13.82	13.22
299-E26-9	WHC	ES&M (ROM)	H	0.27	-0.56	-1.16
299-E27-1	WHC	ES&M (ROM)	B	15.64	14.81	14.21
299-E27-10	WHC	ES&M (ROM)	H	3.28	2.45	1.85
299-E27-11	WHC	ES&M (ROM)	H	3.33	2.5	1.9
299-E27-12	WHC	ES&M (ROM)	H	2.88	2.05	1.45
299-E27-13	WHC	ES&M (ROM)	H	2.6	1.77	1.17
299-E27-14	WHC	ES&M (ROM)	H	3.45	2.63	2.02
299-E27-15	WHC	ES&M (ROM)	H	2.81	1.98	1.37
299-E27-16	WHC	ES&M (ROM)	H	3.17	2.34	1.74
299-E27-17	WHC	ES&M (ROM)	H	3.74	2.91	2.31
299-E27-18	WHC	ES&M (ROM)	H	4.41	3.59	2.99

299-E27-19	WHC	ES&M (ROM)	H	4.37	3.55	2.95
299-E27-3	WHC	ES&M (ROM)		20.59	19.77	19.16
299-E27-3O	WHC	ES&M (ROM)		25.61	24.78	24.18
299-E27-3P	WHC	ES&M (ROM)		24.08	23.26	22.65
299-E27-5	WHC	ES&M (ROM)	S	15.5	14.67	14.07
299-E27-7	WHC	ES&M (ROM)	S	14.99	14.16	13.56
299-E27-8	WHC	ES&M (ROM)	H	3.2	2.38	1.77
299-E27-9	WHC	ES&M (ROM)	H	3.87	3.05	2.44
299-E28-1	PNL	Sitewide	S	12.08	11.26	10.66
299-E28-10	WHC	ES&M (ROM)	B	10.42	9.59	8.99
299-E28-16	PNL	Sitewide	S	6.94	6.12	5.51
299-E28-17	WHC	ES&M (ROM)	B	8.94	8.12	7.51
299-E28-18	WHC	ES&M (ROM)	S	10.76	9.93	9.33
299-E28-19	PNL	Sitewide	S	9.26	8.44	7.84
299-E28-2	WHC	ES&M (ROM)	B	12.17	11.35	10.75
299-E28-20	WHC	ES&M (ROM)		11.46	10.63	10.03
299-E28-21	WHC	ES&M (ROM)	S	11.92	11.1	10.5
299-E28-23	WHC	ES&M (ROM)	S	13.67	12.85	12.24
299-E28-24	PNL	Sitewide	B	13.37	12.54	11.94
299-E28-25	PNL	Sitewide	B	13.98	13.15	12.55
299-E28-26	WHC	ES&M (ROM)	H	4.39	3.56	2.96
299-E28-27	WHC	ES&M (ROM)	H	3.77	2.95	2.34
299-E28-28	WHC	ES&M (ROM)	H	3.44	2.62	2.02
299-E28-3	WHC	ES&M (ROM)		10.36	9.54	8.94
299-E28-4	WHC	ES&M (ROM)	B	9.85	9.02	8.42
299-E28-5	PNL	Sitewide	S	7.55	6.73	6.12
299-E28-6	WHC	ES&M (ROM)	B	13.03	12.21	11.61
299-E28-7	WHC	ES&M (ROM)	B	15.83	15.01	14.4
299-E28-8	WHC	ES&M (ROM)	B	8.7	7.88	7.28
299-E28-9	WHC	ES&M (ROM)	B	12.84	12.01	11.41
299-E32-1	WHC	ES&M (ROM)	B	5.35	4.53	3.93
299-E32-10	WHC	ES&M (ROM)	H	3.08	2.26	1.66
299-E32-2	WHC	ES&M (ROM)	H	3.19	2.36	1.76
299-E32-3	WHC	ES&M (ROM)	H	3.86	3.03	2.43
299-E32-4	WHC	ES&M (ROM)	H	4.58	3.76	3.16
299-E32-5	WHC	ES&M (ROM)	H	3.81	2.99	2.39
299-E32-6	WHC	ES&M (ROM)	H	3.29	2.47	1.87
299-E32-7	WHC	ES&M (ROM)	H	3.33	2.5	1.9
299-E32-8	WHC	ES&M (ROM)	H	3.79	2.96	2.37
299-E32-9	WHC	ES&M (ROM)	H	3.26	2.43	1.84
299-E33-10	PNL	Sitewide	S	6.59	5.77	5.17
299-E33-13	WHC	ES&M (ROM)	B	3.74	2.91	2.31
299-E33-14	WHC	ES&M (ROM)	H	2.37	1.54	0.94
299-E33-15	WHC	ES&M (ROM)	B	3.81	2.99	2.39
299-E33-16	WHC	ES&M (ROM)		4.05	3.23	2.63
299-E33-17	WHC	ES&M (ROM)	B	4.62	3.8	3.2

299-E33-18	WHC	ES&M (ROM)	S	3.34	2.51	1.91
299-E33-19	WHC	ES&M (ROM)		3.69	2.86	2.26
299-E33-2	WHC	ES&M (ROM)	B	1.83	1.01	0.41
299-E33-20	WHC	ES&M (ROM)	B	3.97	3.14	2.54
299-E33-21	WHC	ES&M (ROM)	S	2.95	2.12	1.52
299-E33-22	WHC	ES&M (ROM)		1.52	0.7	0.1
299-E33-23	WHC	ES&M (ROM)		1.38	0.56	-0.04
299-E33-25	WHC	ES&M (ROM)	B	1.44	0.61	0.01
299-E33-26	WHC	ES&M (ROM)	H	2.12	1.3	0.7
299-E33-28	WHC	ES&M (ROM)	H	4.34	3.51	2.91
299-E33-29	WHC	ES&M (ROM)	H	3.6	2.77	2.17
299-E33-3	WHC	ES&M (ROM)	S	2.46	1.63	1.03
299-E33-30	WHC	ES&M (ROM)	H	4.29	3.46	2.86
299-E33-31	WHC	ES&M (ROM)	H	3.47	2.65	2.05
299-E33-32	WHC	ES&M (ROM)	H	3.16	2.33	1.73
299-E33-33	WHC	ES&M (ROM)	H	3.34	2.51	1.91
299-E33-34	WHC	ES&M (ROM)	H	2.56	1.73	1.13
299-E33-35	WHC	ES&M (ROM)	H	2.66	1.84	1.24
299-E33-36	WHC	ES&M (ROM)	H	3.52	2.7	2.09
299-E33-37	WHC	ES&M (ROM)	H	3.33	2.5	1.9
299-E33-38	WHC	ES&M (ROM)	H	3.17	2.35	1.75
299-E33-39	WHC	ES&M (ROM)	H	2.65	1.82	1.22
299-E33-4	WHC	ES&M (ROM)	B	1.79	0.97	0.37
299-E33-41	WHC	ES&M (ROM)	H	2.7	1.88	1.27
299-E33-42	WHC	ES&M (ROM)	H	2.43	1.61	1.01
299-E33-43	WHC	ES&M (ROM)	H	3.49	2.67	2.07
299-E33-5	WHC	ES&M (ROM)	S	1.8	0.98	0.38
299-E33-6	WHC	ES&M (ROM)	B	1.19	0.36	-0.24
299-E33-7	WHC	ES&M (ROM)	B	1.88	1.05	0.45
299-E33-8	WHC	ES&M (ROM)	S	2.76	1.93	1.33
299-E33-9	WHC	TWRS	B	4.32	3.49	2.89
299-E34-1	WHC	ES&M (ROM)	H	1.03	0.2	-0.4
299-E34-10	WHC	ES&M (ROM)	H	2.87	2.04	1.44
299-E34-11	WHC	ES&M (ROM)	H	0.83	0.01	-0.59
299-E34-12	WHC	ES&M (ROM)	H	2.59	1.76	1.16
299-E34-2	WHC	ES&M (ROM)	H	3.74	2.92	2.31
299-E34-3	WHC	ES&M (ROM)	H	1.47	0.64	0.03
299-E34-7	WHC	ES&M (ROM)	H	0.96	0.13	-0.48
299-E34-8	WHC	ES&M (ROM)	H	3.12	2.29	1.69
299-E34-9	WHC	ES&M (ROM)	H	2.39	1.56	0.96
299-E35-1	WHC	ES&M (ROM)	H	-1.02	-1.85	-2.46
299-E35-2	WHC	ES&M (ROM)	H	0.68	-0.15	-0.75
299-W10-1	WHC	ES&M (ROM)	B	17.24	16.6	16.04
299-W10-10	WHC	ES&M (ROM)	B	9.47	8.87	8.32
299-W10-11	WHC	ES&M (ROM)	B	9.41	8.81	8.27
299-W10-12	WHC	ES&M (ROM)	B	9.57	8.97	8.42

299-W10-13	WHC	ES&M (ROM)	H	2.59	1.88	1.31
299-W10-14	WHC	ES&M (ROM)	H	63.44	62.73	62.16
299-W10-15	WHC	ES&M (ROM)	H	1.34	0.74	0.2
299-W10-16	WHC	ES&M (ROM)	H	1.53	0.8	0.21
299-W10-17	WHC	ES&M (ROM)	H	3.23	2.44	1.83
299-W10-18	WHC	ES&M (ROM)	H	2.69	1.85	1.22
299-W10-19	WHC	ES&M (ROM)	H	3.22	2.77	2.28
299-W10-2	WHC	ES&M (ROM)	H	4.21	3.49	2.91
299-W10-3	WHC	ES&M (ROM)	B	5.19	4.51	3.93
299-W10-4	WHC	ES&M (ROM)	S	10.06	9.32	8.73
299-W10-5	WHC	ES&M (ROM)	B	2.15	1.37	0.76
299-W10-8	WHC	ES&M (ROM)	B	8.78	8.17	7.62
299-W10-9	WHC	ES&M (ROM)	S	1.07	0.47	-0.08
299-W11-1	PNL	Sitewide		18.55	17.79	17.19
299-W11-10	WHC	ES&M (ROM)	B	7.12	6.46	5.88
299-W11-11	WHC	ES&M (ROM)	S	10.21	9.4	8.77
299-W11-12	WHC	ES&M (ROM)	B	8.78	8.03	7.43
299-W11-13	PNL	Sitewide	B	72.2	71.36	70.71
299-W11-13O	PNL	Sitewide		4.76	3.92	3.27
299-W11-13P	PNL	Sitewide		71.2	70.35	69.71
299-W11-13Q	PNL	Sitewide		50.78	49.94	49.29
299-W11-14	PNL	Sitewide	B	15.34	14.72	14.2
299-W11-15	PNL	Sitewide	S	3.11	2.78	2.35
299-W11-16	WHC	ES&M (ROM)		32.23	31.86	31.42
299-W11-17	PNL	Sitewide		13.82	13.43	12.97
299-W11-18	PNL	Sitewide	S	13.03	12.72	12.3
299-W11-19	WHC	ES&M (ROM)	B	34.34	34.01	33.59
299-W11-2	PNL	Sitewide	B	75.92	75.17	74.57
299-W11-21	PNL	Sitewide		4.07	3.74	3.31
299-W11-23	WHC	ES&M (ROM)	S	3.74	3.13	2.57
299-W11-24	WHC	ES&M (ROM)	S	0.19	-0.47	-1.03
299-W11-27	WHC	ES&M (ROM)	H	1.85	1.24	0.68
299-W11-28	WHC	ES&M (ROM)	H	2.79	2.13	1.56
299-W11-29	PNL	Sitewide		8.03	7.43	6.88
299-W11-2O	PNL	Sitewide		0.02	-0.72	-1.32
299-W11-2P	PNL	Sitewide		75.92	75.17	74.57
299-W11-2Q	PNL	Sitewide		53.36	52.62	52.02
299-W11-2R	PNL	Sitewide		36.9	36.16	35.56
299-W11-2S	PNL	Sitewide		19.22	18.48	17.88
299-W11-2T	PNL	Sitewide		1.55	0.8	0.2
299-W11-3	WHC	ES&M (ROM)	B	16.8	16.07	15.49
299-W11-30	PNL	Sitewide	B	8.23	7.63	7.09
299-W11-31	WHC	ES&M (ROM)	H	2.63	2.4	2.02
299-W11-4	PNL	Sitewide		13.19	12.4	11.77
299-W11-5	WHC	ES&M (ROM)		15.3	14.51	13.9
299-W11-6	WHC	ES&M (ROM)	B	15.78	14.94	14.3

299-W11-7	WHC	ES&M (ROM)	B	11.53	10.78	10.18
299-W11-8	WHC	ES&M (ROM)		13.78	12.96	12.34
299-W11-9	WHC	ES&M (ROM)	B	6.47	5.75	5.19
299-W12-1	WHC	ES&M (ROM)	B	8.03	7.62	7.2
299-W14-1	WHC	ES&M (ROM)	B	6.92	6.04	5.38
299-W14-12	WHC	ES&M (ROM)	H	2.11	1.22	0.55
299-W14-2	PNL	Sitewide	S	4.01	3.15	2.49
299-W14-3	WHC	ES&M (ROM)		19.67	18.8	18.15
299-W14-5	WHC	ES&M (ROM)	S	5.36	4.36	3.66
299-W14-6	WHC	ES&M (ROM)	S	5.97	5	4.3
299-W15-1	WHC	ES&M (ROM)		17.53	16.52	15.81
299-W15-10	WHC	ES&M (ROM)	S	24.88	23.89	23.19
299-W15-11	WHC	ES&M (ROM)	S	24.6	23.62	22.92
299-W15-12	WHC	ES&M (ROM)	B	1.26	0.42	-0.22
299-W15-13	WHC	ES&M (ROM)		4.16	3.31	2.66
299-W15-15	WHC	ES&M (ROM)	H	5.15	4.12	3.41
299-W15-16	WHC	ES&M (ROM)	H	4.43	3.37	2.63
299-W15-17	WHC	ES&M (ROM)	H	63.8	62.73	61.99
299-W15-18	WHC	ES&M (ROM)	H	4.21	3.1	2.35
299-W15-19	WHC	ES&M (ROM)	H	1.39	0.42	-0.27
299-W15-2	WHC	ES&M (ROM)	B	7.74	6.91	6.29
299-W15-20	WHC	ES&M (ROM)	H	1.31	0.36	-0.32
299-W15-22	WHC	ES&M (ROM)	H	2.67	1.71	1.02
299-W15-23	WHC	ES&M (ROM)	H	0.5	-0.49	-1.19
299-W15-24	WHC	ES&M (ROM)	H	1.1	0.03	-0.71
299-W15-3	WHC	ES&M (ROM)	B	10.24	9.4	8.76
299-W15-4	WHC	ES&M (ROM)	S	4.1	3.1	2.39
299-W15-5	WHC	ES&M (ROM)	B	1.96	0.82	0.05
299-W15-5O	WHC	ES&M (ROM)		2.79	1.65	0.88
299-W15-5P	WHC	ES&M (ROM)		116.79	115.64	114.87
299-W15-5Q	WHC	ES&M (ROM)		94.23	93.09	92.32
299-W15-5R	WHC	ES&M (ROM)		75.95	74.8	74.03
299-W15-5S	WHC	ES&M (ROM)		57.66	56.51	55.74
299-W15-7	PNL	Sitewide	S	44.52	43.49	42.77
299-W18-1	PNL	Sitewide	S	6.44	5.31	4.55
299-W18-10	WHC	ES&M (ROM)	S	-1.14	-2.3	-3.08
299-W18-11	WHC	ER		-1.22	-2.37	-3.15
299-W18-12	WHC	ER	S	-2.43	-3.58	-4.36
299-W18-15	WHC	ES&M (ROM)	S	13.13	11.95	11.14
299-W18-2	WHC	ER	B	10.74	9.61	8.84
299-W18-21	WHC	ES&M (ROM)	H	5.71	4.57	3.79
299-W18-22	WHC	ES&M (ROM)	H	73.42	72.29	71.5
299-W18-23	WHC	ES&M (ROM)	H	4.92	3.82	3.06
299-W18-24	WHC	ES&M (ROM)	H	3.78	2.64	1.87
299-W18-25	WHC	ES&M (ROM)	H	2.7	1.48	0.66
299-W18-26	WHC	ES&M (ROM)	H	1.9	0.81	0.06

299-W18-27	WHC	ES&M (ROM)	H	2.86	1.74	0.97
299-W18-28	WHC	ES&M (ROM)	H	3.39	2.26	1.48
299-W18-3	WHC	ES&M (ROM)	B	6.78	5.69	4.94
299-W18-30	WHC	ES&M (ROM)	H	6.43	5.23	4.42
299-W18-31	WHC	ES&M (ROM)	H	5.57	4.36	3.55
299-W18-32	WHC	ES&M (ROM)	H	1.88	0.69	-0.11
299-W18-33	WHC	ES&M (ROM)	S	5.89	4.67	3.85
299-W18-4	PNL	Sitewide	B	8.98	7.85	7.09
299-W18-5	PNL	Sitewide	S	15.96	14.84	14.07
299-W18-6	WHC	ER	B	24.49	23.35	22.58
299-W18-7	WHC	ER	B	24.27	23.12	22.35
299-W18-9	WHC	ER	B	-1.08	-2.23	-3.01
299-W19-1	WHC	ES&M (ROM)	B	25.83	24.61	23.78
299-W19-11	WHC	ES&M (ROM)	S	3.75	2.53	1.7
299-W19-12	WHC	ES&M (ROM)	S	11.05	9.84	9.03
299-W19-13	PNL	Sitewide	S	3.87	2.66	1.81
299-W19-14	WHC	ES&M (ROM)	S	4.42	3.21	2.36
299-W19-15	WHC	ES&M (ROM)	S	12.13	10.92	10.08
299-W19-16	WHC	ES&M (ROM)	S	10.08	8.87	8.04
299-W19-17	WHC	ES&M (ROM)	S	34.77	33.56	32.73
299-W19-18	WHC	ES&M (ROM)	S	34.73	33.51	32.67
299-W19-19	WHC	ES&M (ROM)	S	2.95	1.79	0.93
299-W19-2	WHC	ES&M (ROM)	S	17.11	15.93	15.07
299-W19-20	WHC	ES&M (ROM)	S	4.36	3.2	2.34
299-W19-21	WHC	ES&M (ROM)	S	2.05	0.83	0
299-W19-23	WHC	ES&M (ROM)	S	3.47	2.3	1.44
299-W19-24	WHC	ES&M (ROM)	S	2.73	1.56	0.7
299-W19-25	WHC	ES&M (ROM)	S	3.27	2.11	1.25
299-W19-26	WHC	ES&M (ROM)	S	3.31	2.15	1.29
299-W19-27	WHC	ES&M (ROM)	S	1.04	-0.17	-1
299-W19-28	WHC	ES&M (ROM)	H	2.71	1.51	0.66
299-W19-29	WHC	ES&M (ROM)	H	2.63	1.44	0.59
299-W19-3	WHC	ES&M (ROM)	H	12.24	11.03	10.19
299-W19-30	PNL	Sitewide	H	2.9	1.72	0.87
299-W19-31	WHC	ES&M (ROM)	H	2.42	1.22	0.4
299-W19-32	WHC	ES&M (ROM)	H	2.12	0.91	0.09
299-W19-4	WHC	ES&M (ROM)	B	48.69	47.57	46.73
299-W19-5	WHC	ES&M (ROM)	B	-3.6	-4.81	-5.66
299-W19-6	WHC	ES&M (ROM)	B	55.65	54.44	53.59
299-W19-7	WHC	ES&M (ROM)		-2.98	-4.18	-5.03
299-W19-9	WHC	ES&M (ROM)	S	66.45	65.24	64.41
299-W21-1	WHC	ES&M (ROM)	B	13.06	11.94	11.06
299-W22-1	WHC	ES&M (ROM)	S	21.15	19.95	19.1
299-W22-10	PNL	Sitewide	B	29.47	28.27	27.42
299-W22-11	WHC	ES&M (ROM)	S	29.12	27.91	27.06
299-W22-12	PNL	Sitewide	B	4.56	3.37	2.51

299-W22-13	WHC	ES&M (ROM)		36.19	35	34.14
299-W22-14	WHC	ES&M (ROM)		36.25	35.07	34.2
299-W22-15	WHC	ES&M (ROM)		15.58	14.38	13.52
299-W22-16	WHC	ES&M (ROM)		9.77	8.57	7.71
299-W22-17	WHC	ES&M (ROM)	B	14.13	12.93	12.07
299-W22-18	WHC	ES&M (ROM)	B	26.32	25.12	24.26
299-W22-19	WHC	ES&M (ROM)	B	51.19	50.06	49.18
299-W22-2	PNL	Sitewide	B	22.83	21.63	20.77
299-W22-20	PNL	Sitewide	S	23.46	22.33	21.45
299-W22-21	WHC	ES&M (ROM)	B	21.85	20.69	19.82
299-W22-22	WHC	ES&M (ROM)	H	19.77	18.6	17.73
299-W22-23	WHC	ES&M (ROM)		19.62	18.45	17.57
299-W22-24	WHC	ES&M (ROM)	B	98.26	97.1	96.22
299-W22-24O	WHC	ES&M (ROM)		-2.39	-3.56	-4.43
299-W22-24P	WHC	ES&M (ROM)		98.5	97.34	96.47
299-W22-24Q	WHC	ES&M (ROM)		79	77.84	76.96
299-W22-24R	WHC	ES&M (ROM)		60.71	59.54	58.67
299-W22-24S	WHC	ES&M (ROM)		42.43	41.26	40.39
299-W22-24T	WHC	ES&M (ROM)		24.14	22.97	22.1
299-W22-25	WHC	ES&M (ROM)		22.69	21.5	20.64
299-W22-26	WHC	ES&M (ROM)	S	22.87	21.67	20.81
299-W22-27	WHC	ES&M (ROM)		20.42	19.21	18.36
299-W22-27P	WHC	ES&M (ROM)		105.96	104.76	103.9
299-W22-27Q	WHC	ES&M (ROM)		81.58	80.37	79.52
299-W22-27R	WHC	ES&M (ROM)		60.24	59.04	58.18
299-W22-27S	WHC	ES&M (ROM)		38.9	37.7	36.85
299-W22-28	WHC	ES&M (ROM)	B	19.52	18.34	17.47
299-W22-3	WHC	ES&M (ROM)		22.25	21.05	20.2
299-W22-37	WHC	ES&M (ROM)		1.35	0.13	-0.71
299-W22-38	WHC	ES&M (ROM)		1.54	0.33	-0.52
299-W22-39	WHC	ES&M (ROM)	H	3.46	2.26	1.41
299-W22-4	WHC	ES&M (ROM)		30.01	28.81	27.95
299-W22-40	WHC	ES&M (ROM)	H	2.17	1	0.13
299-W22-41	WHC	ES&M (ROM)	H	2.56	1.4	0.52
299-W22-42	WHC	ES&M (ROM)	H	2.16	1	0.12
299-W22-43	WHC	ES&M (ROM)	H	2.47	1.29	0.42
299-W22-44	WHC	ES&M (ROM)	H	6.92	5.71	4.86
299-W22-45	WHC	ES&M (ROM)	H	7.93	6.72	5.87
299-W22-46	WHC	ES&M (ROM)	H	4.85	3.66	2.8
299-W22-5	WHC	ES&M (ROM)		31.18	29.99	29.13
299-W22-6	WHC	ES&M (ROM)		18.79	17.63	16.75
299-W22-7	WHC	ES&M (ROM)	B	3.1	1.93	1.05
299-W22-8	WHC	ES&M (ROM)	B	16.31	15.16	14.28
299-W22-9	PNL	Sitewide	B	5.79	4.64	3.77
299-W23-1	WHC	ES&M (ROM)	B	8.31	7.11	6.27
299-W23-10	PNL	Sitewide	S	7.6	6.4	5.56

299-W23-11	WHC	ES&M (ROM)	S	0.87	-0.33	-1.16
299-W23-12	WHC	ES&M (ROM)		6.94	5.74	4.89
299-W23-13	WHC	ES&M (ROM)	H	3.15	1.94	1.1
299-W23-14	WHC	ES&M (ROM)	H	3.19	1.99	1.15
299-W23-15	WHC	ES&M (ROM)	H	7.81	6.63	5.77
299-W23-16	WHC	ES&M (ROM)		6.02	4.81	3.99
299-W23-17	WHC	ES&M (ROM)		5.6	4.4	3.57
299-W23-2	WHC	ES&M (ROM)	B	9.18	7.98	7.13
299-W23-3	WHC	ES&M (ROM)	B	6.98	5.79	4.93
299-W23-4	WHC	ES&M (ROM)	B	29.59	28.38	27.55
299-W23-5	WHC	TWRS		11.97	10.77	9.92
299-W23-6	WHC	ES&M (ROM)	B	12.06	10.87	10.02
299-W23-7	WHC	ES&M (ROM)	B	13.11	11.91	11.06
299-W23-8	WHC	ES&M (ROM)	B	7.7	6.5	5.65
299-W23-9	PNL	Sitewide	B	7.6	6.41	5.56
299-W26-10	WHC	ES&M (ROM)	H	2.69	1.57	0.7
299-W26-11	WHC	ES&M (ROM)		-24.9	-26.04	-26.91
299-W26-12	WHC	ES&M (ROM)	H	2.93	1.79	0.92
299-W26-7	WHC	ES&M (ROM)	H	3.84	2.76	1.89
299-W26-8	WHC	ES&M (ROM)	H	2.43	1.29	0.43
299-W26-9	WHC	ES&M (ROM)	H	2.87	1.77	0.9
299-W27-2	WHC	ES&M (ROM)	H	59.98	58.84	57.97
299-W6-1	WHC	ES&M (ROM)	B	9.09	9.12	8.85
299-W6-10	WHC	ES&M (ROM)	H	3.07	3	2.71
299-W6-11	WHC	ES&M (ROM)	H	6.22	6.37	6.15
299-W6-12	WHC	ES&M (ROM)	H	5.9	6.15	5.89
299-W6-2	WHC	ES&M (ROM)	H	2.4	2.24	1.87
299-W6-3	WHC	ES&M (ROM)	H	53.17	52.99	52.62
299-W6-4	WHC	ES&M (ROM)	H	2.75	2.56	2.19
299-W6-5	WHC	ES&M (ROM)	H	6.12	6.15	5.93
299-W6-6	WHC	ES&M (ROM)	H	56.54	56.66	56.44
299-W6-7	WHC	ES&M (ROM)	H	7.07	7.19	6.97
299-W6-8	WHC	ES&M (ROM)	H	-1.92	-1.75	-1.99
299-W6-9	WHC	ES&M (ROM)	H	3.13	3	2.64
299-W7-1	WHC	ES&M (ROM)	H	3.58	3.32	2.96
299-W7-10	WHC	ES&M (ROM)	H	2.03	2.01	1.66
299-W7-11	WHC	ES&M (ROM)	H	2.31	2.12	1.77
299-W7-12	WHC	ES&M (ROM)	H	2.86	2.62	2.26
299-W7-2	WHC	ES&M (ROM)	H	0.99	0.83	0.48
299-W7-3	WHC	ES&M (ROM)	H	76.41	76.26	75.91
299-W7-4	WHC	ES&M (ROM)	H	5.81	5.51	5.08
299-W7-5	WHC	ES&M (ROM)	H	3.41	3.46	3.13
299-W7-6	WHC	ES&M (ROM)	H	2	2.27	1.97
299-W7-7	WHC	ES&M (ROM)	H	2.82	2.97	2.66
299-W7-8	WHC	ES&M (ROM)	H	2.91	3.27	2.99
299-W7-9	WHC	ES&M (ROM)	H	2.03	1.74	1.38

299-W8-1	WHC	ES&M (ROM)	H	3.96	3.66	3.3
299-W9-1	WHC	ES&M (ROM)	H	2.61	2.06	1.56
3099-42-16	PNL	Sitewide	S	19.93	19.83	19.82
399-1-1	WHC	ES&M (ROM)	S	13.61	13.61	13.61
399-1-10A	WHC	ES&M (ROM)	H	3.33	3.33	3.33
399-1-10B	WHC	ER	H	25.75	25.75	25.75
399-1-11	WHC	ES&M (ROM)	H	4.59	4.59	4.59
399-1-12	WHC	ES&M (ROM)	H	6.55	6.55	6.54
399-1-13A	WHC	ES&M (ROM)	H	3.19	3.19	3.19
399-1-13B	WHC	ER	H	22.7	22.7	22.7
399-1-14A	WHC	ES&M (ROM)	H	3.01	3.01	3
399-1-14B	WHC	ER	H	22.36	22.35	22.35
399-1-15	WHC	ES&M (ROM)	H	3.18	3.18	3.17
399-1-16A	WHC	ES&M (ROM)	H	3.68	3.68	3.68
399-1-16B	WHC	ES&M (ROM)	H	24.21	24.21	24.21
399-1-16C	WHC	ES&M (ROM)	H	42.91	42.91	42.91
399-1-17A	WHC	ES&M (ROM)	H	2.55	2.54	2.54
399-1-17B	WHC	ES&M (ROM)	H	23.76	23.76	23.76
399-1-17C	WHC	ES&M (ROM)	H	42.28	42.27	42.27
399-1-18A	WHC	ES&M (ROM)	H	2.86	2.86	2.86
399-1-18B	WHC	ES&M (ROM)	H	22.79	22.79	22.79
399-1-18C	WHC	ES&M (ROM)	H	29.77	29.77	29.76
399-1-2	WHC	ES&M (ROM)	H	11.07	11.07	11.06
399-1-20	PNL	Sitewide		19.25	19.25	19.25
399-1-21A	WHC	ER	H	4.73	4.72	4.72
399-1-21B	WHC	ER	H	22.67	22.67	22.66
399-1-3	WHC	ES&M (ROM)	S	9.42	9.42	9.42
399-1-4	WHC	ES&M (ROM)	S	10.62	10.62	10.62
399-1-5	WHC	ES&M (ROM)	H	3.36	3.36	3.36
399-1-6	WHC	ES&M (ROM)	S	4.88	4.88	4.88
399-1-7	WHC	ES&M (ROM)	H	10.67	10.66	10.66
399-1-8	WHC	ES&M (ROM)	H	20.03	20.03	20.03
399-1-9	WHC	ES&M (ROM)	H	42.92	42.92	42.92
399-2-1	WHC	ES&M (ROM)	S	13.72	13.72	13.72
399-2-2	WHC	ES&M (ROM)	H	7.6	7.6	7.59
399-2-3	WHC	ES&M (ROM)	H	7.62	7.62	7.62
399-3-1	WHC	ES&M (ROM)	S	7.87	7.87	7.87
399-3-10	WHC	ES&M (ROM)	H	2.67	2.67	2.66
399-3-11	WHC	ER	S	6.05	6.05	6.05
399-3-12	WHC	ES&M (ROM)	S	2.5	2.49	2.49
399-3-2	WHC	ER	S	8.73	8.72	8.72
399-3-3	WHC	ER	S	8.93	8.92	8.92
399-3-6	WHC	ES&M (ROM)	S	2.47	2.46	2.46
399-3-8	WHC	ES&M (ROM)		1.84	1.84	1.83
399-3-9	WHC	ES&M (ROM)	S	3.67	3.67	3.67
399-4-1	WHC	ES&M (ROM)	S	9.09	9.08	9.08

399-4-10	WHC	ES&M (ROM)	H	5.32	5.32	5.32
399-4-11	WHC	ES&M (ROM)	H	3.41	3.4	3.39
399-4-7	WHC	ES&M (ROM)	S	14.74	14.73	14.73
399-4-9	WHC	ES&M (ROM)	S	6.36	6.36	6.36
399-5-1	WHC	ES&M (ROM)	S	15.48	15.46	15.45
399-6-1	WHC	ES&M (ROM)	S	6.63	6.6	6.6
399-8-1	WHC	ES&M (ROM)	H	10.12	10.11	10.11
399-8-2	WHC	ES&M (ROM)	H	14.03	14.01	14.01
399-8-3	WHC	ES&M (ROM)	H	14.43	14.42	14.41
399-8-4	WHC	ES&M (ROM)	S	4.48	4.46	4.45
399-8-5A	WHC	ER	H	5.01	5	4.99
399-8-5B	WHC	ER	H	34.1	34.09	34.08
399-8-5C	WHC	ER	H	46.55	46.54	46.53
499-S0-7	WHC	FFTF	S	72.09	71.87	71.55
499-S0-8	WHC	FFTF	S	37.67	37.44	37.11
499-S1-7A	Orphan			10.5	10.29	9.98
499-S1-7B	WPPSS	WPPSS	B	34.85	34.65	34.34
499-S1-7C	WPPSS?	ES&M (ROM)	S	11.96	11.76	11.44
499-S1-7E	Destroyed	Destroyed		9.68	9.48	9.17
699-1-18	WHC	ES&M (ROM)	S	7.14	6.74	6.31
699-10-E12	PNL	Sitewide	S	80.39	80.41	80.41
699-10-E12Q	PNL	Sitewide		7.24	7.26	7.25
699-101-48A	Orphan	ES&M (ROM)		11.57	11.57	11.57
699-101-48B	WHC	ES&M (ROM)	S	11.29	11.29	11.29
699-101-48C	Orphan	ES&M (ROM)		11.8	11.79	11.79
699-11-45A	PNL	Sitewide	S	14.33	14.26	14.06
699-11-45C	PNL	Sitewide		1.02	0.95	0.74
699-14-38	PNL	Sitewide	S	90.21	89.57	89.01
699-14-38P	PNL	Sitewide		93.56	92.93	92.37
699-14-38Q	PNL	Sitewide		20.41	19.77	19.21
699-14-47	PNL	Sitewide	B	1.96	1.82	1.53
699-14-E6R	WHC	ES&M (ROM)		89.48	89.51	89.49
699-14-E6S	WHC	ES&M (ROM)		61.25	61.28	61.25
699-14-E6T	WHC	ES&M (ROM)	B	8.03	8.06	8.03
699-15-15A	PNL	Sitewide		147.8	147.32	146.84
699-15-15AP	PNL	Sitewide		19.72	19.25	18.77
699-15-15B	PNL	Sitewide	S	2.96	2.48	2
699-15-26	PNL	Sitewide	S	8	7.35	6.8
699-17-26A	WHC	ES&M (ROM)		4.36	3.69	3.14
699-17-26BP	PNL-GLDR	PNL-GOLDER		51.89	51.23	50.68
699-17-26BQ	PNL-GLDR	PNL-GOLDER		13.01	12.34	11.79
699-17-26BR	PNL-GLDR	PNL-GOLDER		2.1	1.44	0.89
699-17-26CP	PNL-GLDR	PNL-GOLDER		22.99	22.32	21.77
699-17-26CQ	PNL-GLDR	PNL-GOLDER		13.55	12.88	12.33
699-17-26CR	PNL-GLDR	PNL-GOLDER		2.9	2.24	1.68
699-17-5	PNL	Sitewide	S	1.49	1.43	1.21

699-18-25A	PNL	Sitewide		59.24	58.57	58.01
699-18-25BR	PNL-GLDR	PNL-GOLDER		51.5	50.83	50.27
699-18-28	PNL-GLDR	PNL-GOLDER		5.06	4.38	3.82
699-19-26A	PNL-GLDR	PNL-GOLDER		4.15	3.47	2.9
699-19-26BP	PNL-GLDR	PNL-GOLDER		20.73	20.05	19.48
699-19-26BQ	PNL-GLDR	PNL-GOLDER		3.02	2.34	1.77
699-19-43	PNL	Sitewide	S	10.4	9.66	9.07
699-19-58	PNL	Sitewide	S	10.61	10.42	10.01
699-2-3	WHC	ES&M (ROM)	S	8.14	7.98	7.71
699-2-33A	PNL	Sitewide	S	12.77	12.55	12.22
699-2-7	WHC	ES&M (ROM)	S	12.89	12.65	12.32
699-20-20	PNL	Sitewide	S	11.04	10.4	9.85
699-20-39	PNL	Sitewide	S	138.68	137.92	137.33
699-20-39P	PNL	Sitewide		23.39	22.63	22.04
699-20-E12	PNL	Sitewide	B	20.9	20.91	20.91
699-20-E12O	PNL	Sitewide		5.58	5.59	5.6
699-20-E12Q	PNL	Sitewide		52.23	52.24	52.24
699-20-E12R	PNL	Sitewide		35.47	35.48	35.48
699-20-E12S	PNL	Sitewide		17.18	17.19	17.19
699-20-E5A	PNL	Sitewide	S	0.67	0.72	0.72
699-20-E5R	WHC	ES&M (ROM)	B	63.73	63.78	63.78
699-20-E5S	WHC	ES&M (ROM)		36.71	36.77	36.76
699-20-E5T	WHC	ES&M (ROM)		6.8	6.86	6.85
699-21-6	PNL	Sitewide	S	4.06	3.95	3.68
699-23-34A	WHC	ES&M (ROM)	H	1.53	0.78	0.2
699-24-1R	Orphan	ES&M (ROM)	B	65.67	65.71	65.64
699-24-1S	Orphan	ES&M (ROM)	B	37.24	37.28	37.21
699-24-1T	PNL	Sitewide		10.96	11	10.93
699-24-33	WHC	ES&M (ROM)	S	11.11	10.36	9.78
699-24-34A	WHC	ES&M (ROM)	H	1.94	1.18	0.6
699-24-34B	WHC	ES&M (ROM)	H	1.53	0.78	0.19
699-24-34C	WHC	ES&M (ROM)	H	1.63	0.88	0.29
699-24-35	WHC	ES&M (ROM)	H	1.83	1.07	0.48
699-24-46	PNL	Sitewide	S	12.51	11.72	11.12
699-25-33A	WHC	ES&M (ROM)	S	22.48	21.73	21.14
699-25-33BP	PNL	Sitewide		28.57	27.81	27.23
699-25-33BQ	PNL	Sitewide		20.3	19.54	18.95
699-25-34A	WHC	ES&M (ROM)	S	3.03	2.27	1.68
699-25-34B	WHC	ES&M (ROM)	S	3.15	2.4	1.81
699-25-34C	WHC	ES&M (ROM)	H	1.46	0.7	0.11
699-25-34D	WHC	ES&M (ROM)	H	7.88	7.12	6.53
699-25-55	PNL	Sitewide	S	11.62	10.84	10.2
699-25-70	PNL	Sitewide	S	10.31	9.46	8.62
699-26-15A	PNL	Sitewide	S	13.63	13.12	12.62
699-26-33	WHC	ES&M (ROM)	S	3.04	2.29	1.7
699-26-34A	WHC	ES&M (ROM)	S	3.24	2.48	1.89

699-26-34B	WHC	ES&M (ROM)	H	7.65	6.89	6.3
699-26-35A	WHC	ES&M (ROM)	S	3.22	2.46	1.87
699-26-35C	WHC	ES&M (ROM)	S	21.99	21.23	20.64
699-26-35DP	Orphan	ES&M (ROM)		29.79	29.03	28.44
699-26-35DQ	Orphan	ES&M (ROM)		21.19	20.43	19.84
699-26-89	PNL	Sitewide	S	15.19	14.86	14.49
699-27-8	PNL	Sitewide	S	0.3	0.13	-0.19
699-28-40	PNL	Sitewide	S	21.86	21.08	20.48
699-28-40P	PNL	Sitewide	B	92.87	92.1	91.5
699-28-40Q	PNL	Sitewide		60.26	59.48	58.89
699-28-52A	PNL	Sitewide	B	10.16	9.35	8.74
699-28-55	Orphan	ES&M (ROM)		-1.2	-2.02	-2.65
699-29-4	PNL	Sitewide	S	1.05	1.04	0.91
699-29-78	PNL	Sitewide	S	23.12	22.09	21.22
699-3-45	PNL	Sitewide	B	10.65	10.69	10.7
699-31-11	PNL	Sitewide	S	43.91	43.57	43.15
699-31-31	PNL	Sitewide	S	46.43	45.68	45.09
699-31-31P	PNL	Sitewide		143.97	143.22	142.63
699-31-31Q	PNL	Sitewide		73.86	73.11	72.52
699-31-53A	PNL	Sitewide		11.25	10.43	9.82
699-31-53BO	PNL	Sitewide		4.63	3.81	3.2
699-31-53BP	PNL	Sitewide		38.16	37.34	36.73
699-31-65	WHC	ES&M (ROM)		24.66	23.84	23.03
699-31-65O	WHC	ES&M (ROM)		3.24	2.42	1.61
699-31-65P	WHC	ES&M (ROM)		55.06	54.24	53.43
699-31-65Q	WHC	ES&M (ROM)		42.87	42.05	41.24
699-31-65R	WHC	ES&M (ROM)		24.58	23.76	22.95
699-32-42	Orphan	ES&M (ROM)		1.5	0.71	0.11
699-32-43	PNL	Sitewide	S	1.74	0.95	0.35
699-32-62	PNL	Sitewide	B	14.37	13.54	12.84
699-32-62P	PNL	Sitewide		63.45	62.61	61.91
699-32-62Q	PNL	Sitewide		25.04	24.21	23.51
699-32-70B	PNL	Sitewide	S	33.58	32.61	31.73
699-32-72	WHC	ES&M (ROM)		81.56	80.52	79.64
699-32-72P	WHC	ES&M (ROM)		76.99	75.95	75.07
699-32-77	PNL	Sitewide	S	29.01	27.92	27.05
699-33-42	PNL	Sitewide	S	1.63	0.84	0.24
699-33-56	PNL	Sitewide	S	29.04	28.22	27.6
699-34-39A	PNL	Sitewide	S	9.81	9.03	8.43
699-34-41B	PNL	Sitewide	B	1.97	1.18	0.58
699-34-42	PNL	Sitewide	S	2.18	1.39	0.79
699-34-51	PNL	Sitewide	S	15.56	14.75	14.14
699-34-88	PNL	Sitewide	B	14.44	13.95	13.45
699-35-59	US ECOL	US ECOL	B	8.82	7.99	7.37
699-35-66A	PNL	Sitewide	S	8.75	7.89	7.09
699-35-70	PNL	Sitewide	B	1.7	0.7	-0.17

699-35-78A	PNL	Sitewide	S	10.58	9.44	8.62
699-35-9	PNL	Sitewide	S	1.2	1.01	0.72
699-36-46P	Orphan	ES&M (ROM)	B	66.19	65.39	64.78
699-36-46Q	PNL	Sitewide		45.1	44.29	43.69
699-36-46R	Orphan	ES&M (ROM)	B	23.62	22.81	22.21
699-36-46S	WHC	ES&M (ROM)	B	2.53	1.72	1.12
699-36-61A	PNL	Sitewide	S	5.97	5.13	4.51
699-36-61B	PNL	Sitewide	B	10.79	9.95	9.33
699-36-93	PNL	Sitewide	B	14.2	14.22	14.2
699-37-43	PNL	Sitewide	S	14.13	13.33	12.73
699-37-82A	PNL	Sitewide	S	0.96	0.03	-0.7
699-37-82B	Orphan	ES&M (ROM)		0.26	-0.68	-1.41
699-37-82BO	Orphan	ES&M (ROM)		4.15	3.21	2.49
699-37-82BP	Orphan	ES&M (ROM)		118.45	117.51	116.78
699-37-82BQ	Orphan	ES&M (ROM)		72.73	71.79	71.07
699-37-82BR	Orphan	ES&M (ROM)		48.35	47.41	46.68
699-37-82BS	Orphan	ES&M (ROM)		23.96	23.03	22.3
699-37-E4	PNL	Sitewide	S	21.57	21.58	21.57
699-38-15	PNL	Sitewide	S	5.17	4.71	4.25
699-38-65	PNL	Sitewide	S	56.42	55.61	54.91
699-38-65P	PNL	Sitewide		53.37	52.56	51.86
699-38-70	WHC	ES&M (ROM)	S	35.82	34.79	33.93
699-39-0	PNL	Sitewide	S	2.79	2.8	2.77
699-39-39	PNL	Sitewide	S	18.45	17.68	17.08
699-39-79	WHC	ES&M (ROM)	S	25.55	24.47	23.73
699-40-1	PNL	Sitewide	S	44.17	44.18	44.15
699-40-33A	PNL	Sitewide	S	15.19	14.37	13.76
699-40-36	WHC	ES&M (ROM)	H	28.61	27.84	27.25
699-40-39	WHC	ES&M (ROM)	H	22.34	21.56	20.97
699-40-40A	WHC	ES&M (ROM)	H	26.74	25.92	25.32
699-40-40B	WHC	ES&M (ROM)	H	18.14	17.32	16.71
699-40-62	PNL	Sitewide	S	5.84	5.01	4.4
699-41-1	PNL	Sitewide	S	5.66	5.67	5.64
699-41-23	PNL	Sitewide	S	6.21	5.61	5.07
699-41-35	WHC	ES&M (ROM)	H	25.34	24.51	23.9
699-41-40	WHC	ES&M (ROM)	H	9.66	8.8	8.2
699-41-42	WHC	ES&M (ROM)	H	40.48	39.63	39.03
699-42-12A	PNL	Sitewide	S	11.97	11.8	11.58
699-42-2	PNL	Sitewide	S	5.93	5.93	5.89
699-42-37	WHC	ES&M (ROM)	H	11.99	11.14	10.54
699-42-39A	WHC	ES&M (ROM)	H	7.84	6.98	6.37
699-42-39B	WHC	ES&M (ROM)	H	18.06	17.2	16.59
699-42-40A	WHC	ES&M (ROM)	S	8.86	7.98	7.37
699-42-40B	PNL	Sitewide	B	2.18	1.29	0.68
699-42-41	WHC	ES&M (ROM)	H	-2.67	-3.54	-4.15
699-42-42B	WHC	ES&M (ROM)	H	6.89	6.03	5.42

699-43-104	PNL	Sitewide	B	23.12	23.19	23.22
699-43-3	PNL	Sitewide	S	9.24	9.23	9.19
699-43-40	WHC	ES&M (ROM)	H	-0.96	-1.87	-2.48
699-43-41E	WHC	ES&M (ROM)	H	-0.44	-1.33	-1.95
699-43-41F	WHC	ES&M (ROM)	H	8.61	7.71	7.1
699-43-41G	WHC	ES&M (ROM)	H	15.49	14.6	13.99
699-43-42	WHC	ES&M (ROM)	B	17.96	17.08	16.47
699-43-42J	WHC	ES&M (ROM)	H	-0.36	-1.23	-1.84
699-43-43	WHC	ES&M (ROM)	H	0.34	-0.51	-1.12
699-43-45	WHC	ES&M (ROM)	H	2.62	1.78	1.17
699-43-88	WHC	ER	S	3.77	3.51	3.23
699-43-89	PNL	Sitewide	B	21.05	20.8	20.52
699-44-39B	WHC	ES&M (ROM)	H	3.04	2.11	1.5
699-44-4	PNL	Sitewide	B	7.54	7.53	7.5
699-44-42	WHC	ES&M (ROM)	H	-1.28	-2.18	-2.79
699-44-43B	WHC	ES&M (ROM)	H	-0.25	-1.11	-1.72
699-44-64	PNL	Sitewide	S	37.06	36.24	35.63
699-45-2	PNL	Sitewide	S	5.6	5.59	5.58
699-45-42	PNL	Sitewide	S	1.89	0.98	0.37
699-45-69A	WHC	ES&M (ROM)	S	24.47	24.05	23.61
699-46-21B	PNL	Sitewide	S	2.41	2.21	1.95
699-46-4	PNL-GLDR	PNL-GOLDER		7.67	7.66	7.63
699-47-35A	PNL	Sitewide	S	9.25	8.42	7.84
699-47-35B	WHC	ES&M (ROM)	B	7.62	6.81	6.22
699-47-35C	Orphan	ES&M (ROM)		8.62	7.8	7.21
699-47-5	PNL	Sitewide	S	6.57	6.57	6.55
699-47-60	PNL	Sitewide	S	8.62	7.79	7.2
699-48-18	PNL	Sitewide	S	5.52	5.43	5.32
699-48-50	WHC	ES&M (ROM)	H	2.54	1.71	1.11
699-48-71	PNL	Sitewide	S	16.36	16.26	16.12
699-48-77A	WHC	ES&M (ROM)	H	3.87	4.17	3.96
699-49-12A	Orphan	ES&M (ROM)		12.14	12.09	12.04
699-49-12B	Orphan	ES&M (ROM)		11.1	11.06	11.01
699-49-13C	Orphan	ES&M (ROM)		3.05	3	2.95
699-49-13D	Orphan	ES&M (ROM)		9.25	9.2	9.15
699-49-13E	PNL	Sitewide	S	7.64	7.59	7.54
699-49-28	PNL	Sitewide	B	-0.39	-0.19	-0.13
699-49-55A	WHC	ES&M (ROM)	H	1.98	1.15	0.56
699-49-57A	WHC	ES&M (ROM)		3.05	2.23	1.63
699-49-79	WHC	ES&M (ROM)	S	9.11	9.01	8.81
699-50-28B	WHC	ES&M (ROM)	S	1.62	1.82	1.93
699-50-30	PNL	Sitewide	B	25.89	26.08	26.15
699-50-42	PNL	Sitewide	S	0.49	-0.51	-1.15
699-50-42P	PNL	Sitewide		16.03	15.03	14.39
699-50-53A	WHC	ES&M (ROM)	H	0.46	-0.37	-0.96
699-50-53B	WHC	ES&M (ROM)	H	21.19	20.37	19.77

699-50-85	PNL	Sitewide	S	22.73	22.58	22.45
699-50-85P	PNL	Sitewide		73.02	72.88	72.74
699-51-36B	PNL	Sitewide		14.39	14.14	13.77
699-51-36C	PNL	Sitewide		13.78	13.53	13.15
699-51-63	PNL	Sitewide	S	4.27	3.46	2.87
699-51-75	PNL	Sitewide	S	52.78	53.16	53.27
699-51-75P	PNL	Sitewide		54.3	54.68	54.79
699-52-18C	Orphan	ES&M (ROM)		16.05	16.04	16.01
699-52-19	PNL	Sitewide	B	12.69	12.68	12.65
699-52-54	WHC	ES&M (ROM)	H	0.23	-0.58	-1.17
699-52-57	WHC	ES&M (ROM)	H	0.01	-0.81	-1.4
699-53-47A	PNL	Sitewide	S	-0.86	-1.69	-2.29
699-53-47B	WHC	ES&M (ROM)	S	3.01	2.18	1.58
699-53-48A	PNL	Sitewide	S	2.56	1.72	1.13
699-53-48B	WHC	ES&M (ROM)	S	-1	-1.83	-2.42
699-53-55A	WHC	ES&M (ROM)	H	32.23	31.41	30.83
699-53-55B	WHC	ES&M (ROM)	H	23.61	22.8	22.21
699-53-55C	WHC	ES&M (ROM)	H	14.23	13.41	12.82
699-54-18A	Orphan	ES&M (ROM)		9.96	9.95	9.93
699-54-18C	Orphan	ES&M (ROM)		19.11	19.1	19.09
699-54-42	PNL	Sitewide	B	27.9	27.05	26.44
699-54-45A	PNL	Sitewide	B	4.06	3.21	2.61
699-54-48	PNL	Sitewide	S	2.56	1.73	1.14
699-55-40	PNL	Sitewide	B	0.19	-0.38	-0.93
699-55-44	PNL	Sitewide	B	10.04	9.2	8.6
699-55-50A	PNL	Sitewide	B	18.14	17.32	16.73
699-55-50AO	PNL	Sitewide		2.83	2.01	1.42
699-55-50AP	PNL	Sitewide		17.59	16.77	16.18
699-55-50AQ	PNL	Sitewide		11.52	10.7	10.11
699-55-50C	WHC	ES&M (ROM)	S	5.15	4.33	3.74
699-55-50D	PNL	Sitewide	B	15.82	15	14.41
699-55-55	WHC	ES&M (ROM)	H	2.42	1.61	1.03
699-55-57	WHC	ES&M (ROM)	H	0.89	0.08	-0.5
699-55-60A	Orphan	ES&M (ROM)		17.97	17.18	16.61
699-55-60B	Orphan	ES&M (ROM)	B	34.48	33.69	33.13
699-55-70	PNL	Sitewide	B	19.12	19.38	19.53
699-55-70P	PNL	Sitewide		18.66	18.92	19.08
699-55-76	PNL	Sitewide	S	22.98	23.17	23.33
699-55-89	PNL	Sitewide	S	15.38	15.6	15.74
699-55-95	PNL	Sitewide	B	22.38	22.55	22.65
699-55-95P	PNL	Sitewide		45.14	45.32	45.42
699-55-95Q	PNL	Sitewide		44.84	45.02	45.12
699-56-26B	Orphan	ES&M (ROM)		8.54	8.51	8.47
699-57-25A	PNL	Sitewide	S	9.16	9.13	9.09
699-57-29A	PNL	Sitewide	S	6.87	6.84	6.79
699-57-29B	PNL	Sitewide	B	9.1	9.06	9.01

699-57-59	WHC	ES&M (ROM)	H	3.46	2.71	2.15
699-57-83A	PNL	Sitewide	S	14.44	14.59	14.7
699-58-24	PNL	Sitewide	B	1.7	1.68	1.65
699-59-33	Orphan	Orphan		2.3	2.24	2.15
699-59-58	PNL	Sitewide	S	3.94	3.22	2.69
699-59-80B	PNL	Sitewide	B	9.46	9.62	9.76
699-60-57	PNL	Sitewide	S	1.66	0.98	0.47
699-60-60	WHC	ES&M (ROM)	B	-0.55	-1.24	-1.75
699-60-60P	WHC	ES&M (ROM)		4.02	3.33	2.82
699-61-37	PNL	Sitewide	S	2.23	2.07	1.88
699-61-41	PNL	Sitewide	S	-1.2	-1.46	-1.75
699-61-62	PNL	Sitewide	S	0.67	0.02	-0.47
699-61-66	PNL	Sitewide	S	11.2	10.61	10.17
699-62-31	PNL	Sitewide	S	5.49	5.43	5.34
699-62-43A	PNL	Sitewide	B	6.51	6.19	5.85
699-62-43C	Orphan	ES&M (ROM)		7.84	7.52	7.19
699-62-43D	Orphan	ES&M (ROM)		7.84	7.52	7.19
699-62-43E	Orphan	ES&M (ROM)		12.65	12.33	12
699-62-43F	PNL	Sitewide	S	11.62	11.3	10.96
699-62-43G	Orphan	ES&M (ROM)		12.67	12.35	12.01
699-62-43H	Orphan	ES&M (ROM)		12.53	12.21	11.87
699-62-43I	Orphan	ES&M (ROM)		10.55	10.23	9.9
699-62-43J	Orphan	ES&M (ROM)		10.84	10.51	10.17
699-62-43K	Orphan	ES&M (ROM)		10.06	9.74	9.41
699-62-43L	Orphan	ES&M (ROM)		13.14	12.81	12.48
699-62-43M	Orphan	ES&M (ROM)		10.38	10.06	9.72
699-62-43N	Orphan	ES&M (ROM)		6.25	5.93	5.59
699-63-25A	PNL	Sitewide	S	20	19.99	19.96
699-63-51	PNL	Sitewide	S	0.81	0.32	-0.1
699-63-55	PNL	Sitewide	S	11.03	10.47	10.03
699-63-58	PNL	Sitewide	S	8.55	7.93	7.46
699-63-90	PNL	Sitewide	S	11.87	11.89	11.89
699-64-27	PNL	Sitewide	S	7.99	7.95	7.89
699-64-62	PNL	Sitewide	S	2.76	2.16	1.7
699-65-50	PNL	Sitewide	S	16.44	15.96	15.54
699-65-59A	PNL	Sitewide	S	5.01	4.43	3.98
699-65-59B	PNL	Sitewide		25.1	24.52	24.08
699-65-59C	PNL	Sitewide		9.86	9.28	8.84
699-65-72	PNL	Sitewide	S	3.95	3.66	3.44
699-66-23	PNL	Sitewide	S	21.83	21.82	21.81
699-66-38	PNL	Sitewide	S	27.02	26.85	26.63
699-66-39	PNL	Sitewide	S	-1.78	-1.99	-2.24
699-66-58	PNL	Sitewide	S	2.18	1.62	1.19
699-66-64	PNL	Sitewide	S	2.5	1.98	1.56
699-67-51P	PNL	Sitewide		32.98	32.49	32.08
699-67-51Q	PNL	Sitewide		20.03	19.54	19.13

699-67-86	PNL	Sitewide	S	117.23	117.21	117.2
699-67-98	PNL	Sitewide	S	22.11	22.11	22.11
699-68-105	PNL	Sitewide	B	10.94	10.94	10.94
699-69-45	PNL	Sitewide		62.38	62.03	61.68
699-69-45O	PNL	Sitewide		6.53	6.17	5.83
699-69-45P	PNL	Sitewide		55.3	54.94	54.6
699-69-45Q	PNL	Sitewide		62.31	61.96	61.61
699-69-45R	PNL	Sitewide		25.04	24.68	24.33
699-70-68	WHC	ER	S	5.07	4.73	4.46
699-71-30	PNL	Sitewide	S	16.52	16.49	16.44
699-71-52	PNL	Sitewide	S	10.07	9.61	9.22
699-71-77	PNL	Sitewide	S	63.81	63.75	63.7
699-72-73	PNL	Sitewide	S	26.51	26.4	26.31
699-72-88	PNL	Sitewide	S	1.99	1.98	1.98
699-72-92	WHC	ER	S	42.72	42.72	42.72
699-73-61	PNL	Sitewide	S	3.3	2.85	2.48
699-74-44	PNL	Sitewide	S	3.69	3.43	3.15
699-74-48	PNL	Sitewide	B	16.23	15.86	15.52
699-77-36	PNL	Sitewide	S	14.17	14.12	14.04
699-77-54	PNL	Sitewide	S	10.38	10	9.66
699-78-62	PNL	Sitewide	S	9.63	9.29	9.01
699-8-17	PNL	Sitewide	S	9.84	9.36	8.89
699-8-25	PNL	Sitewide	S	15.53	14.98	14.48
699-8-32	PNL	Sitewide	S	1.87	1.37	0.88
699-80-43P	Orphan	ES&M (ROM)	B	127.37	127.23	127.04
699-80-43Q	Orphan	ES&M (ROM)	B	62.26	62.11	61.92
699-80-43R	Orphan	ES&M (ROM)	B	34.64	34.49	34.3
699-80-43S	WHC	ES&M (ROM)	B	7.27	7.13	6.94
699-81-58	WHC	ES&M (ROM)	S	30.77	30.5	30.27
699-83-47	PNL	Sitewide	S	31.02	30.88	30.71
699-84-35AQ	PNL	Sitewide		77.84	77.83	77.81
699-84-35AR	PNL	Sitewide		58.34	58.32	58.3
699-84-35AS	PNL	Sitewide		38.83	38.82	38.79
699-87-55	PNL	Sitewide	S	6.51	6.4	6.29
699-89-35	PNL	Sitewide	S	15.19	15.19	15.19
699-9-E2	PNL	Sitewide	S	4.7	4.7	4.58
699-90-45	PNL	Sitewide	S	0.4	0.37	0.31
699-93-48A	PNL	Sitewide	H	1.95	1.92	1.88
699-96-43	PNL	Sitewide	H	1.58	1.57	1.56
699-96-49	PNL	Sitewide	S	17.66	17.65	17.64
699-96-49P	PNL	Sitewide		15.52	15.51	15.5
699-97-43	PNL	Sitewide	S	16.39	16.39	16.38
699-97-51A	PNL	Sitewide	S	5.63	5.63	5.62
699-S12-3	PNL	Sitewide	B	12.46	12.46	12.38
699-S14-20A	PNL	Sitewide	S	7.05	6.99	6.82
699-S18-E2A	PNL	Sitewide	B	48.8	48.79	48.76

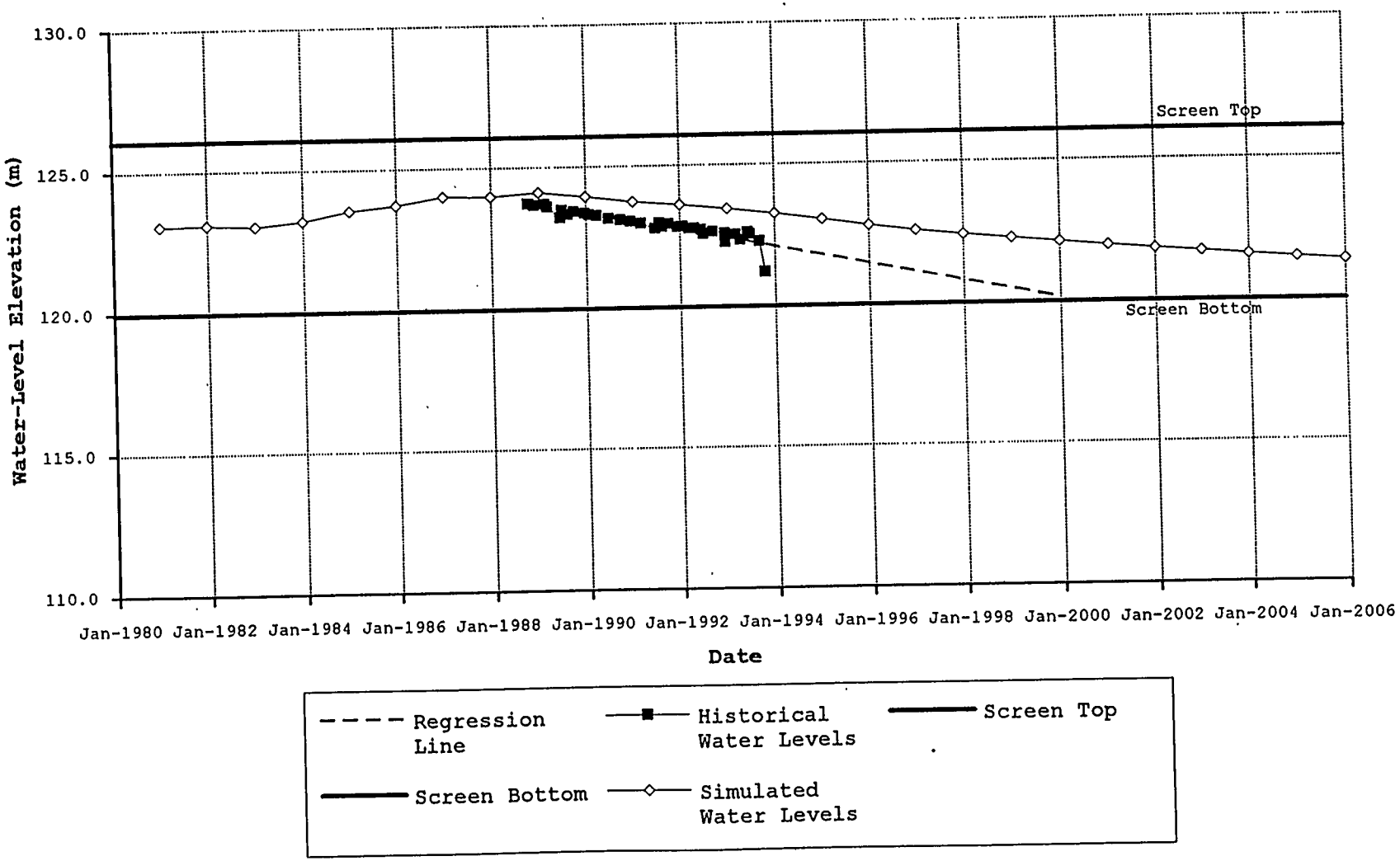
699-S18-E2AP	PNL	Sitewide		54.82	54.8	54.77
699-S19-11	PNL	Sitewide	S	2.17	2.15	2.04
699-S19-E13	PNL	Sitewide	S	9.09	9.08	9.08
699-S19-E14	PNL	Sitewide	H	3.63	3.63	3.63
699-S22-E9A	PNL	Sitewide	H	3.44	3.43	3.42
699-S22-E9B	PNL	Sitewide	H	37.24	37.22	37.21
699-S22-E9C	PNL	Sitewide		47.07	47.06	47.05
699-S27-E14	PNL	Sitewide	S	15.58	15.56	15.56
699-S27-E9A	PNL	Sitewide	H	4.01	3.96	3.94
699-S27-E9B	PNL	Sitewide	H	40.72	40.67	40.65
699-S27-E9C	PNL	Sitewide	H	48.13	48.08	48.06
699-S28-E0	PNL	Sitewide	S	26.35	26.27	26.22
699-S28-E12	PNL	Sitewide	H	4.74	4.7	4.69
699-S29-E11	USACE	ER		2.19	2.12	2.11
699-S29-E12	USACE	ER	S	11.56	11.51	11.5
699-S29-E16A	PNL	Sitewide	H	4	4	4
699-S29-E16B	PNL	Sitewide	H	21.03	21.02	21.02
699-S29-E16C	PNL	Sitewide		43.1	43.09	43.09
699-S3-25	PNL	Sitewide	S	12.28	12.06	11.75
699-S3-E12	PNL	Sitewide	S	11.1	11.11	11.1
699-S30-E10A	USACE	ER	H	3.48	3.4	3.38
699-S30-E10B	USACE	ER	H	3.5	3.41	3.39
699-S30-E15A	PNL	Sitewide	H	7.08	7.07	7.06
699-S31-1	PNL	Sitewide	S	-0.42	-0.53	-0.58
699-S31-E10A	USACE	ER	H	3.37	3.27	3.25
699-S31-E10B	USACE	ER	H	2.03	1.93	1.91
699-S31-E10C	USACE	ER	H	5.96	5.86	5.84
699-S31-E10D	USACE	ER	H	2.44	2.34	2.32
699-S31-E10E	PNL	Sitewide	H	19.5	19.4	19.38
699-S31-E11	USACE	ER		3.3	3.21	3.2
699-S32-E11	USACE	ER		4	3.87	3.85
699-S32-E13A	WHC	ER	S	8.09	8.02	8.01
699-S32-E13B	WHC	ER	S	6.94	6.86	6.85
699-S32-E8	PNL	Sitewide	H	16.59	16.46	16.43
699-S34-E10	USACE	ER	H	3.02	2.84	2.82
699-S34-E15	PNL	Sitewide		0.81	0.73	0.72
699-S36-E12B	USACE	ER	B	4.89	4.72	4.7
699-S36-E13A	WHC	ER	S	6.74	6.59	6.58
699-S36-E13B	USACE	ER	B	4.6	4.44	4.42
699-S37-E11A	USACE	ER	H	2.7	2.48	2.46
699-S37-E14	PNL	Sitewide	H	1.02	0.89	0.87
699-S38-E11	PNL	Sitewide	H	3.13	2.87	2.84
699-S38-E12A	USACE	ER	H	3.59	3.38	3.36
699-S38-E12B	PNL	Sitewide	H	10.56	10.35	10.32
699-S40-E13A	USACE	ER	H	3.78	3.57	3.55
699-S40-E13B	USACE	ER	H	3.24	3.04	3.01

699-S40-E13C	USACE	ER	H	3.53	3.33	3.3
699-S40-E14	WHC	ER	H	2.94	2.77	2.75
699-S41-E11A	USACE	ER	H	2.59	2.29	2.26
699-S41-E12	USACE	ER	H	4.59	4.32	4.29
699-S41-E13A	PNL	Sitewide	H	-0.19	-0.42	-0.44
699-S41-E13B	PNL	Sitewide	H	8.91	8.68	8.65
699-S41-E13C	PNL	Sitewide	H	19.25	19.02	18.99
699-S43-E12	PNL	Sitewide	H	0.84	0.57	0.54
699-S6-E14A	PNL	Sitewide	S	10.75	10.75	10.75
699-S6-E4B	PNL	Sitewide	S	5.63	5.64	5.58
699-S6-E4C	PNL	Sitewide		58.01	58.02	57.96
699-S6-E4D	PNL	Sitewide	S	1.71	1.72	1.66
699-S6-E4E	PNL	Sitewide		11.27	11.28	11.22
699-S6-E4F	PNL	Sitewide		13.16	13.17	13.11
699-S6-E4G	PNL	Sitewide		11.53	11.54	11.49
699-S7-34	PNL	Sitewide	B	2.46	2.49	2.42
699-S7-34Q	PNL	Sitewide		39.64	39.67	39.61
699-S8-19	PNL	Sitewide	S	4.37	4.28	4.06

Appendix D

Hydrographs of Selected Monitoring Wells Showing Observed Data and Model Results

299-E17-20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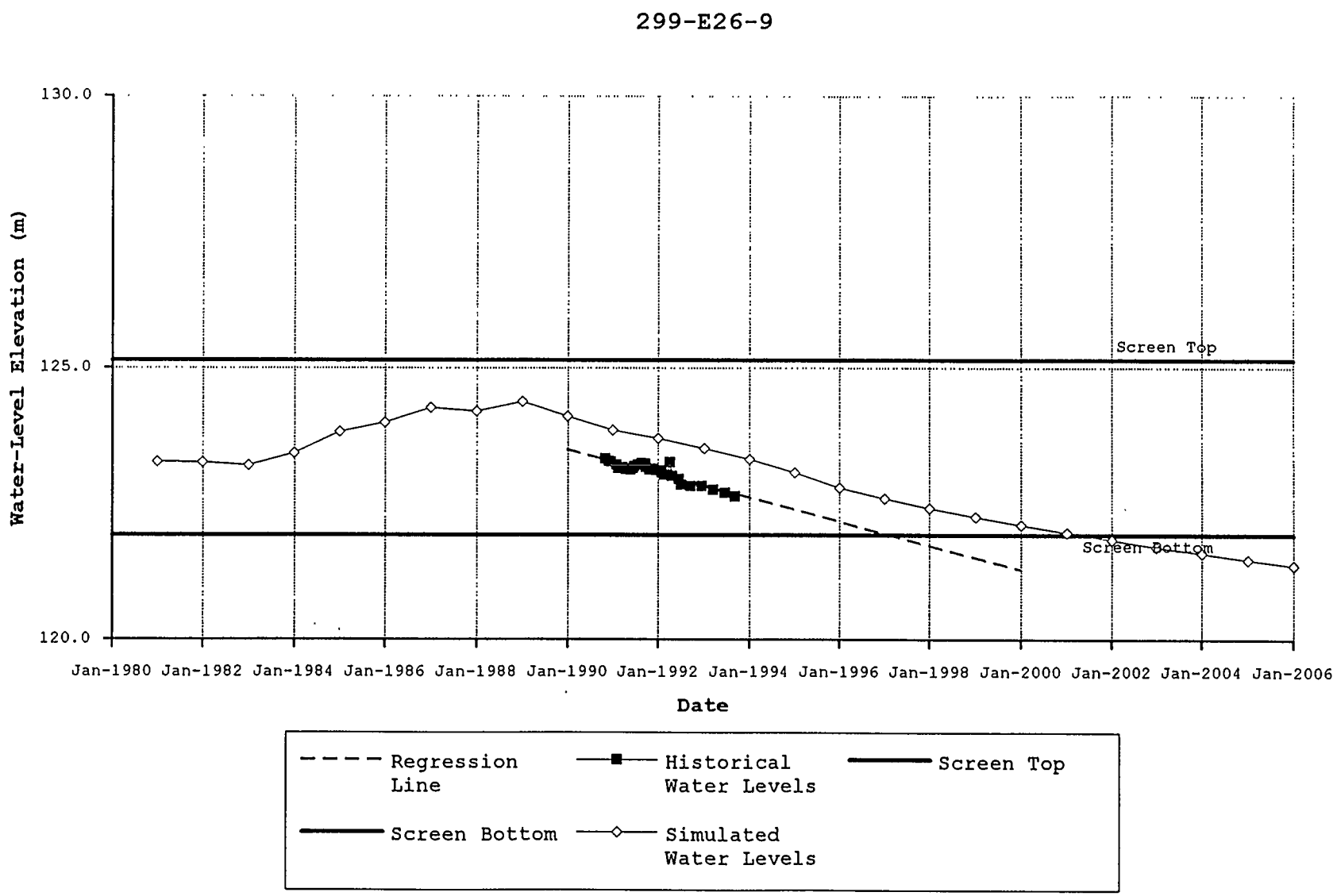
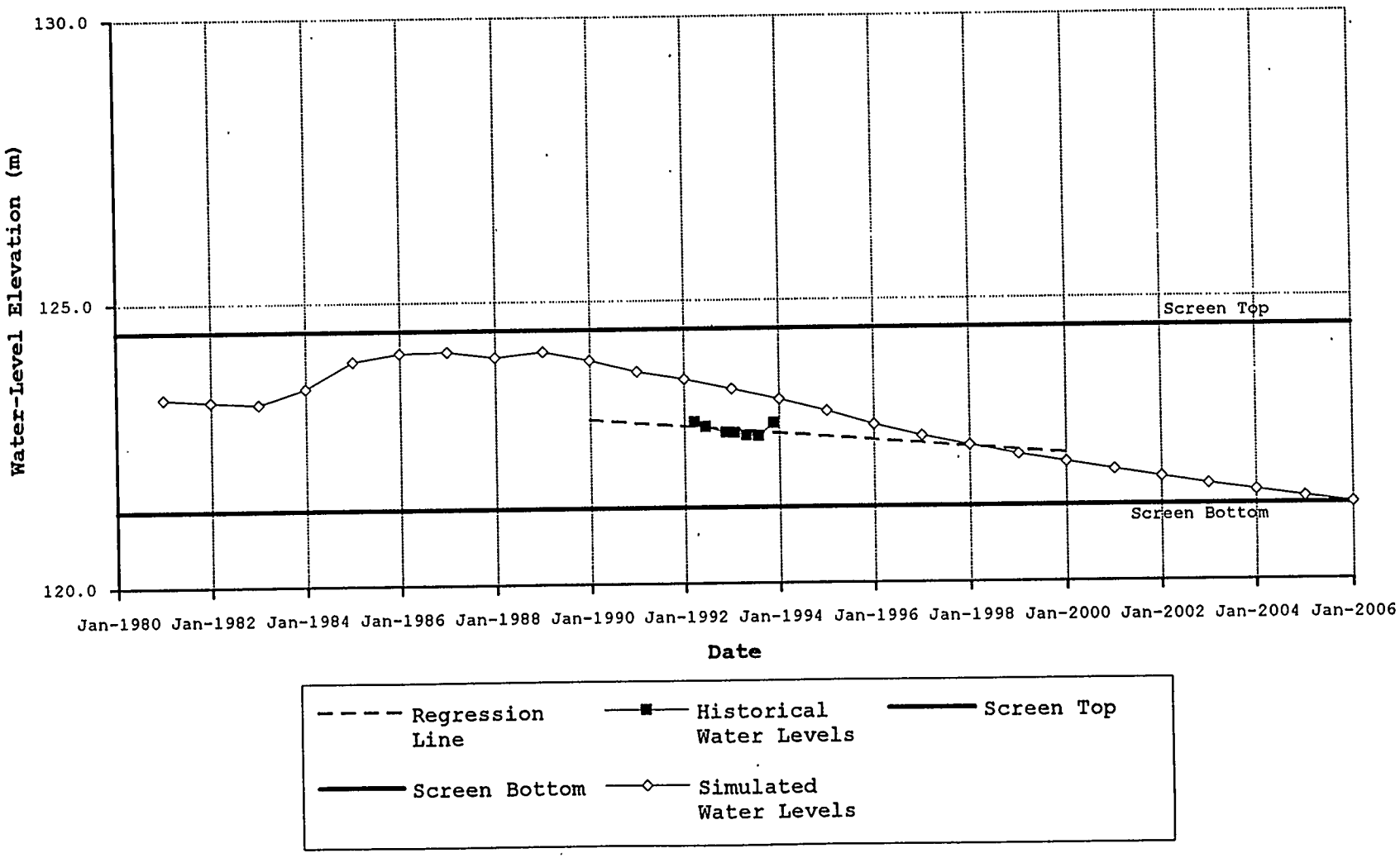
120.0
115.0
110.0
Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980
Jan-1982
Jan-1984
Jan-1986
Jan-1988
Jan-1990
Jan-1992
Jan-1994
Jan-1996
Jan-1998
Jan-2000
Jan-2002
Jan-2004
Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels

299-E26-9



130.0
125.0
120.0
Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980 Jan-1982 Jan-1984 Jan-1986 Jan-1988 Jan-1990 Jan-1992 Jan-1994 Jan-1996 Jan-1998 Jan-2000 Jan-2002 Jan-2004 Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels

299-E34-11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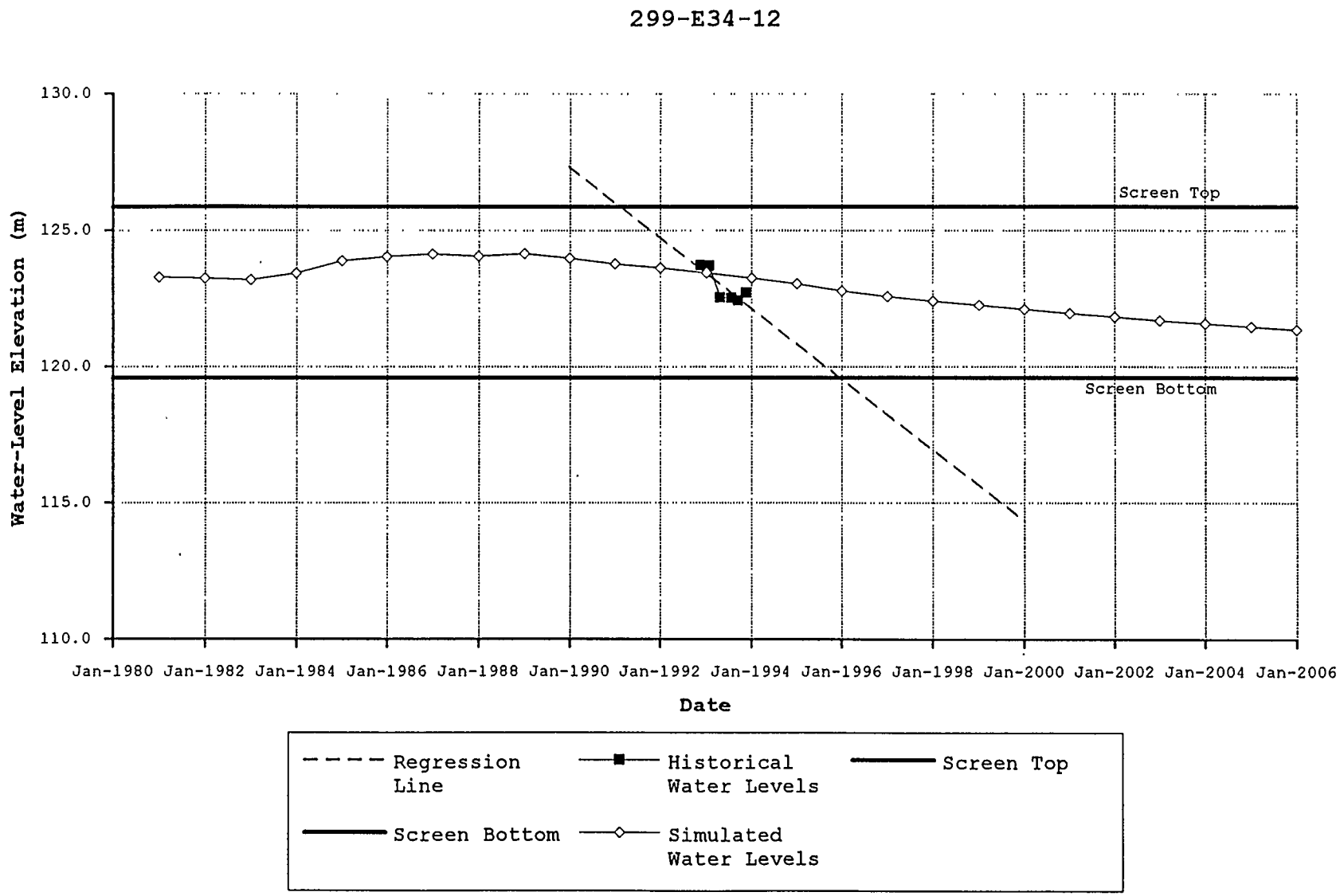
120.0
Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980
Jan-1982
Jan-1984
Jan-1986
Jan-1988
Jan-1990
Jan-1992
Jan-1994
Jan-1996
Jan-1998
Jan-2000
Jan-2002
Jan-2004
Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels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Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980
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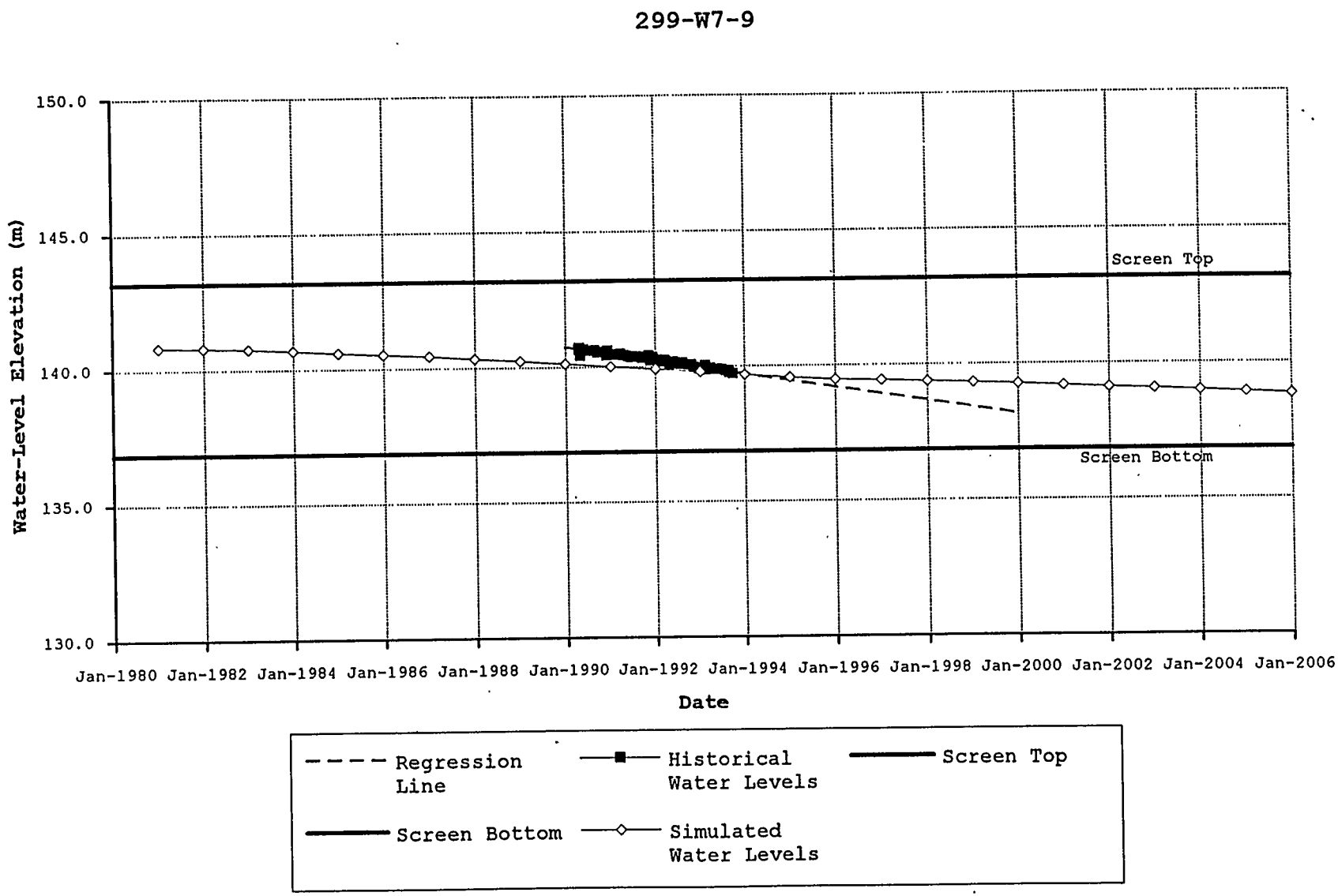
Jan-1984
Jan-1986
Jan-1988
Jan-1990
Jan-1992
Jan-1994
Jan-1996
Jan-1998
Jan-2000
Jan-2002
Jan-2004
Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels

299-W7-9



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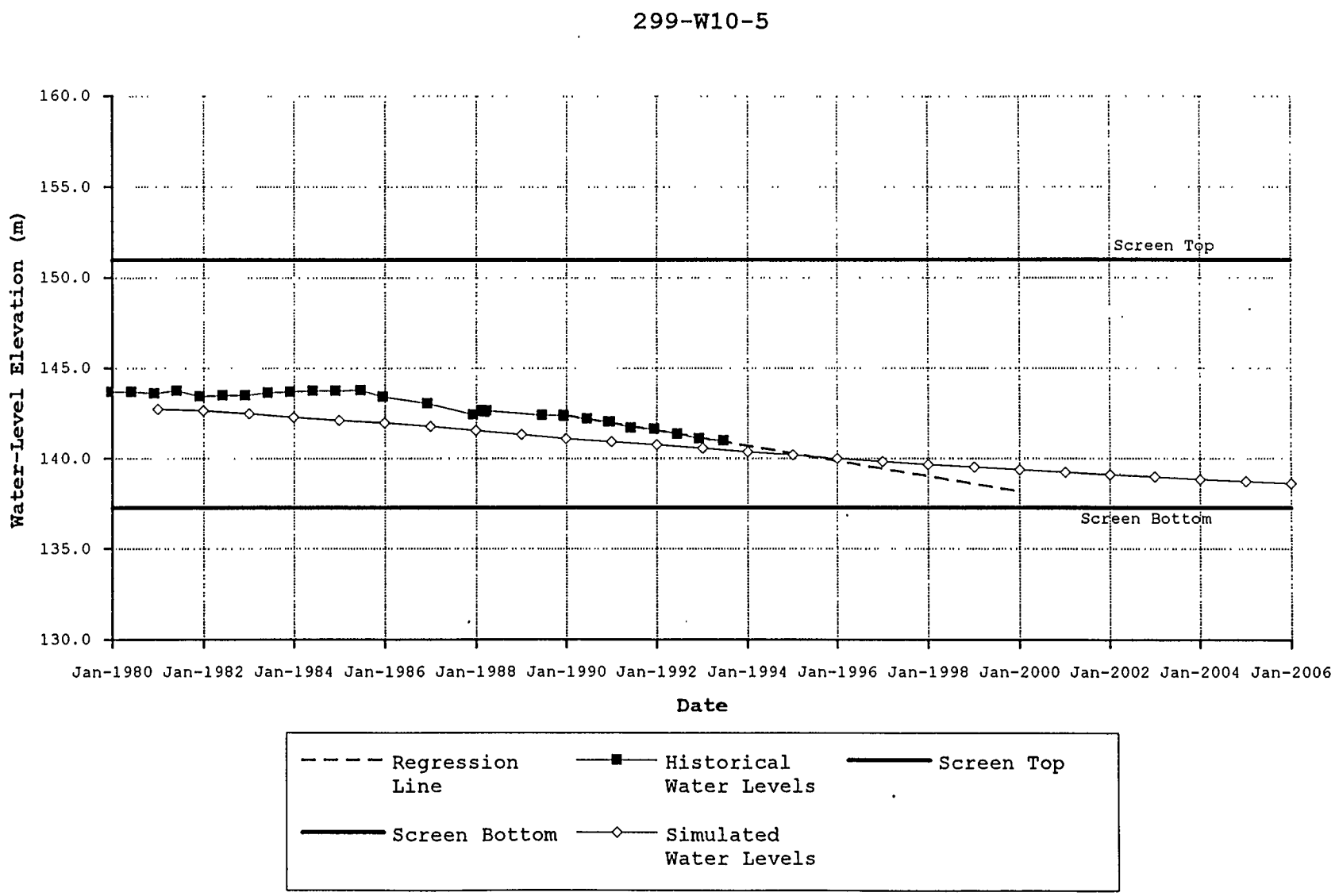
145.0
140.0
135.0
130.0
Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980 Jan-1982 Jan-1984 Jan-1986 Jan-1988 Jan-1990 Jan-1992 Jan-1994 Jan-1996 Jan-1998 Jan-2000 Jan-2002 Jan-2004 Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels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Water-Level Elevation (m)
Screen Top
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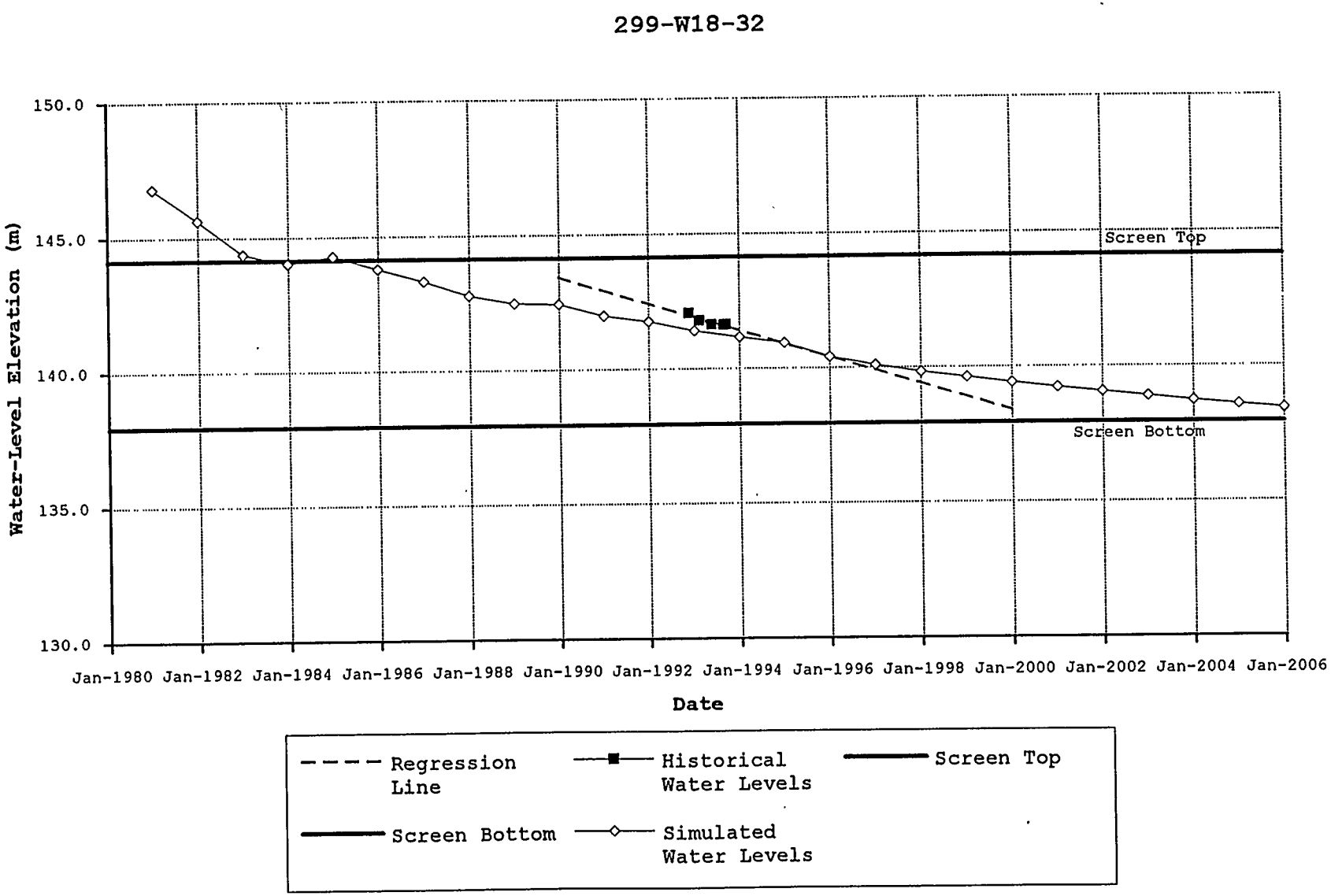
Jan-1982
Jan-1984
Jan-1986
Jan-1988
Jan-1990
Jan-1992
Jan-1994
Jan-1996
Jan-1998
Jan-2000
Jan-2002
Jan-2004
Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels

299-W18-32



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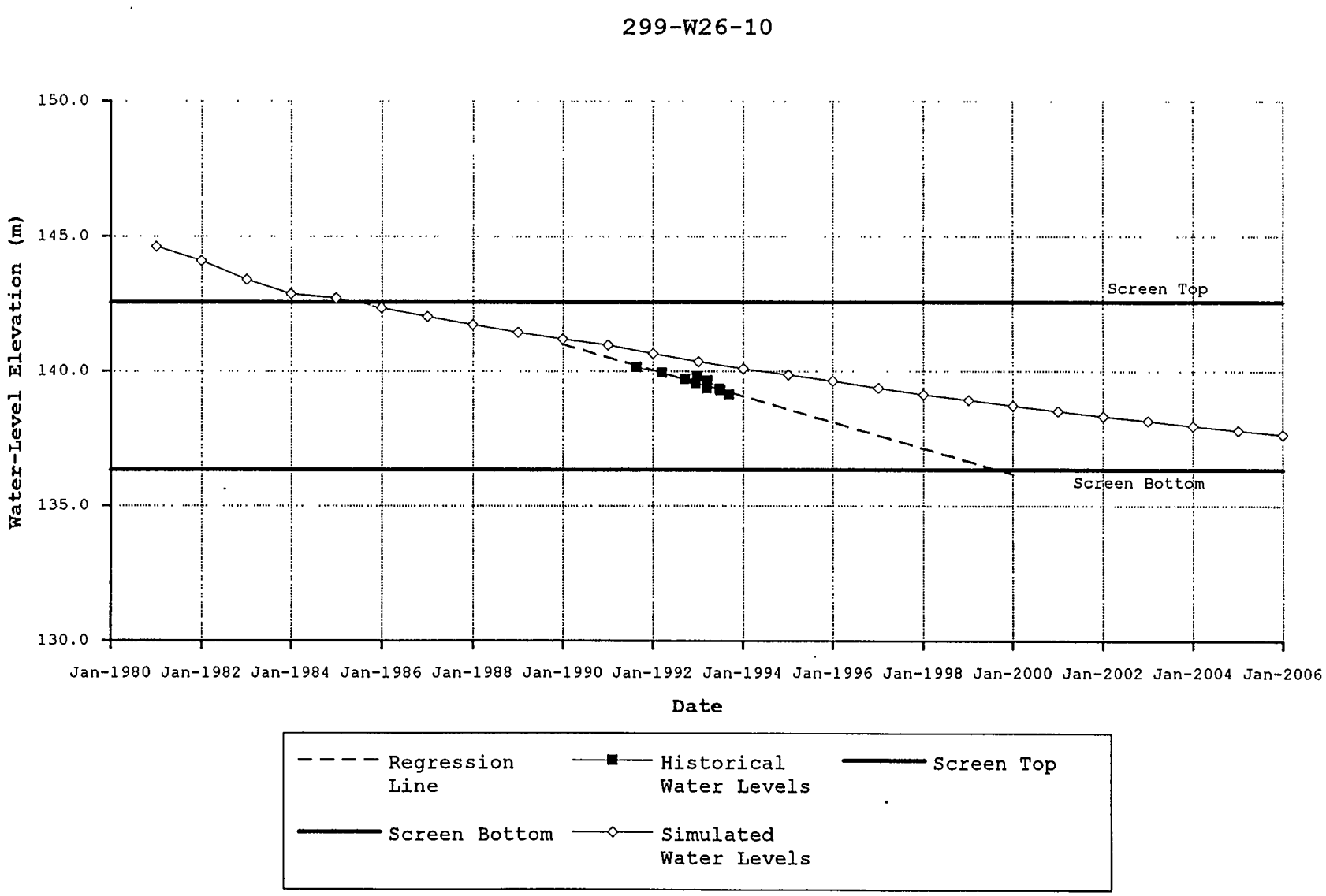
140.0
135.0
130.0
Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980 Jan-1982 Jan-1984 Jan-1986 Jan-1988 Jan-1990 Jan-1992 Jan-1994 Jan-1996 Jan-1998 Jan-2000 Jan-2002 Jan-2004 Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels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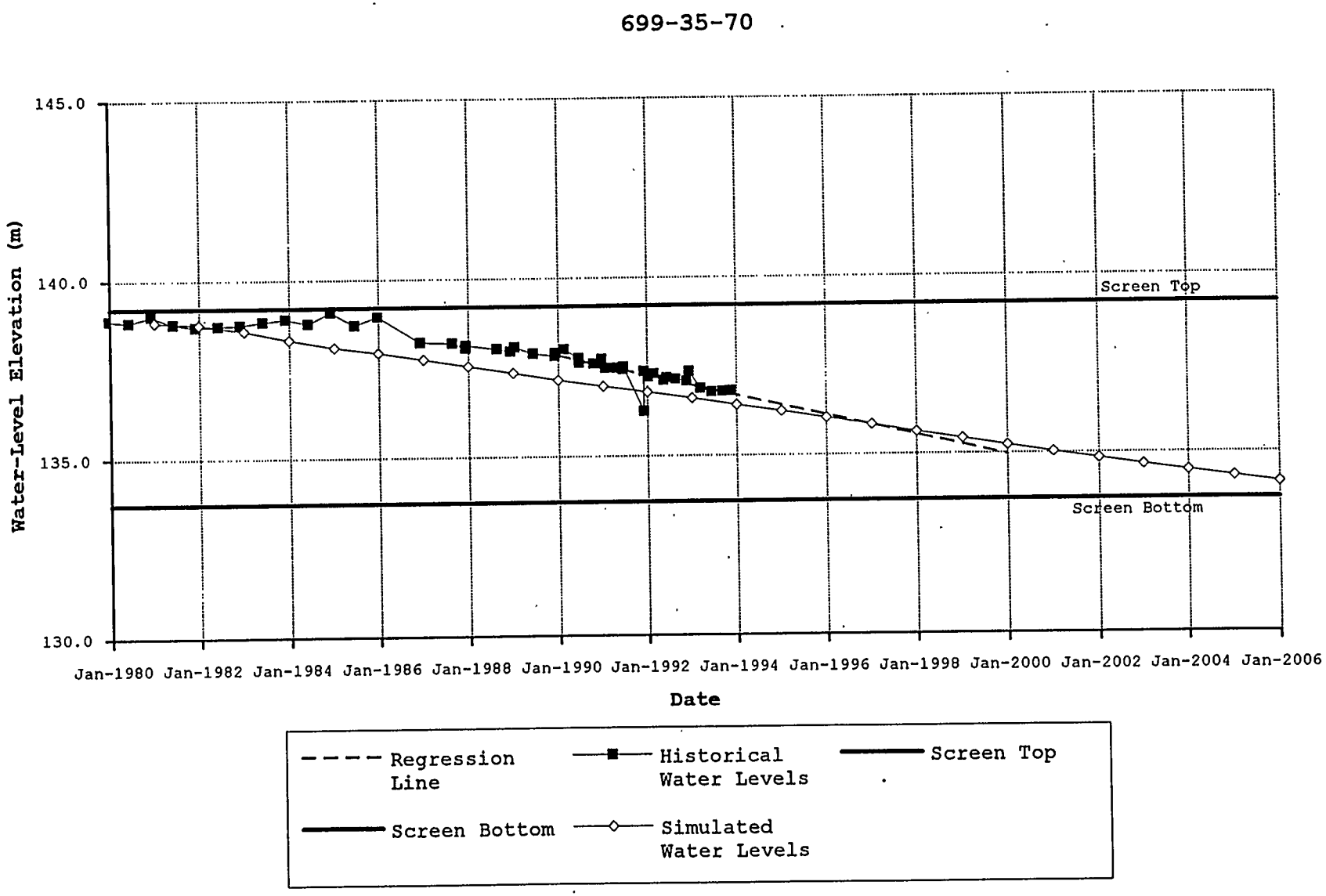
Screen Top
Screen Bottom
Jan-1980 Jan-1982 Jan-1984 Jan-1986 Jan-1988 Jan-1990 Jan-1992 Jan-1994 Jan-1996 Jan-1998 Jan-2000 Jan-2002 Jan-2004 Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels

699-35-70



145.0
140.0
135.0
130.0
Water-Level Elevation (m)
Screen Top
Screen Bottom
Jan-1980 Jan-1982 Jan-1984 Jan-1986 Jan-1988 Jan-1990 Jan-1992 Jan-1994 Jan-1996 Jan-1998 Jan-2000 Jan-2002 Jan-2004 Jan-2006
Date
Regression Line
Historical Water Levels
Screen Top
Screen Bottom
Simulated Water Levels

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