

MEMO

State of Idaho

Department of Water Resources

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Date: September 25, 2007

To: Jeff Peppersack

From: Allan Wylie and John Lindgren

cc: Rick Raymondi and Sean Vincent

Subject: Applications for Transfer of Comore Development, Inc. – Letter dated July 16, 2007

The “new transfer tool” questioned in the above correspondence by Mr. Kent Foster is based on the eastern Snake Plain Aquifer (ESPA) model, version 1.1. The model was developed by the Idaho Water Resources Research Institute under the guidance, and with the participation of, the Eastern Snake Hydrologic Modeling Committee (ESHMC). The Idaho Department of Water Resources (IDWR) led the effort. Active participants in the Committee included Idaho Power Company, the U.S. Geological Survey, the U.S. Bureau of Reclamation, Idaho Water Resources Research Institute and technical experts representing affected users. The ESPA model was completed in March of 2004. Given that the IDWR transfer memo is dated October 30, 2002, the ESHMC was aware that the model would be incorporated into an update of the transfer tool.

Mr. Foster questions the use of the transfer tool outside the bounds of the ESPA. The boundary on Mr. Foster’s map appears to be that of the ESPA area of common ground water, not the limit of active model cells. In fact both the FROM and TO wells in the transfer are within active model cells of version 1.1 of the ESPA model (Figure 1). The model and ultimately, the new transfer tool boundary was extended to include areas tributary to the area of common ground water because the ESHMC concluded that activities in these areas had a significant impact on water availability within the area of common ground water.

Mr. Foster claims that his observations suggest that results from model cells near the eastern edge of the model “provide inaccurate, often grossly inaccurate results”. In this instance the results make sense. First some background information. The Snake River is perched above the regional aquifer between Roberts and Shelley. In this region, changes in aquifer water levels do not affect river leakage. Otherwise, the difference between stage in the river and water levels in the aquifer govern river and aquifer interaction. For example, if the aquifer water level is below river stage, water leaks from the river into the aquifer, the larger the difference between river

stage and aquifer level, the higher the leakage rate. The FROM WELLS are west of Blackfoot in 1N 33E Sections 26 and 27 and 1S 34E Section 4 (Figure 1). It is reasonable to expect a well situated in this area to have little impact on the Heise to Shelley reach because that portion of the reach adjacent to the well is perched. The TO WELLS are located 1N 38E Sections 1 and 12 and 1N 39E Section 6. One would expect that wells in this area should have a significant impact on the Heise to Shelley reach. Thus, to minimize additional impact to the Heise to Shelley reach, significant reductions in pumping would be necessary as shown by analysis using the new transfer tool.

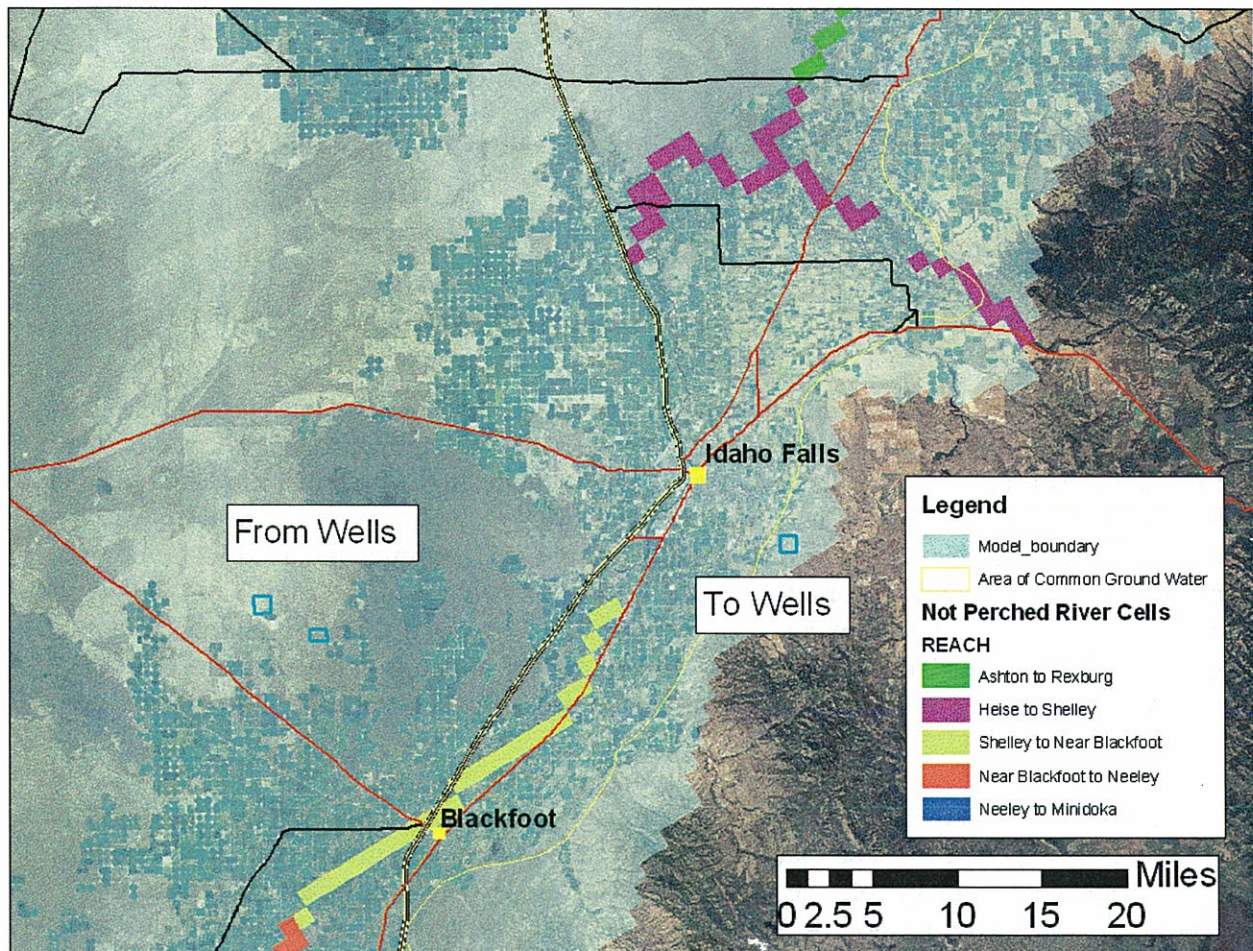


Figure 1. Map showing location of TO and FROM wells, connected river cells, area of common ground water, and model boundary.