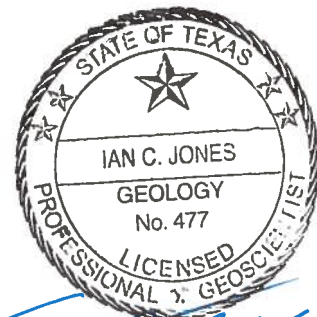


# ***Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer of Texas***

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August 3, 2016*



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8/3/16

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## **EXECUTIVE SUMMARY**

A groundwater flow model of the eastern arm of the Capitan Reef Complex Aquifer was constructed as part of the Texas Water Development Board's Groundwater Availability Modeling Program. This model is a regional-scale model intended to determine how groundwater availability is affected on a regional scale by water resource development. It is not intended for use to predict water-level changes at a particular well or spring, but may be applicable at the scale of a large wellfield depending on the data support that is available in that area of the model. The model will provide a groundwater management tool that can be used by the Brewster County, Middle Pecos, and Reeves County groundwater conservation districts; Groundwater Management Areas 3, 4, and 7; and the Far West Texas and Region F regional water planning groups, among other stakeholders.

Groundwater availability models were an immediate outgrowth of the regional water planning process created by Senate Bill 1, 75th Legislative Session. The Texas Water Development Board developed the models in response to groundwater conservation district and planning group needs for better scientific tools to assist them in their management and planning efforts. Subsequent legislation has required the use of these models, when available. This project falls under Section 16.012, Subsection (l) of the Texas Water Code that states that the executive administrator of the Texas Water Development Board shall obtain or develop groundwater availability models for all of the major and minor aquifers in Texas.

This model was constructed using the U.S. Geological Survey code MODFLOW-2005. The model includes five layers of half-mile grid cells representing several hydrostratigraphic units (from top to bottom): (1) Pecos Valley and Edwards-Trinity (Plateau) aquifers; (2) Dockum Aquifer and Dewey Lake Formation; (3) Rustler Aquifer; (4) a confining unit composed of the Salado and Castile formations, and the Artesia Group; and (5) the Capitan Reef Complex Aquifer, Artesia and Delaware Mountain groups (Jones, 2014). Recharge to the aquifers is modeled using the MODFLOW Recharge Package and is based on a precipitation threshold above which recharge can occur. Recharge to the Capitan Reef Complex Aquifer was based on a methodology used by Finch (2014). Recharge to the Edwards-Trinity (Plateau) and Pecos Valley aquifers was based on the recharge used in the one-layer alternative model of the respective aquifers (Hutchison and others, 2011). Interaction with the Pecos River was modeled using the MODFLOW River Package. Spring discharge was modeled using the MODFLOW Drain Package, and the MODFLOW Well Package was used to simulate groundwater pumping. Most of the model boundaries are assumed to be no-flow boundaries representing probable groundwater hydrologic divides. However, in some cases, general-head boundaries were used to simulate regional groundwater flow into and out of the model area.

The MODFLOW Well Package contains groundwater withdrawal information for municipal, domestic, irrigation, livestock, and petroleum industry uses. With the exception of petroleum

industry uses, groundwater use estimates in Texas were compiled from distributed and point sources. Groundwater use by the petroleum industry was based on the drilling data compiled by the Texas Railroad Commission and New Mexico Energy, Minerals and Natural Resources Department databases, and research by the Bureau of Economic Geology (Nicot and others, 2011; 2012). During calibration, parameters for recharge, hydraulic properties, and boundary conditions were adjusted to match over 8,200 water-level targets collected between 1931 and 2005. Calibration was assisted using parameter estimation software—PEST—a model-independent, industry-standard, parameter estimation code. The root mean squared error for the calibration of all layers is 129 feet or 7 percent of the range in water-level elevations. The root mean squared error for the calibration of the Capitan Reef Complex Aquifer is 104 feet or 7 percent of the range in water-level elevations. These calibration statistics meet Groundwater Availability Model Section and industry calibration standards.

In the Capitan Reef Complex Aquifer model, groundwater enters the groundwater flow system from two sources: recharge due to infiltration of precipitation and regional inflow from the general-head boundaries. Groundwater leaves the flow system primarily through leakage to the Pecos River and pumping. Modeled groundwater flow directions in all model layers indicate that groundwater flows principally to the north and south, converging on the Pecos River. Sensitivity analysis results indicate that the model is most sensitive to recharge and horizontal hydraulic conductivity and it is moderately sensitive to pumping wells.

Model users should consider several limitations when using this model. To a certain extent, this model is interpretive rather than being a fully predictive model because of: the limited historical stresses on the aquifer, limited amount of measured water levels, and limited hydraulic property data. In addition, because of the lack of historical stresses, it was not possible to fully calibrate the storage coefficient. The use of a constant transmissivity in the model requires that model users carefully evaluate whether it is appropriate to assume that water-level drawdown is insignificant relative to the total aquifer thickness.

## **1.0 INTRODUCTION AND PURPOSE OF THE MODEL**

This report documents the construction and calibration of the groundwater availability model for the eastern arm of the Capitan Reef Complex Aquifer. While the associated conceptual model report for the entire Capitan Reef Complex Aquifer (Jones, 2014) is written in a style that should be accessible to most interested stakeholders, this numerical model report is targeted primarily to those with experience constructing and/or using groundwater models.

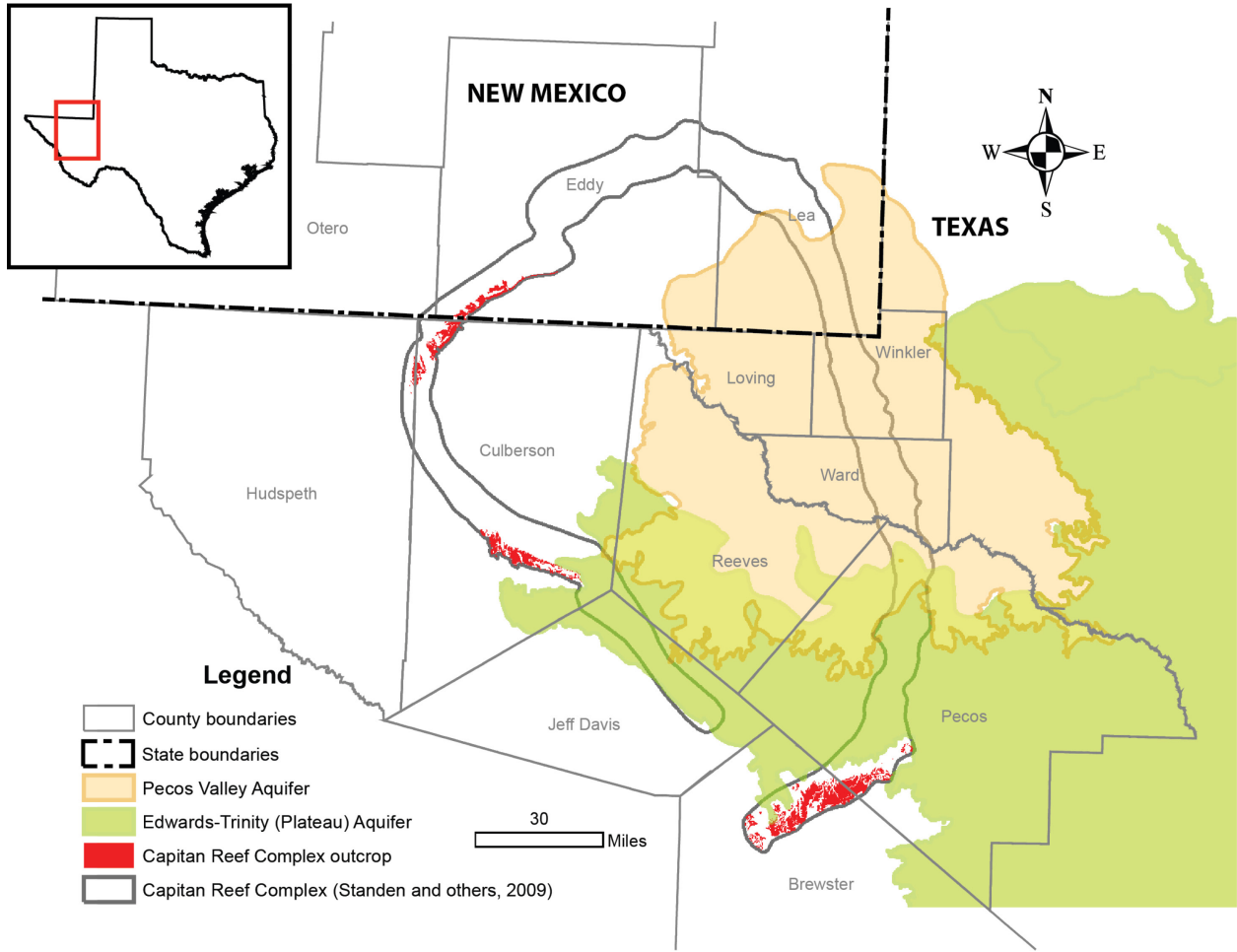
The Texas Water Development Board has identified the major and minor aquifers in Texas on the basis of regional extent and amount of water produced. The major and minor aquifers in the study area are shown in Figures 1.0.1 and 1.0.2, respectively. General discussion of the major and minor aquifers is given in George and others (2011). Aquifers that supply large quantities of

water over large areas of the state are defined as major aquifers while those that supply relatively small quantities of water over large areas of the state or supply large quantities of water over small areas of the state are defined as minor aquifers.

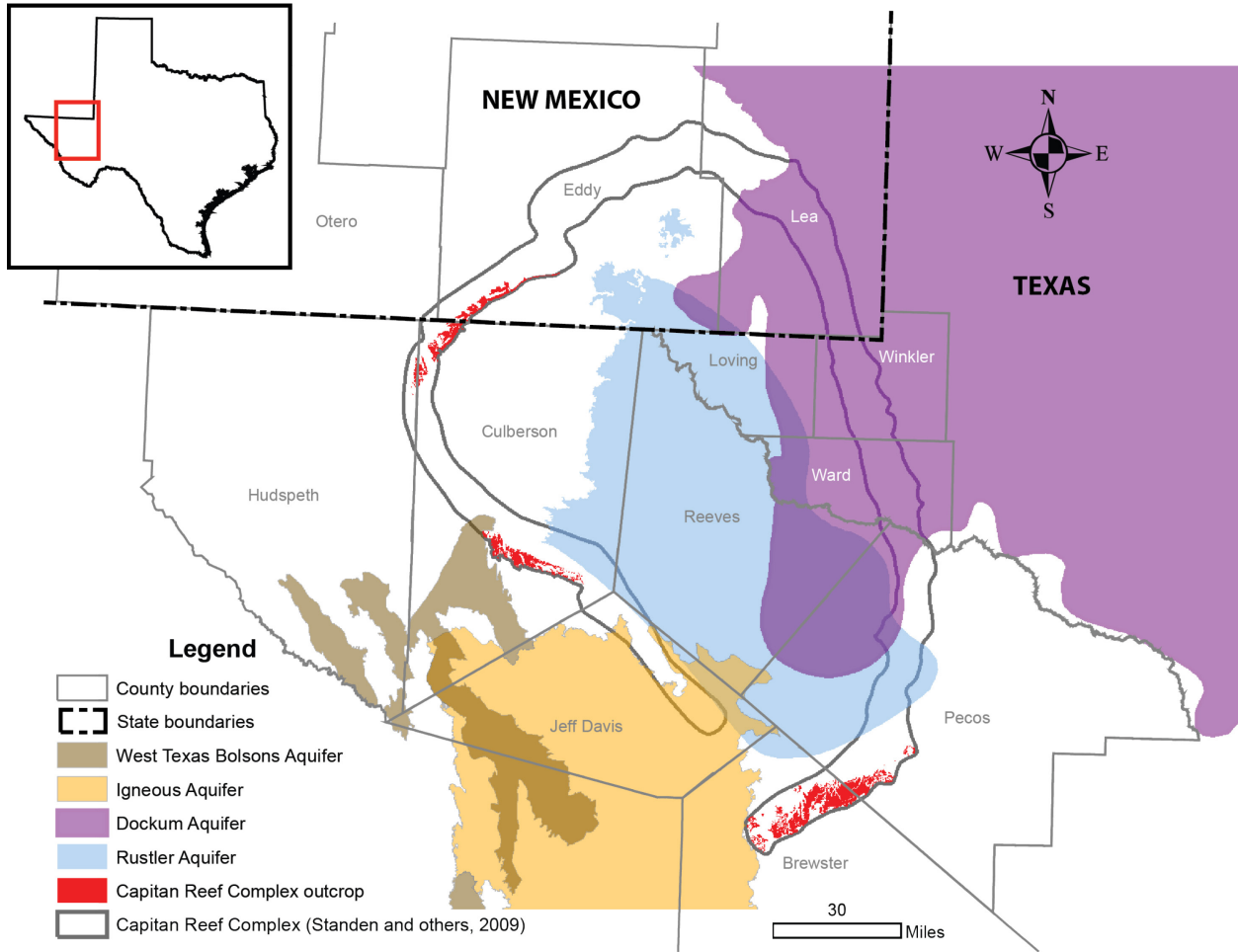
The boundaries of the eastern arm of the Capitan Reef Complex Aquifer model area are shown in Figure 1.0.3. The area extends from where the Capitan Reef Complex Aquifer underlies the Pecos River near Carlsbad, New Mexico to where the aquifer crops out in the Glass Mountains in Texas. In addition to the Capitan Reef Complex Aquifer, the model area includes the following overlying aquifers: Edwards-Trinity (Plateau), Pecos Valley, Dockum, and Rustler aquifers. These additional aquifers are included as boundaries to simulate interaction between the Capitan Reef Complex Aquifer and surrounding stratigraphic units, as well as inflows to and outflows from the aquifer system in the model area (Figure 1.0.4).

A groundwater flow model is a numerical representation of the aquifer system capable of simulating historical conditions and predicting future aquifer conditions. Inherent to the groundwater flow model is a set of equations that are developed and applied to describe the physical processes influencing groundwater flow in the flow system. Groundwater models are essential for performing complex analyses and making informed predictions and related decisions (Anderson and Woessner, 2002). Groundwater models, in general, are tools with many uses, including estimating effects of various hypothetical water use strategies and determining cumulative effects of processes such as increased water use or drought.

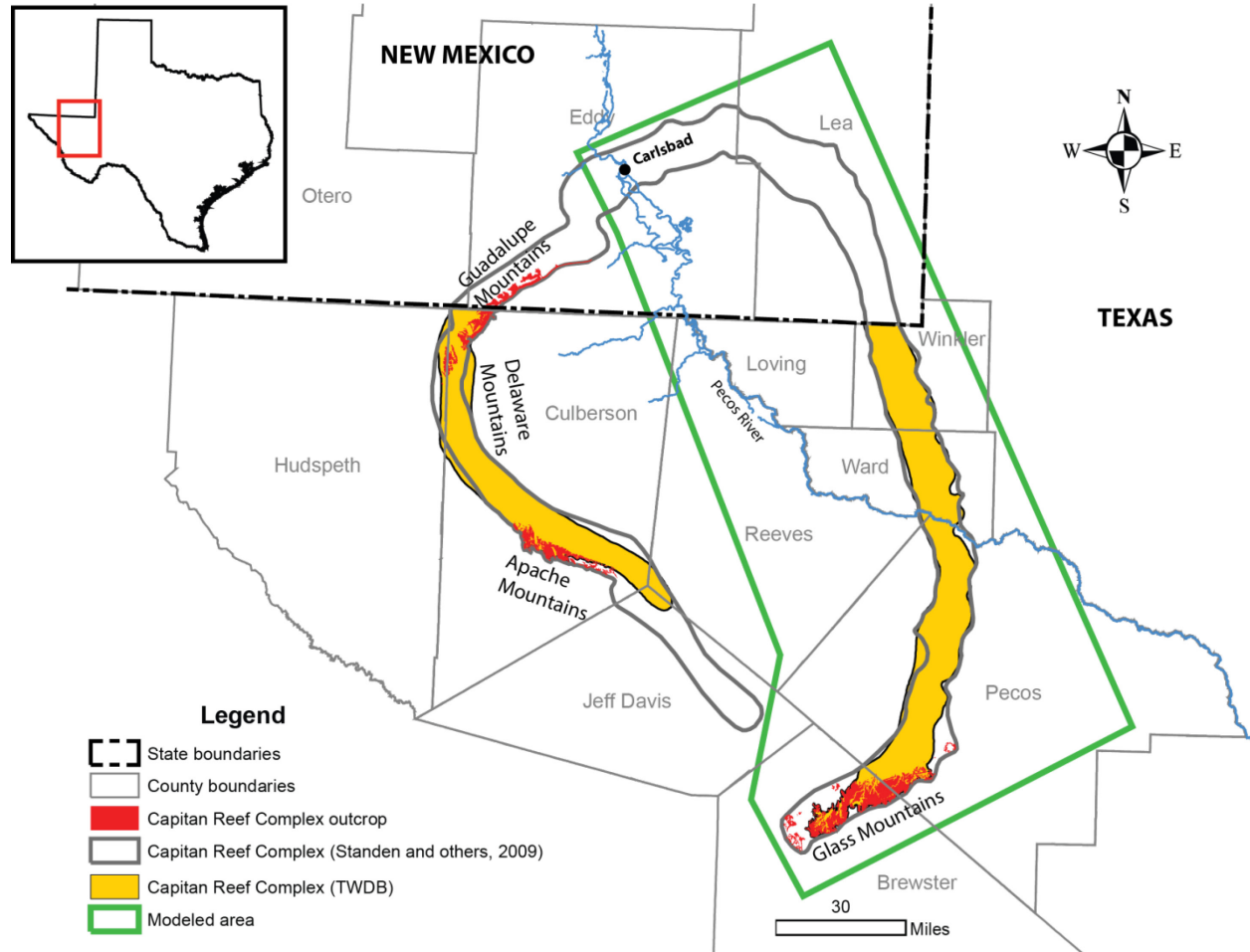
Development of groundwater availability models for the major and minor aquifers in Texas is integral to the state water planning process. This project falls under Section 16.012, Subsection (1) of the Texas Water Code that states that the executive administrator of the Texas Water Development Board shall obtain or develop groundwater availability models for all of the major and minor aquifers in Texas. The purpose for the Groundwater Availability Modeling Program is to provide tools that can be used to develop reliable and timely information on groundwater availability for the citizens of Texas, and to ensure adequate supplies or recognize inadequate supplies over a 50-year planning period. The groundwater availability models also serve as an integral part of the process for determining modeled available groundwater based on desired future conditions, as required by House Bill 1763 (79<sup>th</sup> Texas Legislative Session, 2005). The eastern arm of the Capitan Reef Complex Aquifer groundwater availability model will thus serve as a critical tool for groundwater planning in the state.



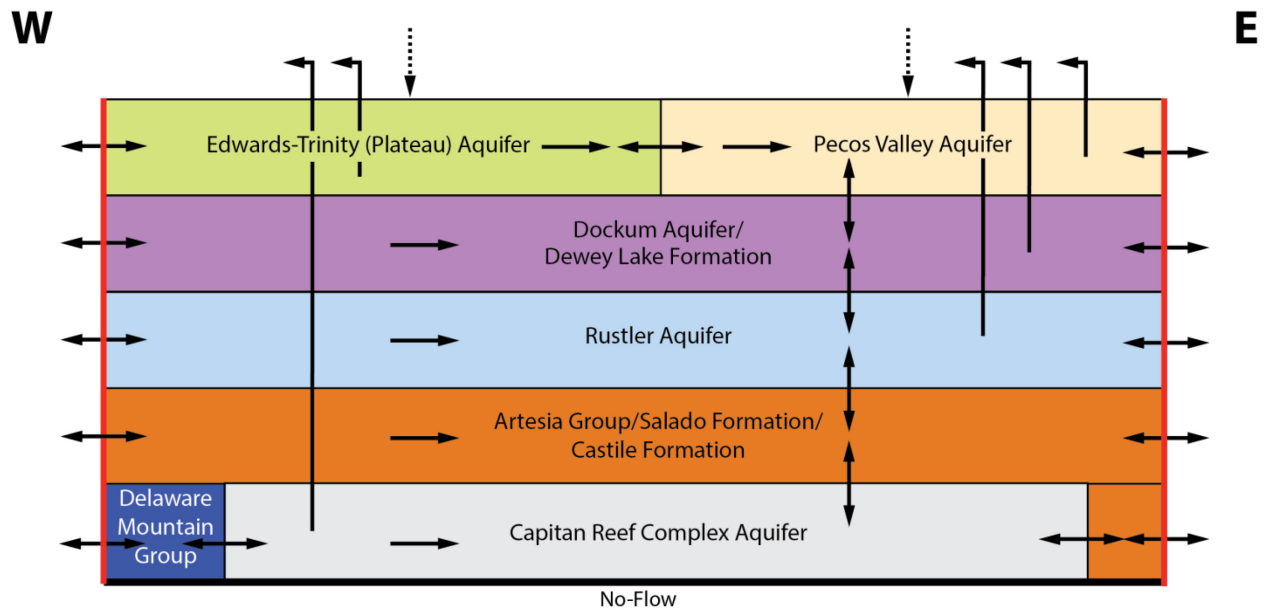
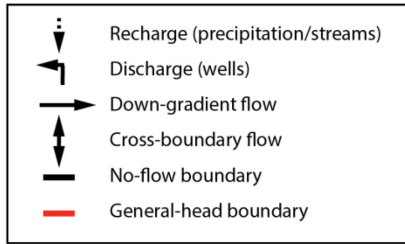
**Figure 1.0.1. Locations of the major aquifers in the study area.**



**Figure 1.0.2. Locations of the minor aquifers in the study area.**



**Figure 1.0.3. The official (Texas Water Development Board) and alternative boundaries of the Capitan Reef Complex Aquifer based on work done by Standen and others (2009), including the location of key mountain ranges in the study area.**



**Figure 1.0.4. Conceptual groundwater flow model for the Capitan Reef Complex Aquifer Groundwater Availability Model.**

## 2.0 MODEL OVERVIEW AND PACKAGES

The code selected for this groundwater model is MODFLOW-2005 (Harbaugh, 2005). MODFLOW is a three-dimensional, finite-difference groundwater flow code, which is supported by boundary condition packages to handle recharge, evapotranspiration, rivers, springs, and flow barriers. The benefits of using MODFLOW include: 1) it incorporates the necessary physics of groundwater flow; 2) it is the most widely accepted groundwater flow code in use today; 3) it was written and is supported by the U.S. Geological Survey and is in the public domain; 4) it is well documented (McDonald and Harbaugh, 1988; Harbaugh and McDonald, 1996; Harbaugh and others, 2000; Harbaugh, 2005); and 5) it has a large user group. Additionally, there are numerous graphical user interfaces that can be used to develop MODFLOW models and to process model results.



A MODFLOW model consists of a grouping of input text files—also called “packages”—that describe various components of the groundwater flow system. The input packages and their corresponding filenames are shown in Table 2.0.1. Table 2.0.2 shows the output files written by MODFLOW contain water levels (HDS), drawdown (DDN), water budget information (CBB), and a listing of the characteristics of the run (LST). A description of the contents and changes to each of the input packages shown in Table 2.0.1 are included in the sections that follow.

**Table 2.0.1. Summary of model input packages and filenames.**

<b>Packages</b>	<b>Input Files</b>
Basic (BAS6)	Capitan.bas
Discretization (DIS)	Capitan.dis
Layer-Property Flow (LPF)	Capitan.lpf
Well (WEL)	Capitan.wel
Drain (DRN)	Capitan.drn
River (RIV)	Capitan.riv
General-Head Boundary (GHB)	Capitan.ghb
Recharge (RCH)	Capitan.rch
Horizontal-Flow Barrier (HFB6)	Capitan.hfb
Evapotranspiration (EVT)	Capitan.evt
Output Control (OC)	Capitan.oc
Preconditioned Conjugate-Gradient Solver (PCG)	Capitan.pcg

**Table 2.0.2. Summary of model output packages and filenames.**

<b>Packages</b>	<b>Output Files</b>
LIST (LST)	Capitan.lst
Cell-by-Cell Budgets (CBB)	Capitan.cbb
Heads (HDS)	Capitan.hds
Drawdown (DDN)	Capitan.ddn

## **2.1 Basic Package**

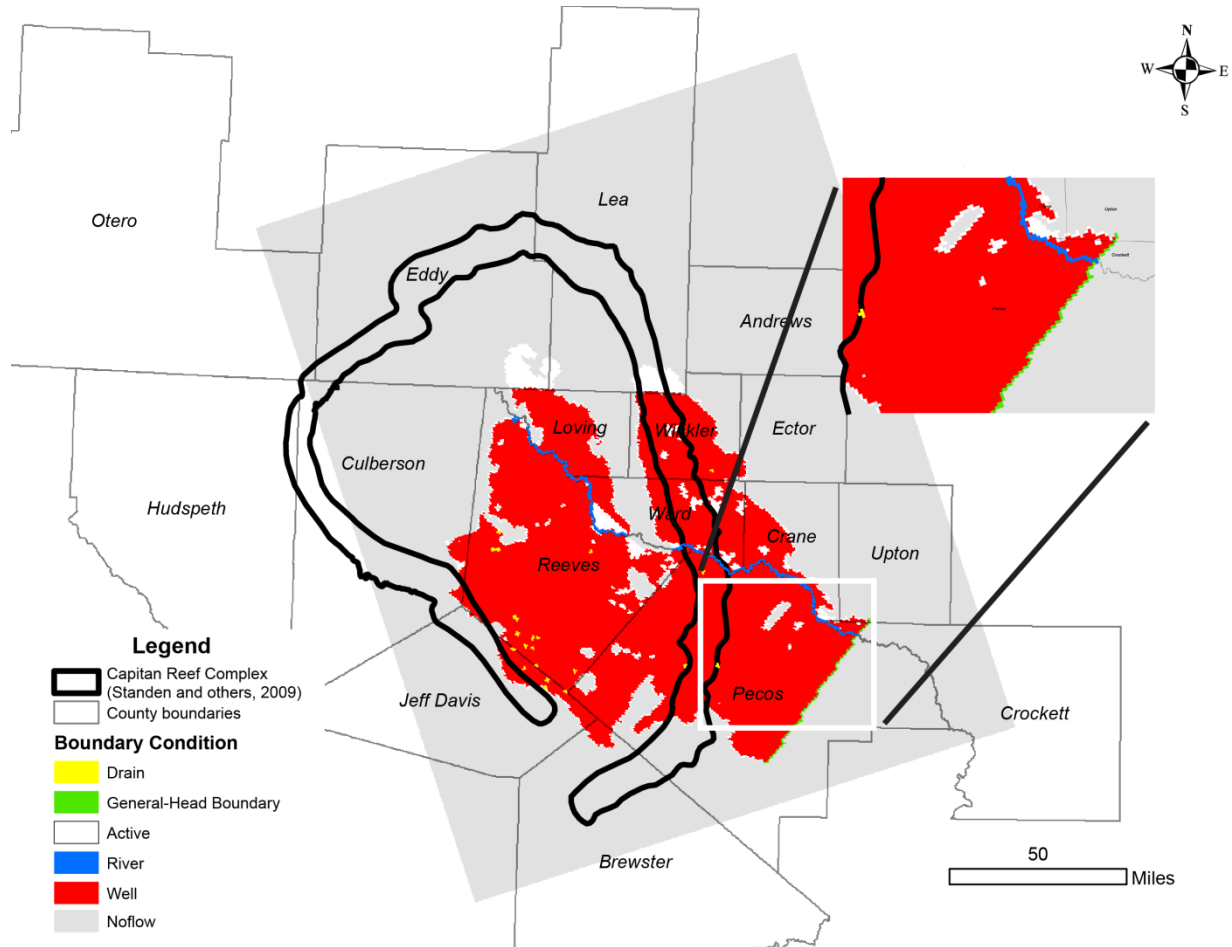
The MODFLOW Basic Package is used to: 1) specify which cells in each model layer are active or inactive, and 2) specify the starting water levels for the simulation in the aquifers.

The groundwater model of the eastern arm of the Capitan Reef Complex Aquifer represents the Capitan Reef Complex, Rustler, Dockum, Edwards-Trinity (Plateau), and Pecos Valley aquifers. It also includes non-aquifers, such as the Delaware Mountain and Artesia groups, and the Castile, Salado, and Dewey Lake formations. The model has five layers: Layer 1, the Edwards-Trinity (Plateau) and Pecos Valley aquifers; Layer 2, the Dockum Aquifer and the Dewey Lake Formation; Layer 3, the Rustler Aquifer; Layer 4, a confining unit made up of the Salado and Castile formations, and the overlying portion of the Artesia Group; and Layer 5, the Capitan Reef Complex Aquifer, part of the Artesia Group, and the Delaware Mountain Group (Figure 1.0.4). Layers 1 through 4 are intended to act solely as boundary conditions facilitating groundwater inflow and outflow relative to the Capitan Reef Complex Aquifer (Layer 5). More accuracy for the overlying layers may be obtained from the specific groundwater availability models that represent those layers (Hutchison and others, 2011; Ewing and others, 2012).

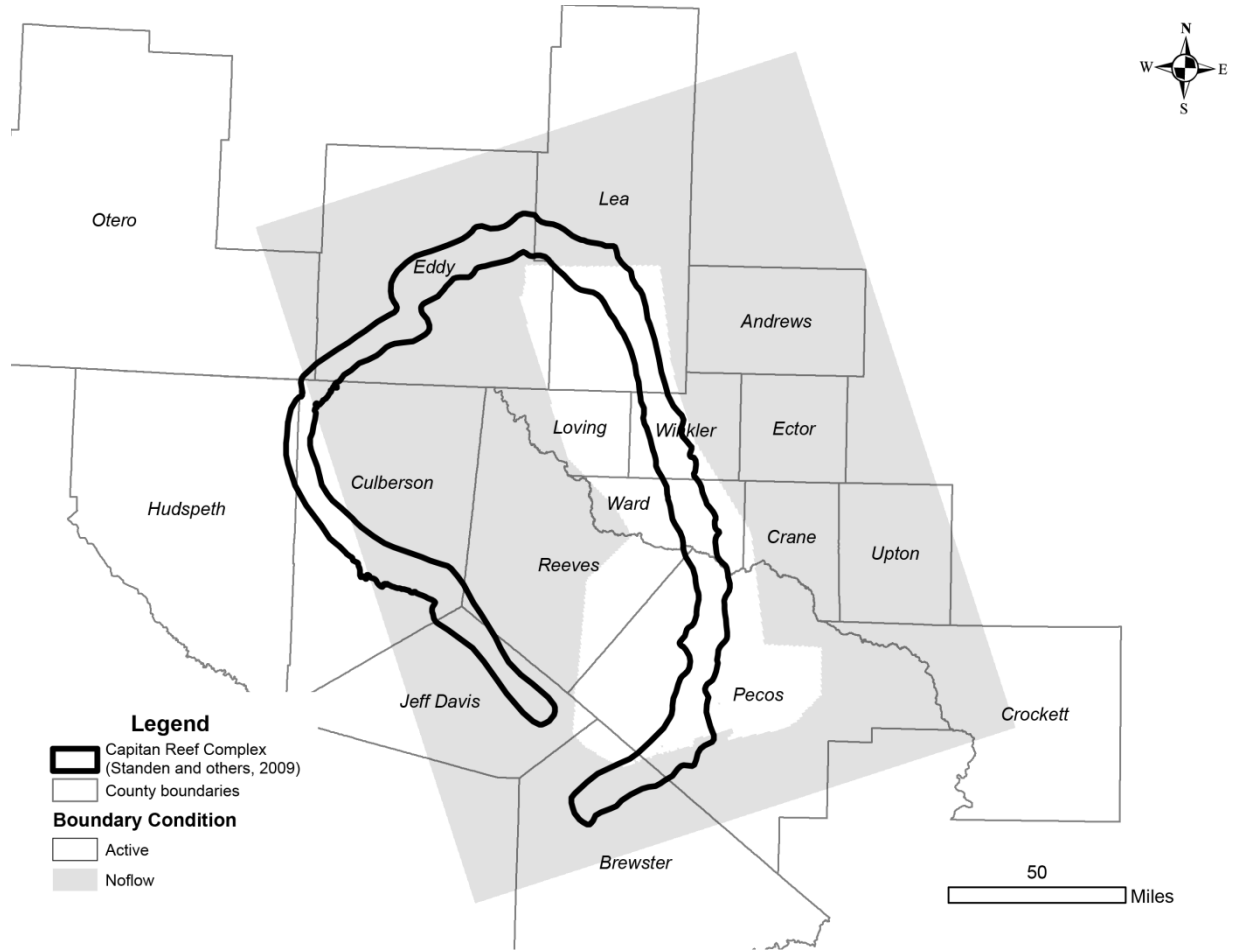
The active and inactive model cells for each of the five layers are shown in Figure 2.1.1 through Figure 2.1.5. Active model cells are indicated with a positive value of the variable IBOUND, an input to the Basic Package.

Grid cells were initially associated with each aquifer based on their assignment in existing Texas Water Development Board groundwater flow models for the Pecos Valley and Edwards-Trinity (Plateau) aquifers—Layer 1, Dockum and Rustler aquifers—layers 2 and 3 (Hutchison and others, 2011; Ewing and others, 2012). Additional model cells were included in layers 2 and 3 to incorporate the Monument Draw Trough that overlies the Capitan Reef Complex Aquifer. The Monument Draw Trough had been excluded from the groundwater availability model for the Rustler Aquifer (Ewing and others, 2012). Additional adjustments were made during calibration

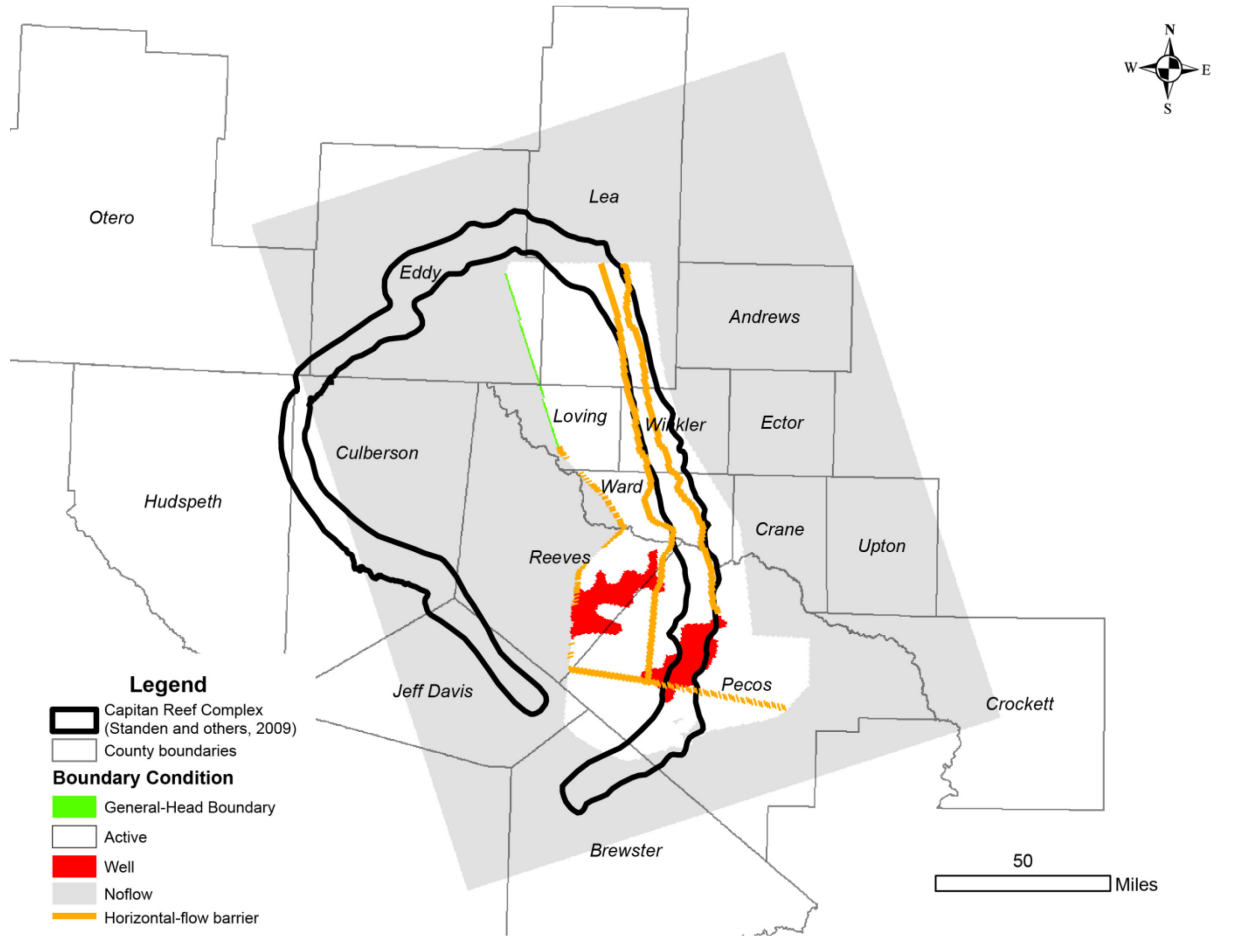
to shift the western boundary of layers 2 and 3 to approximately overlie active parts of layers 4 and 5. Cells along the edges of the active model boundary that were isolated from the main part of the aquifer or unstable were removed to enhance model convergence and improve stability of the model. Initial water levels for the first stress period in the model were set to arbitrary elevations above the aquifer base to allow all model grid cells to start wet. The bottom of the model represents: (1) the base of the Capitan Reef Complex Aquifer and (2) elevations within the adjacent confining units equivalent to the lowest elevation of the base of the Capitan Reef Complex Aquifer, and is a no-flow boundary.



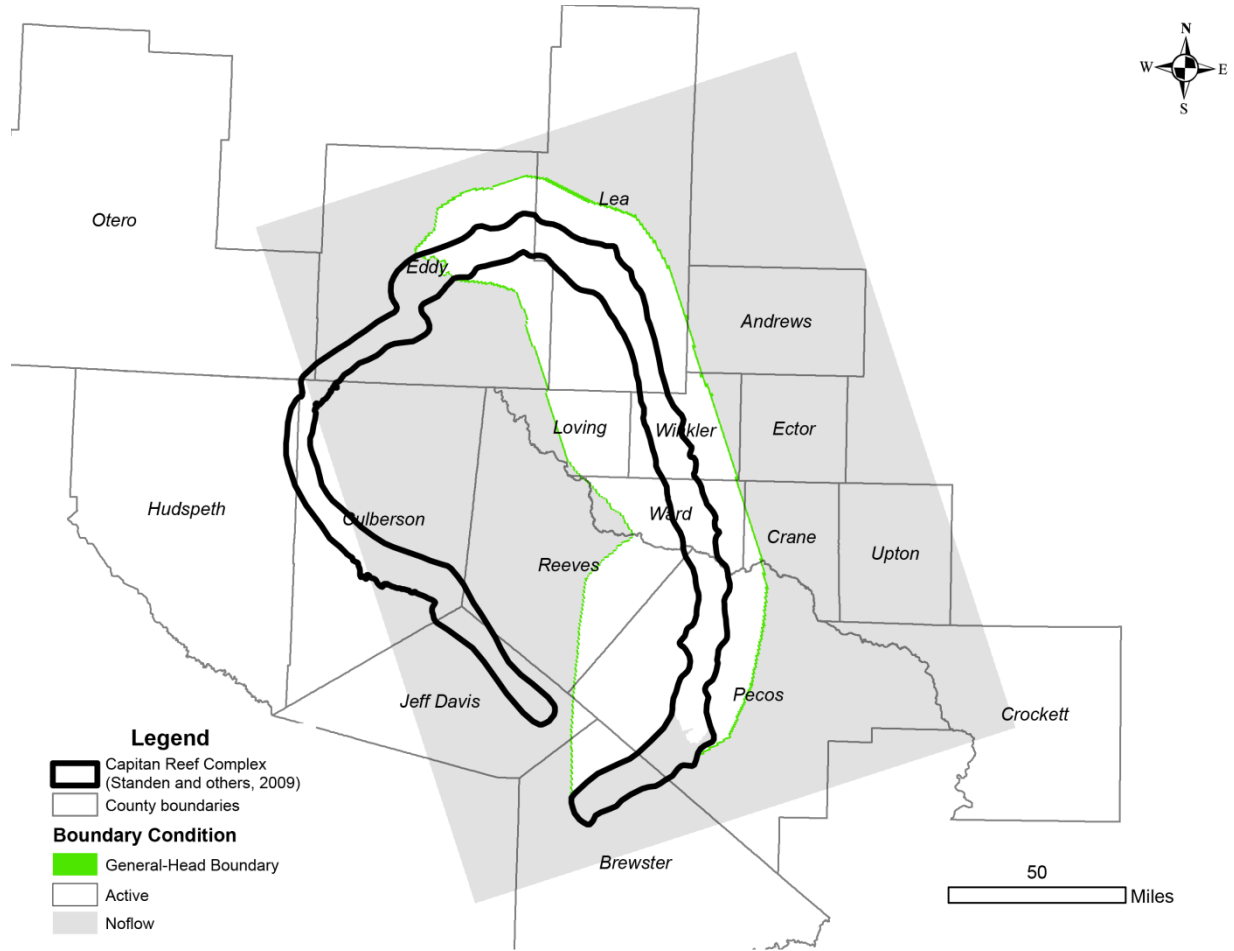
**Figure 2.1.1. Location of the active model cells and boundary conditions in Layer 1—the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**



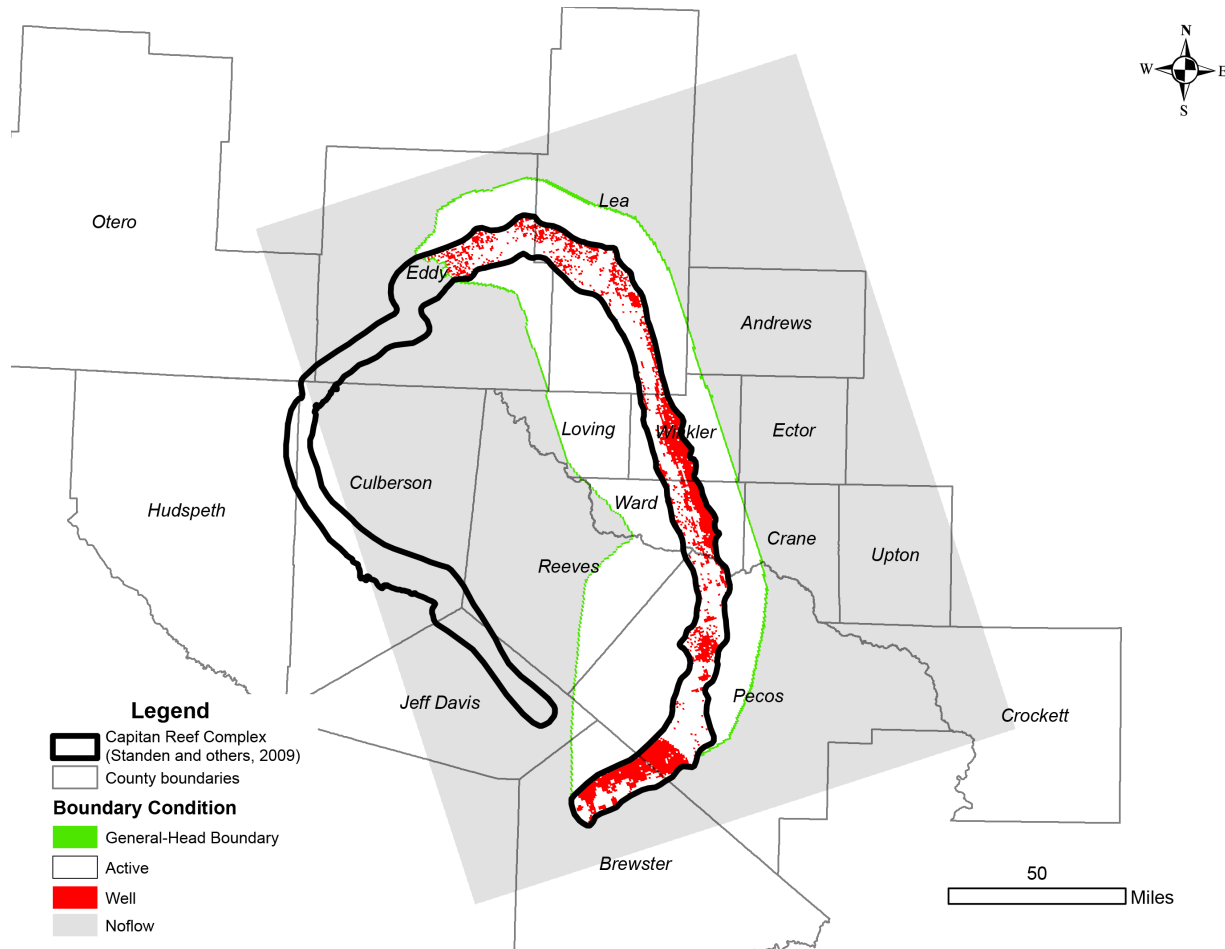
**Figure 2.1.2. Location of the active model cells and boundary conditions in Layer 2—the Dockum Aquifer and Dewey Lake Formation.**



**Figure 2.1.3. Location of the active model cells and boundary conditions in Layer 3—the Rustler Aquifer.**



**Figure 2.1.4. Location of the active model cells and boundary conditions in Layer 4—the confining unit above the Capitan Reef Complex Aquifer.**



**Figure 2.1.5. Location of the active model cells and boundary conditions in Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**

## 2.2 Name File

The name file contains the names and unit numbers of the input and output files that comprise the numerical model. These input and output files were previously listed in Tables 2.0.1 and 2.0.2.

## 2.3 Discretization Package

The MODFLOW Discretization Package contains the model grid dimensions, the cell-by-cell elevations of the model layers, and a definition of the model stress periods.

The eastern arm of the Capitan Reef Complex Aquifer groundwater availability model grid contains 5 layers, 400 rows, and 320 columns. There are a total of 640,000 model cells of which 142,322 are active. The grid is uniform, with cells that are 2,640 feet square.

The model grid is oriented northwest-southeast in the Texas Water Development Board’s designated coordinate system for groundwater availability models described in Anaya (2001). The lower left corner of the model grid is positioned at groundwater availability model

coordinate system coordinates: 3,660,218 easting, 19,214,541 northing, and has an 18-degree counterclockwise rotation.

Figures 2.3.1 through 2.3.6 show the elevations of the top of Layer 1 and the bases of layers 1 through 5. The Monument Draw collapse structure is apparent in the base elevations of layers 1 through 3.

The model has 75 stress periods representing years 1931 through 2005. The first stress period is a steady-state stress period that represents pre-development (1931) conditions. The year 1931 was selected based on the availability of hydrologic data, especially pumping data. All subsequent annual stress periods are transient. Table 2.3.1 shows the stress periods, types, times, and durations.

**Table 2.3.1. Length and time periods represented by each stress period.**

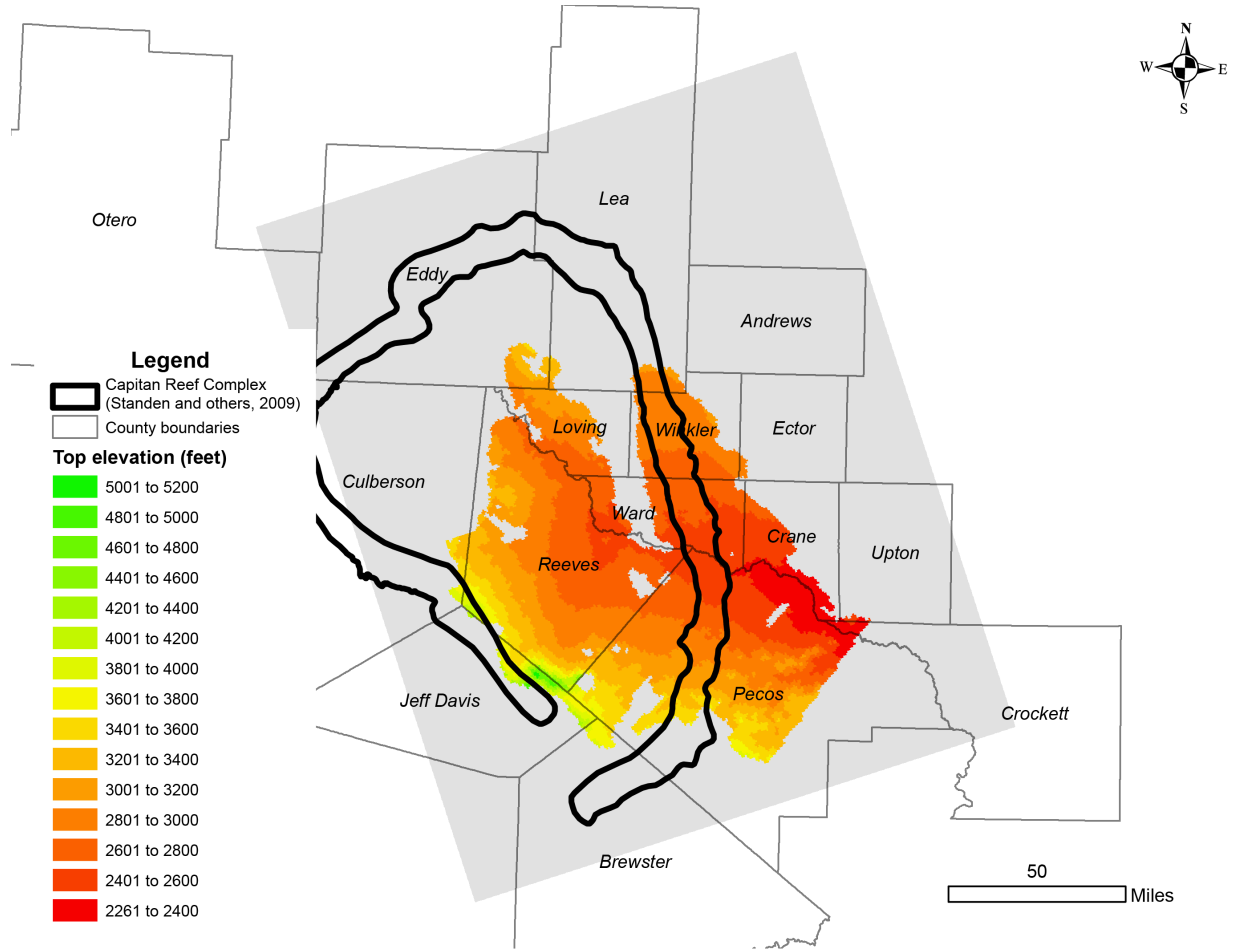
Stress Period	Type	Year	Length (days)	Stress Period	Type	Year	Length (days)
1	Steady-state	1931	1	25	Transient	1955	365.25
2	Transient	1932	365.25	26	Transient	1956	365.25
3	Transient	1933	365.25	27	Transient	1957	365.25
4	Transient	1934	365.25	28	Transient	1958	365.25
5	Transient	1935	365.25	29	Transient	1959	365.25
6	Transient	1936	365.25	30	Transient	1960	365.25
7	Transient	1937	365.25	31	Transient	1961	365.25
8	Transient	1938	365.25	32	Transient	1962	365.25
9	Transient	1939	365.25	33	Transient	1963	365.25
10	Transient	1940	365.25	34	Transient	1964	365.25
11	Transient	1941	365.25	35	Transient	1965	365.25
12	Transient	1942	365.25	36	Transient	1966	365.25
13	Transient	1943	365.25	37	Transient	1967	365.25
14	Transient	1944	365.25	38	Transient	1968	365.25
15	Transient	1945	365.25	39	Transient	1969	365.25
16	Transient	1946	365.25	40	Transient	1970	365.25
17	Transient	1947	365.25	41	Transient	1971	365.25
18	Transient	1948	365.25	42	Transient	1972	365.25
19	Transient	1949	365.25	43	Transient	1973	365.25
20	Transient	1950	365.25	44	Transient	1974	365.25
21	Transient	1951	365.25	45	Transient	1975	365.25
22	Transient	1952	365.25	46	Transient	1976	365.25
23	Transient	1953	365.25	47	Transient	1977	365.25
24	Transient	1954	365.25	48	Transient	1978	365.25



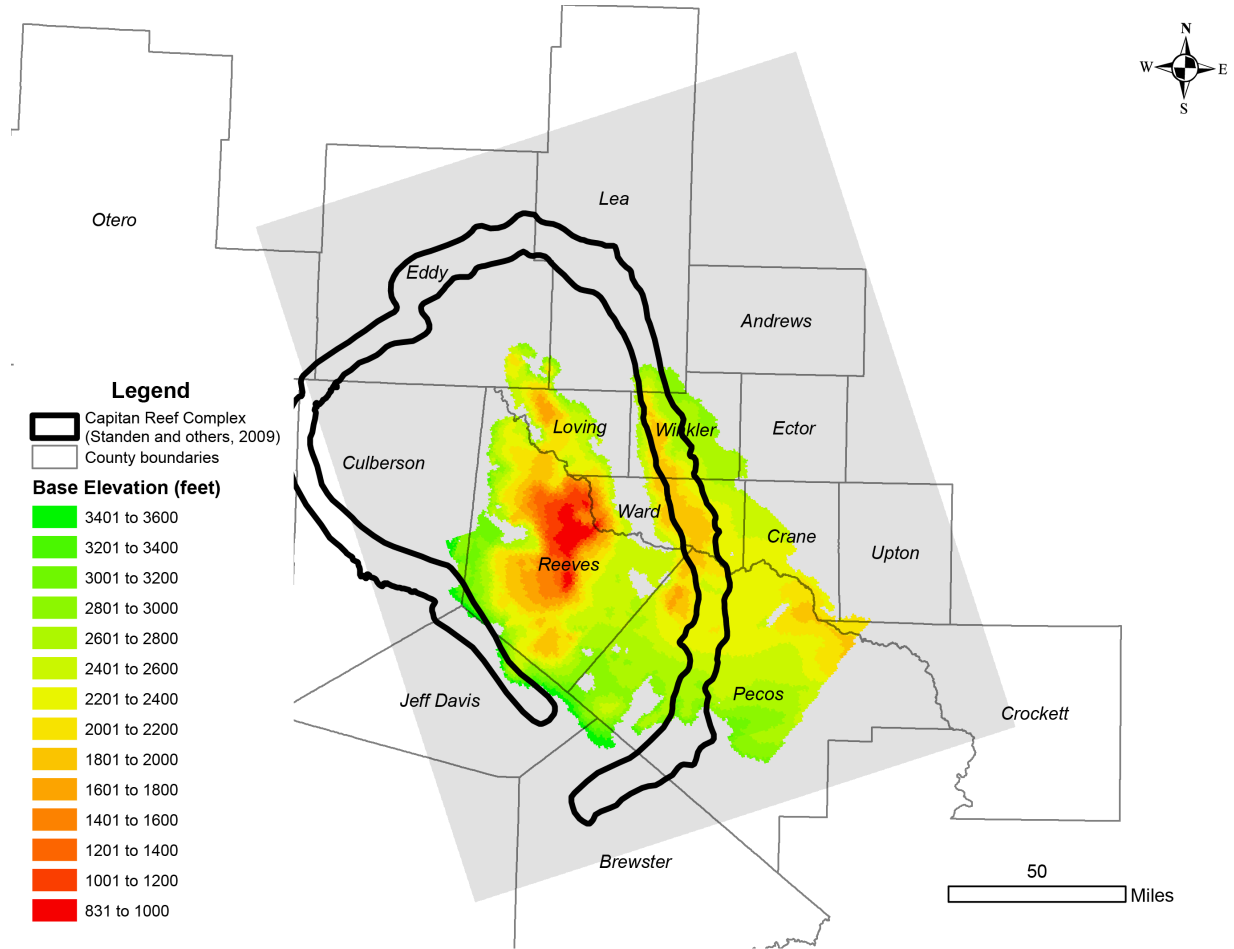
**Table 2.3.1. (continued)**

<b>Stress Period</b>	<b>Type</b>	<b>Year</b>	<b>Length (days)</b>	<b>Stress Period</b>	<b>Type</b>	<b>Year</b>	<b>Length (days)</b>
49	Transient	1979	365.25	63	Transient	1993	365.25
50	Transient	1980	365.25	64	Transient	1994	365.25
51	Transient	1981	365.25	65	Transient	1995	365.25
52	Transient	1982	365.25	66	Transient	1996	365.25
53	Transient	1983	365.25	67	Transient	1997	365.25
54	Transient	1984	365.25	68	Transient	1998	365.25
55	Transient	1985	365.25	69	Transient	1999	365.25
56	Transient	1986	365.25	70	Transient	2000	365.25
57	Transient	1987	365.25	71	Transient	2001	365.25
58	Transient	1988	365.25	72	Transient	2002	365.25
59	Transient	1989	365.25	73	Transient	2003	365.25
60	Transient	1990	365.25	74	Transient	2004	365.25
61	Transient	1991	365.25	75	Transient	2005	365.25
62	Transient	1992	365.25				

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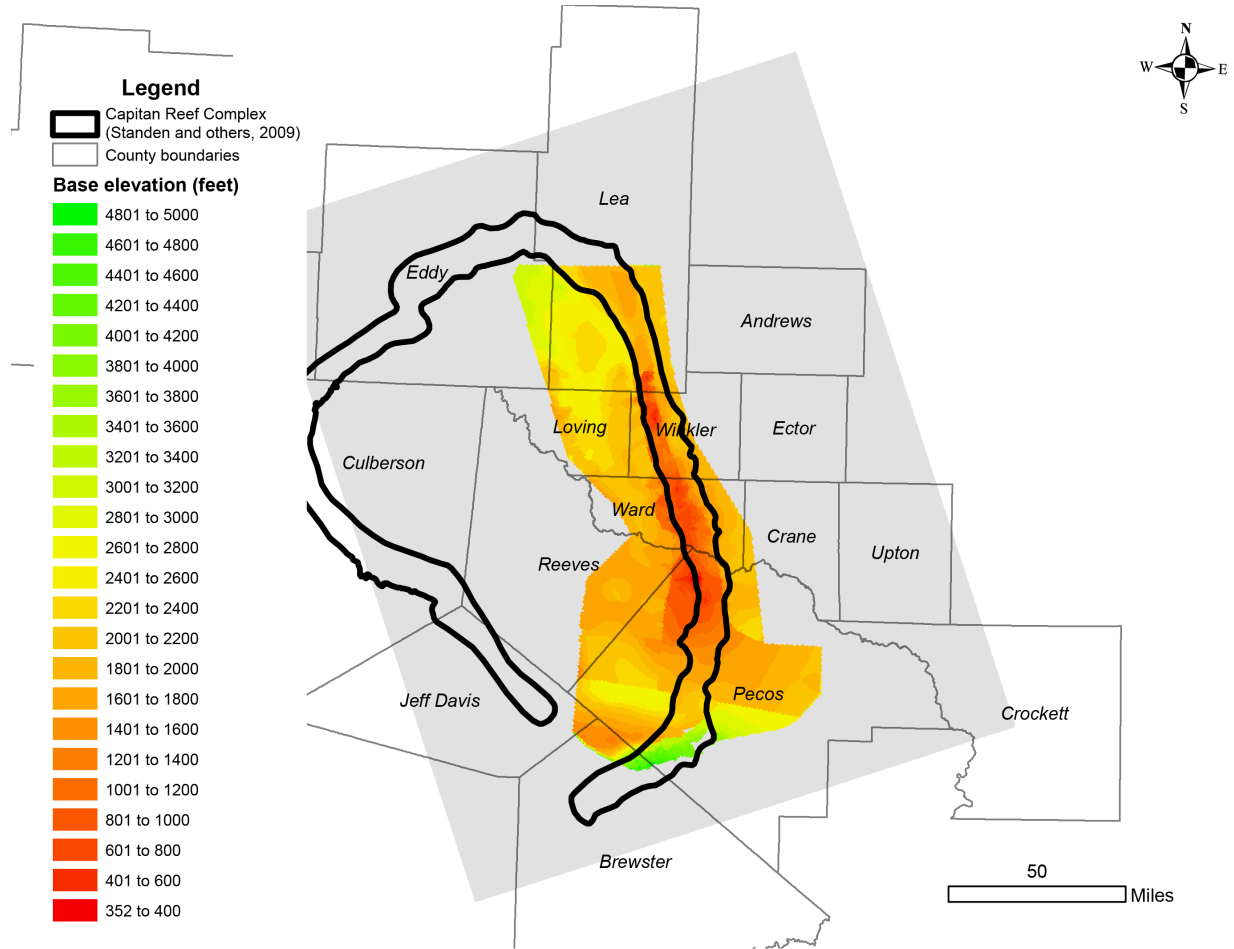


**Figure 2.3.1. Map of the top elevation in Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**



**Figure 2.3.2. Map of the base elevation in Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**

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**Figure 2.3.3. Map of the base elevation in Layer 2—the Dockum Aquifer and Dewey Lake Formation.**

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
August 3, 2016

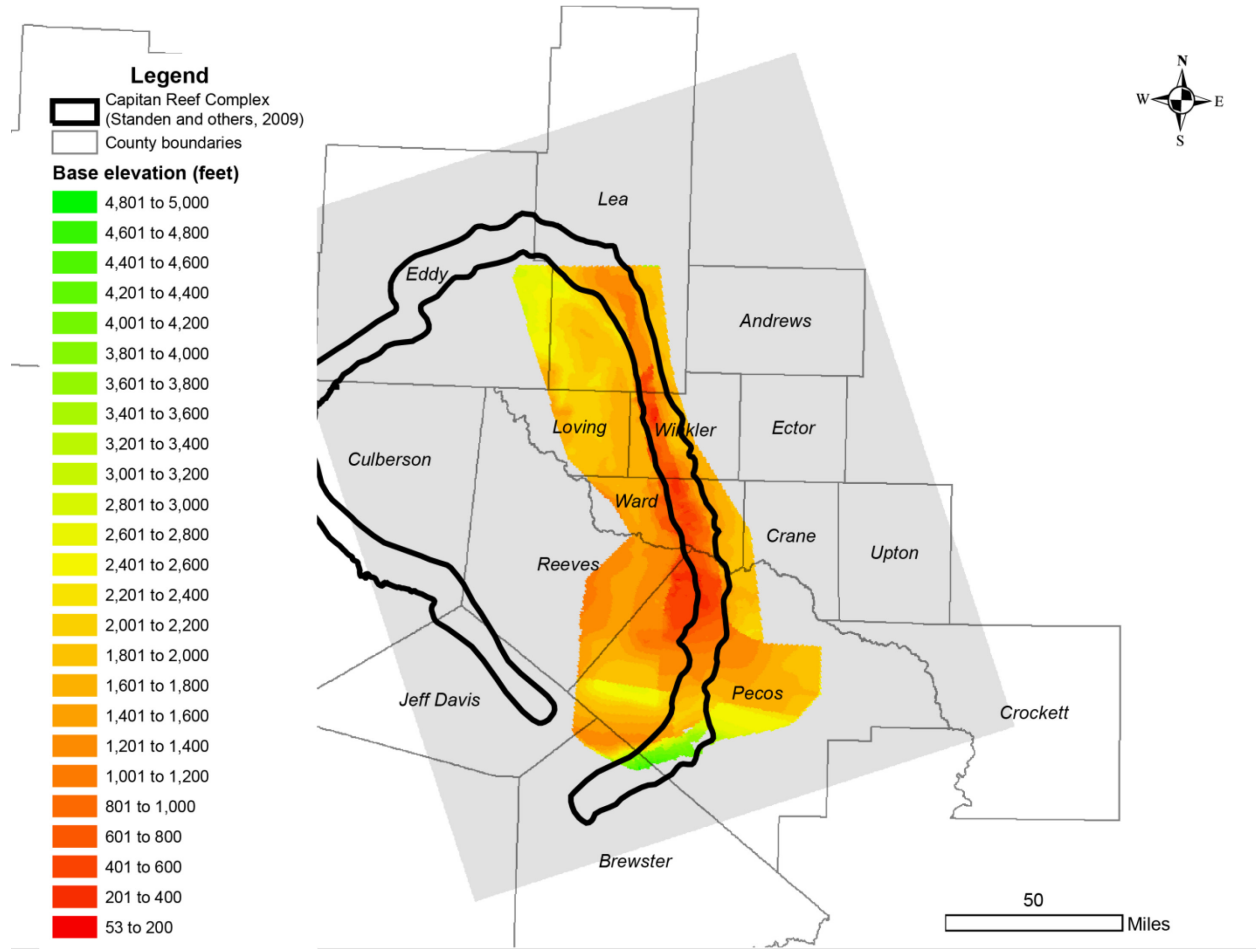


Figure 2.3.4. Map of the base elevation in Layer 3—the Rustler Aquifer.

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
August 3, 2016

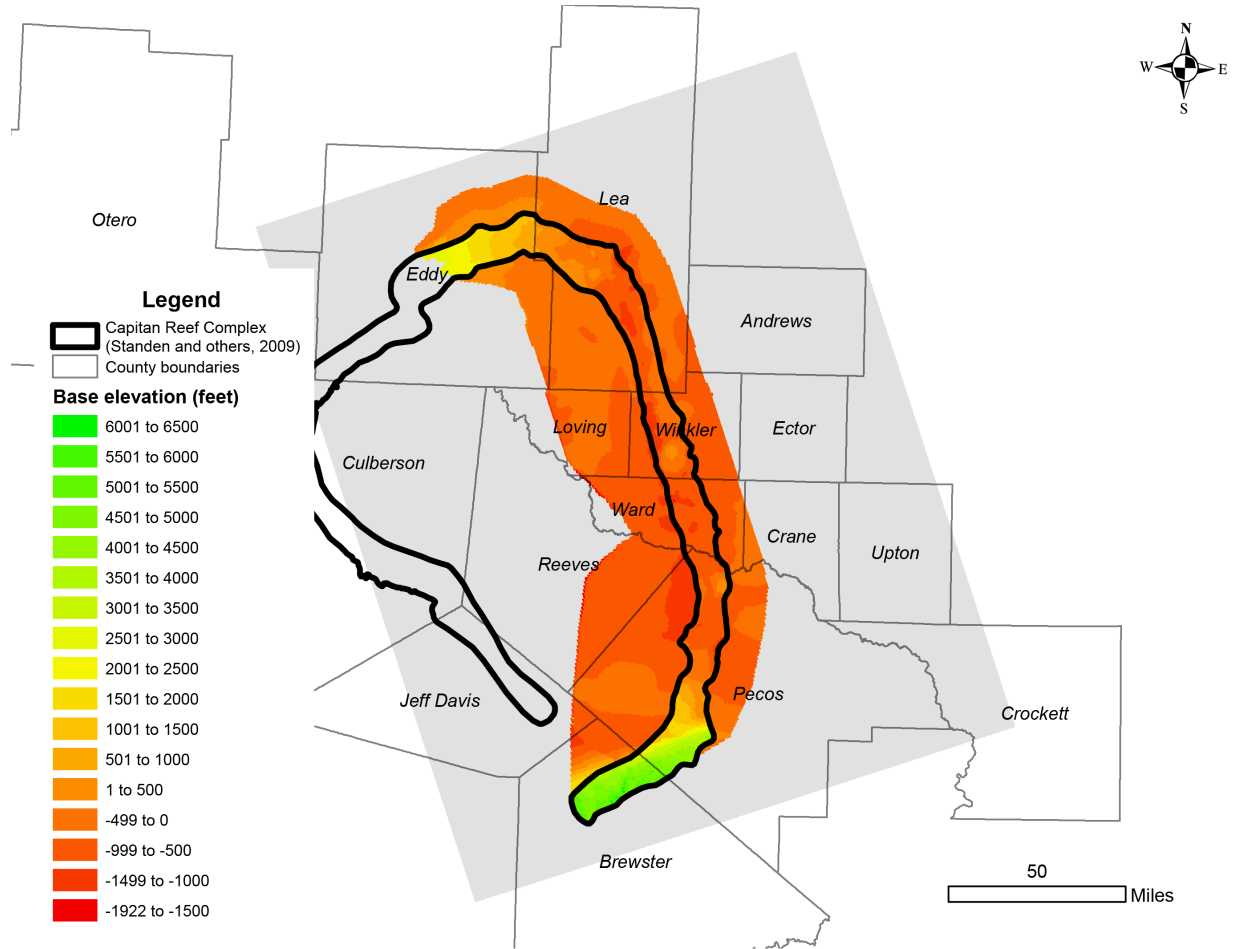
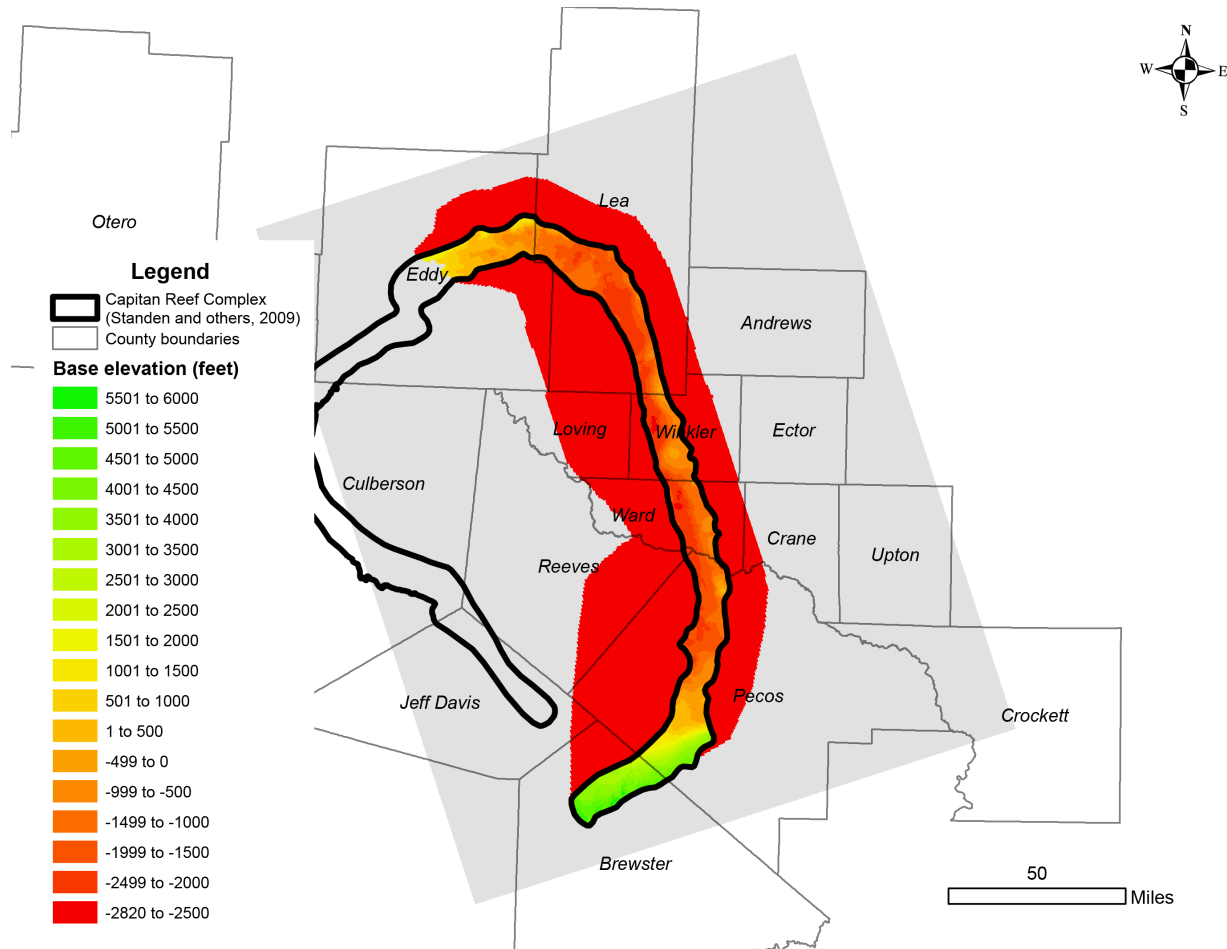


Figure 2.3.5. Map of the base elevation in Layer 4—the confining unit above the Capitan Reef Complex Aquifer.



**Figure 2.3.6. Map of the base elevation in Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**

## 2.4 Layer-Property Flow Package

The Layer-Property Flow Package contains the flags for layer type, cell-by-cell flow output, horizontal and vertical hydraulic conductivity, and specific storage. In this model, the layer type was set to zero for all layers, which assumes a constant transmissivity throughout the simulation. This assumption is acceptable as long as water-level drawdowns are a small fraction of the total saturated thickness. As a result of this specification, the only storage value required is the specific storage (Ss). By assuming a constant transmissivity, no cells convert to dry during the simulation irrespective of whether the water-level is above or below the aquifer base.

The Capitan Reef Complex Aquifer is highly heterogeneous at local scale resolution, however it is impossible to develop a regional-scale groundwater flow model with local scale properties of a complex fractured, faulted, hypogene karst aquifer when such data does not exist at a regional scale. At a regional-scale resolution and with few and widely scattered data points, the Capitan Reef Complex Aquifer (and other aquifers considered in this model) are relatively homogenous as the model cells reflect hydraulic properties averaged over increasing volumes of the aquifer.

Horizontal hydraulic conductivity values are assigned based on zones (Figures 2.4.1 through 2.4.5; Table 2.4.1). These hydraulic zones represent areas—hydrostratigraphic units—within the model area characterized by similar hydraulic properties and thus at the regional scale can be simulated using the same hydraulic property value. Many of these hydraulic values were taken or averaged from existing groundwater availability models and adjusted during the model calibration process (see the conceptual model report, Jones (2014)). There are a total of 10 calibration zones in the model. There are three in Layer 1 representing the northern and southern portions of the Pecos Valley Aquifer, and the Edwards-Trinity (Plateau) Aquifer, respectively. Layers 2 and 4 each have one calibration zone. In Layer 3, the Rustler Aquifer is separated into two calibration zones, while Layer 5 has three zones representing the Capitan Reef Complex Aquifer, Delaware Mountain Group, and Artesia Group, respectively. (Note: Zone 1 represents inactive cells). The Pecos Valley Aquifer is divided into two zones. Zone 2 represents the portion of the aquifer characterized by eolian—wind-blown—sand, while Zone 4 is made up of slightly less permeable alluvial sediment. The Rustler Aquifer is also divided into two zones, Zone 6 and Zone 7 which has a higher permeability due to fracturing associated with the Monument Draw collapse structure. Specific details about the calibration are provided in the Model Calibration and Results Section below. Recharge, vertical hydraulic conductivity, and storage coefficient were assigned and calibrated according to the same zones as the horizontal hydraulic conductivity (Tables 2.4.1 and 2.4.2).

**Table 2.4.1. Horizontal and vertical hydraulic conductivity for the respective calibration zones expressed in feet per day.**

Zone	Zone Number <sup>1</sup>	Model Layer	Horizontal Hydraulic Conductivity	Vertical Hydraulic Conductivity
Pecos Valley-North	2	1	20.0	2.0
Edwards-Trinity (Plateau)	3	1	10.0	1.0
Pecos Valley-South	4	1	18.0	1.8
Dockum/Dewey Lake	5	2	16.0	1.6
Rustler 1	6	3	20.0	2.0
Rustler 2	7	3	29.61	2.96
Shelf Deposits	8	5	0.04	0.004
Capitan Reef Complex	9	5	12	1.2
Basin Deposits	10	5	0.02	0.002
Confining Unit	11	4	$8.0 \times 10^{-3}$	$8.0 \times 10^{-4}$

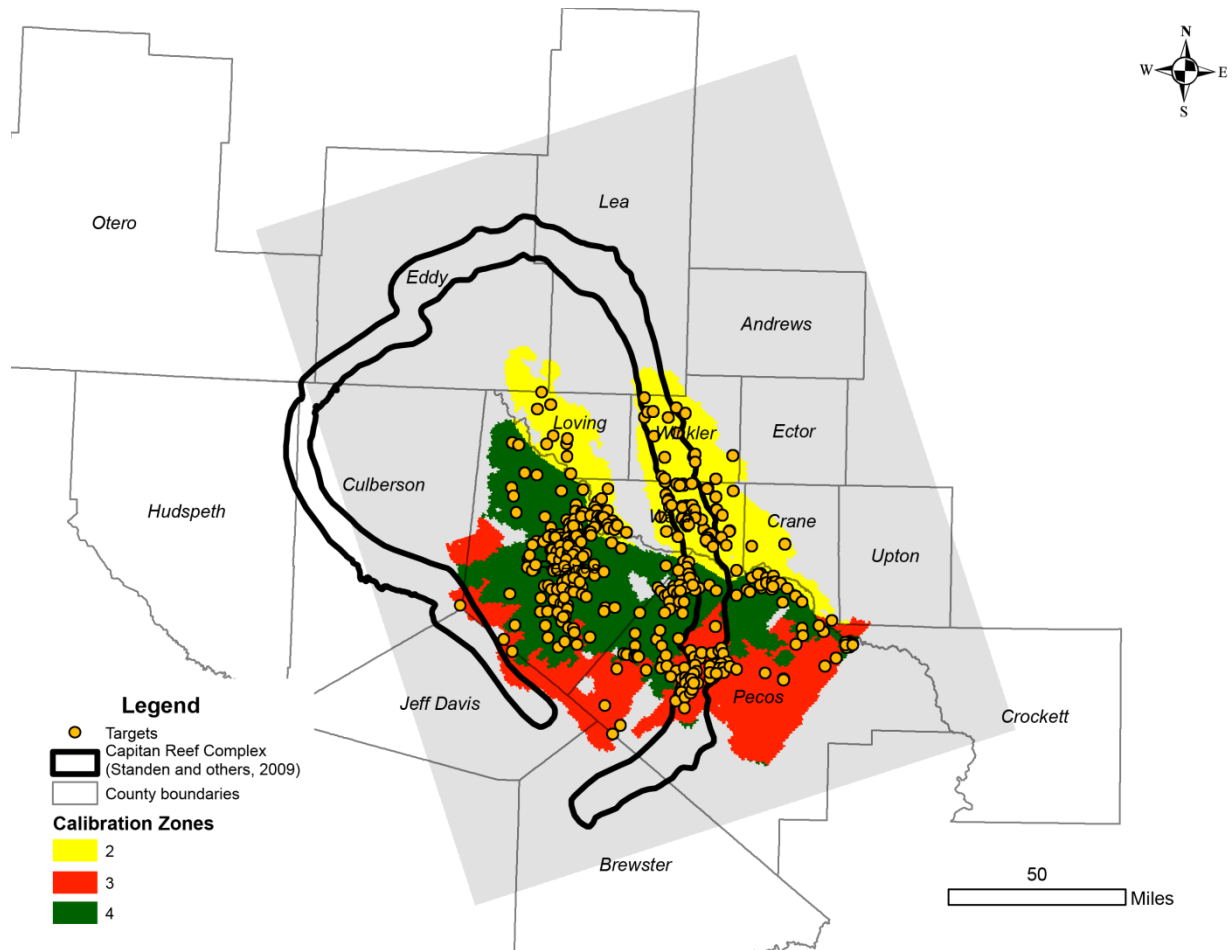
<sup>1</sup> Zone 1 represents inactive cells in the model.



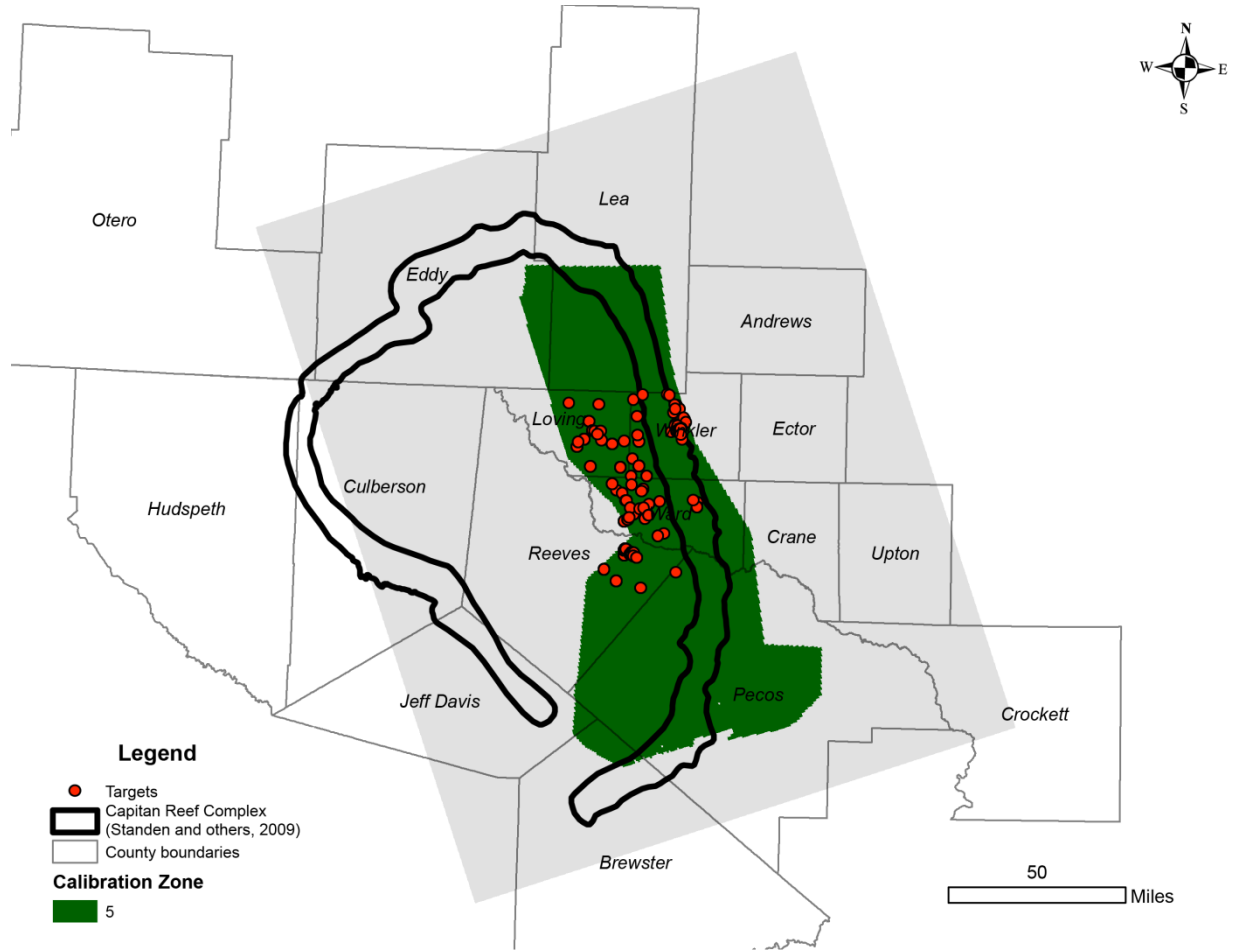
**Table 2.4.2. Specific storage for the respective calibration zones expressed in per foot.**

Zone	Zone Number <sup>1</sup>	Model Layer	Value
Pecos Valley-North	2	1	$2.53 \times 10^{-4}$
Edwards-Trinity (Plateau)	3	1	$2.79 \times 10^{-4}$
Pecos Valley-South	4	1	$1.66 \times 10^{-4}$
Dockum/Dewey Lake	5	2	$1 \times 10^{-6}$
Rustler 1	6	3	$1.5 \times 10^{-6}$
Rustler 2	7	3	$5.6 \times 10^{-6}$
Shelf Deposits	8	5	$1 \times 10^{-6}$
Capitan Reef Complex	9	5	$1 \times 10^{-4}$
Basin Deposits	10	5	$4.44 \times 10^{-7}$
Confining Unit	11	4	$1 \times 10^{-6}$

<sup>1</sup> Zone 1 represents inactive cells in the model.



**Figure 2.4.1. Map of calibration zones and targets in Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**



**Figure 2.4.2. Map of calibration zones and targets in Layer 2—the Dockum Aquifer and Dewey Lake Formation.**

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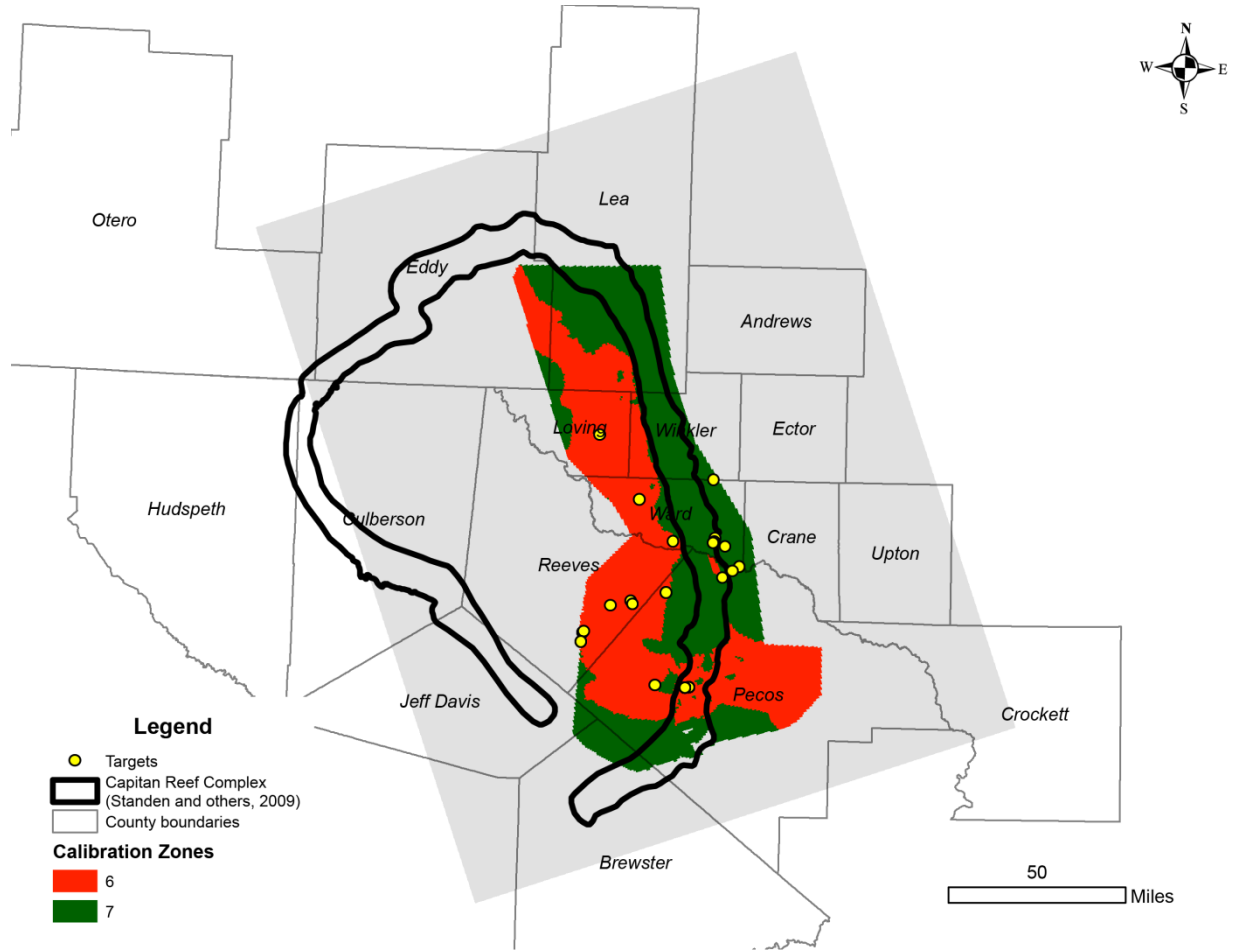
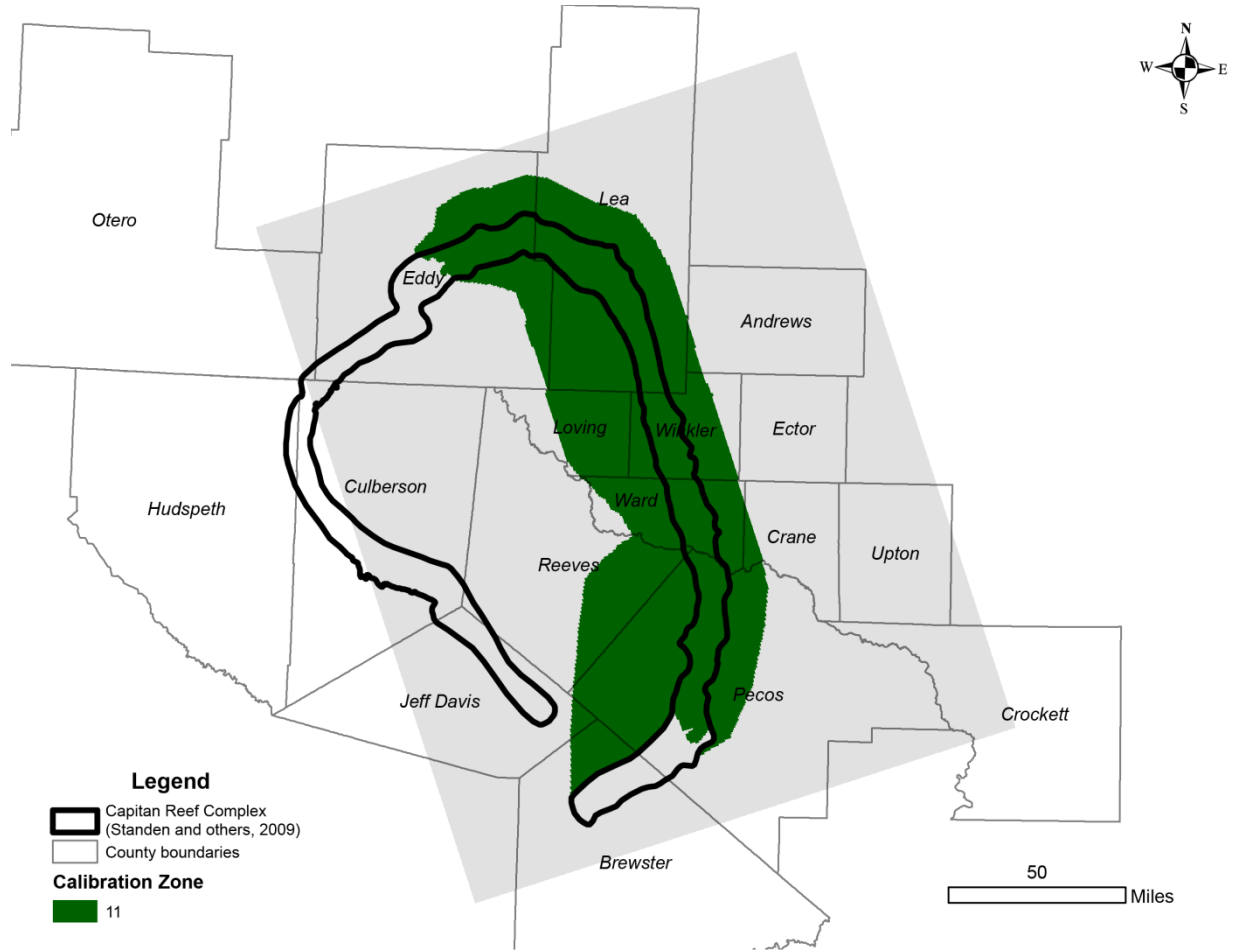
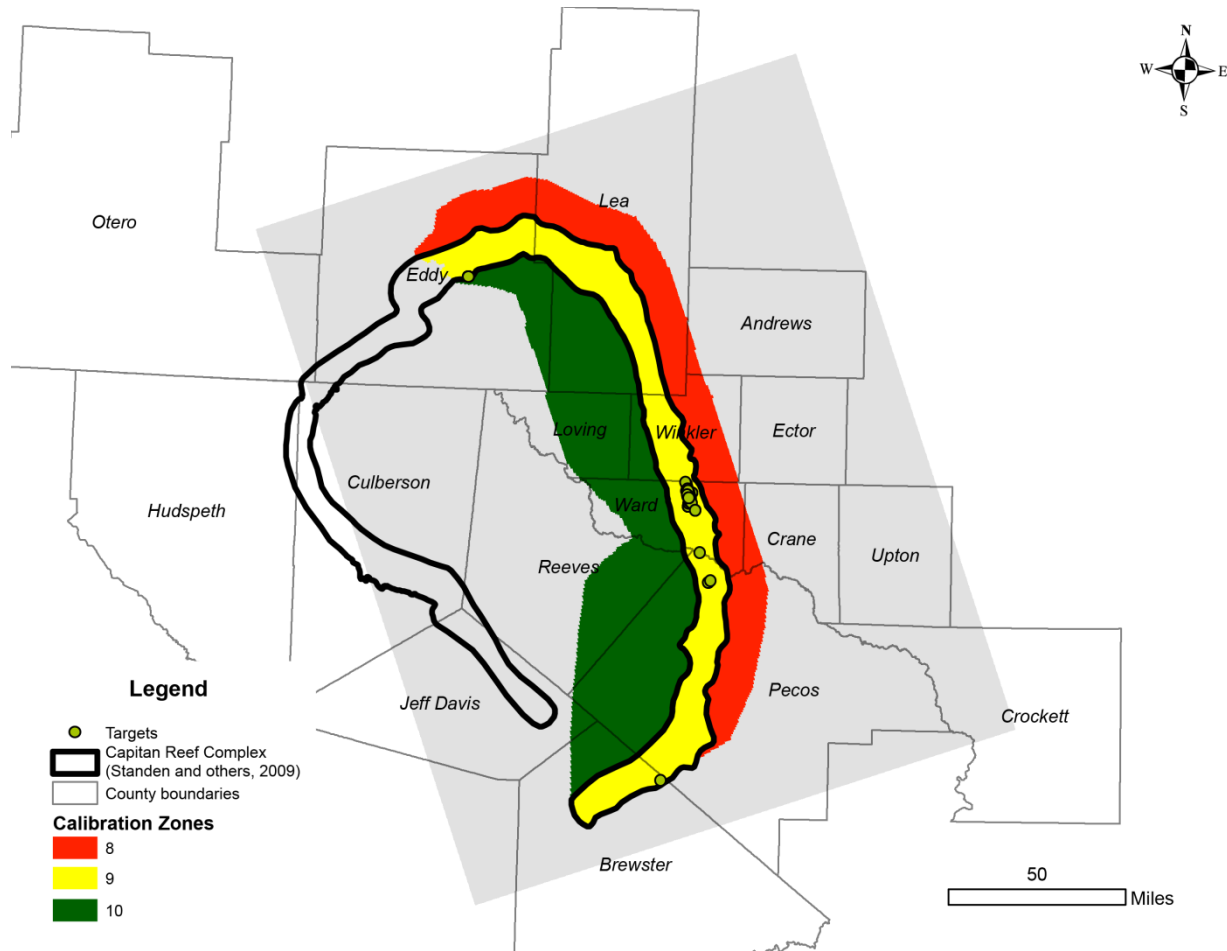


Figure 2.4.3. Map of calibration zones and targets in Layer 3—the Rustler Aquifer.



**Figure 2.4.4. Map of calibration zones and targets in Layer 4—the confining unit above the Capitan Reef Complex Aquifer.**



**Figure 2.4.5. Map of calibration zones and targets in Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**

## 2.5 Well Package

The MODFLOW Well Package contains groundwater withdrawal information for manufacturing, domestic, livestock, and petroleum use (Appendix C). Most groundwater use estimates for the eastern arm of the Capitan Reef Complex Aquifer were assigned based on data from the Texas Water Development Board Water Use Survey. Petroleum groundwater use was assigned based on well drilling data from the Texas Railroad Commission and New Mexico Energy, Minerals and Natural Resources Department and used pumping estimates compiled by the Bureau of Economic Geology (RRC, 2012; NMEMNRD, 2012; Nicot and others, 2011; 2012).

The domestic and livestock pumping from the eastern arm of the Capitan Reef Complex Aquifer was distributed in zones based on population density and land use information, respectively, and the average depths of domestic and livestock wells in the model area according to data from the Texas Water Development Board well database. For both groundwater uses, pumping is assumed to be from the Capitan Reef Complex Aquifer and occurred in the aquifer outcrop and where the

depth to the aquifer was less than 600 feet for livestock wells and less than 900 feet for domestic wells. This restricted the domestic and livestock pumping to Brewster and Pecos counties. Both types of groundwater use are minor relative to petroleum uses.

Manufacturing pumping from the eastern arm of the Capitan Reef Complex Aquifer was distributed in time and space based on known well locations and pumping data from the Texas Water Development Board Water Use Survey. This type of pumping takes place in northern Pecos County and Ward County and is minor relative to petroleum pumping.

Petroleum pumping from the eastern arm of the Capitan Reef Complex Aquifer was distributed in space and time based on the known drilling locations and dates of oil and gas wells penetrating the eastern arm of the Capitan Reef Complex Aquifer. Based on estimates by Nicot and others (2011; 2012), pumping of 250 to 608 cubic feet per day—dependent on the county associated with each well—is assumed.

Pumping from layers 1 through 3 were based on pumping used in groundwater flow models for the Pecos Valley and Edwards-Trinity (Plateau) aquifers and the Rustler Aquifer (Hutchison and others, 2011; Ewing and others, 2012).

## **2.6 Drain Package**

The MODFLOW Drain Package was used to simulate groundwater outflow to springs and seeps (Table 2.6.1). Drain cells in the model only occur in Layer 1 and are shown in Figure 2.1.1. Locations of spring drain cells were based on drain cell locations in the groundwater flow model for the Pecos Valley and Edwards-Trinity (Plateau) aquifers by Hutchison and others (2011).

During model simulations, outflow to drains only occurs whenever the water-level elevation in the aquifer is higher than the elevation of the drain, which represents the stage of the spring. The resistance to the outflow to a drain is controlled by the drain conductance. The drain conductance values vary from 100 to 2,677 square feet per day. Drain location, elevation, and conductance remained constant for all stress periods.

**Table 2.6.1. Summary of drain location, head, conductance, and elevation values.**

Row	Column	Layer	Head (feet)	Conductance (square feet per day)	Elevation (feet)
206	77	1	3,031	100	3,002
206	78	1	3,031	100	3,002
206	79	1	3,031	100	3,002
207	78	1	3,031	100	3,002
210	202	1	2,711	100	2,640
210	203	1	2,711	100	2,640
211	203	1	2,711	100	2,640
214	71	1	3,084	100	2,527
214	72	1	3,084	100	2,527
215	71	1	3,084	100	2,527
215	72	1	3,084	100	2,527
215	73	1	3,067	100	2,348
215	74	1	3,067	100	2,348
215	75	1	3,067	100	2,348
216	74	1	3,067	100	2,348
216	75	1	3,067	100	2,348
232	124	1	2,562	100	1,869
233	123	1	2,562	100	1,869
233	124	1	2,562	100	1,869
254	71	1	3,266	100	2,240
254	72	1	3,266	100	2,240
255	71	1	3,266	100	2,240
255	72	1	3,244	100	2,270
256	72	1	3,244	100	2,270
256	73	1	3,244	100	2,270
257	72	1	3,244	100	2,270
262	180	1	2,498	100	2,094
263	70	1	3,354	100	2,597
263	180	1	2,498	100	2,094
263	181	1	2,498	100	2,094
264	69	1	3,354	100	2,597
264	70	1	3,354	100	2,597
264	71	1	3,354	100	2,597
264	180	1	2,498	100	2,094
265	70	1	3,354	100	2,597
268	78	1	3,181	100	2,223
269	77	1	3,181	100	2,223

**Table 2.6.1 (continued)**

Row	Column	Layer	Head (feet)	Conductance (square feet per day)	Elevation (feet)
269	78	1	3,181	100	2,223
269	80	1	3,150	100	2,078
270	77	1	3,181	100	2,223
270	80	1	3,150	100	2,078
270	81	1	3,150	100	2,078
271	64	1	3,451	100	2,690
271	65	1	3,451	100	2,690
271	72	1	3,279	100	2,253
272	65	1	3,451	100	2,690
272	66	1	3,451	100	2,690
272	72	1	3,279	100	2,253
272	73	1	3,279	100	2,253
273	72	1	3,279	100	2,253
274	75	1	3,230	100	2,042
274	76	1	3,230	100	2,042
275	76	1	3,230	100	2,042
283	68	1	3,733	100	2,716
284	67	1	3,733	100	2,716
284	68	1	3,960	2,522	2,716
284	74	1	3,795	100	2,737
284	75	1	3,795	100	2,737
285	75	1	3,795	100	2,737
293	78	1	4,362	100	3,050
293	94	1	3,439	100	2,821
294	77	1	4,362	100	3,050
294	78	1	4,362	100	3,050
294	79	1	4,362	100	3,050
294	94	1	3,439	100	2,821
294	95	1	3,439	100	2,821
295	78	1	4,362	100	3,050
295	94	1	3,439	100	2,821
297	75	1	3,966	100	3,457
297	76	1	4,070	2,677	3,457
298	75	1	3,966	100	3,457
298	76	1	3,966	100	3,457
303	85	1	3,876	100	3,228
303	86	1	3,876	100	3,228



**Table 2.6.1 (continued)**

Row	Column	Layer	Head (feet)	Conductance (square feet per day)	Elevation (feet)
304	86	1	3,876	100	3,228
310	154	1	2,973	100	2,606
310	155	1	2,973	100	2,606
311	154	1	2,973	100	2,606
315	172	1	2,913	100	2,486
316	171	1	2,913	100	2,486
316	172	1	2,913	100	2,486
317	172	1	2,913	100	2,486

## 2.7 Evapotranspiration Package

MODFLOW evapotranspiration packages are generally used to simulate groundwater evapotranspiration from the model. The Evapotranspiration Package that appears in this model is an artifact of the initial stage of model calibration when it was included in Layer 3 in the initial model along with other data from the groundwater availability model of the Rustler Aquifer (Ewing and others, 2012). During model calibration, the active model extents changed, excluding the Rustler Aquifer outcrop. As a result, the evapotranspiration cells in the model are inactive and no longer play a role in model simulation.

## 2.8 Horizontal-Flow Barrier Package

The horizontal-flow barrier Package in this model was taken from the groundwater availability model of the Rustler Aquifer (Hsieh and Freckleton, 1993; Harbaugh and others, 2000; Ewing and others, 2012). This model package is used to simulate horizontal barriers to groundwater flow produced by subsidence within the Rustler Aquifer—Layer 3 (Figure 2.1.3). This subsidence resulted in partial vertical displacement of segments of the Rustler Aquifer that act as barriers to groundwater flow from one segment to another.

## 2.9 General-Head Boundary Package

The General-Head Boundary (GHB) Package was used to represent regional groundwater flow into and out of the model area (Figures 2.1.1 and 2.1.3 through 2.1.5). The General-Head Boundary Package allows flow into or out of a model based on the difference between the water-level value in a cell and the specified general-head boundary water-level value and the conductance properties that determine how easily flow can occur. In Layer 1, the general-head boundary was used along the boundary between the modeled part of the Edwards-Trinity (Plateau) Aquifer and the main part of the aquifer located to the southeast (Figure 2.1.1). In Layer 3, a general-head boundary was used along the northwestern boundary to simulate groundwater flow from the up-gradient part of the Rustler Aquifer into the model area (Figure

2.1.3). In layers 4 and 5, the general-head boundary simulates groundwater inflow and outflow from the Artesia and Delaware Mountain groups and from the western arm of the Capitan Reef Complex Aquifer (Figures 2.1.4 and 2.1.5). The water-level values along the respective boundaries are based on estimated potentiometric surfaces in the respective model layers. Table 2.9.1 shows the conductance values used in the respective model calibration zones.

**Table 2.9.1. General-Head Boundary conductance values by calibration zone.**

Zone	Zone Number <sup>1</sup>	General-Head Boundary Conductance
Pecos Valley-North	2	--
Edwards-Trinity (Plateau)	3	545
Pecos Valley-South	4	545
Dockum/Dewey Lake	5	--
Rustler 1	6	50
Rustler 2	7	50
Shelf Deposits	8	100
Capitan Reef Complex	9	1,000
Basin Deposits	10	50
Confining Unit	11	50, 100, 1,000

<sup>1</sup> Zone 1 represents inactive cells in the model.

## 2.10 Recharge Package

The MODFLOW Recharge Package was used to simulate recharge to the groundwater flow system in the model. Recharge was applied in the outcrops of the Pecos Valley, Edwards-Trinity (Plateau), and Capitan Reef Complex aquifers. The option was used to apply recharge in the uppermost active layer.

Recharge to the Capitan Reef Complex Aquifer was based on estimates by Finch (2014) which used daily precipitation and assumed a daily recharge threshold of 0.7 inches. The result was an estimated recharge of 1.55 to 6.2 inches per year. Recharge to the Pecos Valley and Edwards-Trinity (Plateau) aquifers was based on recharge used in the model by Hutchison and others (2011). Table 2.10.1 shows total recharge for each stress period in the model simulation.

**Table 2.10.1. Total annual recharge for each stress period, expressed in acre-feet per year.**

Year	Total Annual Recharge	Year	Total Annual Recharge	Year	Total Annual Recharge
1931	362,471	1956	266,655	1981	403,275
1932	422,740	1957	383,609	1982	345,801
1933	313,195	1958	422,283	1983	324,566
1934	300,825	1959	352,820	1984	368,315
1935	379,989	1960	366,672	1985	377,972
1936	377,274	1961	359,942	1986	425,693
1937	345,690	1962	314,518	1987	389,851
1938	335,052	1963	319,256	1988	327,383
1939	332,037	1964	318,025	1989	339,830
1940	375,756	1965	333,556	1990	408,335
1941	482,554	1966	355,254	1991	434,519
1942	360,134	1967	338,938	1992	413,977
1943	326,336	1968	399,425	1993	338,593
1944	401,785	1969	375,558	1994	331,741
1945	347,108	1970	347,766	1995	330,776
1946	370,231	1971	357,551	1996	339,422
1947	342,485	1972	349,768	1997	384,271
1948	314,700	1973	371,719	1998	317,275
1949	394,384	1974	408,117	1999	333,756
1950	347,803	1975	359,316	2000	338,136
1951	293,784	1976	379,509	2001	313,923
1952	306,941	1977	331,167	2002	342,586
1953	296,358	1978	395,485	2003	350,272
1954	292,024	1979	358,857	2004	485,559
1955	322,532	1980	359,173	2005	355,432

## 2.11 River Package

The River Package was used to simulate the interaction of groundwater with the Pecos River (Figure 2.1.1). River Package cells only occur in Layer 1 and were incorporated from the groundwater flow model by Hutchison and others (2011).

## 2.12 Output Control File

The MODFLOW Output Control file specifies when water level, drawdown, and water budget information are saved during the simulation. The Output Control file was set up to save these results at the end of each stress period.

### 2.13 Solver

The Preconditioned Conjugate-Gradient (PCG2) solver was used to solve the finite-difference equations that simulate groundwater flow in the model (Harbaugh and others, 2000). The solver used 0.001 feet water-level change and 1 foot residual convergence criteria. Evaluation of mass balance for each stress period and cumulative discrepancy between total inflows and outflows indicated negligible numerical errors with this solver setup.

## 3.0 MODEL CALIBRATION AND RESULTS

The calibration of a groundwater model involves adjusting various parameters, such as hydraulic properties and boundary conditions, in the model—within a reasonable range—to match the simulated water levels to measured water levels. A calibrated groundwater flow model is a tool that can be used to test or predict the effects of future pumping and recharge conditions. A model which is calibrated over a range of historical conditions can improve reliability of these predictions.

The eastern arm of the Capitan Reef Complex Aquifer groundwater availability model was calibrated to measured water levels at wells. Hydraulic conductivity and recharge values were adjusted using parameter estimation software—PEST—an industry-standard inverse modeling software package (Watermark Numerical Computing, 2005), and by trial and error.

### 3.1 Calibration Procedure

The steady-state stress period in this groundwater flow model represents the condition of the aquifer system prior to significant development, which was considered to be prior to 1931. Finding water-level measurements representative of pre-development conditions is a challenge. There are only 10 steady-state targets for all of the aquifers combined. These totals are in contrast to the 587 well locations and 8,200 measurements in the transient target dataset. This total is skewed by the fact that about 90 percent—7,307—of the target water-level measurements are located in Layer 1. There are also no water-level targets in Layer 4 or in the Artesia and Delaware Mountain groups portion of Layer 5. The lack and spatial distribution of water-level targets provides a challenge to calibrating the model; however, this challenge is reduced by modest water-level fluctuations over the calibration period.

Traditional calibration measures (Anderson and Woessner, 2002), such as the mean error, the mean absolute error, and root mean squared error quantify the average error in the calibration process—the average difference between measured and simulated water levels. The mean error is the mean of the differences between measured water levels and simulated water levels:

$$\text{mean error} = \frac{1}{n} \sum_{i=1}^n (h_m - h_s)_i \quad (3.1.1)$$

where:

$h_m$  = measured water level (feet above mean sea level);

$h_s$  = simulated water level (feet above mean sea level);

$n$  = number of calibration measurements.

The mean absolute error is the mean of the absolute value of the differences between simulated water levels and measured water levels:

$$\text{mean absolute error} = \frac{1}{n} \sum_{i=1}^n |(h_m - h_s)_i| \quad (3.1.2)$$

The root mean squared error or the standard deviation is the square root of the mean of the squared differences between simulated water levels and measured water levels:

$$\text{root mean squared error} = \left[ \frac{1}{n} \sum_{i=1}^n |(h_m - h_s)_i|^2 \right]^{0.5} \quad (3.1.3)$$

The residual is the difference between a measured water level and a simulated water level:

$$\text{residual} = (h_m - h_s) \quad (3.1.4)$$

The mean absolute error was used as the basic calibration metric for water levels. It is a general indicator of whether simulated water levels are different from the measured water levels. A typical calibration criterion for water levels is a mean absolute error that is less than or equal to 10 percent of the measured water-level range in the aquifer being simulated. However, because of the wide variation in topography in the active model area and the corresponding large vertical range over which measured water levels vary—approaching 2,000 feet—this relative criterion was not considered to be sufficient for this modeling effort.

The mean absolute error and root mean squared error are useful for describing model error on an average basis—but as a single measure—do not provide insight into spatial trends in the distribution of residuals. Examination of the distribution of residuals is necessary to determine whether they are randomly distributed over the model grid or spatially biased. Plots of water-level residuals for the calibration period were used to check for spatial bias. These plots indicate the magnitude and direction of the differences between measured and simulated water levels. Finally, cross-plots of simulated versus measured water levels were used to determine if bias varies with the magnitude of the measured water levels. Residuals are also plotted by layer on maps.

Section 2.4 includes a description of the zones used when adjusting hydraulic properties during calibration. Parameter estimation software—PEST—along with trial-and-error adjustments were used to assist in the calibration of hydraulic properties. Table 3.1.1 shows a summary of the initial and calibrated vertical and horizontal hydraulic properties for each of the aquifers. Many of these initial values are simplified values that were averaged from more complex spatial

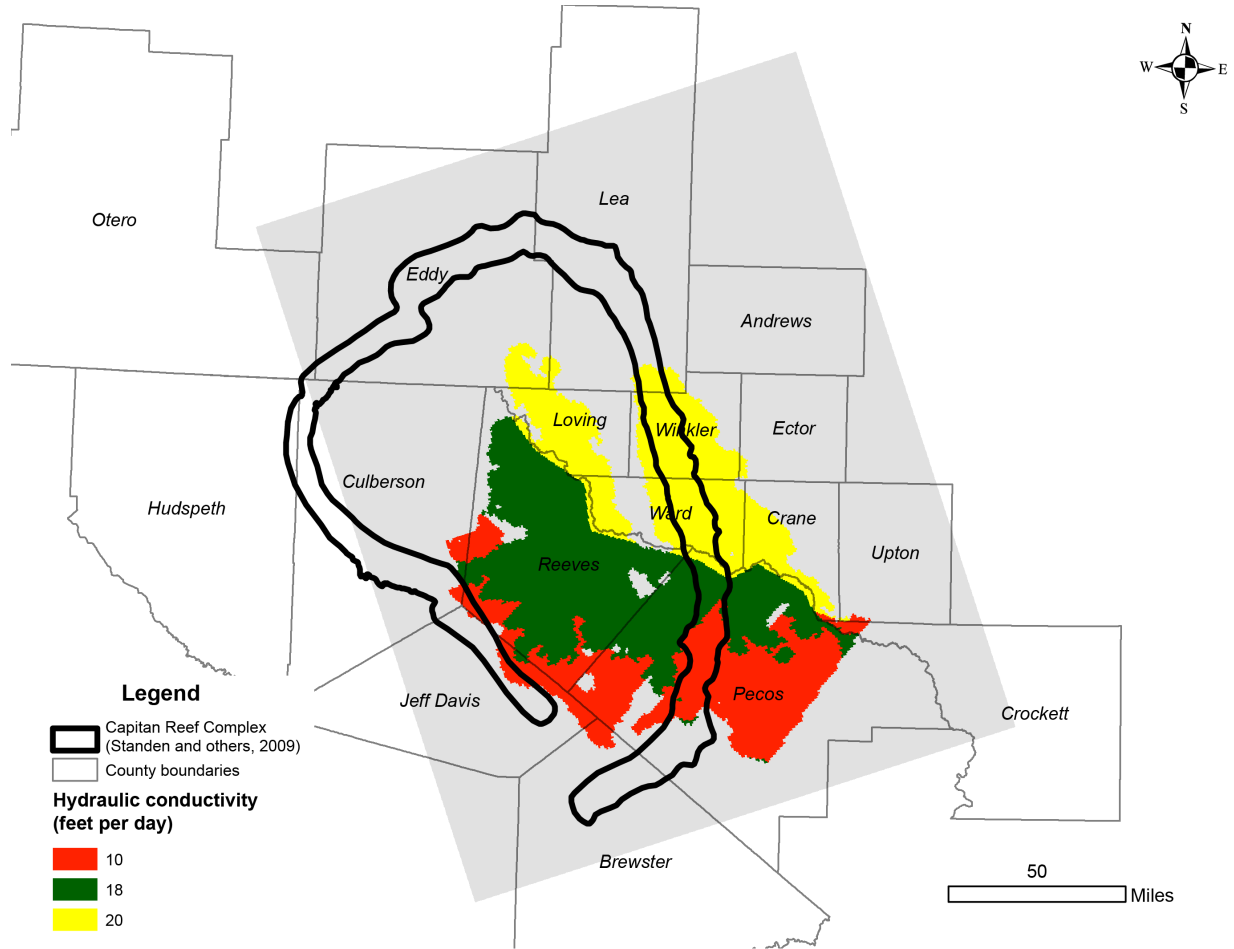
distributions in the original groundwater flow models for the Pecos Valley, Edwards-Trinity (Plateau), Dockum, and Rustler aquifers (Hutchison and others, 2011; Ewing and others, 2012). The initial hydraulic conductivity values for the Capitan Reef Complex Aquifer, the shelf and basin deposits, and the confining unit—Zones 8 through 11—were based on ranges of values found in the literature. The overall trend for adjustment of hydraulic conductivities was one of increase from initial values. Only modest adjustments were made to the hydraulic conductivity in Layer 1. Large adjustments in layers 2 and 3 could be attributed to the addition of the Monument Draw Trough collapse zone which was excluded from the Rustler Aquifer groundwater availability model. This potentially high hydraulic conductivity collapse zone would increase the average hydraulic conductivity of the portions of the Dockum and Rustler aquifers simulated in this model. Figures 3.1.1 through 3.1.5 show the calibrated horizontal hydraulic conductivities for the aquifers for the five model layers. The ratio between horizontal and vertical hydraulic conductivity is constant throughout the model with vertical hydraulic conductivity one-tenth that of the horizontal hydraulic conductivity. Differences between the calibrated hydraulic conductivity values in this model and the calibrated values in the groundwater availability model for the respective aquifers overlying the Capitan Reef Complex Aquifer can be attributed to differences in model assumptions and boundary conditions. For example, the spatial extents of these models differ from this model and consequently have different model boundaries. Additionally, each of the groundwater availability models assumes no groundwater flow from underlying aquifers which differs from this model where inter-aquifer flow among the Capitan Reef Complex Aquifer and overlying aquifers is simulated.

Figure 3.1.6 shows the calibrated recharge for the aquifers represented by the five model layers. Recharge is restricted to the outcropping aquifers—the Pecos Valley, Edwards-Trinity (Plateau), and Capitan Reef Complex aquifers—with the highest recharge rates occurring in the Capitan Reef Complex and Edwards-Trinity (Plateau) aquifers.

**Table 3.1.1. Table listing initial and calibrated horizontal and vertical hydraulic conductivity and specific storage used in the model.**

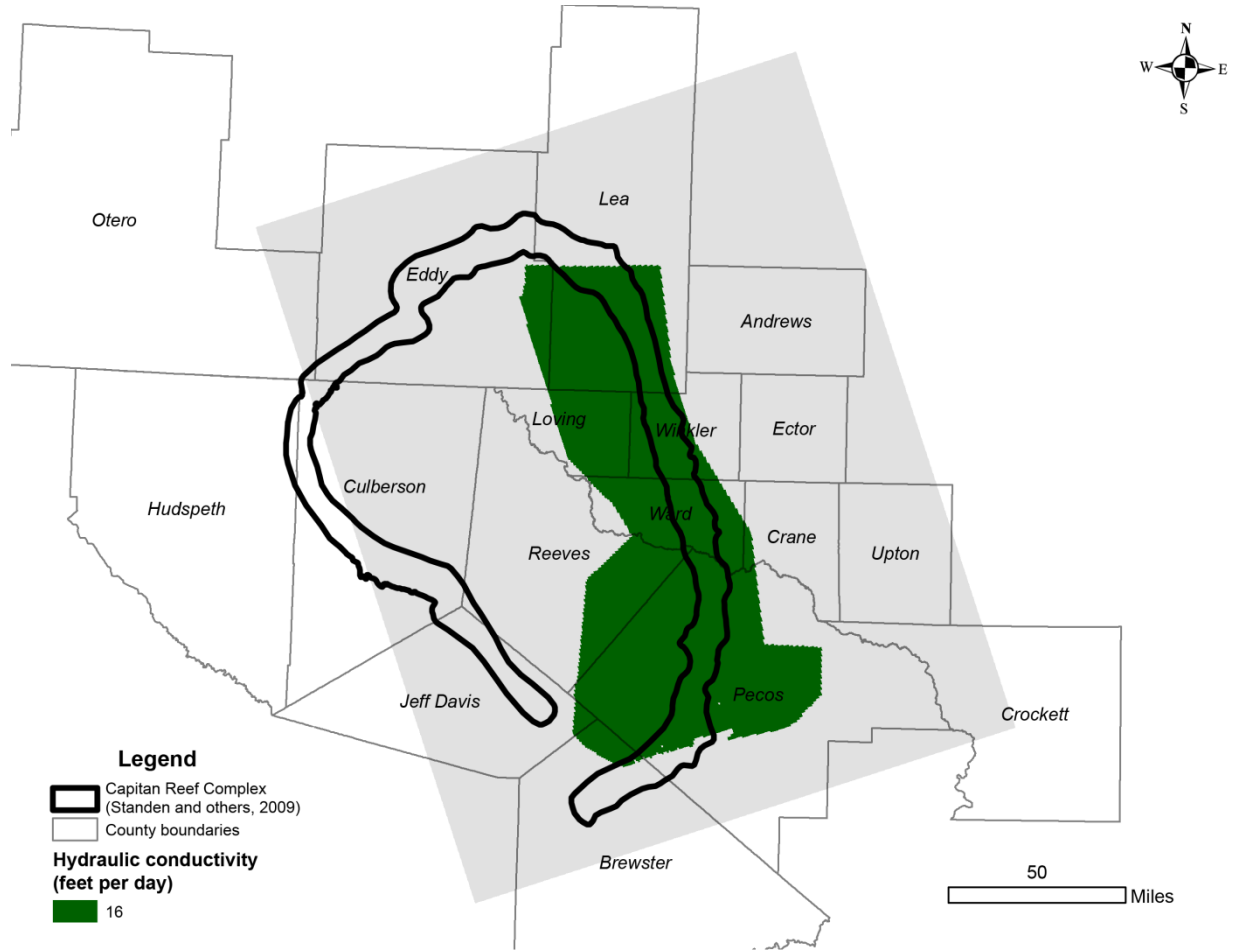
	Zones <sup>1</sup>	Initial	Calibrated
Horizontal hydraulic conductivity (feet per day)	2 (Pecos Valley—North)	11.7	20.00
	3 (Edward-Trinity (Plateau))	12.1	10.00
	4 (Pecos Valley—South)	24.1	18.00
	5 (Dockum/Dewey Lake)	0.1	16.00
	6 (Rustler 2)	0.3	20.00
	7 (Rustler 1)	0.08	29.61
	8 (Shelf deposits)	0.04	0.04
	9 (Capitan Reef)	10.0	12.00
	10 (Basin deposits)	0.02	0.02
	11 (Confining unit)	0.04	$8.0 \times 10^{-3}$
	Vertical hydraulic conductivity (feet per day)	2 (Pecos Valley—North)	1.17
3 (Edward-Trinity (Plateau))		1.21	1.00
4 (Pecos Valley—South)		2.41	1.80
5 (Dockum/Dewey Lake)		0.01	1.60
6 (Rustler 2)		0.03	2.00
7 (Rustler 1)		0.008	2.96
8 (Shelf deposits)		0.004	0.004
9 (Capitan Reef)		1.0	1.20
10 (Basin deposits)		0.002	0.002
11 (Confining unit)		0.004	$8.0 \times 10^{-4}$
Specific storage (per foot)		2 (Pecos Valley—North)	$2.53 \times 10^{-4}$
	3 (Edward-Trinity (Plateau))	$2.79 \times 10^{-4}$	$8.3 \times 10^{-5}$
	4 (Pecos Valley—South)	$1.66 \times 10^{-4}$	$1.3 \times 10^{-4}$
	5 (Dockum/Dewey Lake)	$1.00 \times 10^{-6}$	$5.0 \times 10^{-7}$
	6 (Rustler 2)	$5.60 \times 10^{-6}$	$3.0 \times 10^{-6}$
	7 (Rustler 1)	$1.50 \times 10^{-6}$	$1.0 \times 10^{-6}$
	8 (Shelf deposits)	$1.00 \times 10^{-6}$	$5.0 \times 10^{-7}$
	9 (Capitan Reef)	$1.00 \times 10^{-4}$	$5.0 \times 10^{-5}$
	10 (Basin deposits)	$4.44 \times 10^{-7}$	$2.0 \times 10^{-7}$
	11 (Confining unit)	$1.00 \times 10^{-6}$	$5.0 \times 10^{-7}$

<sup>1</sup> Zone 1 represents inactive cells in the model.

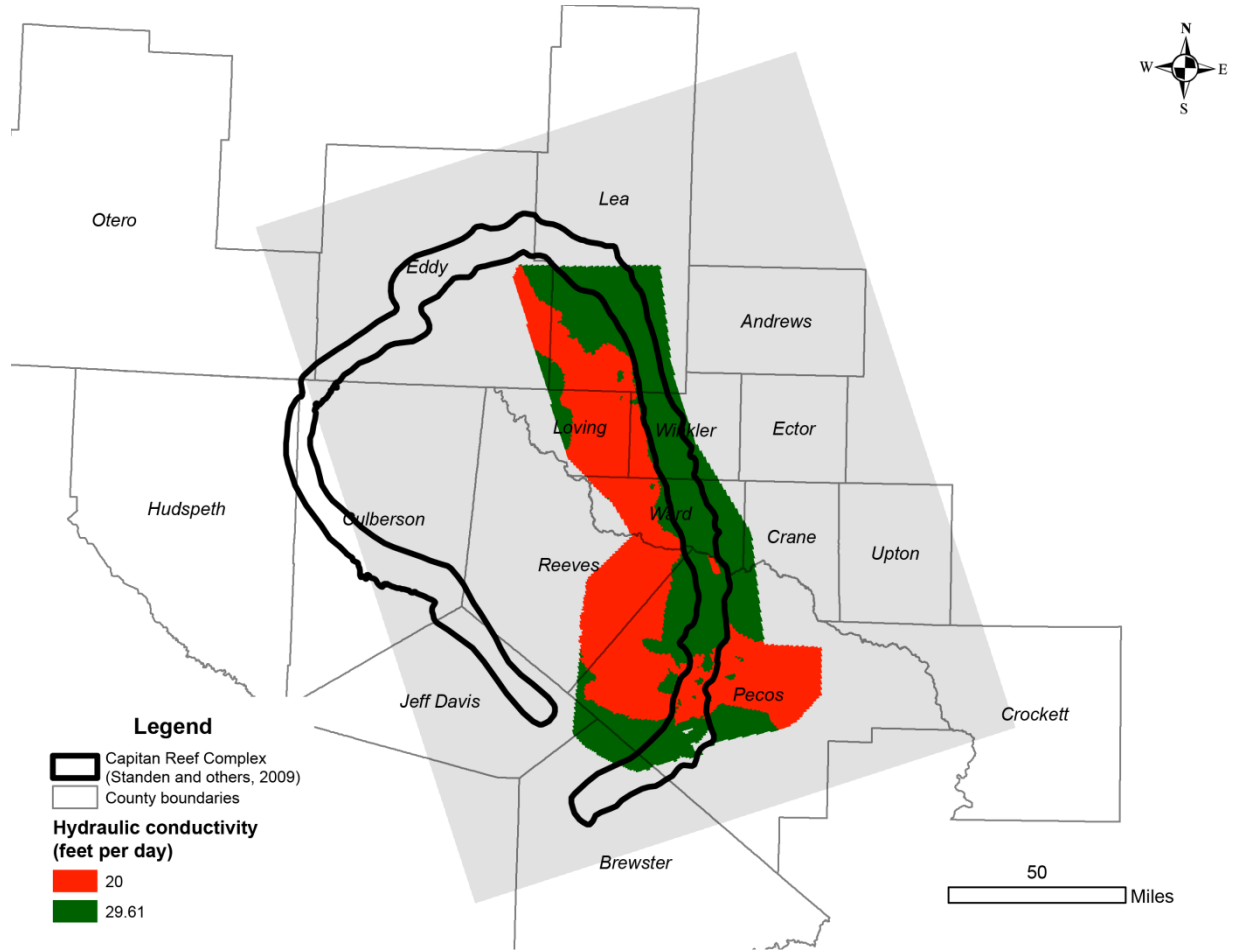


**Figure 3.1.1. Map showing the distribution of calibrated horizontal hydraulic conductivity in Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**

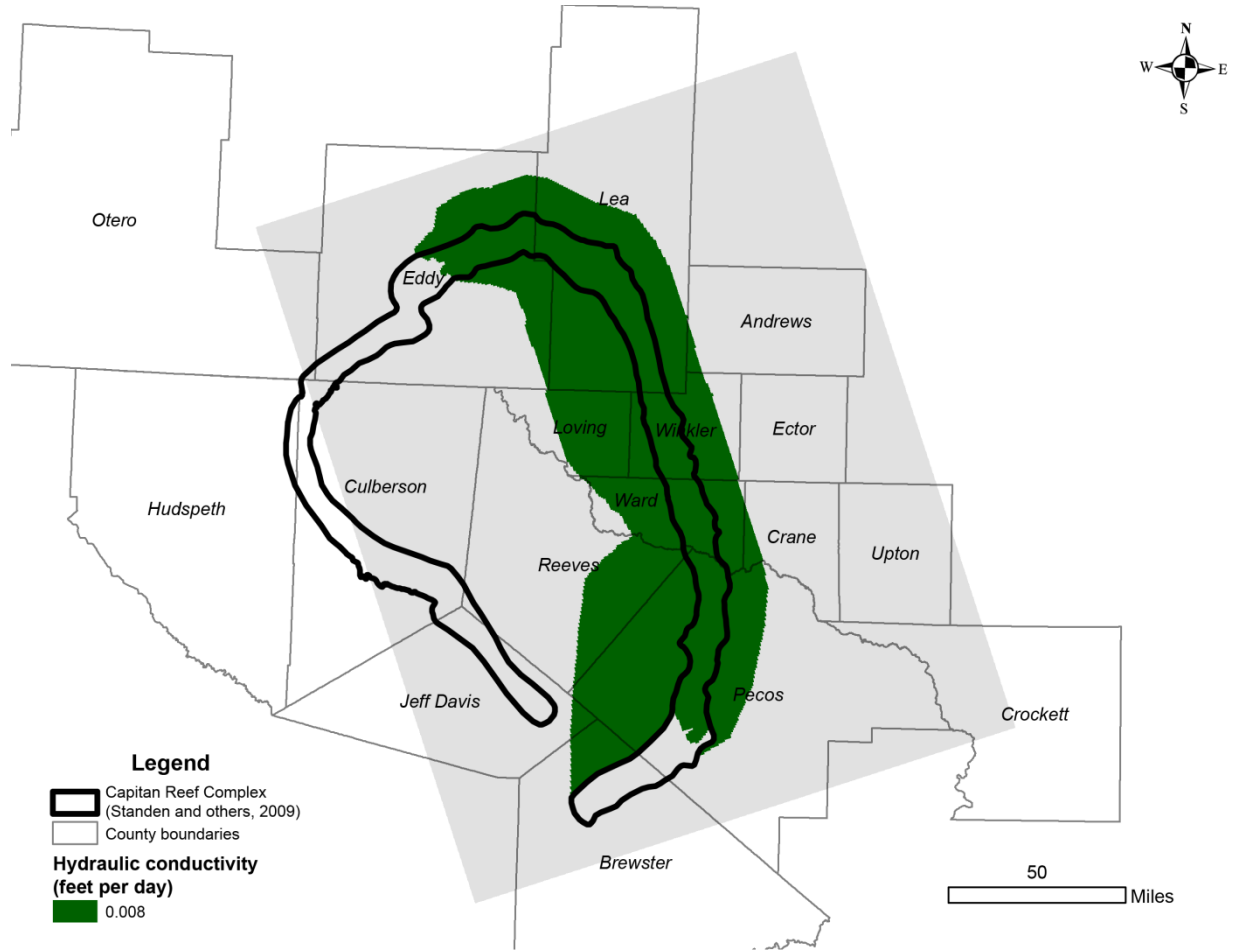




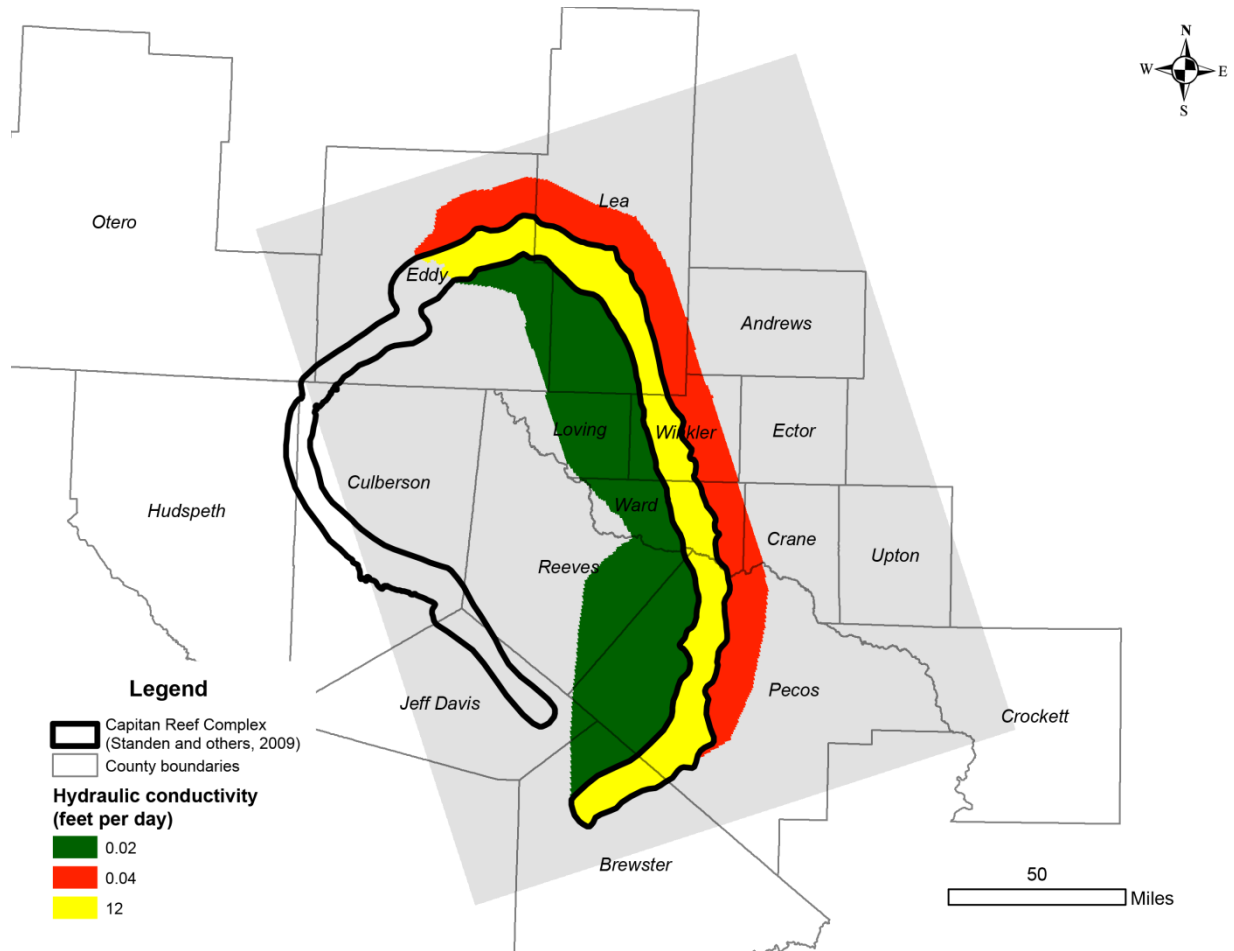
**Figure 3.1.2. Map showing the distribution of calibrated horizontal hydraulic conductivity in Layer 2—the Dockum Aquifer and Dewey Lake Formation.**



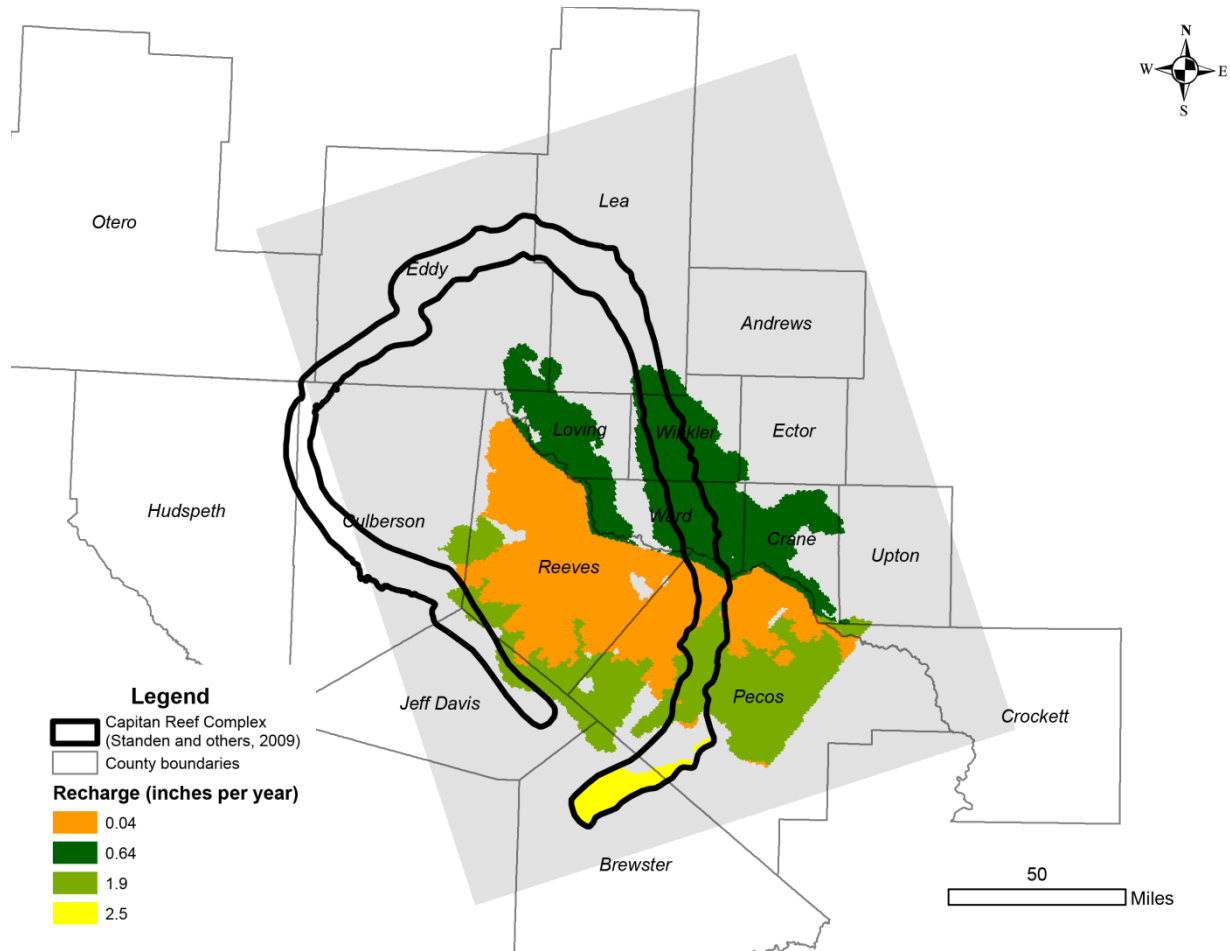
**Figure 3.1.3. Map showing the distribution of calibrated horizontal hydraulic conductivity in Layer 3—the Rustler Aquifer.**



**Figure 3.1.4. Map showing the distribution of calibrated horizontal hydraulic conductivity in Layer 4—the confining unit above the Capitan Reef Complex Aquifer.**



**Figure 3.1.5. Map showing the distribution of calibrated horizontal hydraulic conductivity in Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**



**Figure 3.1.6. Map showing the distribution of recharge for stress period 1 (1931).**

### 3.2 Model Simulated Versus Measured Water Levels

This section describes the results of model calibration to measured water levels, both spatially and temporally. The calibration will be discussed in terms of calibration statistics, cross-plots, a discussion of trends in water-level residuals, simulated potentiometric surfaces, and simulated drawdown.

#### 3.2.1 Calibration Statistics and Cross-plots

Table 3.2.1 shows the water-level calibration statistics for all model layers for the 1931 to 2005 model calibration period. Table 3.2.2 shows the calibration statistics specific to the eastern arm of the Capitan Reef Complex Aquifer in Layer 5. The Artesia and Delaware Mountain groups portions of Layer 5 are not calibrated. The calibration statistics can be considered along with Figures 3.2.1 through 3.2.5, which show the locations of target wells and cross-plots for each calibrated model layer—layers 1 through 3 and the Capitan Reef Complex Aquifer portion of Layer 5.

The overall model has a mean error of -59 feet, indicating that the model simulated water levels are generally slightly higher than measured water levels (Table 3.2.1). The mean absolute and root mean square errors are 102 feet and 129 feet, respectively. The relative error—root mean square error divided by the water-level elevation range—is 7 percent. This relative error meets the Groundwater Availability Modeling Program calibration requirement of a relative error of less than 10 percent.

The eastern arm of the Capitan Reef Complex Aquifer has a mean error—24 feet—indicating that simulated water levels were generally lower than measured water levels (Table 3.2.2; Figure 3.2.5). The mean absolute and root mean square errors are 80 feet and 104 feet, respectively, and the relative error is 7 percent.

**Table 3.2.1. Table listing overall mean absolute error, mean error, and root mean squared error for the transient calibration.**

Mean Error (feet)	-59
Mean Absolute Error (feet)	102
Root Mean Square Error (feet)	129
Range (feet)	1,809
Root Mean Square Error/Range (percent)	7

**Table 3.2.2. Table listing mean absolute error, mean error, and root mean squared error for the transient calibration for Layer 5—the Capitan Reef Complex Aquifer.**

Mean Error (feet)	24
Mean Absolute Error (feet)	80
Root Mean Square Error (feet)	104
Range (feet)	1,456
Root Mean Square Error/Range (percent)	7

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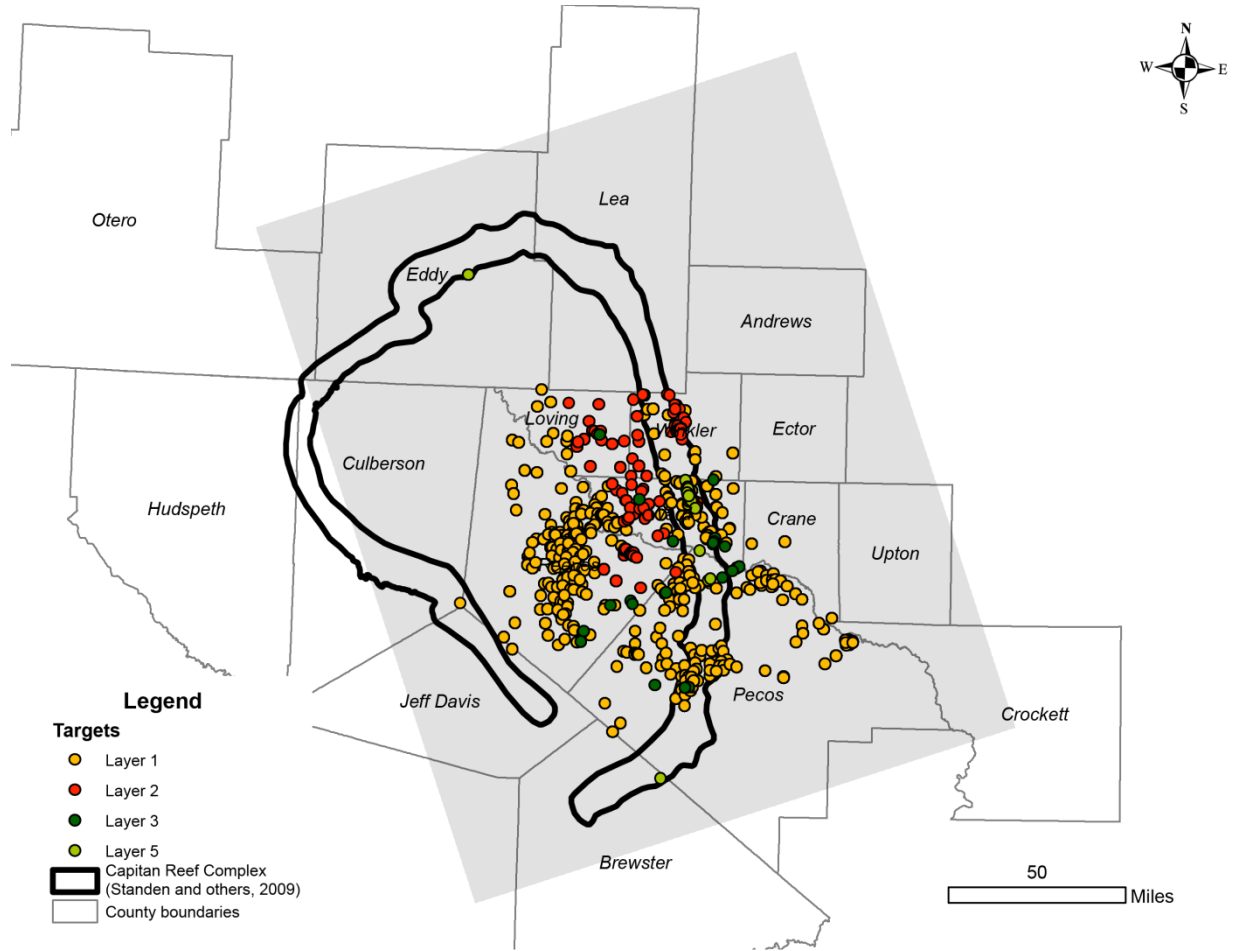
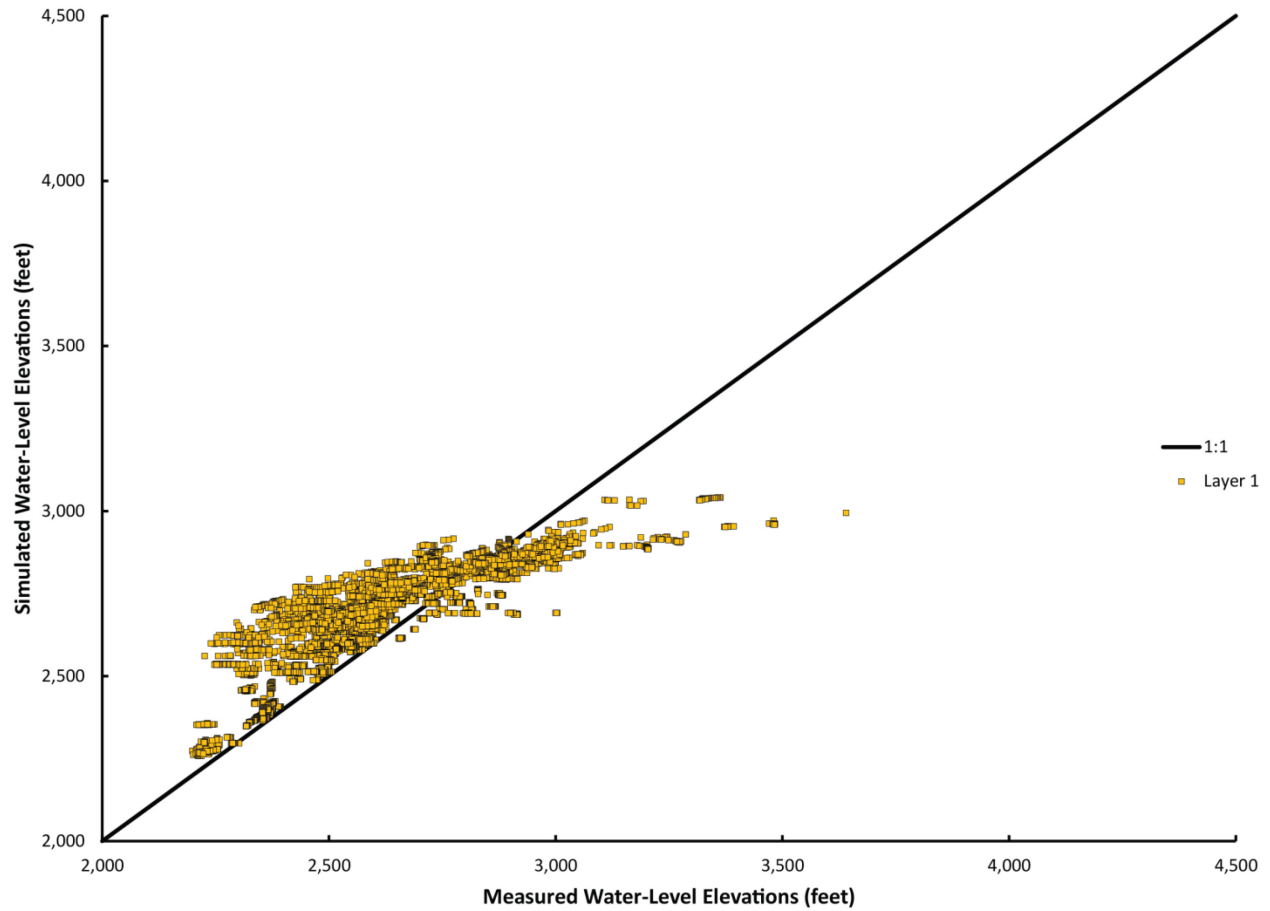
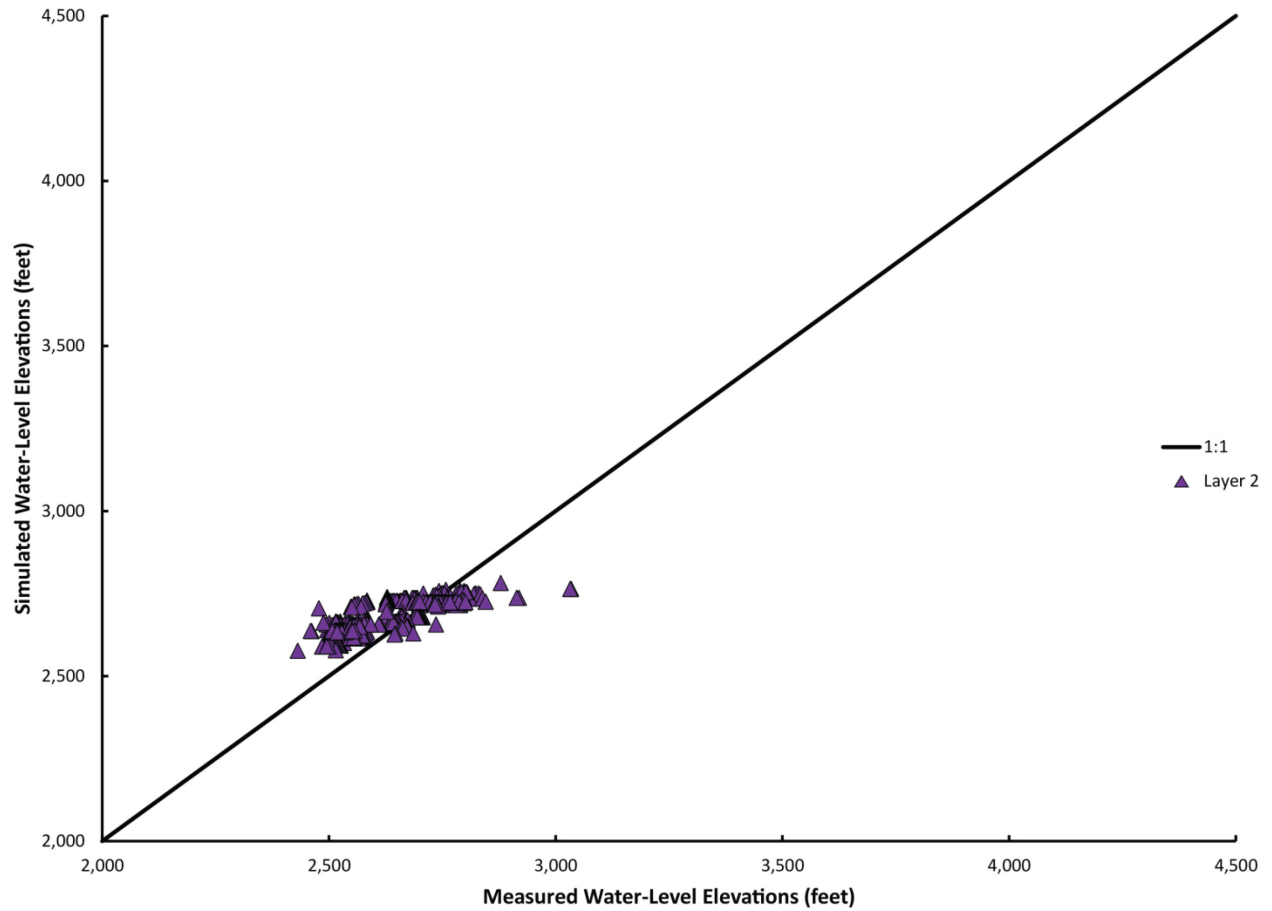


Figure 3.2.1. Map showing the locations of the wells used to develop the cross plots.

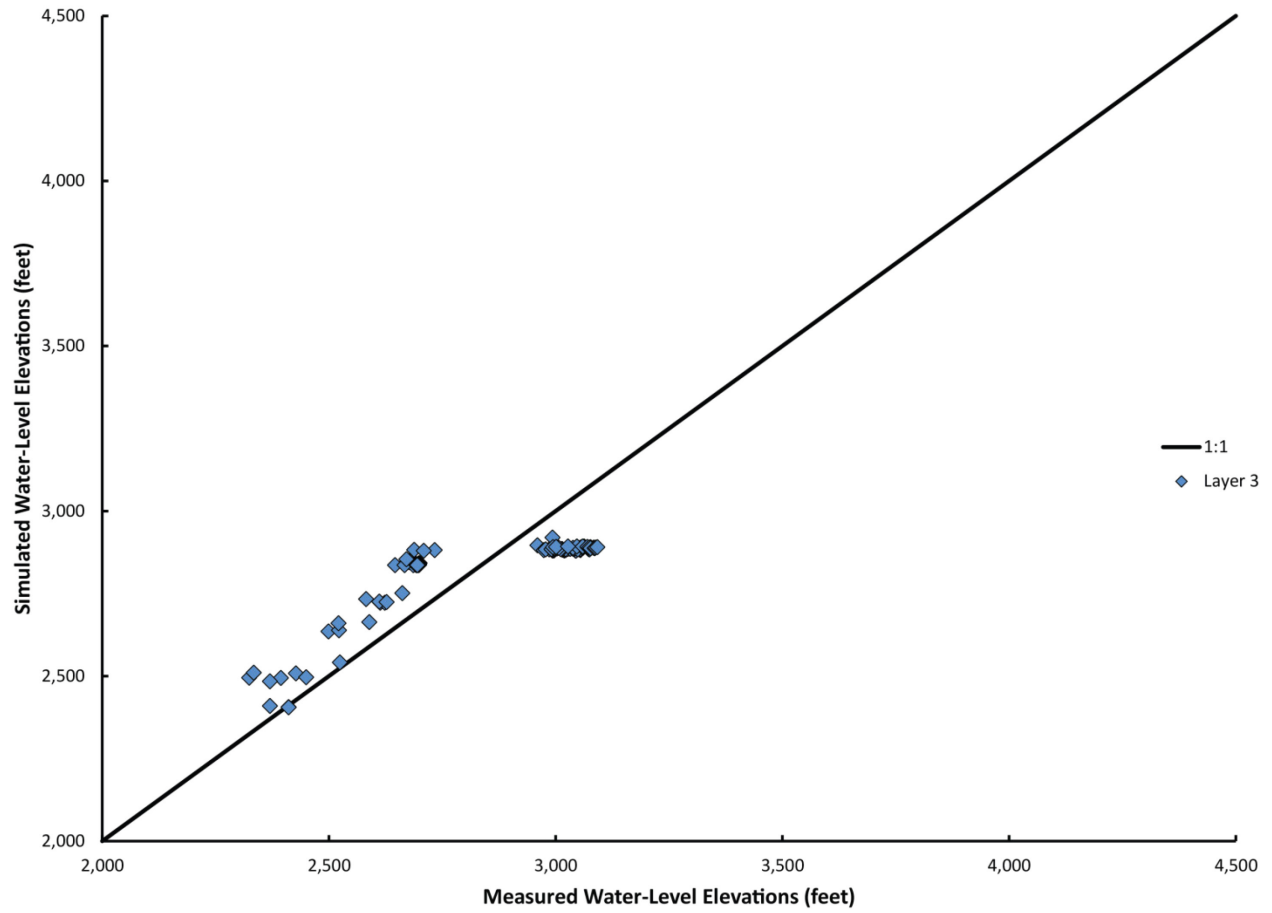


**Figure 3.2.2. Cross plot of measured and simulated water levels for Layer 1—the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**

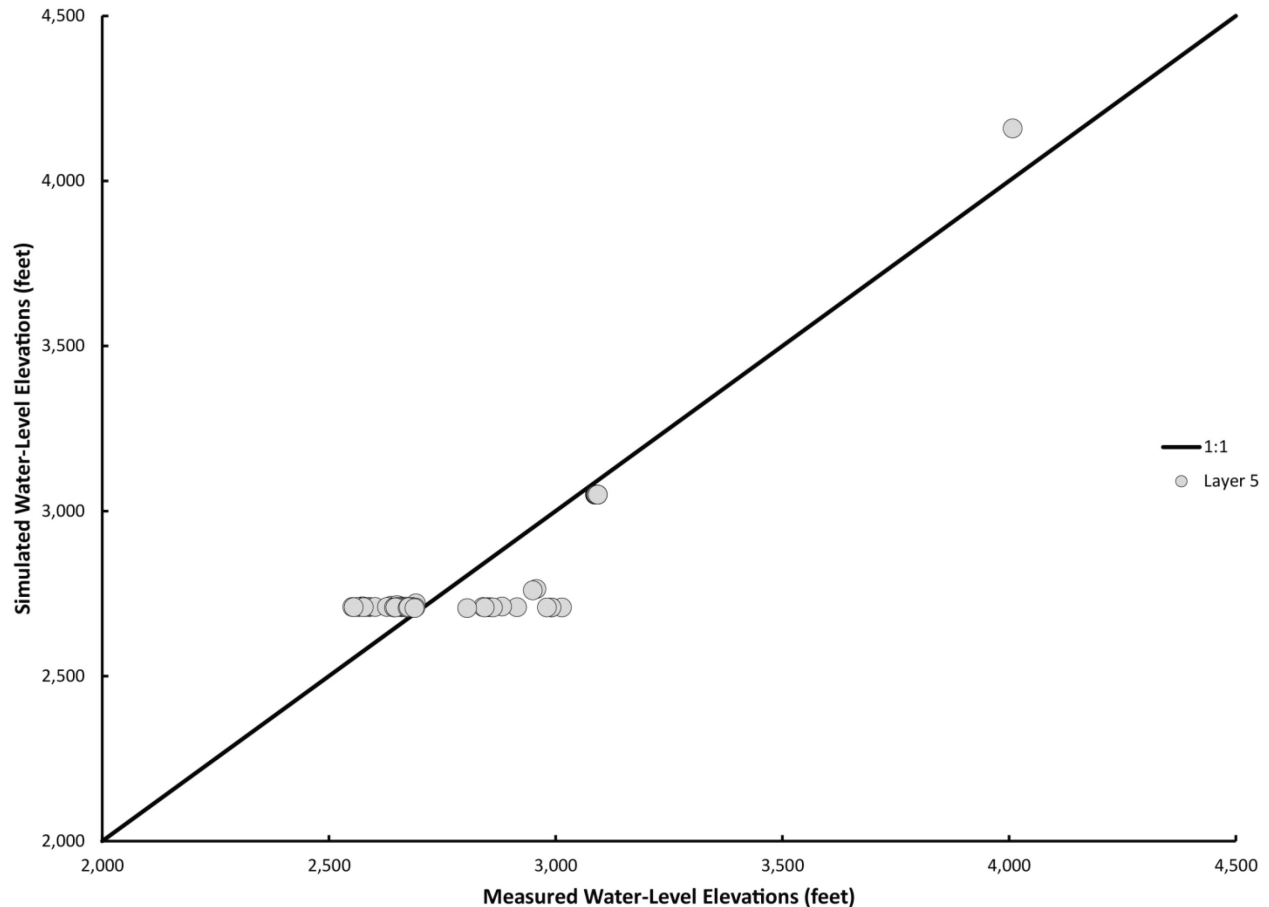




**Figure 3.2.3. Cross plot of measured and simulated water levels for Layer 2—the Dockum Aquifer and Dewey Lake Formation.**



**Figure 3.2.4. Cross plot of measured and simulated water levels for Layer 3—the Rustler Aquifer.**



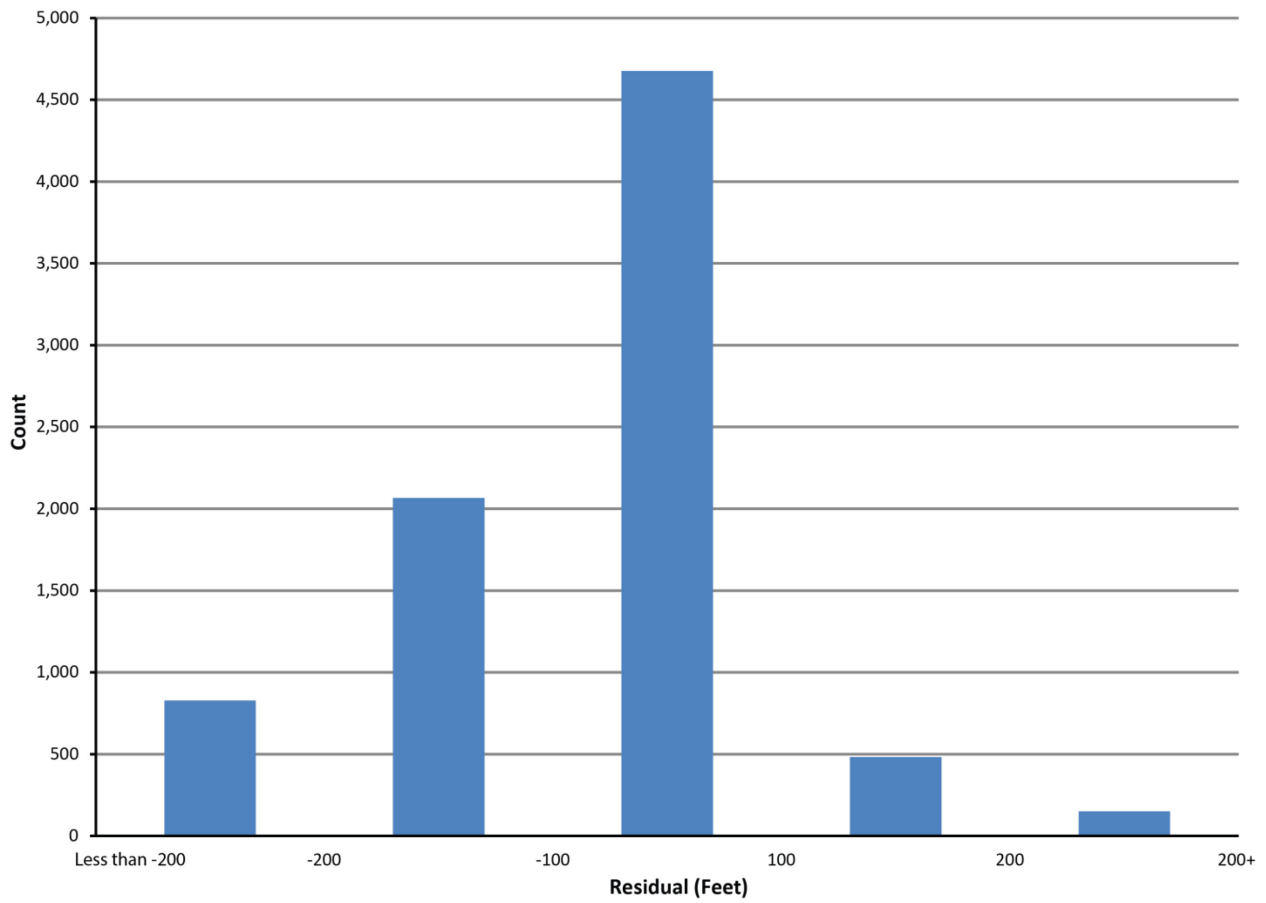
**Figure 3.2.5. Cross plot of measured and simulated water levels for Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**

### 3.2.2 Residual Distributions

Figures 3.2.6 through 3.2.10 show histograms of the water-level residuals for the 1931 through 2005 calibration period for the overall model and the respective calibrated model layers. Perfect normal distributed histograms will exhibit the classic symmetric bell shape centered on zero. Residual datasets with a non-zero mean error will be shifted away from zero by approximately the magnitude of the mean error. The water-level residual histograms behave as expected, showing good symmetry in most cases, and are shifted from zero by the amount of the mean error.

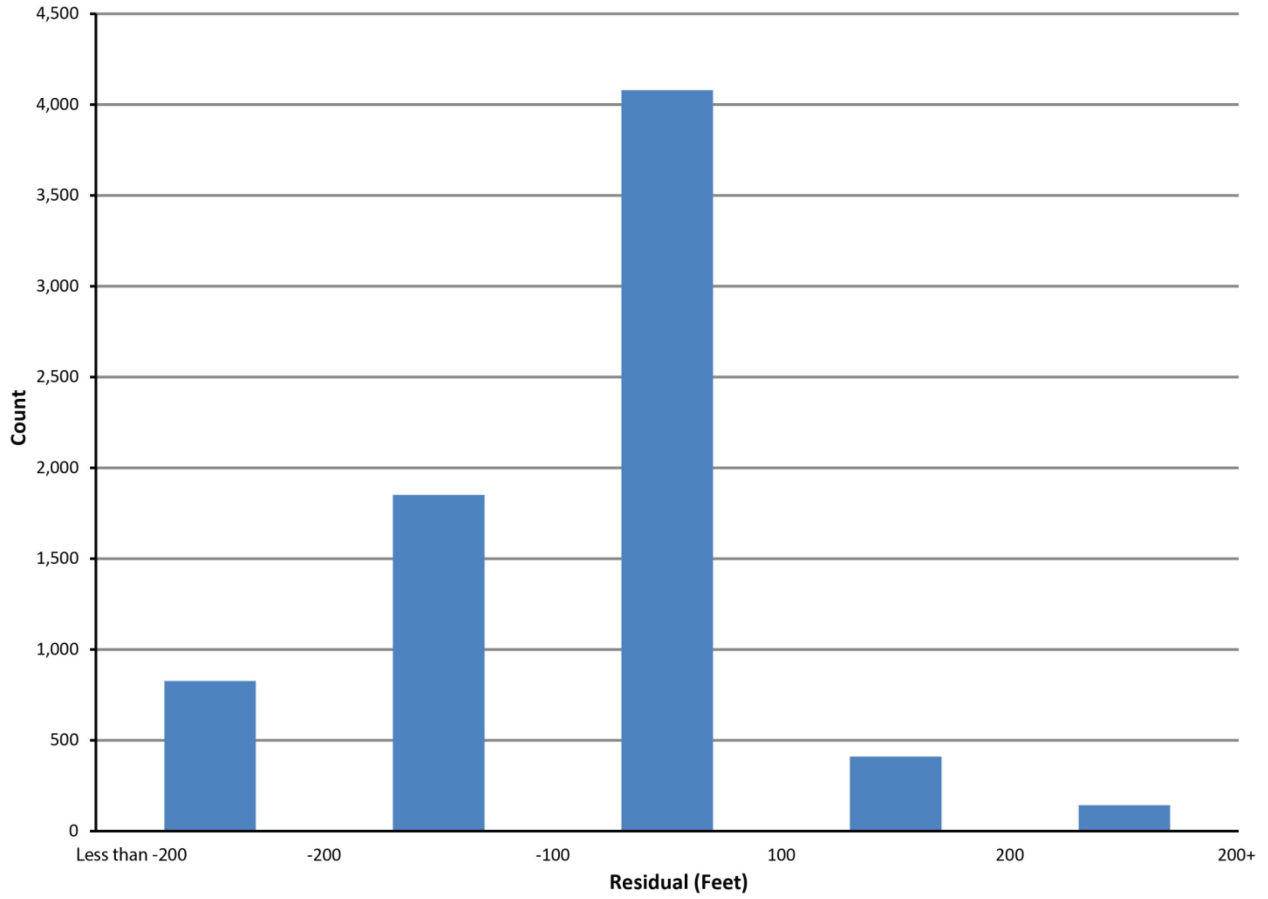
Figures 3.2.11 through 3.2.15 show spatial distribution of residuals for the calibration period and simulated water levels for 2005. Negative residuals indicate that the model is simulating water levels high compared to measured water levels, while positive residuals indicate that the model is simulating relatively low water levels. (Note: there are no water-level targets in Layer 4, and consequently, there are no residuals). Figure 3.2.15 shows the residuals in the Capitan Reef Complex Aquifer. This map shows high variability of residuals in a cluster of water-level targets located in northern Ward County. This variability suggests a high level of uncertainty associated

with the water-level measurements or a high degree of aquifer complexity producing large—possibly vertical—hydraulic gradients within the aquifer.

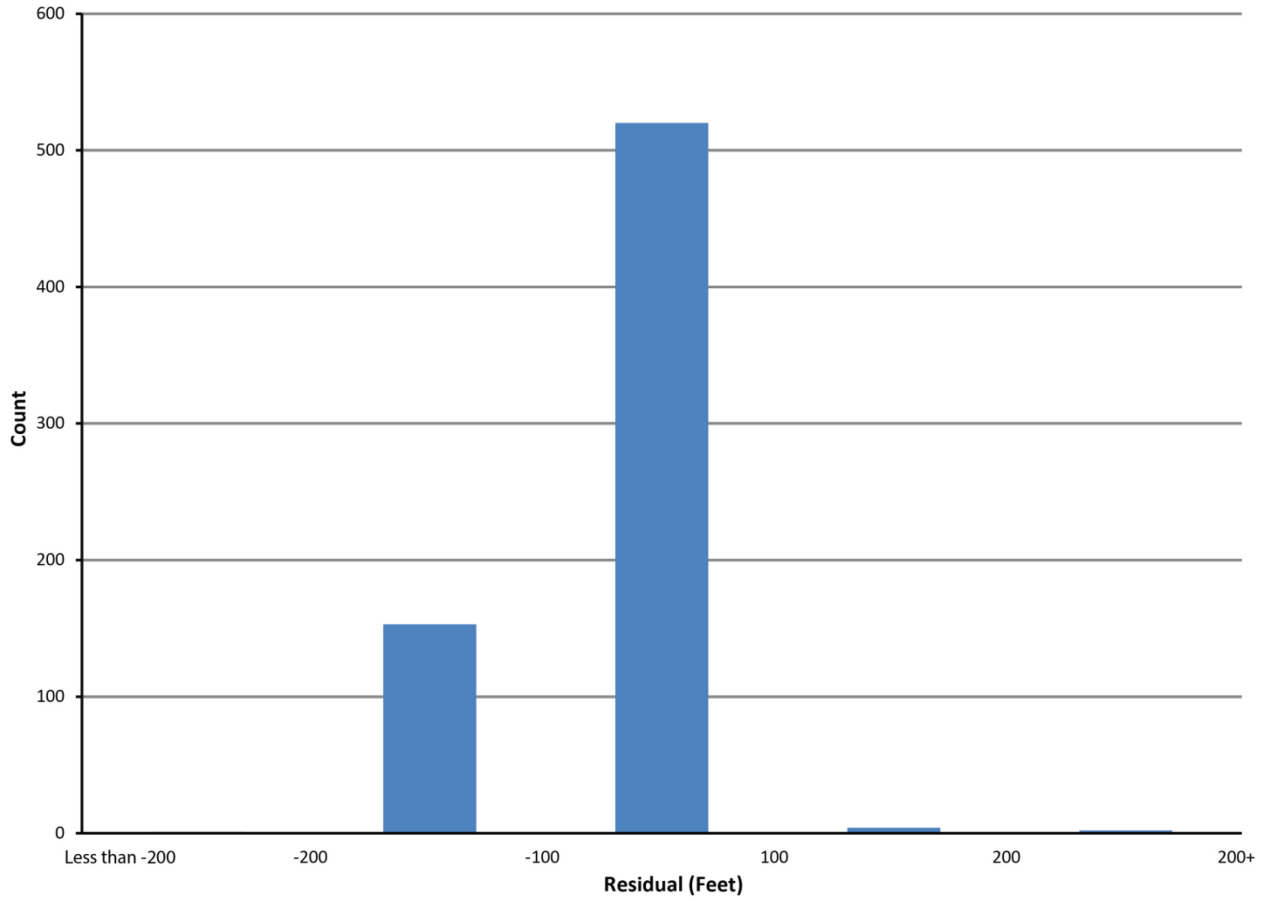


**Figure 3.2.6. Histogram of the frequency of residuals in all model layers.**

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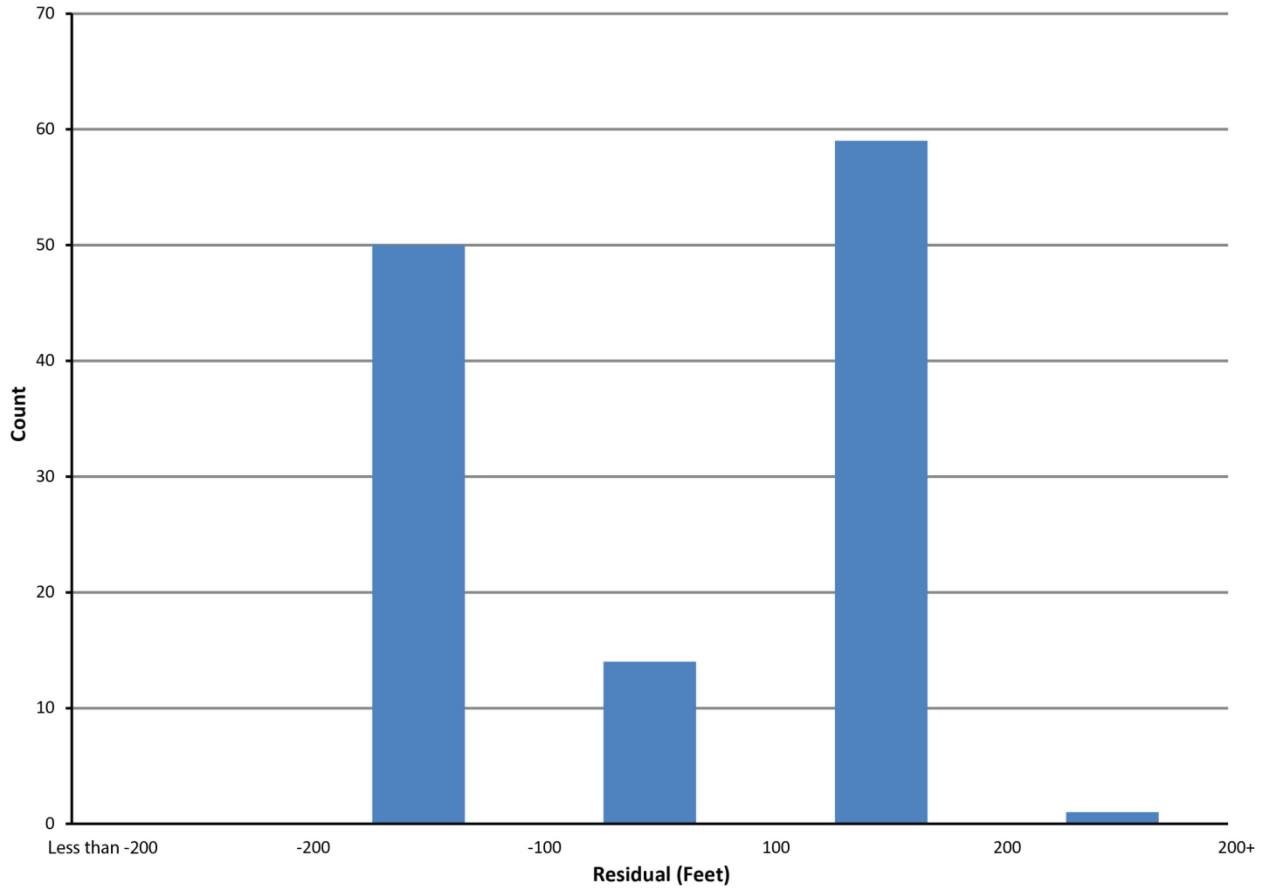


**Figure 3.2.7. Histogram of the frequency of residuals in Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**

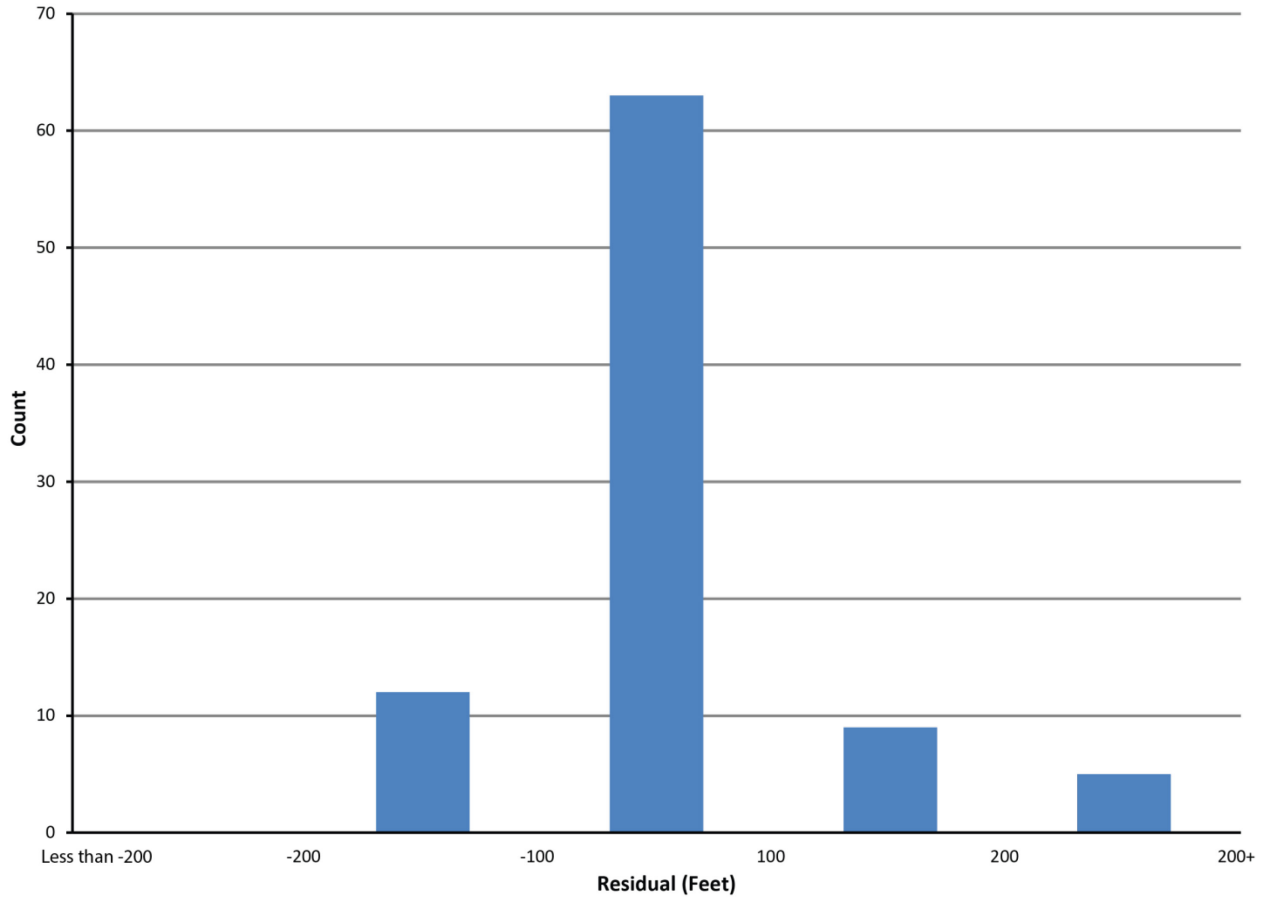


**Figure 3.2.8. Histogram of the frequency of residuals in Layer 2—the Dockum Aquifer and Dewey Lake Formation.**

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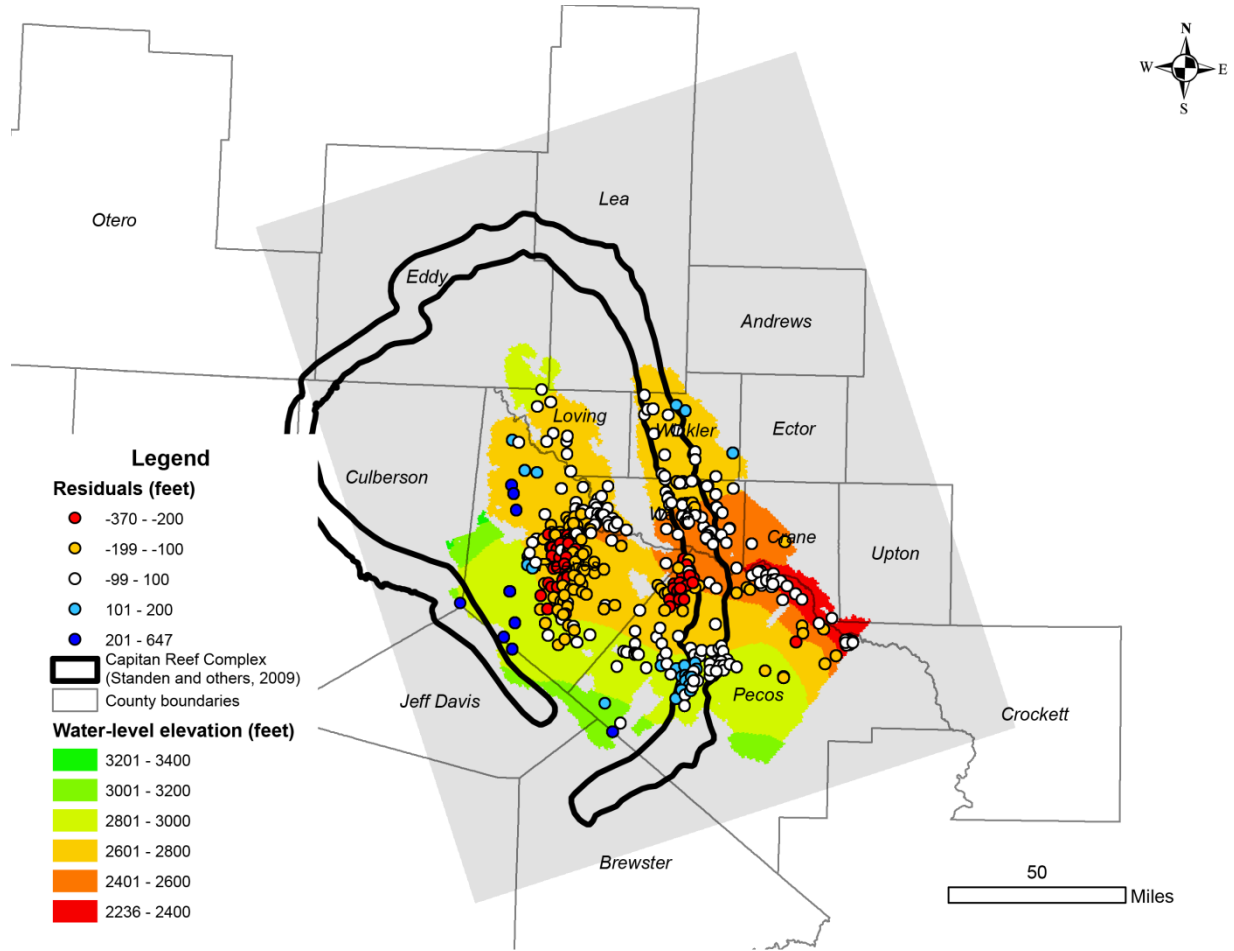


**Figure 3.2.9. Histogram of the frequency of residuals in Layer 3—the Rustler Aquifer.**



**Figure 3.2.10. Histogram of the frequency of residuals in Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**





**Figure 3.2.11. Map of residuals between simulated and measured water levels for Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**

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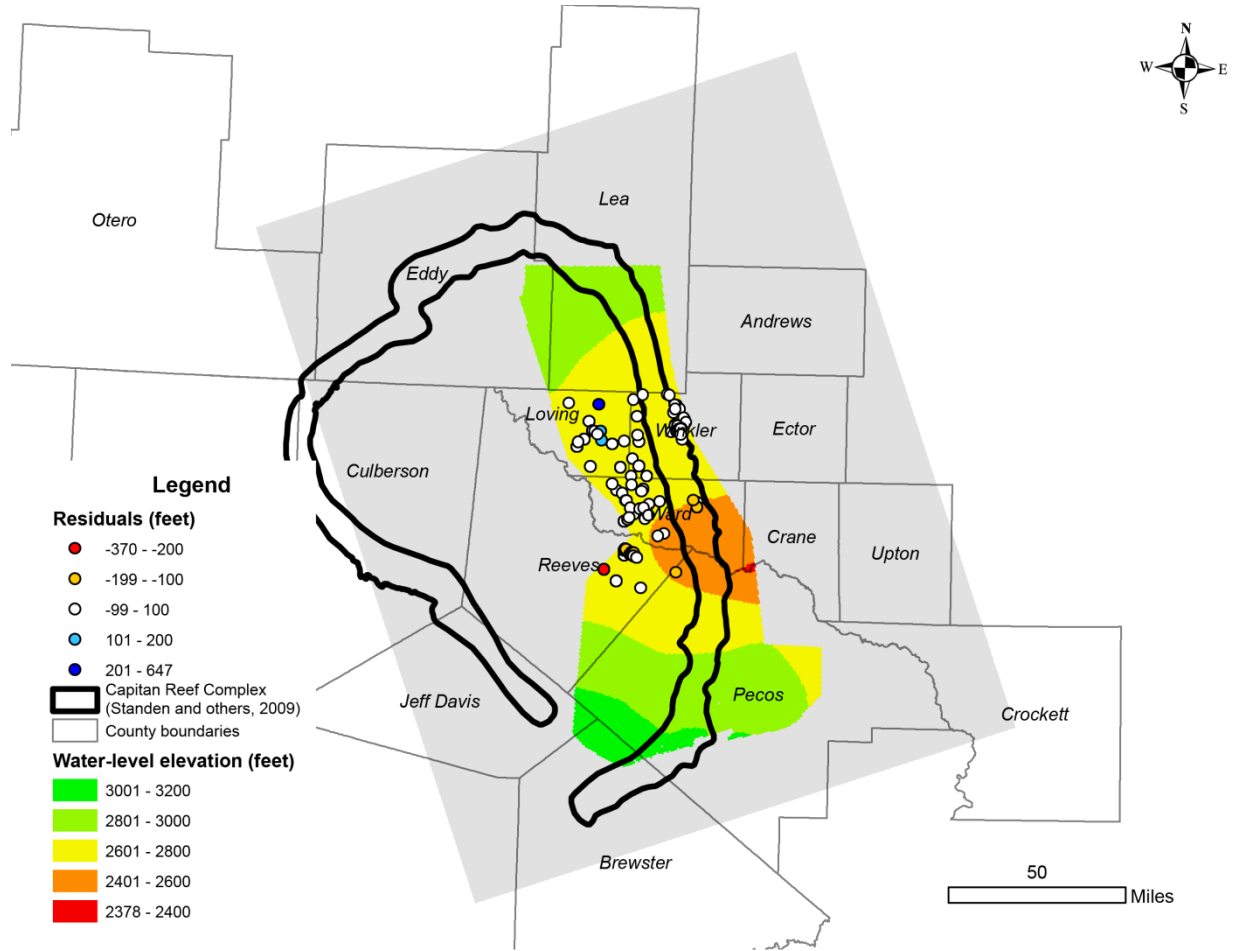


Figure 3.2.12. Map of residuals between simulated and measured water levels for Layer 2—the Dockum Aquifer and Dewey Lake Formation.

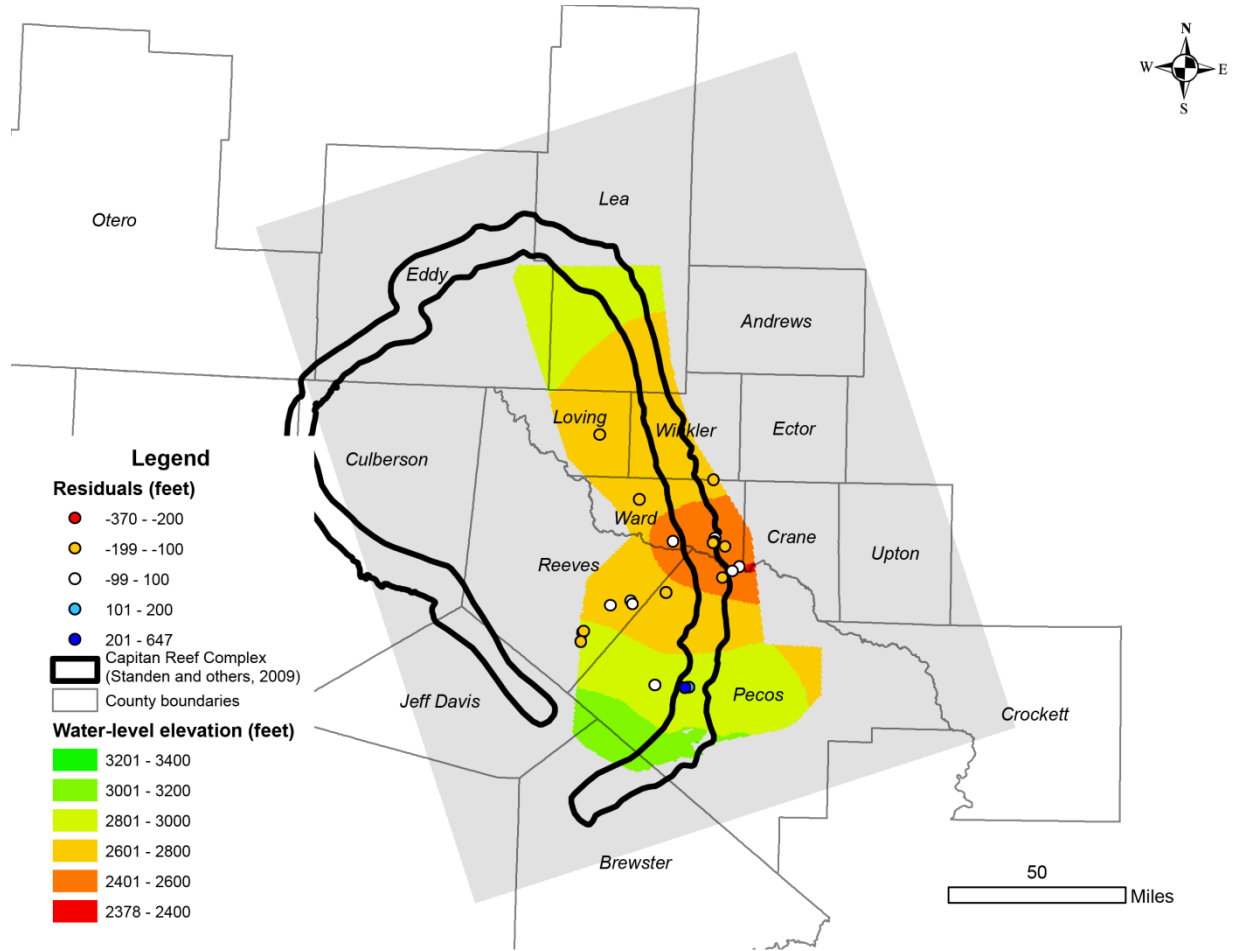
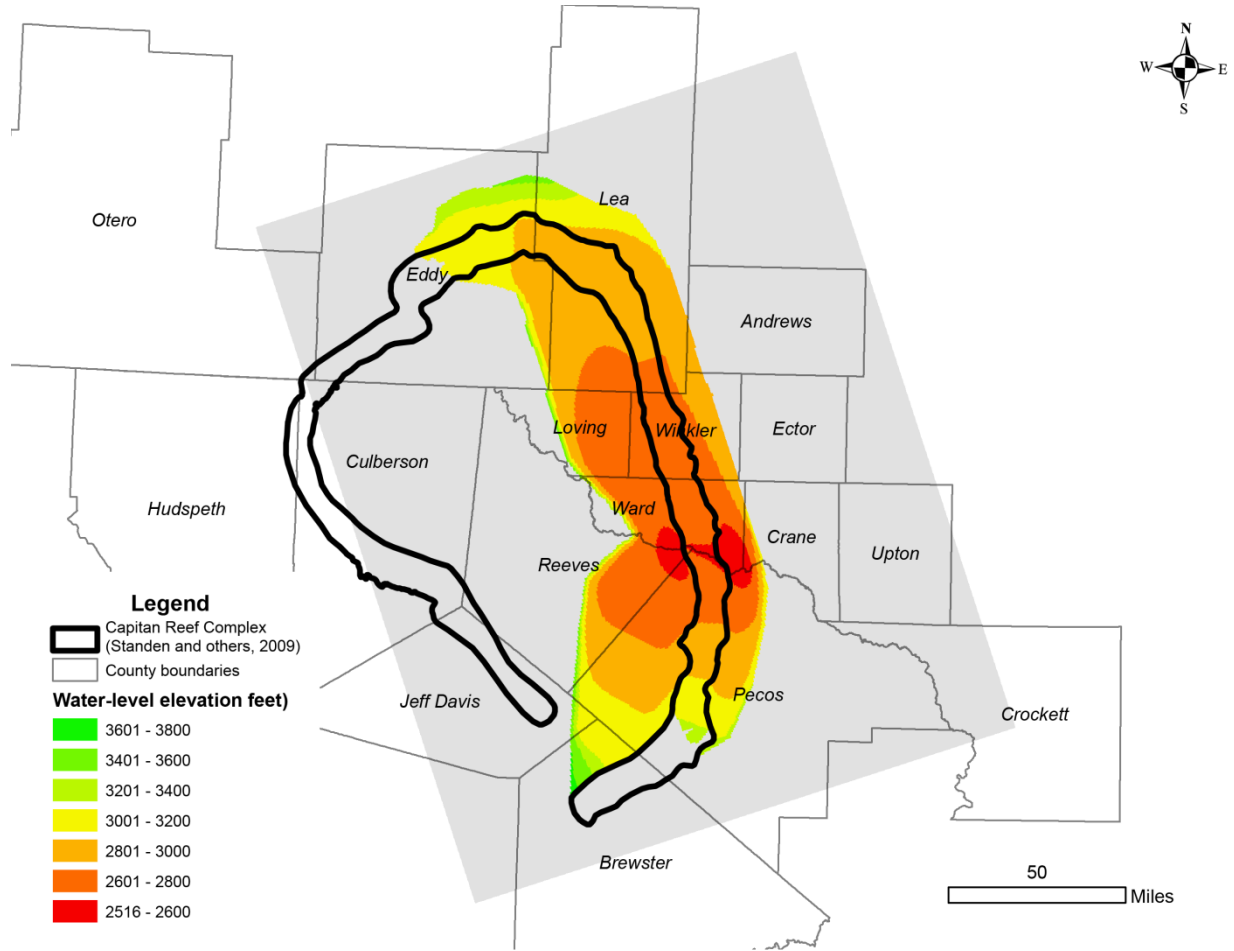
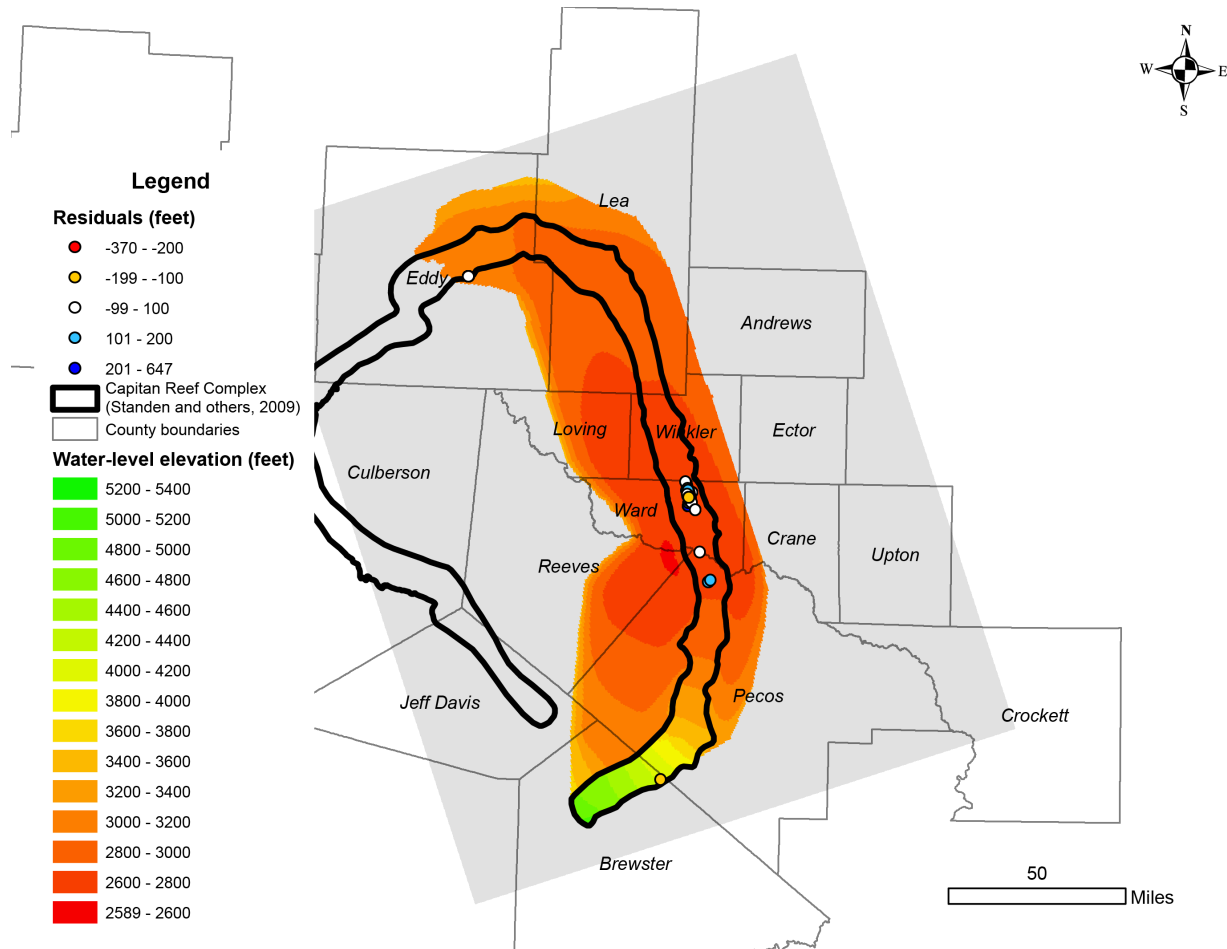


Figure 3.2.13. Map of residuals between simulated and measured water levels for Layer 3—the Rustler Aquifer.

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**Figure 3.2.14. Map of residuals between simulated and measured water levels for Layer 4—the confining unit above the Capitan Reef Complex Aquifer.**



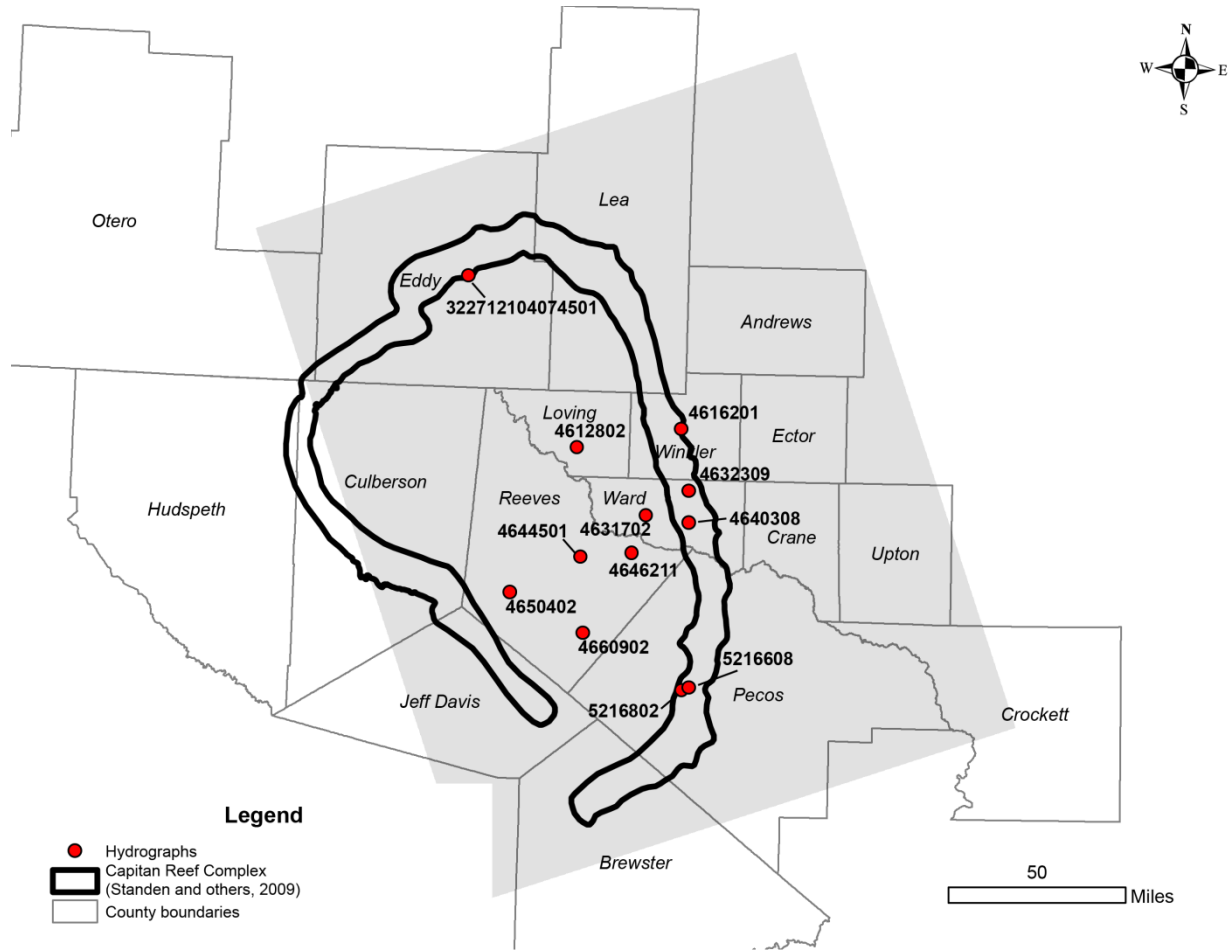
**Figure 3.2.15. Map of residuals between simulated and measured water levels for Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**

### 3.2.3 Simulated Water Levels

In this section, the simulated water-levels and drawdown over the model period are presented. Figures 3.2.11 through 3.2.15 show the simulated water levels in each model layer for 2005—Stress Period 75. The overall trend in water levels for all model layers is groundwater flow towards the north and south—converging on the Pecos River—generally following regional topographic trends. It should be noted that due to model uncertainty, water levels along some model boundaries lie at elevations below the base of the aquifer.

Figures 3.2.16 and 3.2.17 show selected simulated versus measured water-level hydrographs. These hydrographs are meant to demonstrate some of the basic trends in water levels through time, and how the simulated water levels follow these trends. Both measured and simulated water levels—with a few exceptions—are relatively flat with minor short-term water-level fluctuations.

Figures 3.2.18 through 3.2.22 show changes of simulated water-level between the steady-state stress period (1931) and year 2005 (Stress Period 75). Figure 3.2.18 shows drawdown in the Pecos Valley and Edwards-Trinity (Plateau) aquifers—Layer 1—centered around areas with high levels of irrigation in central Reeves County and southwest of Fort Stockton in Pecos County. The Pecos County drawdown area is apparent in underlying model layers 2 and 3—the Dockum and Rustler aquifers (Figures 3.2.19 and 3.2.20).



**Figure 3.2.16. Locations of wells used to compare simulated water levels and measured water levels.**

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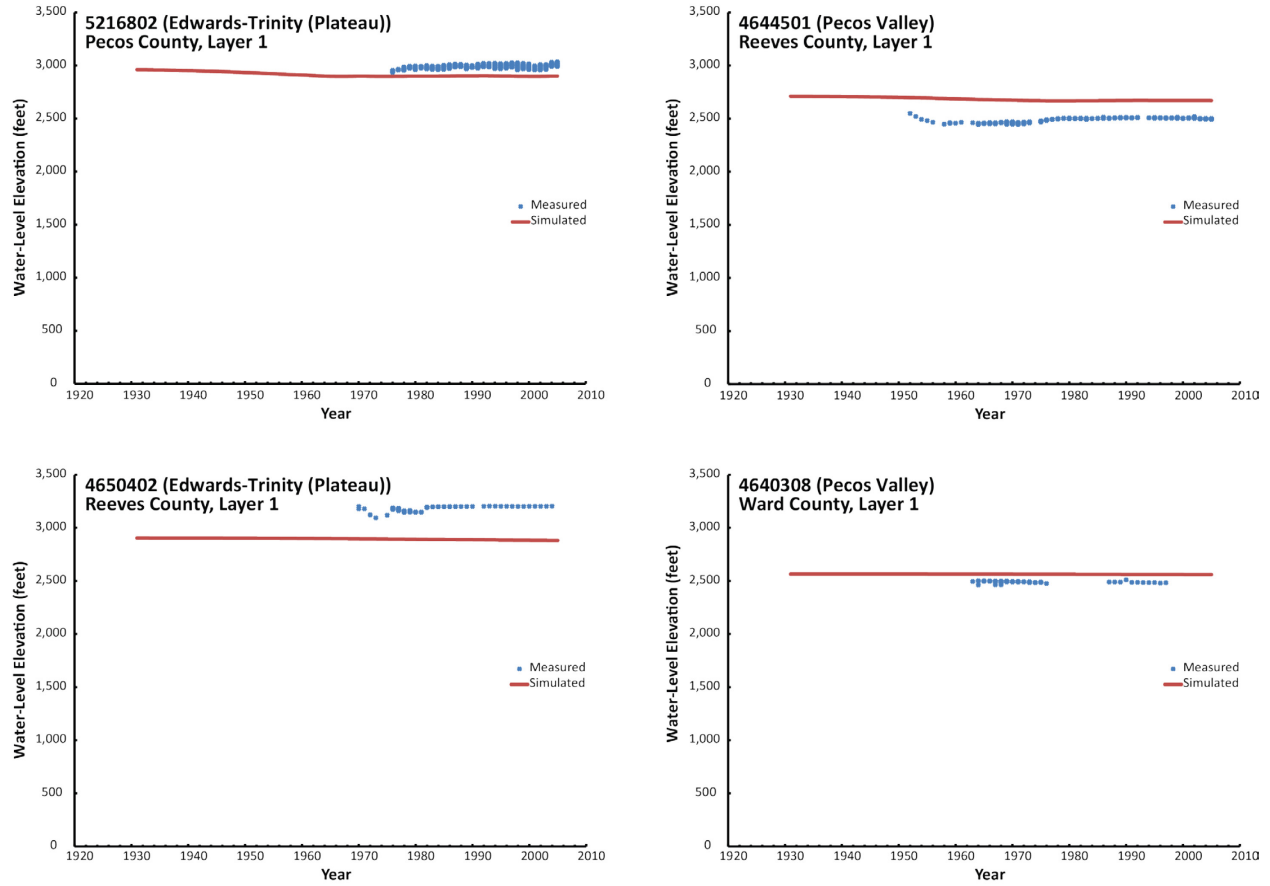


Figure 3.2.17. Comparison of simulated water levels and measured water levels.

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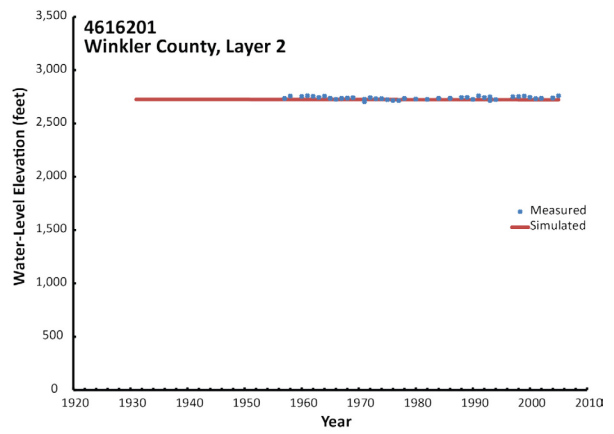
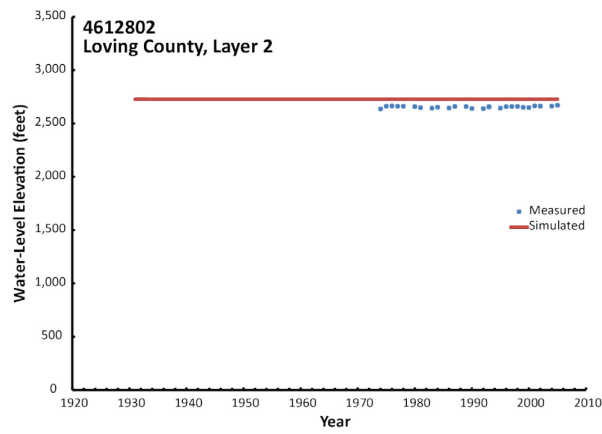
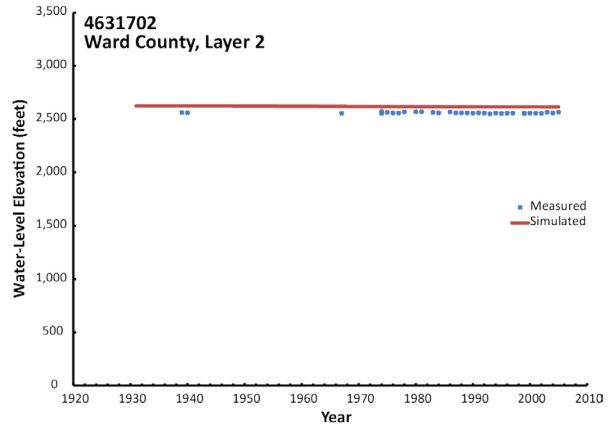
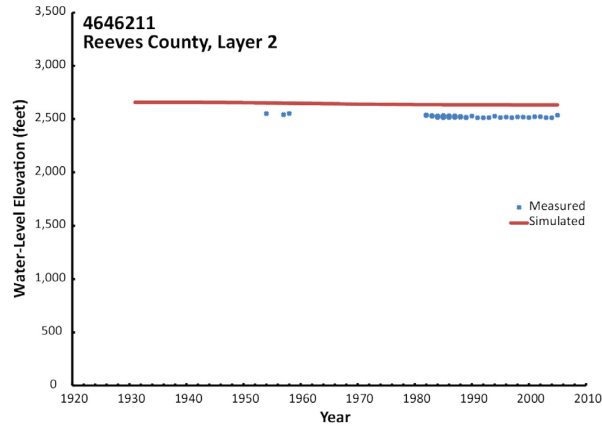


Figure 3.2.17. (continued).



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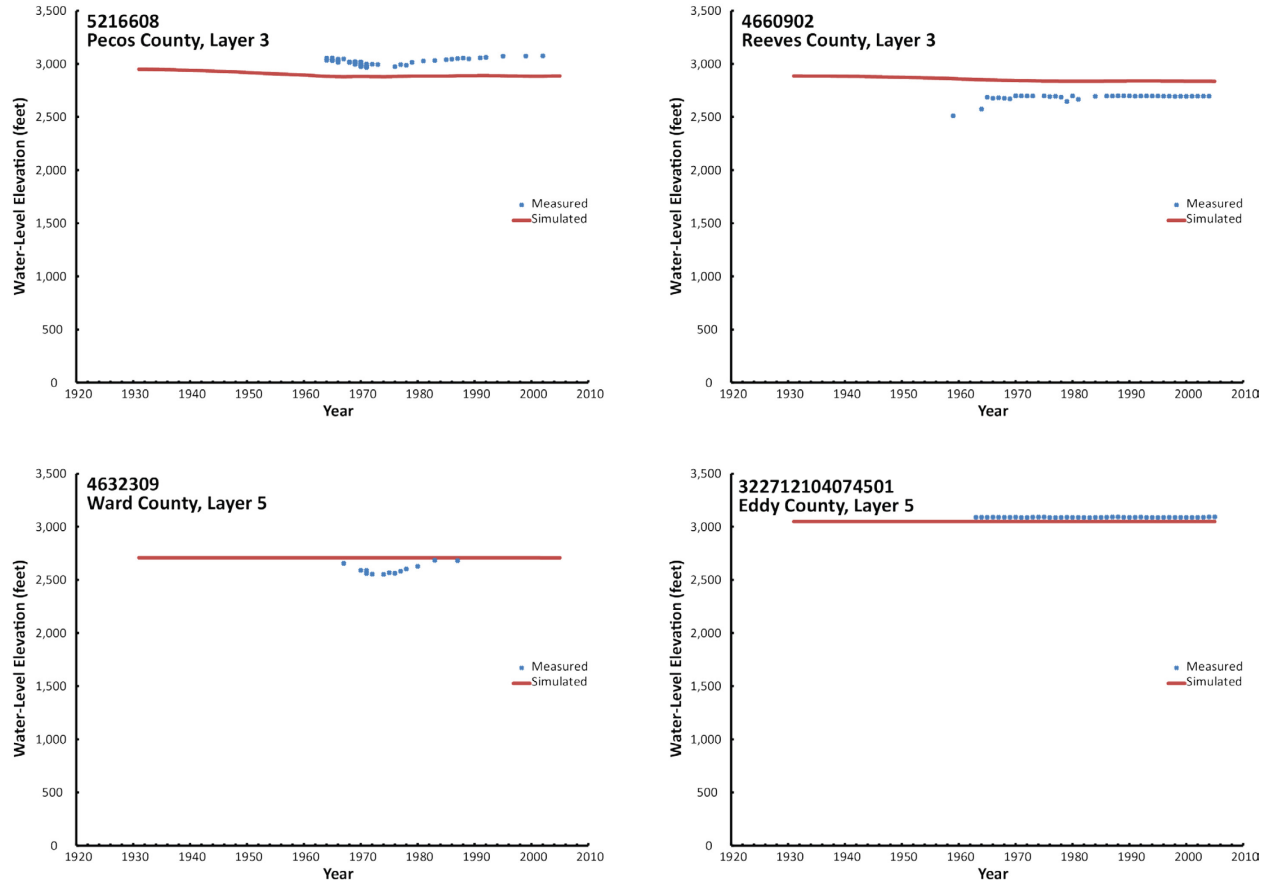
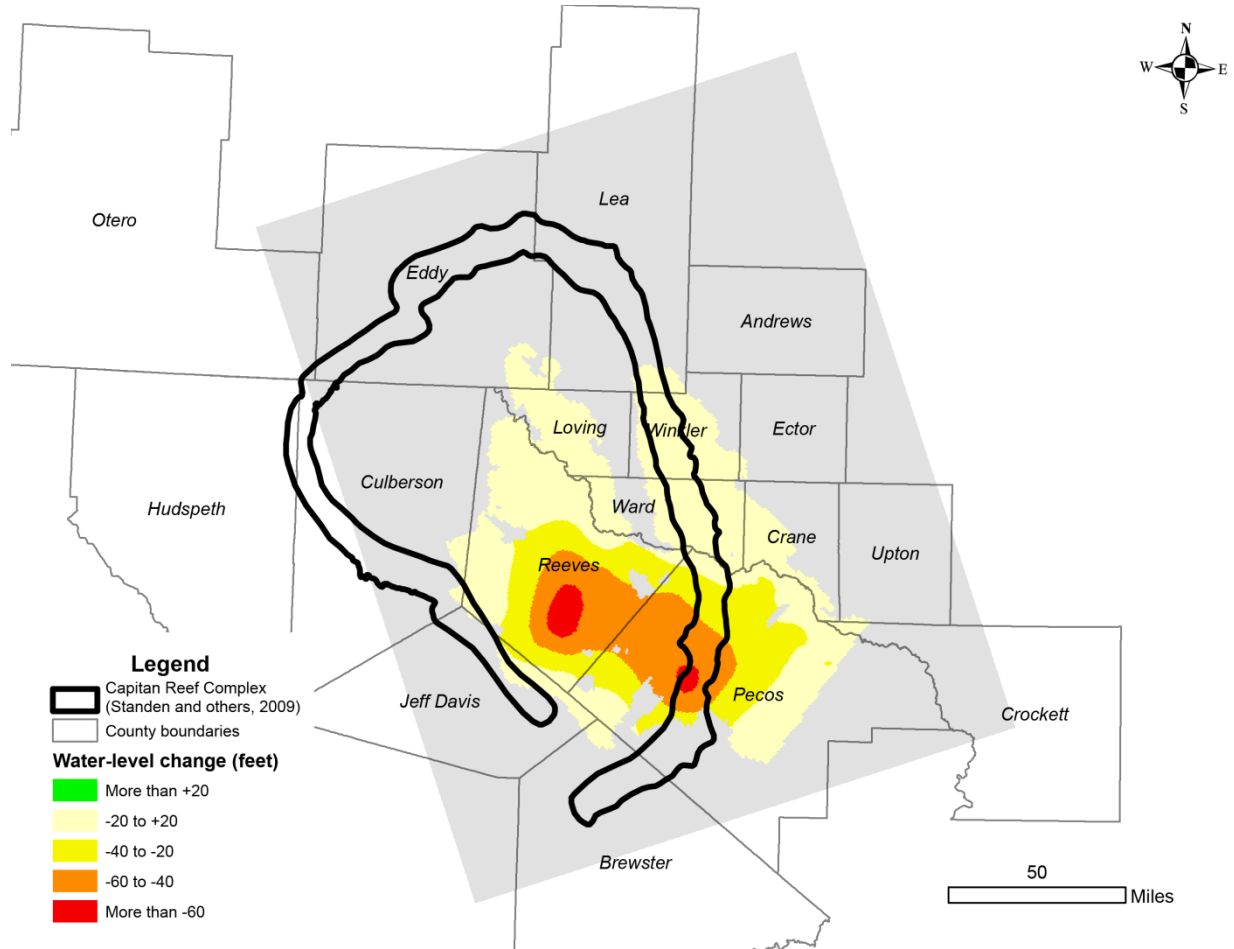


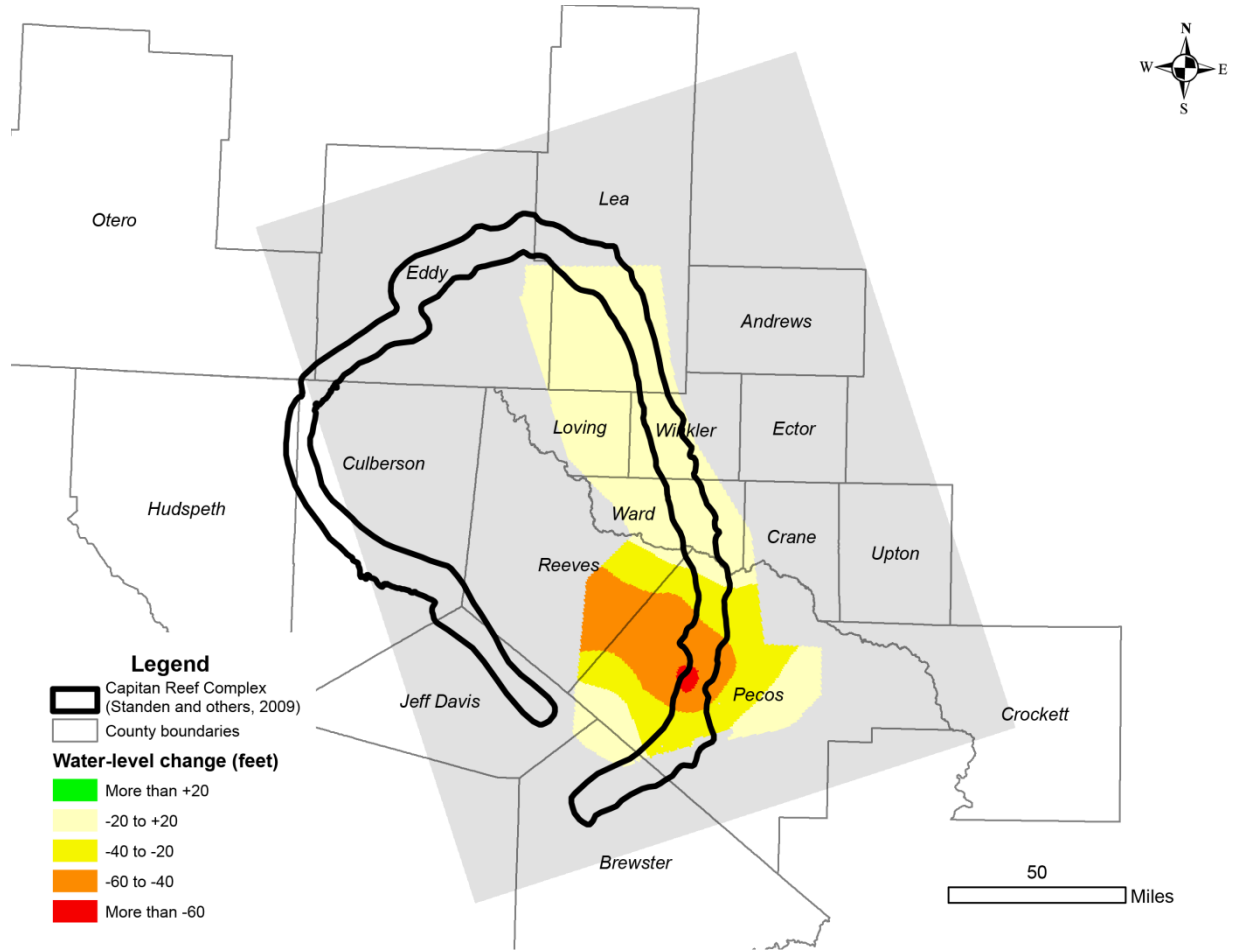
Figure 3.2.17. (continued).

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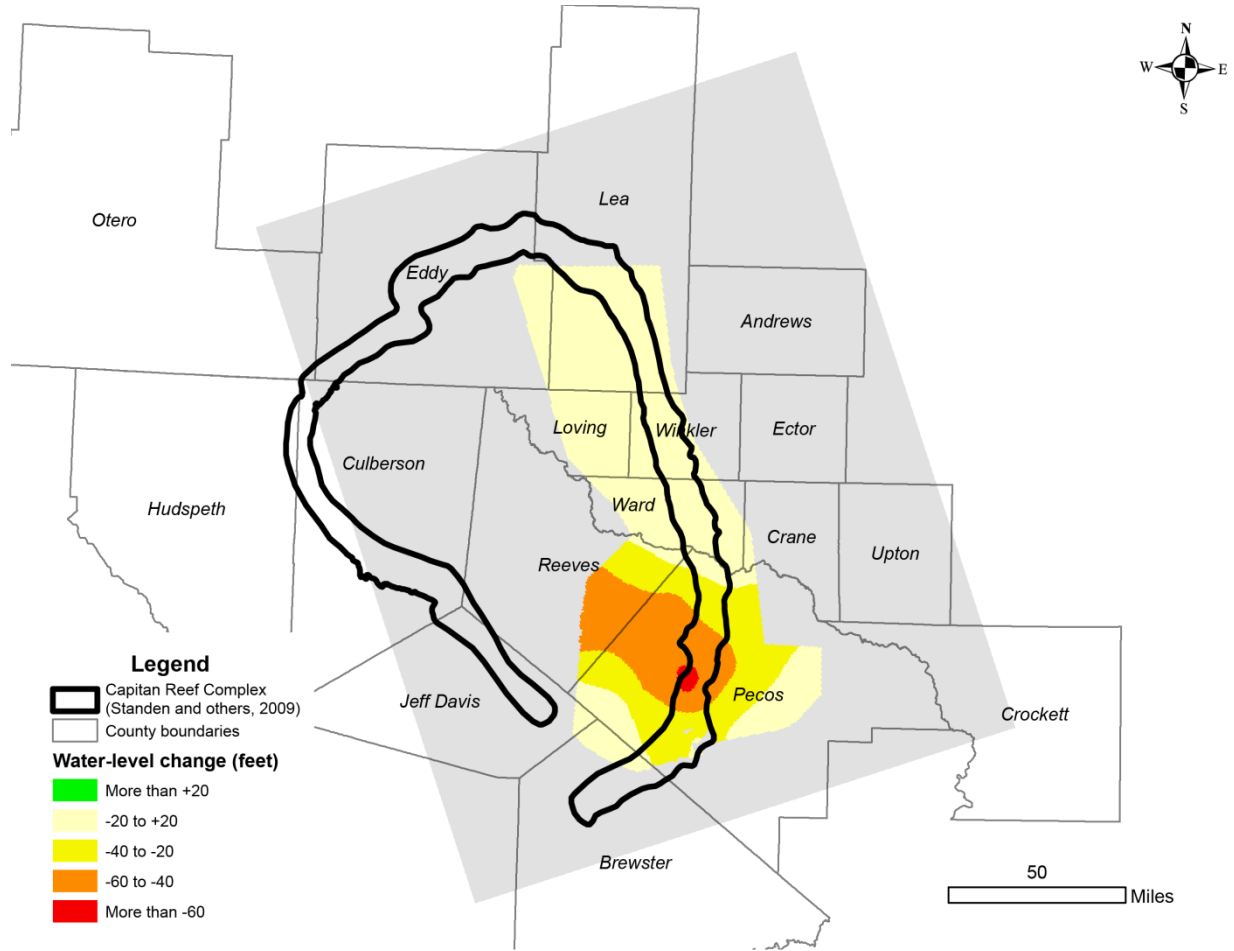
**Figure 3.2.18. Map showing the change of simulated water levels between pre-development and the end of the transient period for Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**

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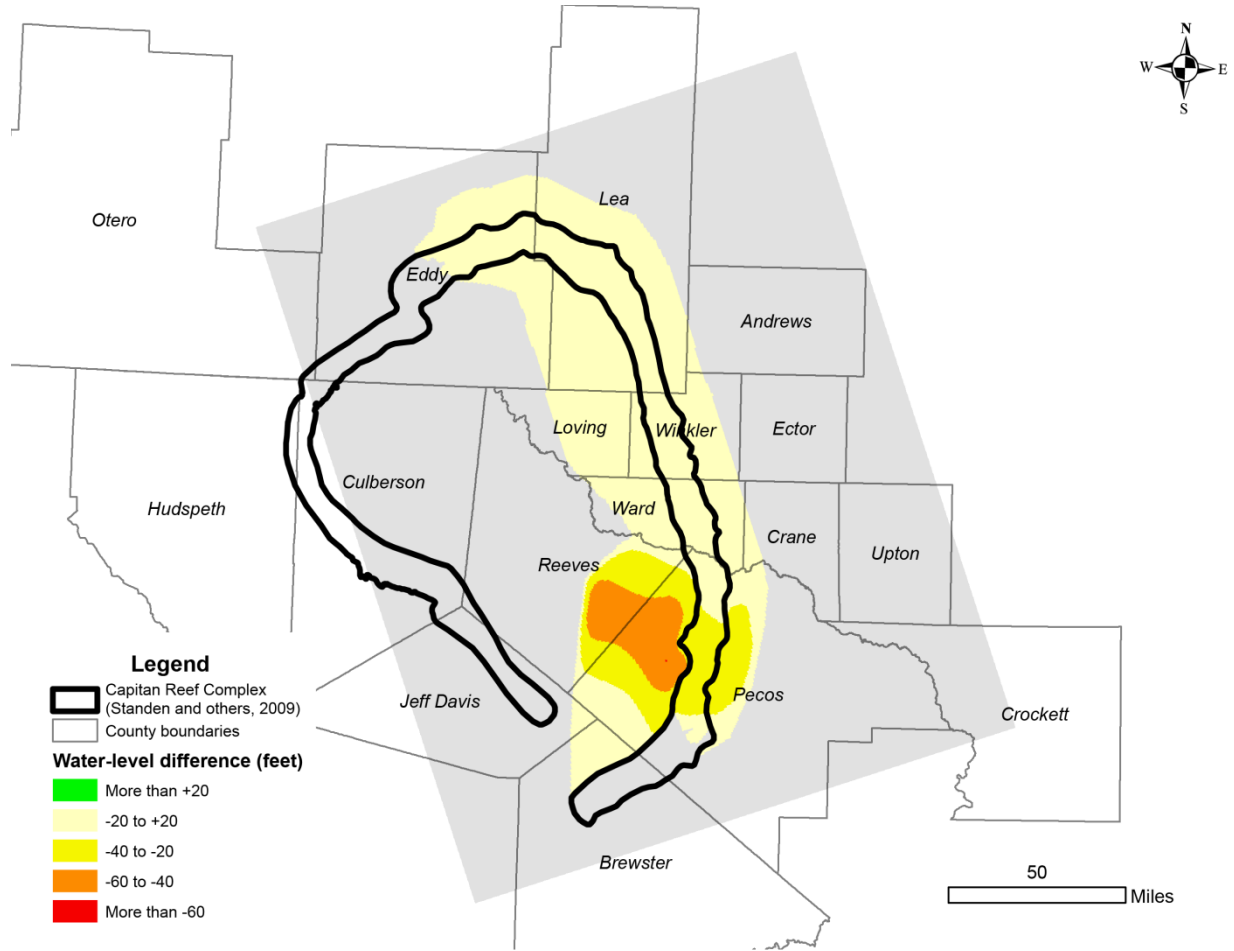
**Figure 3.2.19. Map showing the change of simulated water levels between pre-development and the end of the transient period for Layer 2—the Dockum Aquifer and Dewey Lake Formation.**

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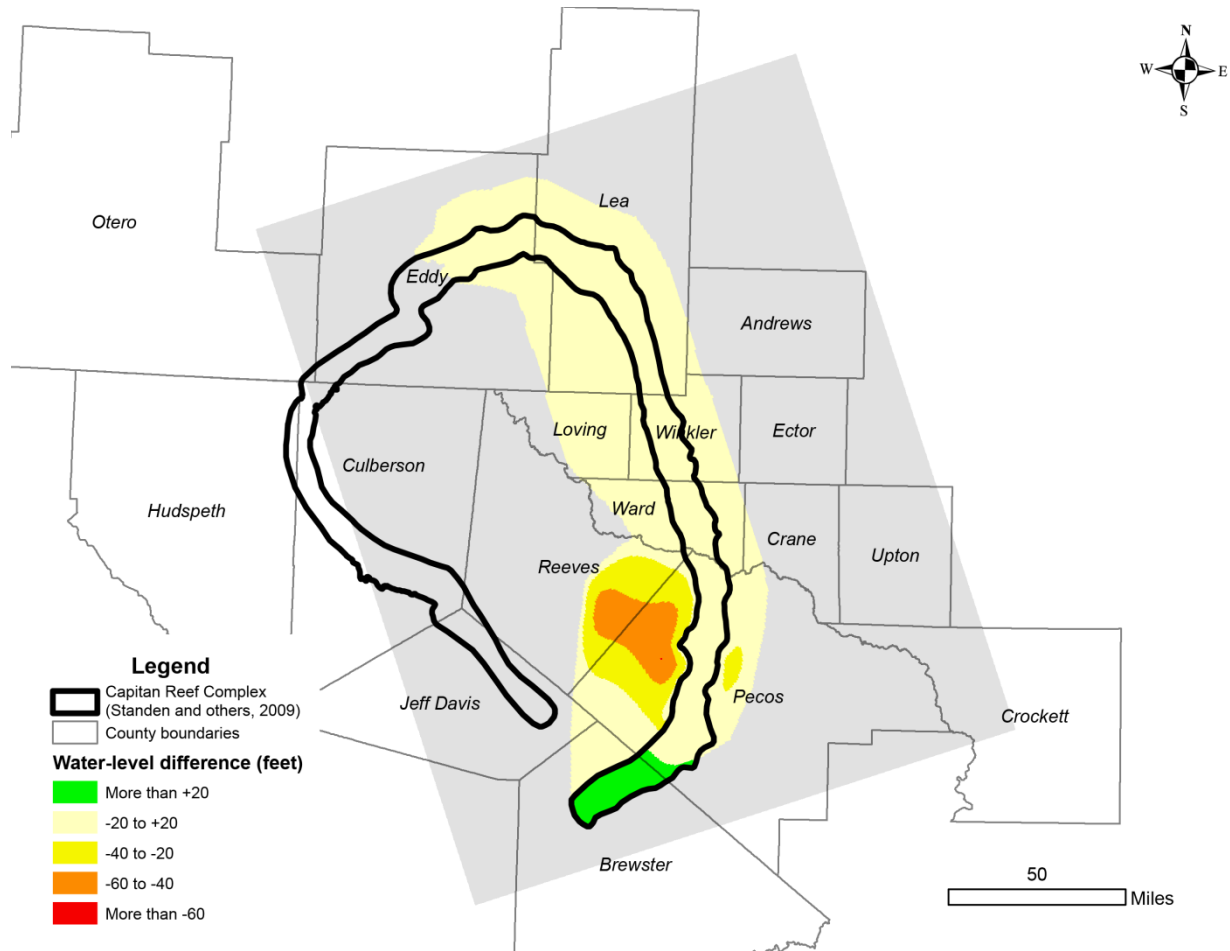


**Figure 3.2.20. Map showing the change of simulated water levels between pre-development and the end of the transient period for Layer 3—the Rustler Aquifer.**

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**Figure 3.2.21. Map showing the change of simulated water levels between pre-development and the end of the transient period for Layer 4—the confining unit above the Capitan Reef Complex Aquifer.**



**Figure 3.2.22. Map showing the change of simulated water levels between pre-development and the end of the transient period for Layer 5—the Capitan Reef Complex Aquifer and equivalent hydrostratigraphic units.**

### 3.3 Model Simulated Water Budgets

In this section, the simulated water budgets are discussed both for the steady-state and transient stress periods. The water budgets are one of the more important aspects of the eastern arm of the Capitan Reef Complex Aquifer groundwater availability model, because the model provides an opportunity to analyze groundwater flow between the Capitan Reef Complex Aquifer and overlying aquifers. Appendix A contains the water budget summarized by county, groundwater conservation district, and model layer for all years in the model calibration period.

#### 3.3.1 Steady-State Water Budget

One aspect of the water budget involves checking that unacceptable errors do not occur in the net water balance for each stress period. The calibrated model had an overall budget error of 0.00 percent for any stress period.

Table 3.3.1 summarizes the water budgets for the steady-state model in acre-feet per year for each model layer and an overall water budget for the entire model. These water budgets contain components of groundwater flow to and from each model layer. The vertical leakage—inter-aquifer flow—terms indicate interactions among the aquifers. Note that the inter-aquifer inflow to each layer from adjacent layers is the same number as the inter-aquifer outflow out from the adjacent layers.

**Table 3.3.1. Table of steady-state calibration net water budget expressed in acre-feet per year.**

<b>Flux</b>	<b>Layer 1</b>	<b>Layer 2</b>	<b>Layer 3</b>	<b>Layer 4</b>	<b>Layer 5</b>	<b>Overall</b>
<b>Inflow</b>						
<b>General-Head Boundary</b>	2,555	0	5,110	13,870	24,455	45,990
<b>Lateral Flow</b>	140,890	141,620	102,565	1,095	49,275	435,445
<b>Recharge</b>	305,505	5,110	365	365	36,500	347,845
<b>Vertical Leakage (Lower)</b>	283,970	208,780	70,080	56,940	0	
<b>Vertical Leakage (Upper)</b>	0	210,605	138,335	0	730	
<b>Outflow</b>						
<b>Drains</b>	365	0	0	0	0	365
<b>General-Head Boundary</b>	40,880	0	730	0	4,745	46,355
<b>Lateral Flow</b>	140,525	141,985	103,660	730	49,640	436,540
<b>River Leakage</b>	326,675	0	0	0	0	326,675
<b>Vertical Leakage (Lower)</b>	210,605	138,335	0	730	0	
<b>Vertical Leakage (Upper)</b>	0	283,970	208,780	70,080	56,940	
<b>Wells</b>	12,045	0	2,555	0	0	14,600

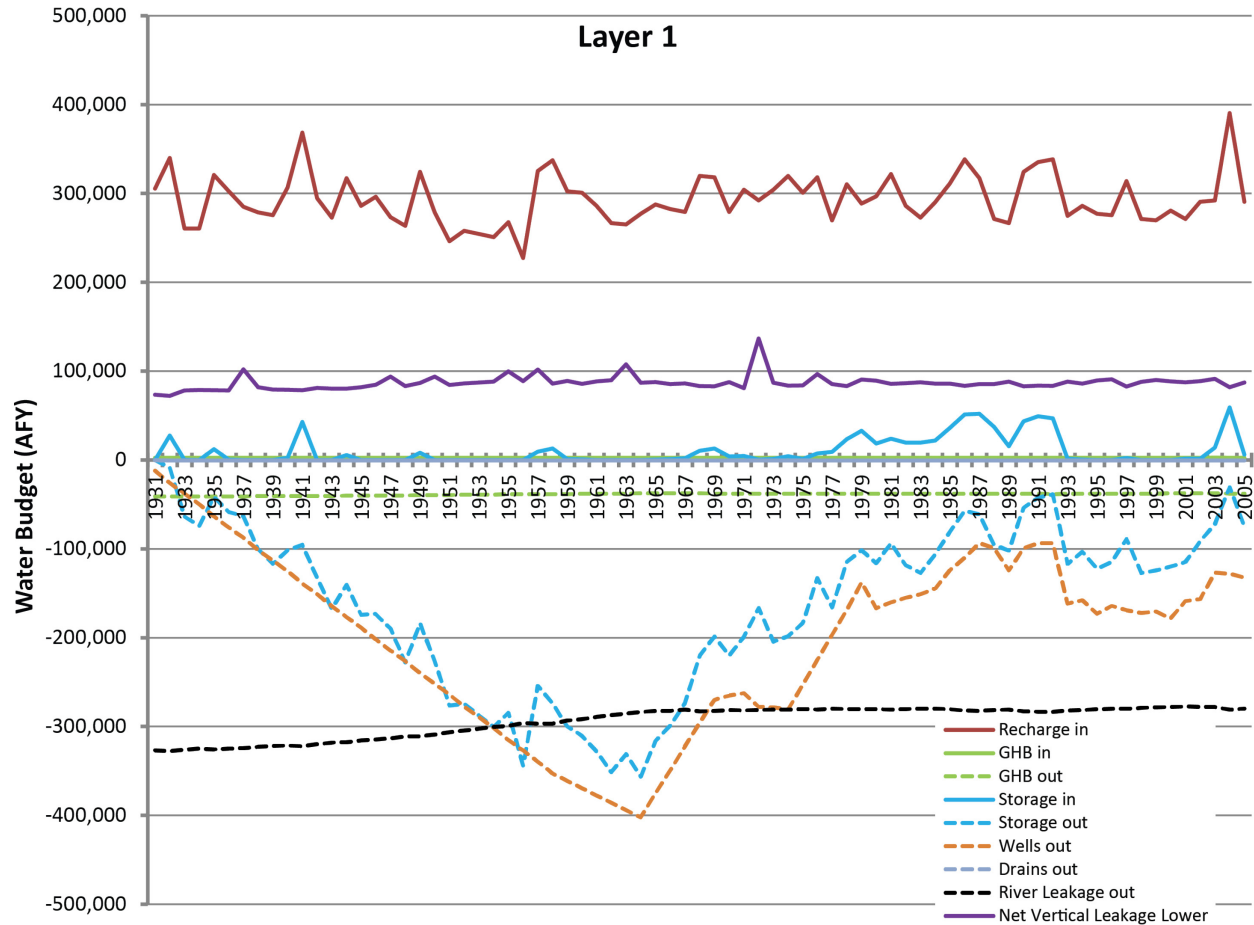
### **3.3.2 Transient Water Budget**

Figures 3.3.1 through 3.3.6 show summaries of the transient water budgets for years 1931 through 2005. Figure 3.3.1 shows the water budget for Layer 1—the Pecos Valley and Edwards-Trinity (Plateau) aquifers—in the transient model. Pumping and related groundwater outflow from storage dominates outflow from the aquifer. This means that water levels are declining in some portion of the model area. Pumping increases from 1931 to the mid-1960s, then declines until the late 1970s after which it generally remains steady. The period of rising pumping is accompanied by declining discharge to the Pecos River. There is no accompanying rise in discharge to the river as pumping declined. Recharge is the predominant inflow to Layer 1.

Figures 3.3.2 to 3.3.4 show the water budgets for layers 2 through 4—the Dockum and Rustler aquifers and the confining layer—in the transient model. Overall, these water budgets are static over the model calibration period, dominated by vertical groundwater flow—inter-aquifer inflows and outflows.

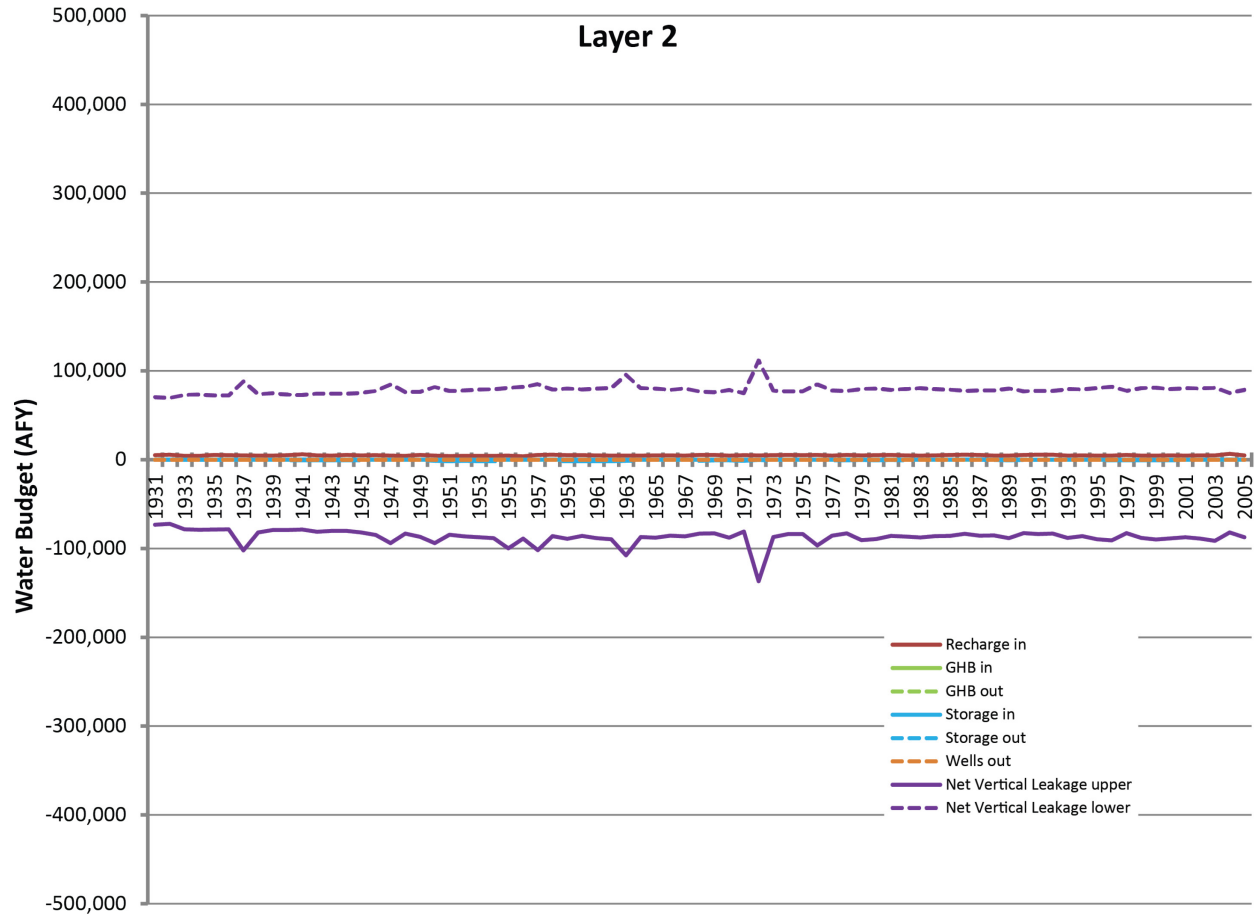
Figure 3.3.5 shows the water budget for Layer 5—the eastern arm of the Capitan Reef Complex Aquifer—in the transient model. The groundwater budget is small compared to that of Layer 1. In Layer 5, the water budget is dominated by recharge inflows and discharge through upward inter-aquifer flow.

Figure 3.3.6 shows the overall water budget for the transient model. This water budget, which is almost identical to Figure 3.3.1, reflects the overall dominance of the water budget of Layer 1 on the groundwater flow system.

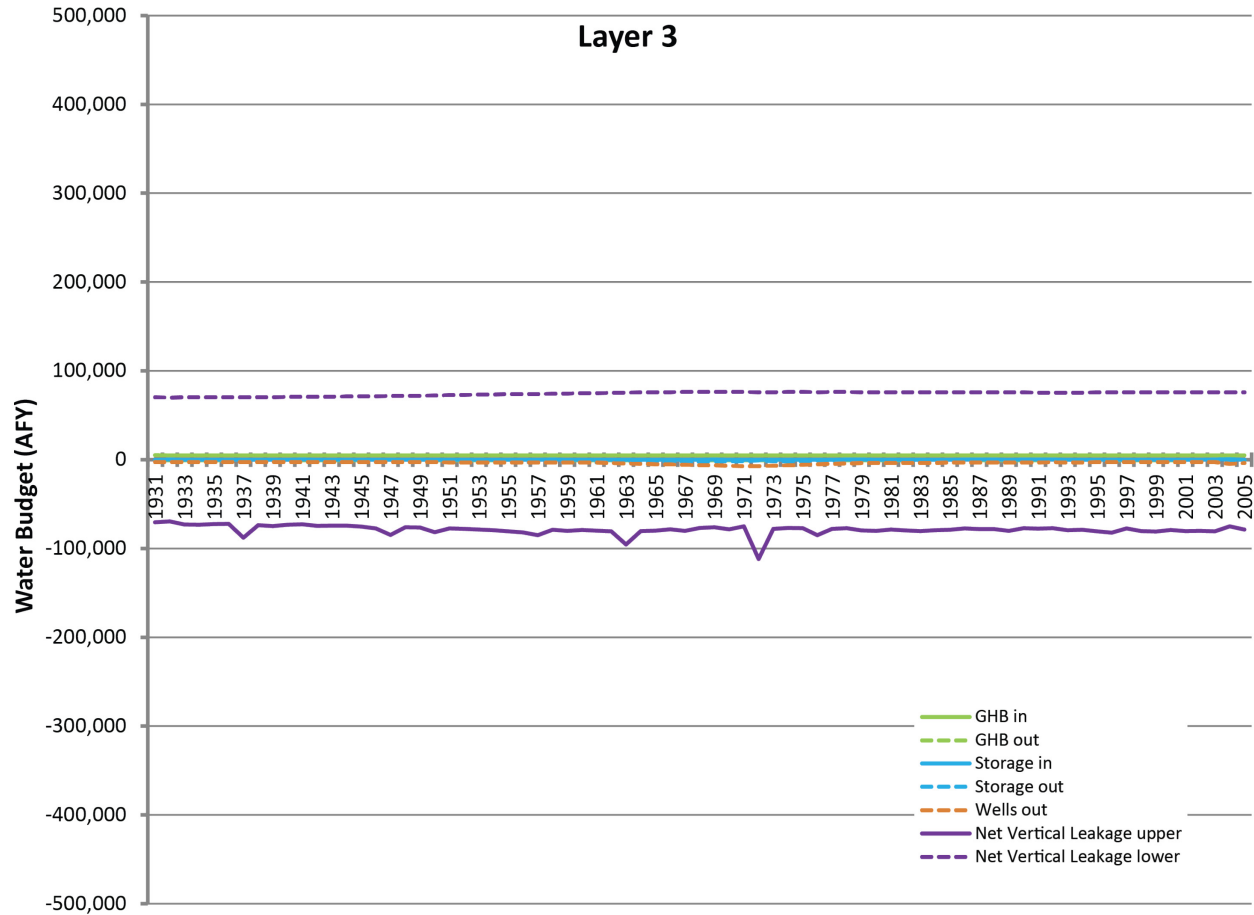


**Figure 3.3.1. Transient overall net water budget by flow component for Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers.**



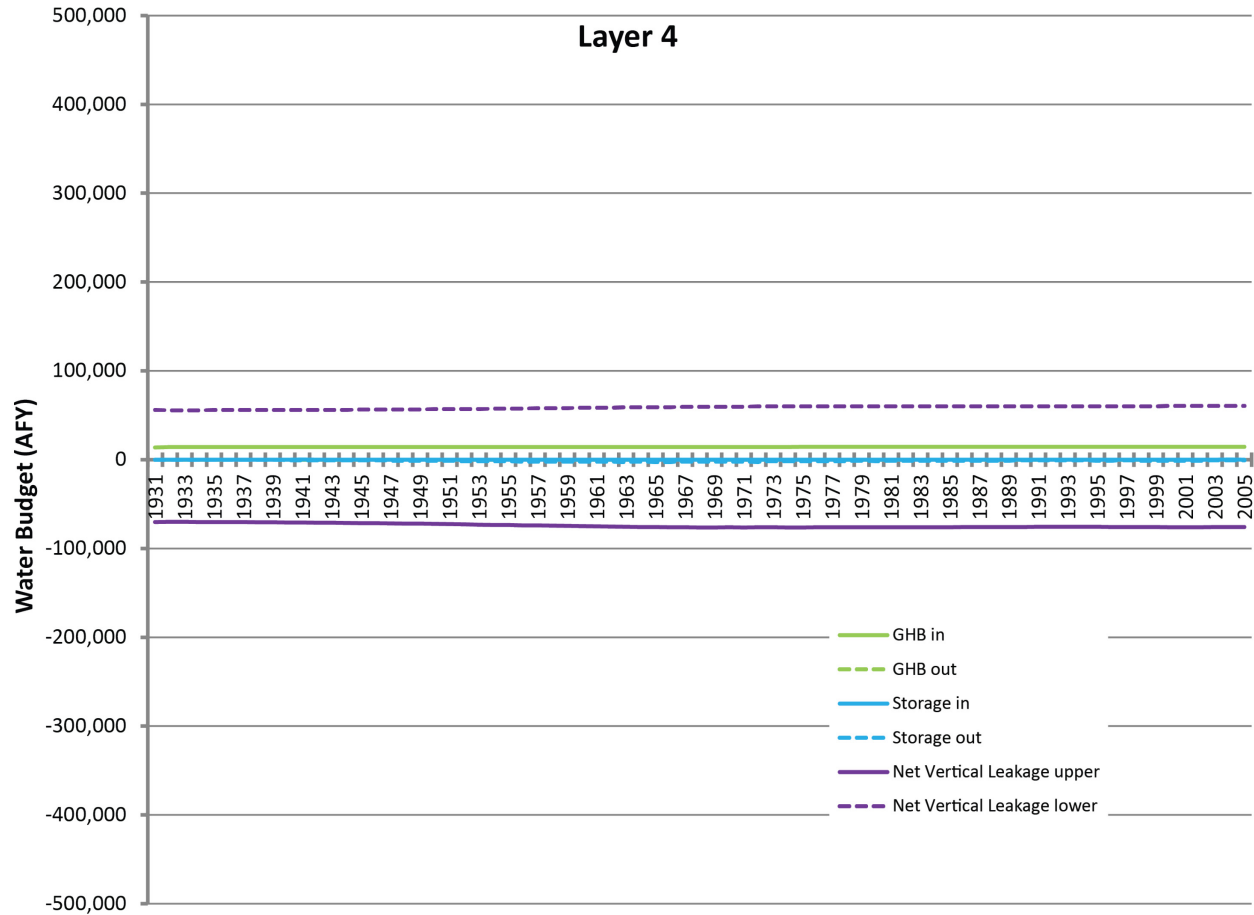


**Figure 3.3.2. Transient overall net water budget by flow component for Layer 2—the Dockum Aquifer and Dewey Lake Formation.**



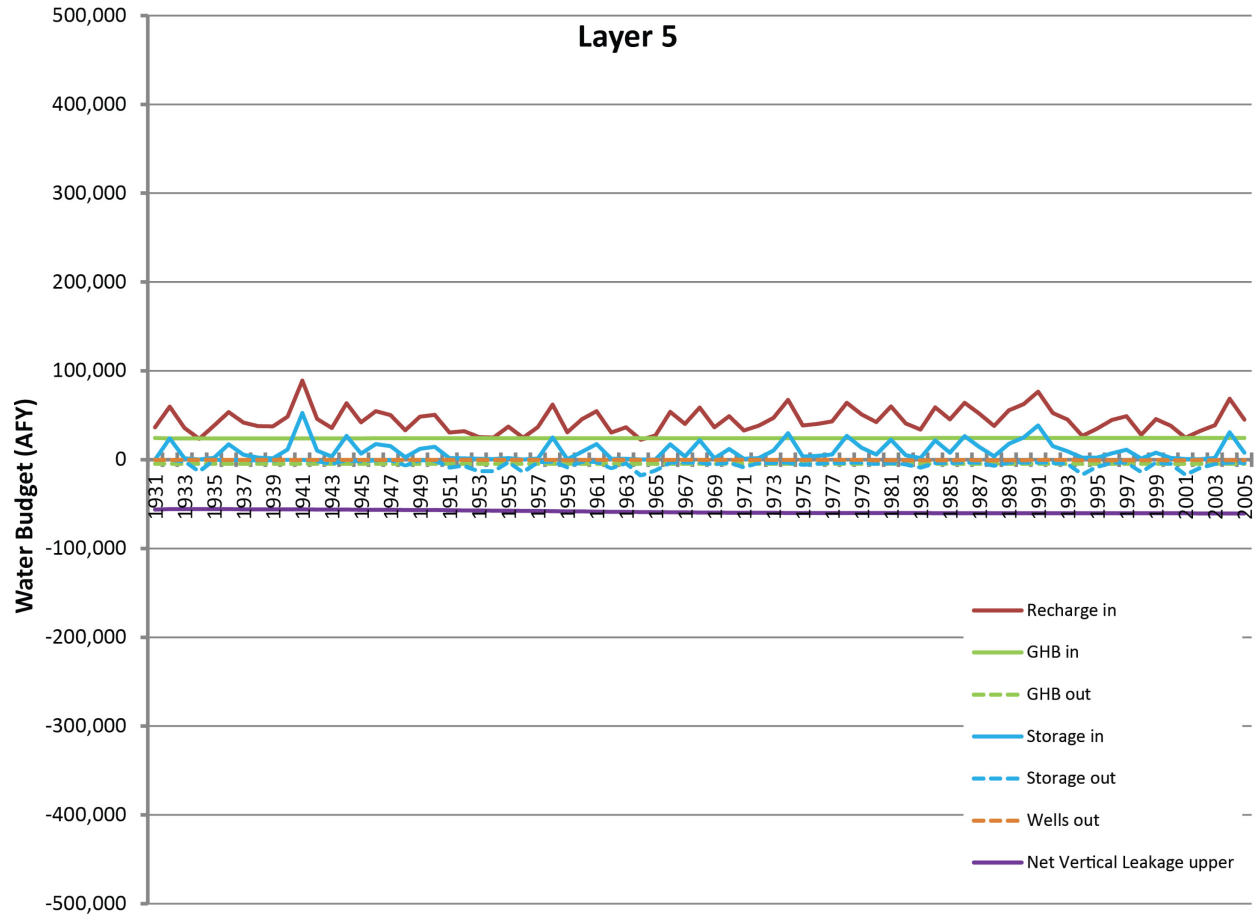
**Figure 3.3.3. Transient overall net water budget by flow component for Layer 3—the Rustler Aquifer.**

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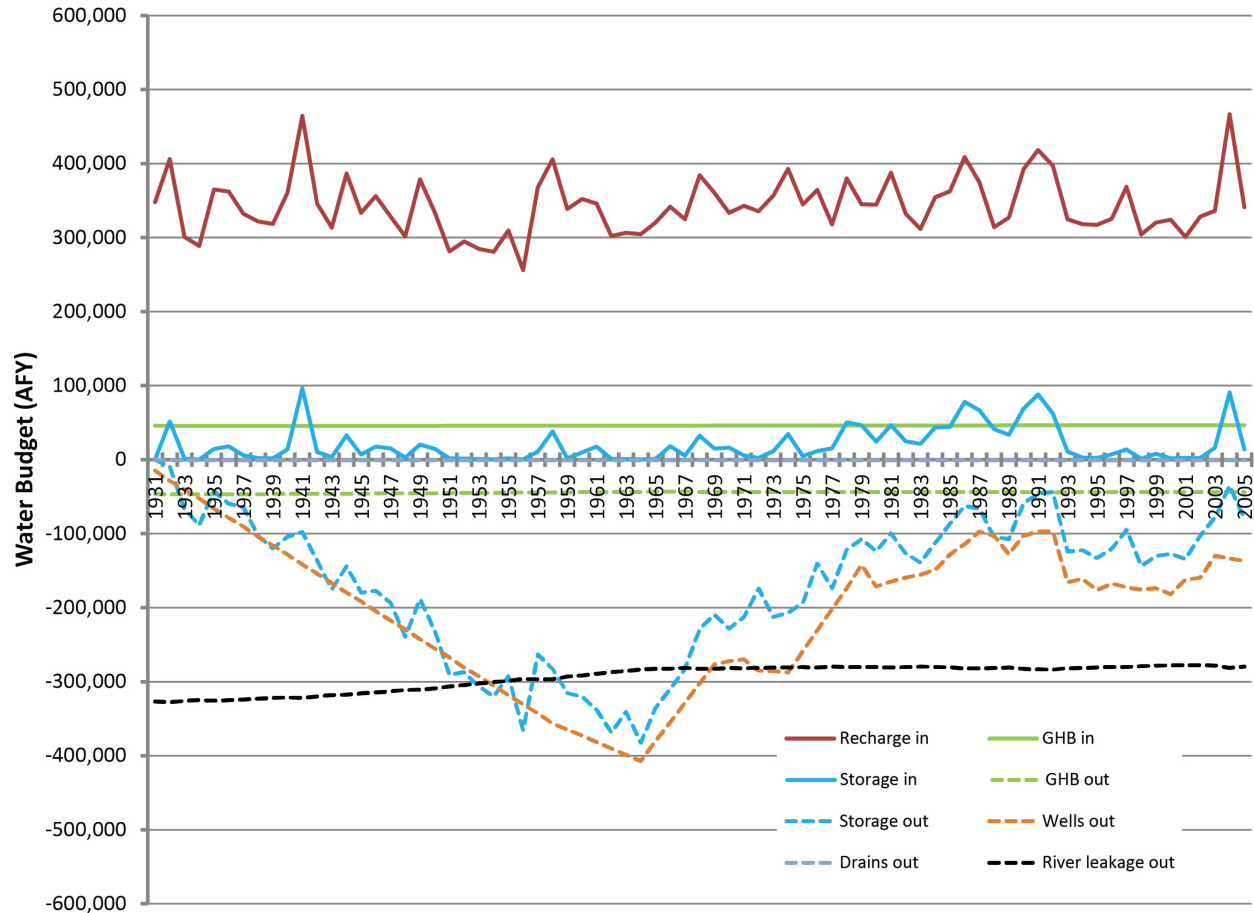


**Figure 3.3.4. Transient overall net water budget by flow component for Layer 4—the confining unit above the Capitan Reef Complex Aquifer.**

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**Figure 3.3.5. Transient overall net water budget by flow component for Layer 5—the Capitan Reef Complex Aquifer.**



**Figure 3.3.6. Transient overall net water budget by flow component.**

## 4.0 SENSITIVITY ANALYSIS

A sensitivity analysis provides a means of formally describing the impact of varying specific parameters or groups of parameters on model outputs. In this sensitivity analysis, input parameters were systematically increased and decreased from their calibrated values while noting associated changes in water levels. In this analysis, hydraulic parameters were adjusted from their calibrated “base case” values one at a time while all other hydraulic parameters in the model remained constant.

Section 4.1 describes the sensitivity analysis procedure. Section 4.2 is a discussion of the results of the sensitivity analyses, presented using spider plots and by evaluating responses to changes of storage parameters using transient simulated hydrographs.

### 4.1 Procedure of Sensitivity Analysis

In this sensitivity analysis process, up to eight simulations were completed for each parameter, where the input parameters were varied according to the either of the following equations:

$$(\text{new parameter}) = (\text{calibrated parameter}) * \text{factor} \quad (4.1.1)$$

or

$$(\text{new parameter}) = (\text{calibrated parameter}) * 10^{(\text{factor} - 1)} \quad (4.1.2)$$

where the factors were 0.1, 0.5, 0.8, 0.9, 1.1, 1.2, 1.5, and 2.0. Parameters such as recharge were varied linearly using Equation 4.1.1. For parameters such as specific storage, which are typically thought of as log-varying, Equation 4.1.2 was used. For the output variable, the mean difference between the calibrated simulated water levels and the sensitivity simulated water levels was calculated:

$$MD = \frac{1}{n} \sum_{i=1}^n (h_{sens,i} - h_{cal,i}) \quad (4.1.3)$$

Where:

MD = mean difference

$h_{sens,i}$  = sensitivity simulation water level at active grid cell  $i$ ,

$h_{cal,i}$  = calibrated simulation water level at active grid cell  $i$ ,

$n$  = number of target locations.

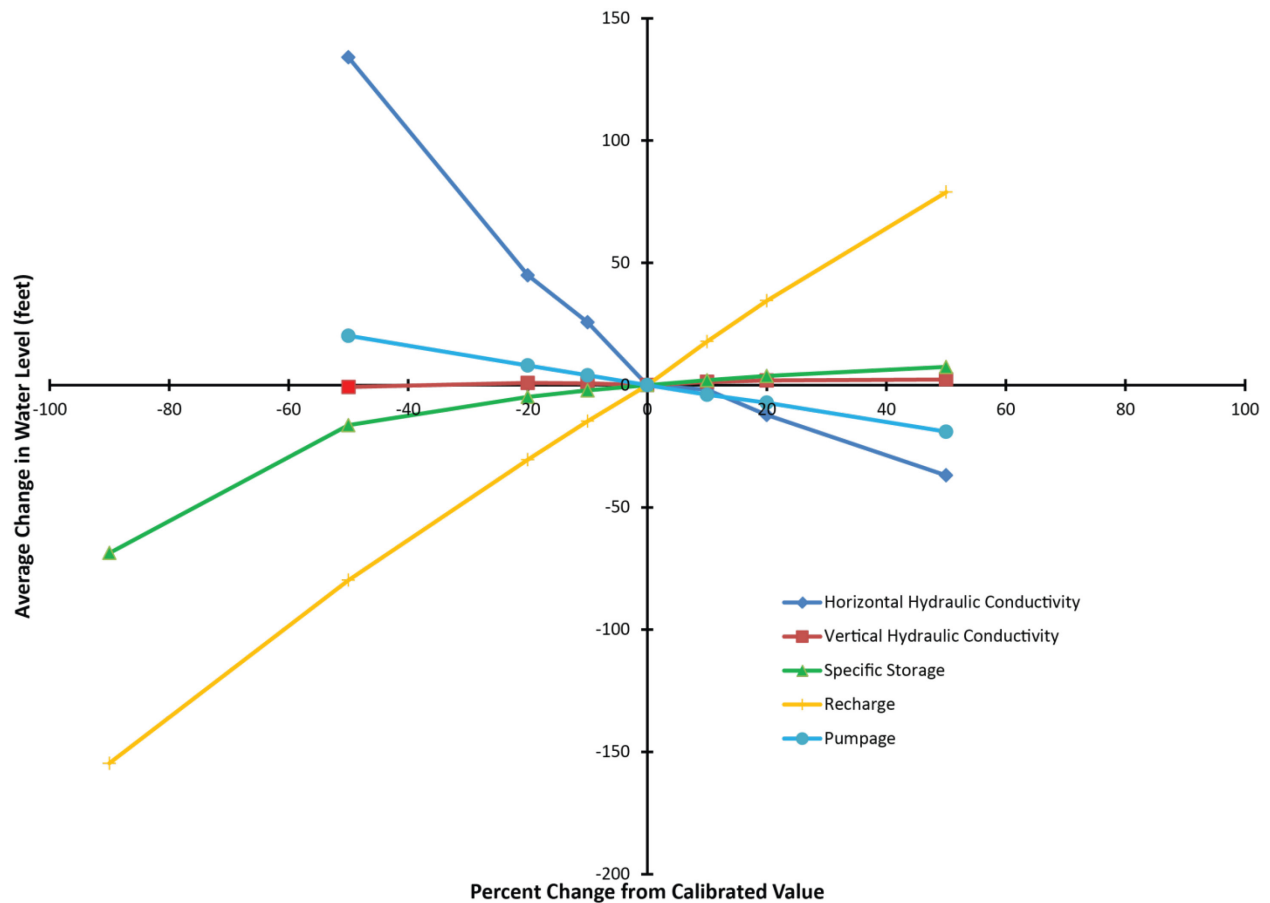
For the sensitivity analysis, five input parameters were investigated: (1) horizontal hydraulic conductivity of the Pecos Valley, Edwards-Trinity (Plateau), Dockum, Rustler, and Capitan Reef Complex aquifers; (2) vertical hydraulic conductivity of the Pecos Valley, Edwards-Trinity (Plateau), Dockum, Rustler, and Capitan Reef Complex aquifers; (3) recharge in the Pecos Valley, Edwards-Trinity (Plateau), and Capitan Reef Complex aquifers; (4) specific storage in the Pecos Valley, Edwards-Trinity (Plateau), Dockum, Rustler, and Capitan Reef Complex aquifers; and (5) pumping in the Pecos Valley, Edwards-Trinity (Plateau), Dockum, Rustler, and Capitan Reef Complex aquifers. Equation 4.1.1 was used for sensitivities based on horizontal and vertical hydraulic conductivity, recharge, specific storage, and pumping based on water-level target data. Additionally, Equation 4.1.2 was used for the specific storage transient sensitivities based on water-level hydrographs.

## 4.2 Results of Sensitivity Analysis

In the discussion of sensitivity analysis results, water levels are considered as potential output metrics. In some cases, changing a particular parameter does not result in any significant change to simulated water levels. The lower bound of significant change is based on the head convergence criteria used in the MODFLOW Solver Package. The head convergence criteria was 0.001 foot, so any average changes in water level that are approximately 0.001 foot or less are considered to be insignificant.

The sensitivity analysis results indicate that the model is most sensitive to recharge and horizontal hydraulic conductivity (Figure 4.2.1). The model is moderately sensitive to pumping wells and specific storage, and insensitive to vertical hydraulic conductivity.

Figure 4.2.2 shows changes to simulated water-level hydrographs over the calibration period in response order of magnitude increases and decreases in specific storage. Responses to increased specific storage are far more muted than responses to decreased specific storage.



**Figure 4.2.1. Average change in target water level as a function of variation of parameter values.**

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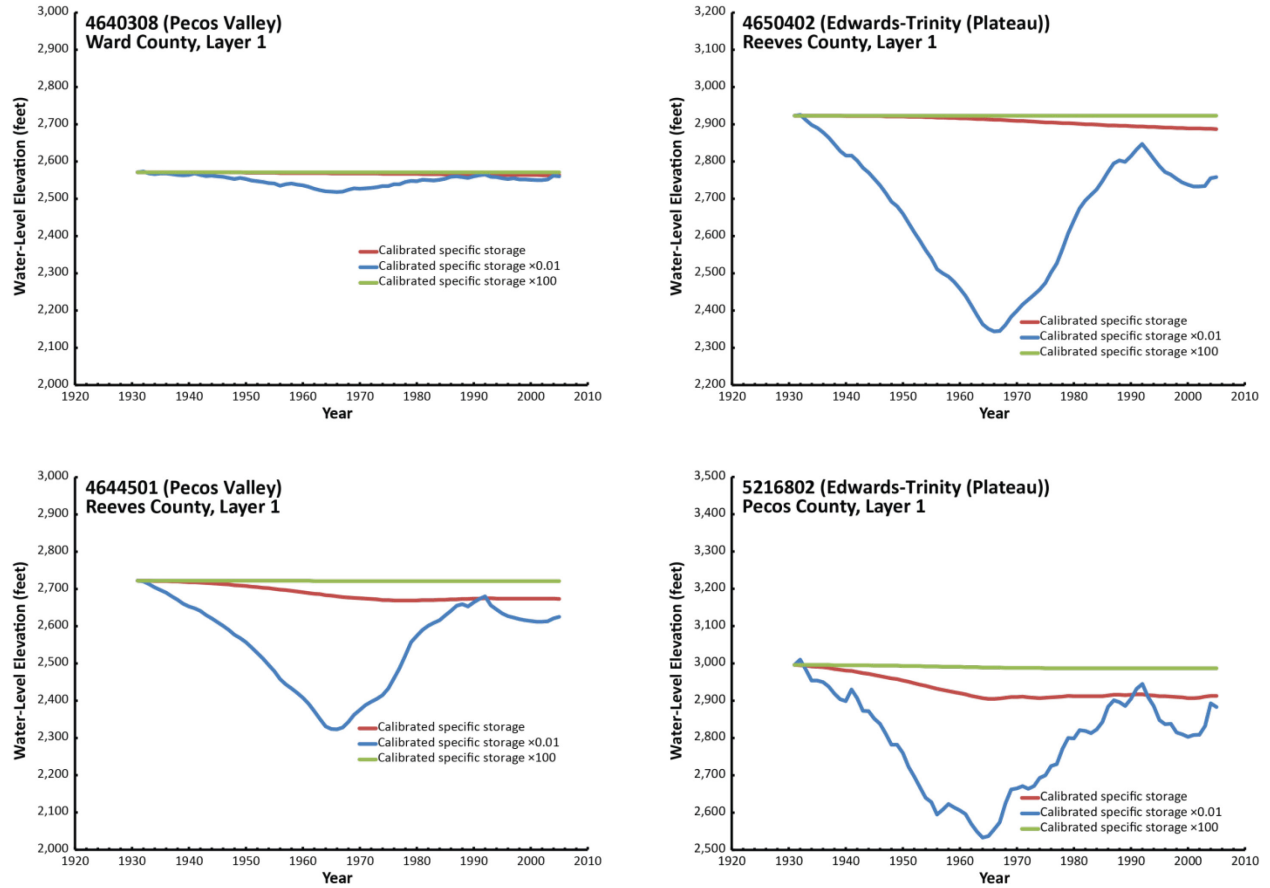


Figure 4.2.2. Hydrographs demonstrating the sensitivity of water-level fluctuations to changes in specific storage.



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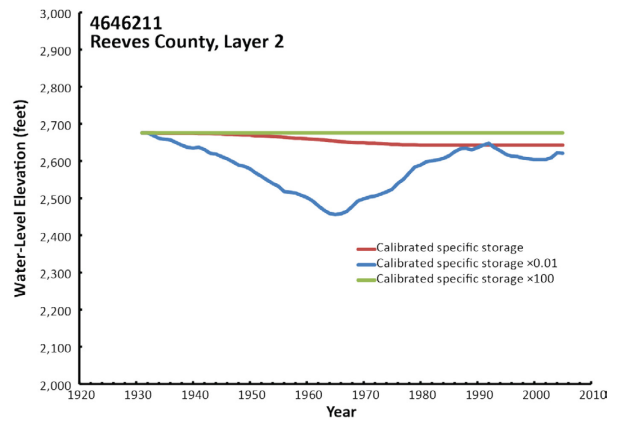
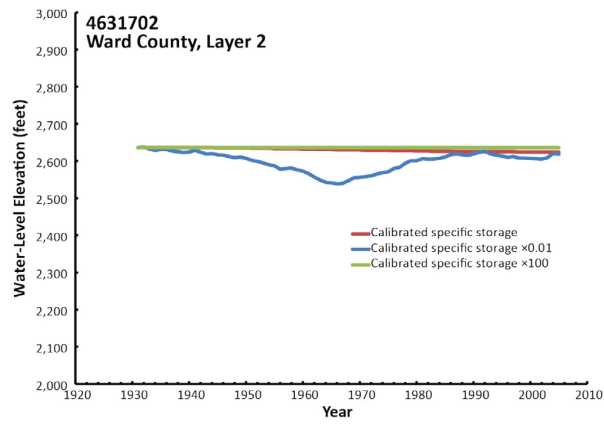
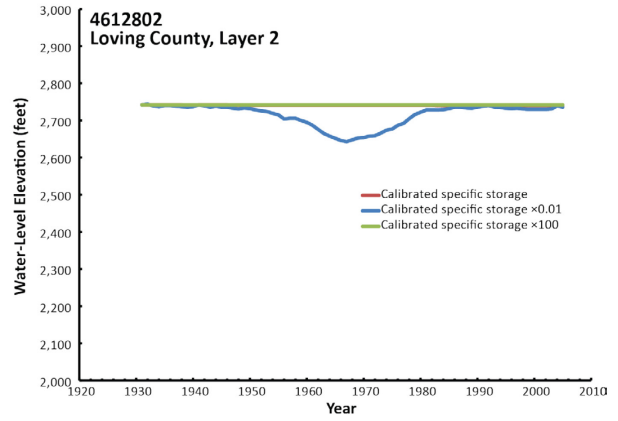
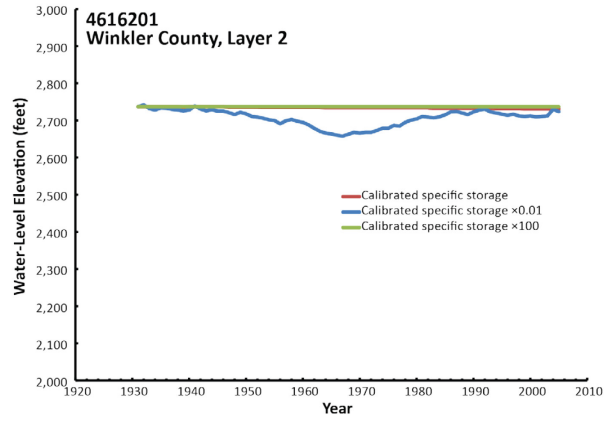


Figure 4.2.2. (continued).

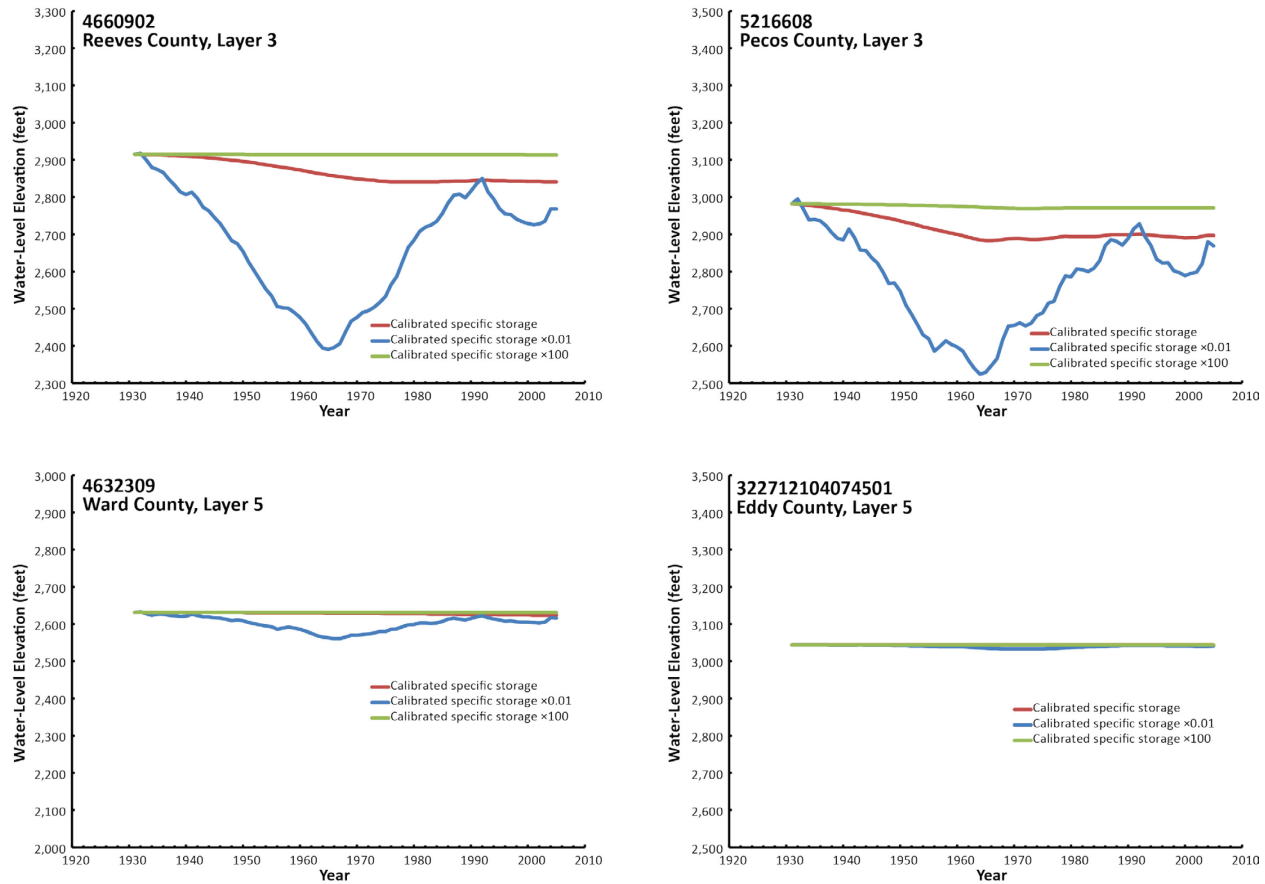


Figure 4.2.2. (continued).

## 5.0 MODEL LIMITATIONS

Numerical groundwater flow models are simplified representations of aquifer systems (Anderson and Woessner, 2002), and as such have limitations. These limitations are usually associated with (1) the purpose for the groundwater flow model, (2) the extent of the understanding of the aquifer(s), (3) the quantity and quality of data used to constrain parameters in the groundwater flow model, and (4) assumptions made during model development. Models are best viewed as tools to help form decisions rather than as machines to generate truth or make decisions. The National Research Council (2007) concluded that scientific advances will never make it possible to build a perfect model that accounts for every aspect of reality or be able to prove that a given model is correct in all respects for a particular application.

### 5.1 Limitations of Supporting Data

Development of the supporting data for a regional model of the size and complexity of the eastern arm of the Capitan Reef Complex Aquifer groundwater availability model is a challenge. The primary limitations in supporting data for the model are:

- spatially and temporally limited water-level targets in the minor aquifers and the confining units included in the model,
- limited applicability of stream gain/loss estimates for the Pecos River,
- limited hydraulic conductivity data for the minor aquifers and confining units,
- limited data quantifying cross-formational flow between the aquifers, and
- uncertain estimates of pumping in all of the hydrostratigraphic units.

Each of these data limitations is discussed briefly below.

Water levels are the primary type of calibration target used in most models, including this groundwater availability model. Due to issues in the model area, such as sparse population and poor water quality, there are very few wells, especially deep wells penetrating the underlying aquifers. Consequently, there is a paucity of water-level data. Additionally, wells are often screened in multiple aquifers, which may impact the applicability of water-level measurements in describing actual water levels in those aquifers. This may explain the wide range of water levels within a relatively small area in Ward and Pecos counties in wells attributed to the Capitan Reef Complex Aquifer.

Calibrating this groundwater flow model to match baseflow to the Pecos River is difficult for multiple reasons. Long-term stream gain-loss estimates are either not available or are influenced by water releases from upstream reservoirs which reduces their utility in determining groundwater-surface water interaction.

The same difficulty with water levels in the model area applies to estimates of hydraulic conductivity and other hydraulic properties. High quality aquifer-test information is sparse and consequently would not reflect likely heterogeneity within the modeled aquifers and confining units.

In the absence of meter data, pumping in the model area for various purposes is uncertain. Pumping for oil and gas exploration purposes is probably the largest groundwater use in the underlying aquifers the model area. Although probably minor relative to the total water budget, oil and gas related pumping data is unavailable and thus estimated based on assumptions.

## **5.2 Assessment of Assumptions**

Many assumptions are made about the groundwater flow system during construction and calibration of a groundwater model. Some of these assumptions are related to the spatial distribution of hydraulic conductivity and other hydraulic properties, the occurrence of no-flow boundaries, and the spatial and temporal distribution of pumping from the Capitan Reef Complex Aquifer.

Hydraulic conductivity within the eastern arm of the Capitan Reef Complex Aquifer and adjacent confining units were assumed uniform values based on sparse published hydraulic conductivity data. In reality, the hydraulic conductivity most likely varies spatially. Similarly, specific storage values used are also uniform.

No lateral groundwater inflow and outflow in Layer 2 is assumed. In Layer 3, lateral inflow is restricted to the northwestern boundary. Groundwater flow from the Pecos Trough located in central Reeves County and from the halite-rich parts of the Rustler Formation north and east of the model area is assumed to be insignificant. Hydraulic properties in Layer 4—the confining unit overlying the Capitan Reef Complex Aquifer—are assumed based on our knowledge of the lithology of the stratigraphic units. In Layer 5, the base of the model is assumed to be a no-flow boundary with no groundwater flow originating from underlying stratigraphic units.

For each oil or gas well that penetrated the Capitan Reef Complex Aquifer, it is assumed that there was an associated specific amount of groundwater pumped from the Capitan Reef Complex Aquifer. These pumping amounts were based on pumping estimates from Nicot and others (2011; 2012).

### **5.3 Limitations of Model Applicability**

The purpose of the Texas Water Development Board Groundwater Availability Modeling Program is to develop models to determine how regional groundwater availability is affected on a large scale by the development of groundwater. While the current model uses a half-mile square grid, its applicability is representative at a larger scale, such as tens of miles. The model should not be used to predict drawdown at a particular well. The model may be applicable at the scale of a large wellfield, depending on the data support that was available in that area of the model.

The root mean square error for calibration of the model to measured water levels is 129 feet and 104 feet for the overall model and the eastern arm of the Capitan Reef Complex Aquifer, respectively. This means that, on average, simulated water levels deviate from measured water levels by this amount. However, the model performs better in some areas and worse in others, so care must be taken in using the model to estimate absolute water-level elevation. As a predictive tool, the model will be better at predicting changes in water levels due to changes in stresses—hydrograph trends—rather than absolute water-level values.

The eastern arm of the Capitan Reef Complex Aquifer groundwater availability model should be used to estimate groundwater availability for the eastern arm of the Capitan Reef Complex Aquifer in Texas. This model should not be used for estimating water availability in the overlying aquifers—Pecos Valley, Edwards-Trinity (Plateau), Dockum, and Rustler aquifers. These aquifers are better presented in their respective groundwater availability models (Hutchison and others, 2011; Ewing and others, 2012; Deeds and Jigmond, 2015). Due to the lack of calibration data, this groundwater flow model is not recommended for use in the New

Mexico portion of the aquifer. Note: this model does not take into account the effects of higher water density associated with high salinity in groundwater that occurs in large parts of the model area.

## **6.0 SUMMARY AND CONCLUSIONS**

The groundwater availability model of the eastern arm of the Capitan Reef Complex Aquifer is a groundwater management tool that can be used by the Brewster County, Middle Pecos, and Reeves County groundwater conservation districts; Groundwater Management Areas 3, 4, and 7; and the Far West Texas and Region F regional water planning groups, among other stakeholders. This regional-scale model is not intended to address the effects of individual projects nor is it intended to simulate groundwater flow through non-aquifer geologic units such as the San Andres Formation. Evaluating the effects of individual projects would require a local-scale model calibrated with local scale data.

This model is composed of five layers of half-mile grid cells representing several hydrostratigraphic units that make up a flow system that directly or indirectly interacts with the eastern arm of the Capitan Reef Complex Aquifer. From top to bottom, the following are the layers in the model: Layer 1—the Pecos Valley and Edwards-Trinity (Plateau) aquifers, Layer 2—the Dockum Aquifer and Dewey Lake Formation, Layer 3—Rustler Aquifer, Layer 4—a confining unit composed of the Salado and Castile formations, and the Artesia Group, and Layer 5—the Capitan Reef Complex Aquifer, Artesia and Delaware Mountain groups (Jones, 2014).

The available data used to construct both the conceptual and groundwater availability models are adequate enough to describe the eastern arm of the Capitan Reef Complex Aquifer at the regional scale. This model is not intended to address issues at local scale resolution. Groundwater geochemical and isotopic data for the eastern arm of the Capitan Reef Complex Aquifer indicate that at the regional scale, groundwater recharges in the aquifer outcrop and flows down-dip. At the local scale, faults may act as barriers hindering groundwater down-gradient flow. That is not an indication that groundwater under the influence of down-dip hydraulic gradients does not eventually flow across or around these faults. The calibrated model indicates that groundwater flows from the Capitan Reef Complex Aquifer into the shelf sediments that include the San Andres Formation in southern Pecos County. Also note that the San Andres Formation is not defined as an aquifer by the Texas Water Development Board and is simulated only as a boundary condition in this model.

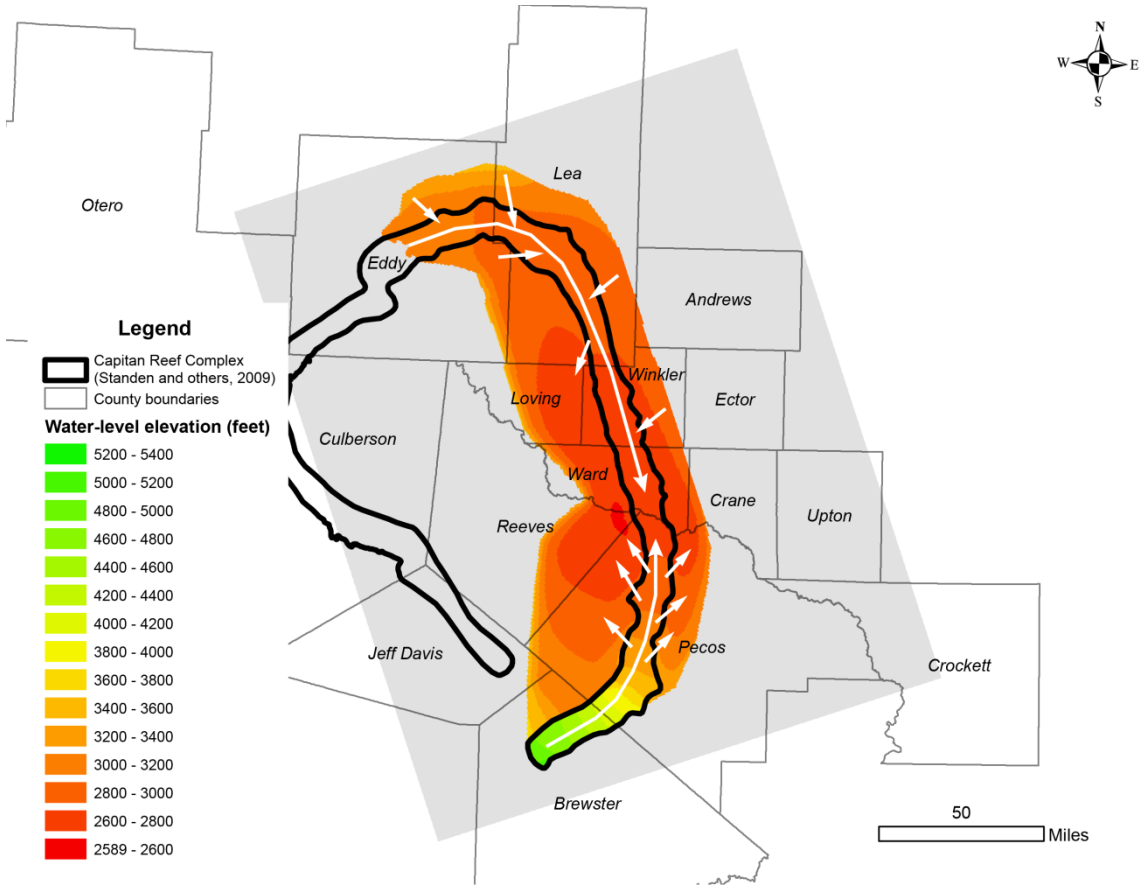
Most of the model boundaries are assumed to be no-flow boundaries representing possible groundwater divides or other barriers to groundwater flow. However, in some cases, general-head boundaries were used to simulate regional groundwater flow into and out of the model area. Recharge to the flow system occurs in the outcrops of the Capitan Reef Complex, Edwards-Trinity (Plateau) and Pecos Valley aquifers through infiltration of precipitation above a specified

threshold. The Pecos River in Texas is the primary discharge zone to the flow system, with minor natural discharge through spring discharge. Groundwater is pumped from the flow system for municipal, domestic, irrigation, livestock, and petroleum industry uses. Most of this pumping is from the shallowest aquifers with minor amounts from the deep aquifers. It is assumed that most petroleum-related pumping is from the Capitan Reef Complex Aquifer.

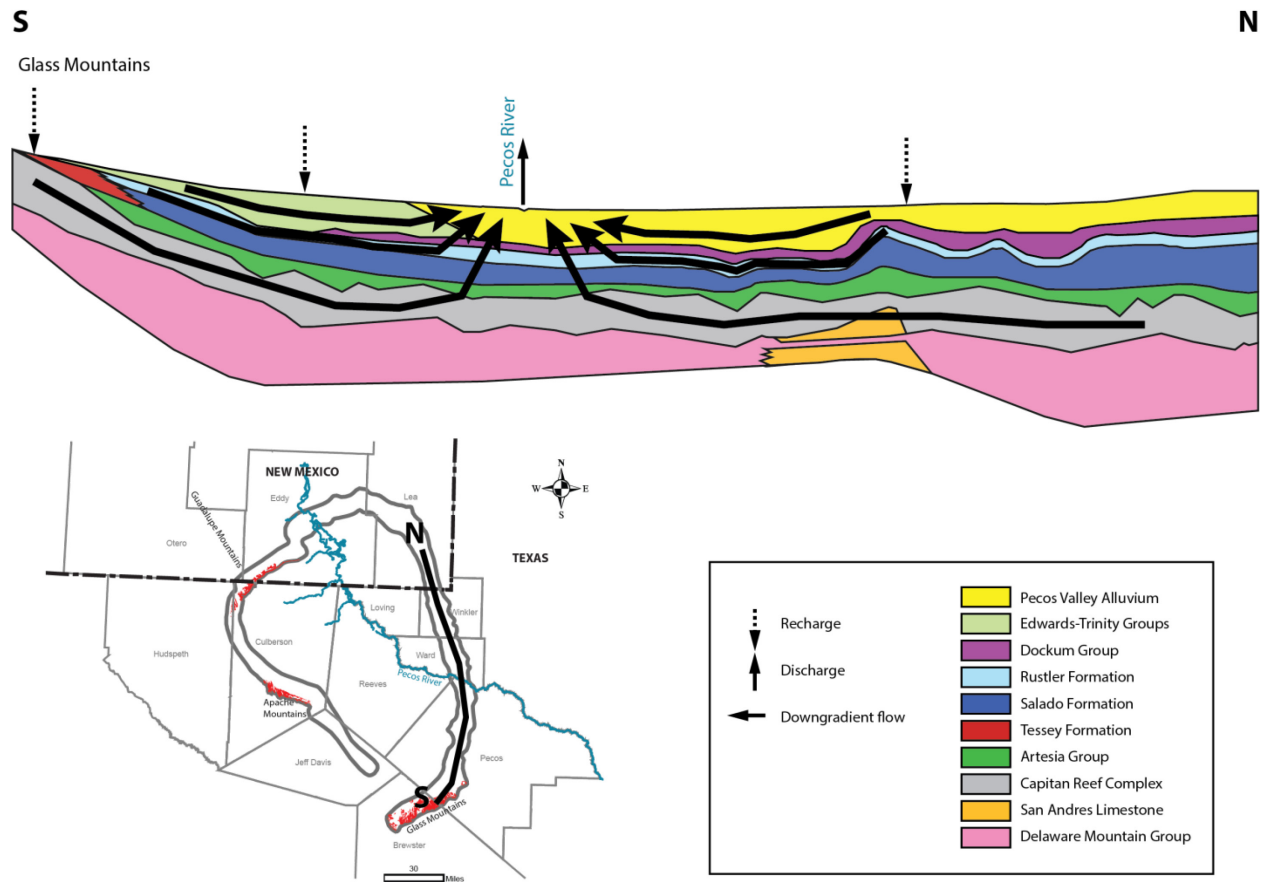
Model calibration was by trial-and-error and assisted using PEST—a model-independent, industry-standard, parameter estimation code. The root mean squared error—a measure of how well simulated water levels match measured water levels—for the calibration for all model layers is 129 feet and 104 feet for the Capitan Reef Complex Aquifer. Both of these root mean squared error values represent 7 percent of the range of measured water-level elevations and thus meet the 10 percent calibration requirement. Sensitivity analysis results indicate that the model is most sensitive to recharge and horizontal hydraulic conductivity and is moderately sensitive to pumping.

In the calibrated model, groundwater enters the aquifer system from two sources: recharge due to infiltration of precipitation and regional inflow through general-head boundaries. Groundwater leaves the system primarily through leakage to the Pecos River and pumping. Modeled groundwater flow directions in all model layers indicate that groundwater flows principally to the north and south, converging on the Pecos River (Figure 6.0.1), this is substantiated through analysis of measured water-level data in the conceptual model report (Jones, 2014). The groundwater budget indicates that in the deeper aquifers, there is a large component of vertical inter-aquifer groundwater flow relative to lateral flow as groundwater flows upwards eventually discharging to the Pecos River (Figure 6.0.2). This result should not be surprising considering (1) the occurrence of upward hydraulic gradients throughout the model area, and (2) the occurrence of artesian or historically artesian wells in the underlying aquifers in this flow system (Jones, 2014).

Model users should consider several limitations when using this model. To a certain extent this model is interpretive rather than being a fully predictive model because of the limited historical stresses on the aquifer, limited amount of measured water levels, and limited hydraulic property data. In addition, because of the lack of historical stresses, it was not possible to fully calibrate the storage coefficient. The use of a constant transmissivity in the model requires that model users carefully evaluate whether it is appropriate to assume that water-level drawdown is insignificant relative to the total aquifer thickness.



**Figure 6.0.1. Map indicating groundwater flow directions in the eastern arm of the Capitan Reef Complex Aquifer along with inflows from and outflows to the surrounding shelf and basin deposits.**



**Figure 6.0.2. Schematic cross-section of the modeled aquifers showing groundwater convergence and cross-formational discharge to the Pecos River.**

## 7.0 FUTURE IMPROVEMENTS

Groundwater availability models are considered ‘living tools’—in other words—they are subject to periodic updates to improve model results and to make the models better groundwater management tools. This concept is especially applicable to the Capitan Reef Complex Aquifer groundwater availability model as additional hydrologic and geologic data continue to be developed, evaluated, and interpreted with respect to groundwater flow conditions and aquifer properties and relationships. Below is a discussion of possible model improvements that may be incorporated into future updates of this model.

As discussed above, in the model limitations section, the scarcity of water-level data and hydraulic property information for the model is an issue. As more data becomes available, it may be included in future updates of the model.

The possibility of including the Tessey Limestone in the model may be considered in future versions of this model. The Tessey Limestone overlies parts of the southern Capitan Reef Complex Aquifer and the two hydrostratigraphic units may be hydrologically connected.



In future versions of this model, spatially variable hydraulic conductivity values in the Capitan Reef Complex Aquifer will probably be used instead of the uniform value used in the current version of the model. This may help to improve the calibration results.

Also in future versions of this model, combining the upper three model layers will be considered. These layers represent the overlying aquifers—the Pecos Valley, Edwards-Trinity (Plateau), Dockum, and Rustler aquifers—that act as a boundary condition and are not modeled in detail. The range of hydraulic conductivity values in these model layers is relatively narrow, so conversion to a uniform value does not significantly change overall model results.

Further investigation of the effects and hydraulic properties of the confining unit overlying the Capitan Reef Complex Aquifer is needed. Additional investigation of the hydrogeology of the Capitan Reef Complex Aquifer in the Glass Mountains is needed to gain better understanding of recharge processes and the effects of faulting in that part of the aquifer. Possible interconnection between the Capitan Reef Complex Aquifer and the adjacent San Andres Formation may be investigated for possible incorporation into the model.

## **8.0 ACKNOWLEDGMENTS**

This project would not have been possible without the support of a number of individuals and organizations. I greatly appreciate the technical and editorial expertise of Cindy Ridgeway, Larry French, Patricia Blanton, and Radu Boghici. I am also grateful for the continued interest of the Middle Pecos Groundwater Conservation District. I would also like to thank Peter Castiglia, Elise Chandler, Steve Finch, Gerald Lyda, Wade Oliver, Darrell Peckham, Allan Standen, Raymond Straub, Gilbert Van Deventer among others for their help providing data and insights into the Capitan Reef Complex Aquifer.

## **9.0 REFERENCES**

- Anaya, R., 2001, Using GIS Projection Parameters for GAM: TWDB Groundwater Availability Model Technical Memo 01-01.
- Anderson, M. P., and Woessner, W. W., 2002, Applied groundwater modeling, simulation of flow and advective transport: New York, Academic Press, 381 p.
- Deeds, N. E., and Jigmond, M., 2015, Numerical model report for the High Plains Aquifer System Groundwater Availability Model: Contract report prepared for the Texas Water Development Board, 634 p.
- Ewing, J. E., Kelley, V. A., Jones, T. L., Yan, T., Singh, A., Powers, D. W., Holt, R. M., Sharp, J. M., Jr., 2012, Groundwater availability model report for the Rustler Aquifer: Contract report prepared for the Texas Water Development Board, 454 p.

- Finch, S. T., Jr., 2014, Calculated recharge to the Capitan Reef Complex Aquifer, Glass Mountain area in Brewster and Pecos counties, Texas: Technical memorandum prepared for La Escalera Ranch Limited Partnership, 11 p.
- George, P. G., Mace, R. E., and Petrossian, R., 2011, Aquifers of Texas: Texas Water Development Board Report 380, 182 p.
- Harbaugh, A. W., and McDonald, M. G., 1996, User's documentation for MODFLOW-96, An update to the U.S. Geological Survey modular finite-difference ground-water flow model: United States Geological Survey, Open-File Report 96-485.
- Harbaugh, A. W., Banta, E. R., Hill, M. C., and McDonald, M. G., 2000, MODFLOW-2000, The U.S. Geological Survey modular ground-water model - User guide to modularization concepts and the ground-water flow process: United States Geological Survey, Open-File Report 00-92.
- Harbaugh, A. W., 2005, MODFLOW-2005, the U.S. Geological Survey modular ground-water model -- the Ground-Water Flow Process: U.S. Geological Survey Techniques and Methods 6-A16.
- Hsieh, P. A., and Freckleton, J. R., 1993, Documentation of a computer program to simulate horizontal-flow barriers using the U.S. Geological Survey modular three- dimensional finite-difference ground-water flow model: U.S. Geological Survey Open-File Report 92-477, 32 p.
- Hutchison, W. R., Jones, I. C., and Anaya, R., 2011, Update of the groundwater availability model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers of Texas: Texas Water Development Board unpublished report, 60 p.
- Jones, I. C., 2014, Conceptual model: Capitan Reef Complex Aquifer: Texas Water Development Board, unpublished report, 174 p.
- McDonald, M.G., and Harbaugh, A.W., 1988, A modular three-dimensional finite-difference ground-water flow model: United States Geological Survey, Techniques of Water-Resources Investigations, Book 6, chapter A1.
- National Research Council, 2007, Models in Environmental Regulatory Decision Making Committee on Models in the Regulatory Decision Process, National Academies Press, Washington D.C., 287 p.
- New Mexico Energy, Minerals and Natural Resources Department, 2012, Oil and gas well database, accessed 2012.
- Nicot, J. P., Hebel, A. K., Ritter, S. M., Walden, S., Baier, R., Galusky, P., Beach, J., Kyle, R., Symank, L. and Breton, C., 2011, Current and Projected Water Use in the Texas Mining and Oil and Gas Industry: Bureau of Economic Geology, prepared for the Texas Water Development Board, Contract Report 0904830939, 357 p.

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Nicot, J. P., Reedy, R. C., Costley, R. A., and Huang, Y., 2012, Oil & Gas Water Use in Texas: Update to the 2011 Mining Water Use Report: Bureau of Economic Geology, Unpublished report prepared for the Texas Oil and Gas Association, 97 p.

Railroad Commission of Texas, 2012, Oil and gas well database, accessed 2012.

Standen, A., Finch, S., Williams, R., Lee-Brand, B., and Kirby, P., 2009, Capitan Reef Complex structure and stratigraphy: Prepared for the Texas Water Development Board, Contract 0804830794, 71 p.

Watermark Numerical Computing, 2005, PEST: Model-independent parameter estimation user manual: Watermark Numerical Computing, 5<sup>th</sup> edition, 332 p.

## **APPENDICES**

## APPENDIX A WATER BUDGETS

### A.1 Water Budgets by County

**Table A.1.1. Water budgets of the modeled area by county for Layer 1—the Edwards-Trinity (Plateau) and Pecos Valley aquifers—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	4,748	-4,018	-365	0	0	0
1932	388	0	5,168	-4,300	-475	-2	0	0
1933	-467	0	3,954	-3,951	-466	-2	0	0
1934	-392	0	3,954	-3,872	-462	-2	0	0
1935	322	0	4,864	-4,060	-469	-2	0	0
1936	69	0	4,603	-4,062	-471	-2	0	0
1937	-85	0	4,331	-3,911	-470	-2	0	0
1938	-181	0	4,237	-3,962	-469	-2	0	0
1939	-218	0	4,195	-3,942	-467	-2	0	0
1940	164	0	4,665	-4,030	-471	-2	0	0
1941	952	0	5,597	-4,155	-487	-2	0	0
1942	-118	0	4,477	-4,107	-486	-2	0	0
1943	-376	0	4,142	-4,036	-479	-2	0	0
1944	225	0	4,812	-4,104	-482	-2	0	0
1945	-195	0	4,341	-4,059	-479	-2	0	0
1946	-45	0	4,498	-4,060	-478	-2	0	0
1947	-260	0	4,153	-3,970	-474	-2	0	0
1948	-440	0	4,006	-3,975	-470	-2	0	0
1949	317	0	4,927	-4,107	-477	-2	0	0
1950	-266	0	4,237	-4,010	-475	-2	0	0
1951	-683	0	3,745	-3,956	-467	-2	0	0
1952	-481	0	3,912	-3,939	-462	-2	0	0
1953	-516	0	3,860	-3,921	-458	-2	0	0
1954	-552	0	3,808	-3,910	-454	-2	0	0
1955	-307	0	4,069	-3,910	-457	-2	0	0
1956	-900	0	3,452	-3,904	-448	-2	0	0
1957	354	0	4,937	-4,158	-462	-3	0	0
1958	383	0	5,126	-4,265	-475	-3	0	0

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<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1959	-154	0	4,592	-4,273	-477	-3	0	0
1960	-320	0	4,571	-4,413	-475	-3	0	0
1961	-456	0	4,341	-4,319	-472	-3	0	0
1962	-661	0	4,048	-4,260	-464	-3	0	0
1963	-529	0	4,027	-4,133	-459	-3	0	0
1964	-587	0	4,216	-4,340	-458	-3	0	0
1965	-404	0	4,362	-4,312	-460	-3	0	0
1966	-633	0	4,289	-4,466	-457	-3	0	0
1967	-584	0	4,247	-4,363	-457	-3	0	0
1968	-204	0	4,854	-4,597	-462	-3	0	0
1969	-301	0	4,833	-4,667	-464	-3	0	0
1970	-769	0	4,247	-4,539	-459	-3	0	0
1971	-635	0	4,624	-4,798	-457	-3	0	0
1972	-381	0	4,435	-4,213	-456	-3	0	0
1973	-522	0	4,624	-4,679	-457	-3	0	0
1974	-478	0	4,854	-4,867	-458	-3	0	0
1975	-646	0	4,571	-4,762	-456	-4	0	0
1976	-301	0	4,833	-4,692	-457	-4	0	0
1977	-1,197	0	4,101	-4,847	-448	-4	0	0
1978	-695	0	4,718	-4,966	-447	-4	0	0
1979	-640	0	4,383	-4,668	-449	-4	0	0
1980	-697	0	4,509	-4,745	-448	-4	0	0
1981	-419	0	4,885	-4,836	-453	-4	0	0
1982	-866	0	4,341	-4,742	-452	-4	0	0
1983	-1,003	0	4,142	-4,664	-451	-4	0	0
1984	-785	0	4,404	-4,726	-453	-5	0	0
1985	-556	0	4,739	-4,816	-459	-7	0	0
1986	-434	0	5,147	-5,105	-465	-7	0	0
1987	-565	0	4,812	-4,912	-467	-8	0	0
1988	-1,074	0	4,122	-4,759	-460	-8	0	0
1989	-1,140	0	4,048	-4,716	-455	-5	0	0
1990	-660	0	4,927	-5,139	-457	-5	0	0
1991	-422	0	5,094	-5,077	-462	-5	0	0
1992	-370	0	5,147	-5,042	-468	-6	0	0

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<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1993	-1,082	0	4,174	-4,820	-461	-6	0	0
1994	-946	0	4,341	-4,811	-464	-6	0	0
1995	-1,047	0	4,216	-4,799	-461	-6	0	0
1996	-1,068	0	4,195	-4,763	-458	-6	0	0
1997	-818	0	4,770	-5,138	-459	-6	0	0
1998	-1,150	0	4,122	-4,789	-458	-6	0	0
1999	-1,118	0	4,101	-4,757	-454	-6	0	0
2000	-923	0	4,268	-4,779	-453	-6	0	0
2001	-1,071	0	4,122	-4,714	-458	-6	0	0
2002	-851	0	4,414	-4,797	-461	-5	0	0
2003	-522	0	4,435	-4,552	-472	-5	0	0
2004	270	0	5,931	-5,187	-489	-5	0	0
2005	-918	0	4,414	-4,860	-488	-8	0	0

<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	9,862	4,018	1,096	0	0	-14,975
1932	841	0	10,834	4,095	1,063	-25	0	-15,085
1933	-1,197	0	8,308	4,254	1,122	-32	0	-14,862
1934	-1,049	0	8,308	4,259	1,160	-40	0	-14,765
1935	513	0	10,234	4,125	1,109	-47	0	-14,887
1936	-23	0	9,639	4,146	1,088	-55	0	-14,841
1937	-515	0	9,043	4,189	1,091	-62	0	-14,764
1938	-605	0	8,905	4,180	1,093	-73	0	-14,696
1939	-642	0	8,775	4,170	1,095	-80	0	-14,612
1940	171	0	9,772	4,094	1,048	-87	0	-14,652
1941	1,729	0	11,763	3,991	931	-95	0	-14,841
1942	-391	0	9,373	4,070	930	-103	0	-14,655
1943	-872	0	8,706	4,076	948	-111	0	-14,504
1944	311	0	10,103	3,993	899	-118	0	-14,567
1945	-535	0	9,106	4,023	895	-126	0	-14,439

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<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1946	-236	0	9,438	4,002	873	-134	0	-14,404
1947	-649	0	8,707	4,035	875	-141	0	-14,311
1948	-1,023	0	8,377	4,020	886	-149	0	-14,181
1949	563	0	10,305	3,905	810	-157	0	-14,286
1950	-565	0	8,905	3,979	803	-165	0	-14,152
1951	-1,431	0	7,844	3,973	828	-172	0	-13,939
1952	-1,018	0	8,240	3,937	823	-183	0	-13,855
1953	-1,073	0	8,108	3,922	820	-190	0	-13,738
1954	-1,124	0	7,977	3,907	813	-198	0	-13,638
1955	-682	0	8,510	3,884	783	-205	0	-13,616
1956	-1,650	0	7,245	3,894	804	-212	0	-13,414
1957	966	0	10,368	3,707	683	-220	0	-13,604
1958	1,158	0	10,767	3,706	557	-228	0	-14,880
1959	39	0	9,637	3,686	514	-235	0	-13,551
1960	-35	0	9,572	3,647	465	-246	0	-13,951
1961	-416	0	9,106	3,659	452	-252	0	-13,391
1962	-886	0	8,507	3,677	452	-262	0	-13,266
1963	-698	0	8,442	3,694	449	-268	0	-13,205
1964	-532	0	8,840	3,626	427	-274	0	-13,146
1965	-266	0	9,171	3,634	414	-284	0	-13,175
1966	-426	0	8,975	3,657	427	-291	0	-13,199
1967	-486	0	8,906	3,701	459	-301	0	-13,230
1968	596	0	10,170	3,724	452	-307	0	-13,454
1969	429	0	10,106	3,763	456	-317	0	-13,581
1970	-595	0	8,906	3,819	510	-323	0	-13,531
1971	79	0	9,704	3,805	523	-330	0	-13,625
1972	-274	0	9,305	3,828	536	-338	0	-13,603
1973	48	0	9,704	3,789	530	-348	0	-13,628
1974	413	0	10,170	3,768	502	-356	0	-13,968
1975	-146	0	9,572	3,784	512	-363	0	-13,880
1976	257	0	10,106	3,762	506	-370	0	-14,142
1977	-1,017	0	8,576	3,839	572	-377	0	-13,623
1978	186	0	9,903	3,851	575	-387	0	-13,753
1979	-407	0	9,174	3,895	614	-395	0	-13,738



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<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1980	-209	0	9,440	3,874	625	-402	0	-13,749
1981	420	0	10,237	3,825	601	-395	0	-13,846
1982	-548	0	9,106	3,890	628	-419	0	-13,762
1983	-792	0	8,706	3,922	665	-399	0	-13,694
1984	-294	0	9,239	3,897	673	-388	0	-13,723
1985	368	0	9,906	3,863	657	-262	0	-13,804
1986	1,033	0	10,769	3,894	624	-269	0	-13,998
1987	392	0	10,103	3,883	629	-231	0	-14,000
1988	-806	0	8,641	3,982	690	-289	0	-13,872
1989	-825	0	8,507	3,985	737	-283	0	-13,813
1990	684	0	10,305	3,909	701	-266	0	-14,474
1991	927	0	10,700	3,869	662	-231	0	-14,192
1992	963	0	10,769	3,839	630	-142	0	-14,135
1993	-665	0	8,772	3,954	671	-159	0	-13,940
1994	-353	0	9,106	3,926	688	-186	0	-13,904
1995	-516	0	8,840	3,915	702	-179	0	-13,813
1996	-534	0	8,775	3,907	715	-175	0	-13,758
1997	542	0	10,034	3,829	673	-155	0	-13,832
1998	-644	0	8,641	3,894	694	-178	0	-13,713
1999	-582	0	8,576	3,885	709	-130	0	-13,656
2000	-430	0	8,971	3,863	704	-358	0	-13,652
2001	-623	0	8,641	3,886	722	-276	0	-13,613
2002	-118	0	9,240	3,860	717	-276	0	-13,670
2003	-90	0	9,305	3,875	730	-276	0	-13,717
2004	2,470	0	12,430	3,831	624	-269	0	-14,139
2005	-450	0	9,240	3,929	659	-374	0	-13,961

<b>Crockett</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	-1,096	2,922	0	2,922	0	0	-4,748
1932	226	-1,272	3,209	0	3,049	-4	0	-4,760

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<b>Crockett</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1933	-341	-1,257	2,456	0	3,060	-4	0	-4,600
1934	-275	-1,246	2,456	0	3,043	-4	0	-4,522
1935	163	-1,253	3,021	0	2,987	-4	0	-4,592
1936	5	-1,254	2,858	0	2,947	-4	0	-4,542
1937	-97	-1,250	2,690	0	2,906	-4	0	-4,465
1938	-156	-1,244	2,631	0	2,859	-3	0	-4,383
1939	-146	-1,238	2,605	0	2,812	-4	0	-4,313
1940	85	-1,243	2,897	0	2,746	-4	0	-4,318
1941	459	-1,263	3,476	0	2,664	-4	0	-4,415
1942	-113	-1,258	2,781	0	2,635	-4	0	-4,272
1943	-229	-1,248	2,573	0	2,600	-4	0	-4,148
1944	106	-1,254	2,989	0	2,533	-4	0	-4,159
1945	-124	-1,249	2,696	0	2,489	-4	0	-4,055
1946	-35	-1,248	2,794	0	2,430	-5	0	-4,005
1947	-172	-1,241	2,579	0	2,394	-5	0	-3,915
1948	-219	-1,232	2,488	0	2,341	-5	0	-3,810
1949	214	-1,242	3,060	0	2,253	-5	0	-3,857
1950	-128	-1,237	2,631	0	2,209	-5	0	-3,745
1951	-334	-1,223	2,326	0	2,168	-5	0	-3,596
1952	-202	-1,216	2,430	0	2,107	-5	0	-3,520
1953	-202	-1,209	2,397	0	2,045	-6	0	-3,432
1954	-203	-1,202	2,365	0	1,982	-6	0	-3,347
1955	-73	-1,200	2,527	0	1,904	-6	0	-3,298
1956	-348	-1,186	2,144	0	1,858	-6	0	-3,153
1957	345	-1,203	3,066	0	1,753	-6	0	-3,274
1958	336	-1,218	3,183	0	1,681	-6	0	-3,302
1959	40	-1,220	2,852	0	1,647	-6	0	-3,231
1960	32	-1,222	2,839	0	1,613	-7	0	-3,193
1961	-69	-1,219	2,696	0	1,590	-7	0	-3,127
1962	-178	-1,212	2,514	0	1,569	-7	0	-3,042
1963	-142	-1,206	2,501	0	1,549	-7	0	-2,995
1964	-54	-1,204	2,618	0	1,513	-7	0	-2,974
1965	18	-1,205	2,709	0	1,519	-7	0	-2,996
1966	-13	-1,206	2,664	0	1,565	-7	0	-3,805

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<b>Crockett</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1967	-31	-1,204	2,637	0	1,648	-7	0	-3,108
1968	243	-1,214	3,015	0	1,716	-7	0	-3,269
1969	190	-1,221	3,002	0	1,813	-7	0	-3,393
1970	-94	-1,216	2,637	0	1,904	-7	0	-3,409
1971	97	-1,220	2,871	0	1,953	-6	0	-3,501
1972	-2	-1,220	2,755	0	1,954	-6	0	-3,492
1973	79	-1,223	2,871	0	1,943	-6	0	-3,502
1974	168	-1,230	3,015	0	1,931	-6	0	-3,543
1975	21	-1,230	2,839	0	1,959	-6	0	-3,543
1976	134	-1,235	3,002	0	1,992	-6	0	-3,606
1977	-195	-1,226	2,547	0	2,066	-6	0	-3,573
1978	120	-1,231	2,930	0	2,116	-7	0	-3,687
1979	-43	-1,229	2,722	0	2,189	-7	0	-3,723
1980	18	-1,229	2,800	0	2,184	-7	0	-3,731
1981	178	-1,237	3,034	0	2,174	-7	0	-3,788
1982	-90	-1,232	2,696	0	2,192	-7	0	-3,738
1983	-153	-1,225	2,573	0	2,207	-7	0	-3,698
1984	-9	-1,225	2,735	0	2,211	-7	0	-3,723
1985	137	-1,231	2,943	0	2,229	-6	0	-3,799
1986	285	-1,243	3,196	0	2,266	-6	0	-3,929
1987	96	-1,246	2,989	0	2,322	-6	0	-3,964
1988	-215	-1,236	2,560	0	2,378	-6	0	-3,906
1989	-196	-1,228	2,514	0	2,387	-7	0	-3,862
1990	220	-1,237	3,060	0	2,372	-6	0	-3,962
1991	247	-1,247	3,164	0	2,373	-6	0	-4,036
1992	226	-1,256	3,196	0	2,378	-6	0	-4,086
1993	-232	-1,246	2,592	0	2,374	-6	0	-3,939
1994	-101	-1,241	2,696	0	2,361	-6	0	-3,908
1995	-139	-1,236	2,618	0	2,321	-6	0	-3,836
1996	-121	-1,231	2,605	0	2,304	-6	0	-3,798
1997	143	-1,237	2,962	0	2,269	-6	0	-3,844
1998	-174	-1,230	2,560	0	2,258	-7	0	-3,754
1999	-150	-1,224	2,547	0	2,245	-6	0	-3,712
2000	-56	-1,222	2,650	0	2,209	-7	0	-3,685

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<b>Crockett</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2001	-114	-1,217	2,560	0	2,240	-7	0	-3,688
2002	30	-1,219	2,742	0	2,258	-7	0	-3,746
2003	34	-1,220	2,755	0	2,350	-7	0	-3,852
2004	664	-1,249	3,684	0	2,352	-6	0	-4,117
2005	-113	-1,243	2,742	0	2,398	-7	0	-4,008

<b>Culberson</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	5,479	0	-5,114	0	0	0
1932	586	0	5,947	0	-5,360	-3	0	0
1933	-803	0	4,552	0	-5,350	-3	0	0
1934	-806	0	4,552	0	-5,351	-3	0	0
1935	236	0	5,600	0	-5,358	-3	0	0
1936	-61	0	5,298	0	-5,355	-3	0	0
1937	-314	0	4,986	0	-5,351	-3	0	0
1938	-519	0	4,875	0	-5,352	-3	0	0
1939	-552	0	4,827	0	-5,349	-3	0	0
1940	16	0	5,369	0	-5,349	-4	0	0
1941	1,086	0	6,442	0	-5,353	-4	0	0
1942	-195	0	5,154	0	-5,344	-4	0	0
1943	-578	0	4,768	0	-5,341	-4	0	0
1944	192	0	5,540	0	-5,345	-4	0	0
1945	-347	0	4,998	0	-5,343	-4	0	0
1946	-173	0	5,178	0	-5,344	-4	0	0
1947	-535	0	4,780	0	-5,341	-4	0	0
1948	-732	0	4,612	0	-5,339	-4	0	0
1949	318	0	5,672	0	-5,345	-4	0	0
1950	-446	0	4,875	0	-5,339	-4	0	0
1951	-1,030	0	4,309	0	-5,335	-4	0	0
1952	-830	0	4,504	0	-5,335	-4	0	0
1953	-890	0	4,444	0	-5,334	-5	0	0

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<b>Culberson</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1954	-948	0	4,384	0	-5,333	-5	0	0
1955	-670	0	4,684	0	-5,331	-5	0	0
1956	-1,360	0	3,974	0	-5,325	-5	0	0
1957	346	0	5,684	0	-5,334	-5	0	0
1958	564	0	5,900	0	-5,330	-6	0	0
1959	-44	0	5,286	0	-5,322	-6	0	0
1960	-65	0	5,262	0	-5,319	-6	0	0
1961	-325	0	4,998	0	-5,317	-6	0	0
1962	-659	0	4,660	0	-5,317	-6	0	0
1963	-634	0	4,636	0	-5,317	-6	0	0
1964	-474	0	4,851	0	-5,318	-7	0	0
1965	-306	0	5,022	0	-5,320	-7	0	0
1966	-389	0	4,938	0	-5,320	-7	0	0
1967	-446	0	4,887	0	-5,322	-7	0	0
1968	256	0	5,588	0	-5,325	-7	0	0
1969	229	0	5,564	0	-5,329	-7	0	0
1970	-448	0	4,887	0	-5,326	-7	0	0
1971	-18	0	5,322	0	-5,332	-7	0	0
1972	-207	0	5,106	0	-5,335	-7	0	0
1973	-27	0	5,322	0	-5,340	-7	0	0
1974	233	0	5,588	0	-5,348	-7	0	0
1975	-97	0	5,262	0	-5,350	-7	0	0
1976	190	0	5,564	0	-5,359	-7	0	0
1977	-652	0	4,720	0	-5,361	-7	0	0
1978	49	0	5,429	0	-5,373	-7	0	0
1979	-339	0	5,046	0	-5,379	-7	0	0
1980	-205	0	5,190	0	-5,386	-7	0	0
1981	224	0	5,624	0	-5,397	-7	0	0
1982	-413	0	4,998	0	-5,405	-7	0	0
1983	-653	0	4,768	0	-5,412	-7	0	0
1984	-359	0	5,070	0	-5,420	-7	0	0
1985	16	0	5,453	0	-5,432	-7	0	0
1986	470	0	5,923	0	-5,443	-7	0	0
1987	87	0	5,540	0	-5,452	-7	0	0

<b>Culberson</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1988	-720	0	4,744	0	-5,456	-7	0	0
1989	-813	0	4,660	0	-5,466	-7	0	0
1990	183	0	5,672	0	-5,482	-7	0	0
1991	361	0	5,864	0	-5,495	-7	0	0
1992	413	0	5,923	0	-5,506	-7	0	0
1993	-714	0	4,803	0	-5,510	-7	0	0
1994	-533	0	4,998	0	-5,524	-7	0	0
1995	-689	0	4,851	0	-5,534	-7	0	0
1996	-724	0	4,827	0	-5,546	-7	0	0
1997	-74	0	5,489	0	-5,561	-7	0	0
1998	-834	0	4,744	0	-5,570	-7	0	0
1999	-862	0	4,720	0	-5,578	-7	0	0
2000	-679	0	4,911	0	-5,589	-7	0	0
2001	-865	0	4,744	0	-5,599	-7	0	0
2002	-531	0	5,082	0	-5,609	-7	0	0
2003	-546	0	5,106	0	-5,620	-7	0	0
2004	1,182	0	6,828	0	-5,637	-7	0	0
2005	-557	0	5,082	0	-5,637	-7	0	0

<b>Ector</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	365	0	-365	0	0	0
1932	42	0	457	0	-413	-1	0	0
1933	-61	0	351	0	-409	-2	0	0
1934	-58	0	351	0	-407	-2	0	0
1935	21	0	432	0	-408	-2	0	0
1936	-4	0	407	0	-408	-3	0	0
1937	-30	0	381	0	-407	-3	0	0
1938	-35	0	376	0	-405	-3	0	0
1939	-37	0	370	0	-404	-4	0	0
1940	4	0	412	0	-404	-4	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ector</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1941	83	0	497	0	-410	-5	0	0
1942	-17	0	396	0	-407	-5	0	0
1943	-42	0	367	0	-404	-6	0	0
1944	15	0	426	0	-405	-6	0	0
1945	-26	0	384	0	-404	-7	0	0
1946	-12	0	398	0	-402	-7	0	0
1947	-34	0	367	0	-401	-8	0	0
1948	-53	0	353	0	-398	-8	0	0
1949	25	0	435	0	-400	-9	0	0
1950	-30	0	376	0	-399	-10	0	0
1951	-74	0	331	0	-395	-11	0	0
1952	-56	0	348	0	-392	-12	0	0
1953	-61	0	342	0	-390	-13	0	0
1954	-65	0	337	0	-388	-14	0	0
1955	-46	0	359	0	-387	-15	0	0
1956	-92	0	306	0	-383	-16	0	0
1957	37	0	438	0	-386	-16	0	0
1958	48	0	454	0	-389	-17	0	0
1959	-1	0	407	0	-389	-18	0	0
1960	-4	0	404	0	-388	-19	0	0
1961	-21	0	384	0	-386	-19	0	0
1962	-45	0	359	0	-385	-20	0	0
1963	-38	0	356	0	-382	-20	0	0
1964	-29	0	373	0	-382	-20	0	0
1965	-16	0	387	0	-382	-20	0	0
1966	-23	0	379	0	-381	-20	0	0
1967	-27	0	376	0	-380	-20	0	0
1968	26	0	429	0	-383	-20	0	0
1969	22	0	426	0	-384	-21	0	0
1970	-26	0	376	0	-382	-21	0	0
1971	6	0	410	0	-382	-21	0	0
1972	-11	0	393	0	-382	-22	0	0
1973	5	0	410	0	-382	-22	0	0
1974	23	0	429	0	-384	-23	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Ector</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1975	-2	0	404	0	-383	-23	0	0
1976	19	0	426	0	-383	-24	0	0
1977	-43	0	362	0	-380	-24	0	0
1978	12	0	418	0	-381	-25	0	0
1979	-17	0	387	0	-380	-25	0	0
1980	-7	0	398	0	-380	-26	0	0
1981	25	0	432	0	-381	-26	0	0
1982	-21	0	384	0	-380	-25	0	0
1983	-36	0	367	0	-379	-25	0	0
1984	-13	0	390	0	-378	-25	0	0
1985	14	0	418	0	-380	-25	0	0
1986	47	0	454	0	-383	-25	0	0
1987	18	0	426	0	-384	-25	0	0
1988	-41	0	365	0	-381	-25	0	0
1989	-44	0	359	0	-380	-25	0	0
1990	28	0	435	0	-382	-25	0	0
1991	42	0	452	0	-385	-25	0	0
1992	43	0	454	0	-386	-25	0	0
1993	-39	0	370	0	-384	-26	0	0
1994	-23	0	384	0	-384	-24	0	0
1995	-33	0	373	0	-383	-24	0	0
1996	-36	0	370	0	-382	-24	0	0
1997	16	0	424	0	-384	-24	0	0
1998	-42	0	365	0	-383	-24	0	0
1999	-43	0	362	0	-382	-23	0	0
2000	-26	0	379	0	-382	-24	0	0
2001	-40	0	365	0	-381	-23	0	0
2002	-15	0	390	0	-382	-24	0	0
2003	-15	0	393	0	-383	-24	0	0
2004	111	0	525	0	-390	-24	0	0
2005	-20	0	390	0	-388	-24	0	0



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	0	0	0	0
1932	2	0	19	0	-17	0	0	0
1933	-3	0	15	0	-17	0	0	0
1934	-3	0	15	0	-18	0	0	0
1935	1	0	18	0	-17	0	0	0
1936	0	0	17	0	-17	0	0	0
1937	-1	0	16	0	-17	0	0	0
1938	-1	0	16	0	-17	0	0	0
1939	-2	0	15	0	-17	0	0	0
1940	0	0	17	0	-17	0	0	0
1941	4	0	21	0	-17	0	0	0
1942	0	0	16	0	-17	0	0	0
1943	-2	0	15	0	-17	0	0	0
1944	1	0	18	0	-17	0	0	0
1945	-1	0	16	0	-16	0	0	0
1946	0	0	17	0	-17	0	0	0
1947	-1	0	15	0	-17	0	0	0
1948	-2	0	15	0	-17	0	0	0
1949	1	0	18	0	-17	0	0	0
1950	-1	0	16	0	-17	0	0	0
1951	-3	0	14	0	-17	0	0	0
1952	-3	0	14	0	-17	0	0	0
1953	-3	0	14	0	-17	0	0	0
1954	-3	0	14	0	-17	0	0	0
1955	-2	0	15	0	-17	0	0	0
1956	-4	0	13	0	-17	0	0	0
1957	1	0	18	0	-17	0	0	0
1958	2	0	19	0	-17	0	0	0
1959	0	0	17	0	-17	0	0	0
1960	0	0	17	0	-17	0	0	0
1961	-1	0	16	0	-17	0	0	0
1962	-2	0	15	0	-16	0	0	0
1963	-2	0	15	0	-17	0	0	0
1964	-1	0	16	0	-17	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-1	0	16	0	-17	0	0	0
1966	-1	0	16	0	-17	0	0	0
1967	-1	0	16	0	-17	0	0	0
1968	1	0	18	0	-17	0	0	0
1969	1	0	18	0	-17	0	0	0
1970	-1	0	16	0	-17	0	0	0
1971	0	0	17	0	-17	0	0	0
1972	0	0	16	0	-16	0	0	0
1973	0	0	17	0	-16	0	0	0
1974	1	0	18	0	-17	0	0	0
1975	0	0	17	0	-16	0	0	0
1976	1	0	18	0	-16	0	0	0
1977	-1	0	15	0	-16	0	0	0
1978	1	0	17	0	-16	0	0	0
1979	0	0	16	0	-17	0	0	0
1980	0	0	17	0	-17	0	0	0
1981	1	0	18	0	-16	0	0	0
1982	-1	0	16	0	-17	0	0	0
1983	-1	0	15	0	-17	0	0	0
1984	0	0	16	0	-16	0	0	0
1985	1	0	17	0	-17	0	0	0
1986	2	0	19	0	-17	0	0	0
1987	1	0	18	0	-17	0	0	0
1988	-1	0	15	0	-17	0	0	0
1989	-2	0	15	0	-16	0	0	0
1990	2	0	18	0	-16	0	0	0
1991	2	0	19	0	-17	0	0	0
1992	3	0	19	0	-16	0	0	0
1993	-1	0	15	0	-17	0	0	0
1994	-1	0	16	0	-16	0	0	0
1995	-1	0	16	0	-16	0	0	0
1996	-1	0	15	0	-17	0	0	0
1997	1	0	18	0	-16	0	0	0
1998	-1	0	15	0	-17	0	0	0

<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-2	0	15	0	-17	0	0	0
2000	-1	0	16	0	-17	0	0	0
2001	-1	0	15	0	-16	0	0	0
2002	0	0	16	0	-16	0	0	0
2003	0	0	16	0	-16	0	0	0
2004	5	0	22	0	-16	0	0	0
2005	0	0	16	0	-16	0	0	0

<b>Jeff Davis</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	16,802	-2,192	-14,245	0	0	0
1932	1,892	0	18,582	-2,123	-14,519	-26	0	0
1933	-2,455	0	14,219	-2,124	-14,520	-39	0	0
1934	-2,515	0	14,219	-2,112	-14,518	-52	0	0
1935	761	0	17,492	-2,092	-14,540	-66	0	0
1936	-200	0	16,551	-2,107	-14,567	-79	0	0
1937	-1,053	0	15,574	-2,052	-14,590	-92	0	0
1938	-1,693	0	15,234	-2,094	-14,619	-106	0	0
1939	-1,865	0	15,083	-2,107	-14,647	-119	0	0
1940	-152	0	16,776	-2,101	-14,692	-132	0	0
1941	3,177	0	20,124	-2,043	-14,765	-146	0	0
1942	-960	0	16,100	-2,069	-14,826	-159	0	0
1943	-2,246	0	14,895	-2,087	-14,879	-173	0	0
1944	76	0	17,304	-2,091	-14,953	-187	0	0
1945	-1,708	0	15,611	-2,096	-15,025	-199	0	0
1946	-1,277	0	16,175	-2,100	-15,105	-214	0	0
1947	-2,375	0	14,933	-2,144	-15,185	-227	0	0
1948	-3,210	0	14,407	-2,114	-15,261	-240	0	0
1949	-25	0	17,717	-2,084	-15,371	-254	0	0
1950	-2,592	0	15,234	-2,108	-15,462	-267	0	0
1951	-4,503	0	13,466	-2,115	-15,562	-280	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Jeff Davis</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-4,026	0	14,069	-2,152	-15,682	-295	0	0
1953	-4,363	0	13,881	-2,160	-15,802	-307	0	0
1954	-4,697	0	13,693	-2,173	-15,924	-321	0	0
1955	-4,050	0	14,632	-2,147	-16,061	-335	0	0
1956	-6,346	0	12,413	-2,221	-16,190	-348	0	0
1957	-1,168	0	17,755	-2,196	-16,358	-361	0	0
1958	-656	0	18,431	-2,164	-16,541	-375	0	0
1959	-2,790	0	16,513	-2,186	-16,729	-388	0	0
1960	-3,097	0	16,438	-2,215	-16,913	-400	0	0
1961	-4,127	0	15,611	-2,232	-17,099	-413	0	0
1962	-5,412	0	14,557	-2,280	-17,296	-425	0	0
1963	-5,114	0	14,482	-2,383	-17,489	-438	0	0
1964	-5,328	0	15,158	-2,350	-17,684	-450	0	0
1965	-4,998	0	15,686	-2,357	-17,878	-429	0	0
1966	-5,416	0	15,423	-2,391	-18,066	-409	0	0
1967	-5,888	0	15,271	-2,394	-18,242	-389	0	0
1968	-3,765	0	17,454	-2,415	-18,435	-368	0	0
1969	-4,030	0	17,379	-2,436	-18,623	-348	0	0
1970	-6,339	0	15,271	-2,480	-18,801	-343	0	0
1971	-5,219	0	16,626	-2,524	-18,983	-337	0	0
1972	-5,240	0	15,949	-2,331	-19,128	-333	0	0
1973	-5,553	0	16,626	-2,563	-19,323	-329	0	0
1974	-4,980	0	17,454	-2,587	-19,515	-326	0	0
1975	-6,161	0	16,438	-2,650	-19,678	-286	0	0
1976	-5,092	0	17,379	-2,669	-19,822	-245	0	0
1977	-8,104	0	14,745	-2,672	-19,931	-204	0	0
1978	-5,962	0	16,964	-2,730	-20,031	-164	0	0
1979	-7,165	0	15,762	-2,647	-20,097	-123	0	0
1980	-6,799	0	16,212	-2,743	-20,203	-81	0	0
1981	-5,653	0	17,567	-2,758	-20,294	-75	0	0
1982	-7,732	0	15,611	-2,773	-20,360	-70	0	0
1983	-8,557	0	14,895	-2,769	-20,413	-66	0	0
1984	-7,652	0	15,837	-2,825	-20,462	-61	0	0
1985	-6,470	0	17,039	-2,819	-20,495	-54	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
August 3, 2016

<b>Jeff Davis</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1986	-4,940	0	18,507	-2,849	-20,540	-46	0	0
1987	-6,177	0	17,304	-2,805	-20,558	-34	0	0
1988	-8,657	0	14,820	-3,019	-20,569	-40	0	0
1989	-8,959	0	14,557	-2,940	-20,581	-61	0	0
1990	-5,810	0	17,717	-2,987	-20,566	-46	0	0
1991	-5,176	0	18,319	-2,920	-20,556	-45	0	0
1992	-5,047	0	18,507	-2,951	-20,546	-45	0	0
1993	-8,598	0	15,008	-3,089	-20,596	-75	0	0
1994	-8,170	0	15,611	-2,956	-20,602	-73	0	0
1995	-8,432	0	15,158	-3,009	-20,596	-71	0	0
1996	-8,563	0	15,083	-2,987	-20,576	-68	0	0
1997	-6,529	0	17,152	-3,088	-20,570	-68	0	0
1998	-8,953	0	14,820	-2,982	-20,540	-76	0	0
1999	-8,789	0	14,745	-3,048	-20,508	-78	0	0
2000	-8,230	0	15,346	-3,211	-20,485	-74	0	0
2001	-8,937	0	14,820	-2,993	-20,439	-114	0	0
2002	-7,613	0	15,874	-3,043	-20,408	-110	0	0
2003	-7,475	0	15,949	-2,754	-20,400	-80	0	0
2004	-2,111	0	21,329	-2,947	-20,405	-91	0	0
2005	-7,520	0	15,874	-2,927	-20,393	-77	0	0

<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	12,784	3,287	-12,053	0	0	-4,018
1932	1,213	0	14,442	3,144	-12,113	-98	0	-4,079
1933	-1,652	0	11,075	3,425	-12,076	-102	0	-4,012
1934	-1,573	0	11,075	3,519	-12,050	-107	0	-3,984
1935	767	0	13,645	3,381	-12,073	-110	0	-4,029
1936	16	0	12,847	3,381	-12,073	-115	0	-4,025
1937	-468	0	12,050	3,641	-12,065	-119	0	-4,006
1938	-826	0	11,873	3,469	-12,052	-123	0	-3,991

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1939	-997	0	11,695	3,465	-12,039	-127	0	-3,973
1940	273	0	13,025	3,417	-12,052	-131	0	-3,998
1941	2,772	0	15,683	3,395	-12,106	-129	0	-4,073
1942	-363	0	12,493	3,394	-12,090	-126	0	-4,028
1943	-1,175	0	11,607	3,406	-12,066	-123	0	-3,994
1944	657	0	13,468	3,417	-12,082	-121	0	-4,027
1945	-642	0	12,139	3,416	-12,069	-118	0	-4,001
1946	-181	0	12,582	3,438	-12,070	-116	0	-3,999
1947	-863	0	11,607	3,482	-12,058	-113	0	-3,976
1948	-1,489	0	11,164	3,442	-12,038	-111	0	-3,949
1949	952	0	13,733	3,447	-12,067	-108	0	-3,997
1950	-745	0	11,873	3,518	-12,058	-106	0	-3,967
1951	-2,142	0	10,455	3,455	-12,025	-106	0	-3,915
1952	-1,559	0	10,987	3,493	-12,011	-106	0	-3,902
1953	-1,689	0	10,810	3,510	-11,997	-105	0	-3,877
1954	-1,816	0	10,632	3,522	-11,981	-105	0	-3,856
1955	-1,079	0	11,341	3,598	-11,982	-105	0	-3,856
1956	-2,686	0	9,658	3,541	-11,952	-105	0	-3,803
1957	1,327	0	13,822	3,425	-12,002	-105	0	-4,149
1958	1,743	0	14,354	3,469	-12,046	-105	0	-3,924
1959	234	0	12,847	3,442	-12,053	-105	0	-3,905
1960	124	0	12,759	3,431	-12,063	-105	0	-3,900
1961	-465	0	12,139	3,438	-12,062	-102	0	-3,879
1962	-1,217	0	11,341	3,453	-12,050	-100	0	-3,847
1963	-992	0	11,253	3,520	-12,047	-97	0	-3,828
1964	-727	0	11,784	3,462	-12,054	-94	0	-3,819
1965	-311	0	12,227	3,447	-12,064	-91	0	-3,823
1966	-580	0	11,961	3,423	-12,070	-89	0	-3,812
1967	-668	0	11,873	3,454	-12,074	-86	0	-3,799
1968	958	0	13,556	3,404	-12,111	-83	0	-3,973
1969	796	0	13,468	3,389	-12,134	-80	0	-3,841
1970	-699	0	11,873	3,425	-12,129	-77	0	-3,802
1971	300	0	12,936	3,393	-12,149	-73	0	-3,809
1972	-139	0	12,404	3,464	-12,158	-70	0	-3,793

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1973	276	0	12,936	3,386	-12,175	-67	0	-3,796
1974	841	0	13,556	3,361	-12,202	-63	0	-3,809
1975	75	0	12,759	3,374	-12,210	-60	0	-3,791
1976	578	0	13,468	3,297	-12,233	-57	0	-3,798
1977	-1,199	0	11,430	3,376	-12,214	-53	0	-3,749
1978	473	0	13,202	3,330	-12,239	-50	0	-3,766
1979	-342	0	12,227	3,420	-12,237	-47	0	-3,752
1980	-101	0	12,582	3,351	-12,244	-43	0	-3,749
1981	876	0	13,645	3,286	-12,272	-44	0	-3,767
1982	-565	0	12,139	3,360	-12,260	-45	0	-3,744
1983	-1,038	0	11,607	3,397	-12,245	-45	0	-3,721
1984	-347	0	12,316	3,349	-12,248	-46	0	-3,721
1985	478	0	13,202	3,295	-12,270	-47	0	-3,732
1986	1,505	0	14,354	3,240	-12,307	-47	0	-3,759
1987	548	0	13,468	3,191	-12,318	-48	0	-3,754
1988	-1,158	0	11,518	3,292	-12,293	-49	0	-3,714
1989	-1,321	0	11,341	3,310	-12,272	-49	0	-3,692
1990	936	0	13,733	3,270	-12,301	-50	0	-3,721
1991	1,301	0	14,265	3,170	-12,335	-49	0	-3,741
1992	1,266	0	14,354	3,093	-12,361	-48	0	-3,752
1993	-1,078	0	11,695	3,235	-12,333	-48	0	-3,706
1994	-685	0	12,139	3,250	-12,322	-47	0	-3,696
1995	-976	0	11,784	3,239	-12,308	-46	0	-3,675
1996	-1,041	0	11,695	3,268	-12,296	-45	0	-3,659
1997	510	0	13,379	3,179	-12,320	-44	0	-3,679
1998	-1,220	0	11,518	3,268	-12,299	-43	0	-3,648
1999	-1,256	0	11,430	3,234	-12,284	-42	0	-3,630
2000	-721	0	11,961	3,213	-12,284	-41	0	-3,627
2001	-1,167	0	11,518	3,263	-12,273	-40	0	-3,609
2002	-393	0	12,316	3,208	-12,279	-40	0	-3,612
2003	-230	0	12,404	3,284	-12,288	-39	0	-3,609
2004	3,640	0	16,569	3,121	-12,373	-38	0	-3,687
2005	-467	0	12,316	3,215	-12,357	-37	0	-3,641

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	-36,890	160,710	8,766	-12,053	-6,209	0	-113,958
1932	11,785	-37,070	178,792	8,885	-11,939	-12,537	-153	-114,164
1933	-32,258	-36,993	136,898	12,080	-11,960	-18,673	-153	-113,580
1934	-37,930	-36,906	136,898	12,200	-11,939	-24,809	-152	-113,231
1935	-12,068	-36,877	168,449	13,213	-11,822	-31,317	-152	-113,322
1936	-26,577	-36,819	159,268	12,886	-11,729	-37,453	-151	-112,970
1937	-22,302	-36,740	149,979	32,999	-11,655	-43,589	-151	-112,682
1938	-46,228	-36,640	146,539	14,980	-11,566	-50,091	-150	-112,260
1939	-56,727	-36,537	145,099	12,802	-11,468	-56,227	-149	-111,762
1940	-46,381	-36,466	161,410	14,096	-11,327	-62,369	-148	-111,441
1941	-19,831	-36,455	193,681	14,626	-11,114	-68,876	-146	-111,387
1942	-62,840	-36,358	154,983	15,757	-11,012	-75,018	-145	-110,623
1943	-79,262	-36,239	143,325	15,610	-10,938	-81,166	-144	-109,871
1944	-61,281	-36,163	166,658	16,136	-10,781	-87,667	-142	-109,571
1945	-82,221	-36,049	150,347	17,214	-10,666	-93,809	-141	-108,862
1946	-81,041	-35,939	155,703	18,968	-10,519	-99,958	-139	-108,384
1947	-82,389	-35,823	143,677	25,618	-10,416	-106,458	-138	-107,863
1948	-107,727	-35,678	138,672	19,040	-10,325	-112,601	-136	-107,068
1949	-79,399	-35,596	170,574	20,779	-10,117	-118,748	-135	-106,905
1950	-105,031	-35,469	146,539	27,113	-9,985	-125,250	-133	-106,213
1951	-130,715	-35,298	129,508	21,188	-9,916	-131,391	-131	-105,204
1952	-129,553	-35,138	135,475	22,255	-9,784	-137,545	-129	-104,494
1953	-135,876	-34,972	133,684	23,460	-9,653	-143,686	-127	-103,700
1954	-142,274	-34,801	131,894	24,412	-9,514	-150,188	-125	-102,923
1955	-130,483	-34,637	140,815	32,631	-9,326	-156,336	-123	-102,397
1956	-162,998	-34,437	119,516	25,764	-9,232	-162,477	-121	-101,361
1957	-111,156	-34,335	170,943	38,019	-8,966	-168,984	-118	-101,269
1958	-116,401	-34,250	177,370	25,323	-8,740	-175,133	-116	-100,676
1959	-134,741	-34,136	158,917	27,050	-8,591	-177,679	-114	-99,925
1960	-137,370	-34,026	158,197	25,804	-8,469	-179,868	-112	-99,142
1961	-145,410	-33,907	150,347	27,313	-8,370	-182,415	-109	-98,473
1962	-156,875	-33,769	140,112	27,611	-8,281	-184,602	-107	-97,739
1963	-134,866	-33,647	139,392	39,556	-8,178	-187,150	-106	-97,273
1964	-154,018	-33,522	145,820	27,683	-8,114	-189,337	-103	-96,595



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-133,107	-33,462	151,067	26,412	-8,103	-172,405	-102	-96,370
1966	-119,540	-33,441	148,556	25,334	-8,219	-155,483	-101	-96,245
1967	-106,762	-33,457	146,891	23,639	-8,363	-138,551	-100	-96,260
1968	-69,906	-33,537	168,081	22,993	-8,521	-121,617	-100	-97,571
1969	-54,084	-33,638	167,361	22,523	-8,726	-104,691	-100	-97,379
1970	-72,121	-33,677	146,891	24,689	-8,909	-102,886	-100	-97,402
1971	-61,828	-33,731	159,988	19,843	-9,030	-101,075	-100	-97,726
1972	-43,051	-33,722	153,561	65,164	-8,997	-117,616	-100	-97,687
1973	-74,083	-33,710	159,988	24,290	-8,972	-118,335	-100	-97,658
1974	-69,055	-33,711	168,081	22,633	-8,951	-119,060	-99	-97,603
1975	-71,002	-33,715	158,197	21,608	-8,977	-110,350	-99	-97,518
1976	-38,389	-33,755	167,361	32,275	-9,009	-100,926	-99	-97,677
1977	-64,811	-33,761	141,886	24,134	-9,154	-91,138	-99	-97,841
1978	-36,587	-33,824	163,202	22,319	-9,228	-80,997	-99	-98,073
1979	-28,704	-33,875	151,770	27,174	-9,343	-70,124	-99	-98,179
1980	-49,259	-33,873	156,055	27,293	-9,281	-90,637	-99	-98,234
1981	-37,034	-33,892	169,152	24,978	-9,209	-89,180	-99	-98,448
1982	-54,724	-33,874	150,347	25,021	-9,197	-88,442	-99	-98,274
1983	-60,502	-33,840	143,326	25,764	-9,192	-87,351	-99	-98,124
1984	-49,797	-33,826	152,490	25,106	-9,160	-85,894	-99	-98,186
1985	-29,867	-33,857	163,905	25,698	-9,148	-77,216	-99	-98,408
1986	-6,072	-33,936	178,073	23,930	-9,172	-65,707	-99	-98,998
1987	-10,953	-33,996	166,658	25,881	-9,232	-60,983	-99	-99,124
1988	-35,368	-33,993	142,606	24,830	-9,315	-61,009	-99	-98,962
1989	-44,395	-33,958	140,112	27,181	-9,333	-68,987	-100	-98,895
1990	-15,407	-33,983	170,575	23,354	-9,256	-67,094	-100	-99,280
1991	-6,113	-34,023	176,299	25,097	-9,207	-64,930	-100	-99,543
1992	-4,162	-34,063	178,073	25,556	-9,175	-64,936	-100	-99,694
1993	-51,392	-33,992	144,397	27,418	-9,154	-81,334	-100	-99,224
1994	-45,120	-33,940	150,347	25,603	-9,128	-78,817	-99	-99,089
1995	-58,575	-33,852	145,820	29,142	-9,043	-91,770	-99	-98,729
1996	-53,470	-33,783	145,100	30,272	-9,013	-86,365	-98	-98,480
1997	-40,351	-33,747	164,993	24,636	-8,923	-89,970	-98	-98,432
1998	-63,925	-33,664	142,606	27,680	-8,869	-93,558	-97	-98,047

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-62,300	-33,584	141,886	29,882	-8,834	-93,564	-97	-97,788
2000	-63,744	-33,502	147,611	28,991	-8,732	-101,112	-96	-97,627
2001	-51,318	-33,464	142,606	27,556	-8,792	-80,983	-96	-97,503
2002	-36,422	-33,452	152,841	29,136	-8,819	-78,106	-96	-97,639
2003	-8,008	-33,515	153,561	28,078	-8,994	-51,154	-96	-97,867
2004	33,073	-33,645	205,339	25,188	-8,989	-56,180	-96	-99,023
2005	-22,704	-33,640	152,841	27,326	-9,051	-61,936	-97	-98,712

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	41,273	17,897	16,071	-5,844	-365	-68,667
1932	-2,445	0	45,971	18,159	15,875	-13,037	-503	-68,917
1933	-18,012	0	35,340	18,360	15,820	-18,784	-499	-68,586
1934	-23,545	0	35,340	18,463	15,774	-24,534	-496	-68,414
1935	-22,613	0	43,551	18,683	15,821	-31,718	-497	-68,502
1936	-30,852	0	40,985	18,582	15,856	-37,466	-497	-68,338
1937	-36,578	0	38,799	20,552	15,874	-43,214	-496	-68,152
1938	-46,850	0	37,605	19,355	15,906	-50,400	-493	-67,924
1939	-51,781	0	37,258	19,104	15,933	-56,147	-491	-67,656
1940	-53,869	0	41,489	18,524	16,023	-61,895	-491	-67,536
1941	-52,865	0	49,873	18,068	16,210	-69,083	-495	-67,562
1942	-65,555	0	39,979	19,133	16,289	-74,835	-494	-67,117
1943	-77,377	0	36,850	18,374	16,374	-82,022	-490	-66,698
1944	-76,913	0	43,126	18,480	16,523	-87,772	-491	-66,538
1945	-85,023	0	38,895	19,043	16,641	-93,525	-488	-66,118
1946	-88,513	0	40,153	20,221	16,774	-100,713	-487	-65,801
1947	-98,350	0	36,928	22,291	16,905	-106,466	-483	-65,401
1948	-106,154	0	35,748	18,475	17,057	-112,216	-479	-64,943
1949	-100,840	0	44,037	21,503	17,266	-119,405	-480	-64,783
1950	-112,198	0	37,605	21,303	17,423	-125,155	-477	-64,298
1951	-125,854	0	33,200	18,263	17,612	-130,912	-472	-63,684

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<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-129,316	0	35,011	19,250	17,822	-138,102	-467	-63,226
1953	-134,769	0	34,586	19,344	18,034	-143,858	-463	-62,708
1954	-140,158	0	34,161	19,603	18,249	-149,612	-459	-62,193
1955	-140,925	0	36,251	22,574	18,481	-156,804	-456	-61,784
1956	-155,174	0	30,858	19,103	18,707	-162,558	-450	-61,090
1957	-138,352	0	44,132	21,560	19,041	-168,316	-451	-61,127
1958	-152,255	0	45,642	18,808	19,440	-175,506	-453	-60,526
1959	-159,937	0	40,907	20,411	19,783	-181,262	-451	-59,911
1960	-166,813	0	40,734	19,084	20,161	-187,016	-449	-59,323
1961	-172,484	0	38,895	20,067	20,511	-192,758	-446	-58,706
1962	-178,314	0	36,095	21,206	20,860	-198,503	-442	-58,052
1963	-181,927	0	35,922	27,008	21,198	-204,247	-437	-57,500
1964	-188,742	0	37,431	19,252	21,620	-209,991	-434	-56,893
1965	-172,182	0	39,068	21,378	22,018	-199,934	-431	-56,452
1966	-165,771	0	38,470	20,839	22,453	-191,313	-428	-55,988
1967	-151,107	0	37,683	23,163	22,829	-181,256	-425	-55,615
1968	-138,183	0	43,455	21,458	23,284	-171,201	-425	-55,439
1969	-128,986	0	43,282	21,720	23,722	-162,583	-424	-55,208
1970	-129,343	0	37,683	23,668	24,071	-159,708	-421	-54,830
1971	-123,890	0	41,159	22,404	24,444	-156,833	-419	-54,624
1972	-114,660	0	39,649	30,265	24,677	-156,833	-417	-54,342
1973	-120,992	0	41,159	23,886	25,005	-156,830	-416	-54,099
1974	-119,566	0	43,455	22,780	25,360	-156,830	-416	-53,870
1975	-100,155	0	40,734	23,858	25,616	-138,156	-414	-53,624
1976	-81,350	0	43,282	26,172	25,850	-119,481	-414	-53,555
1977	-69,904	0	36,503	22,734	26,009	-100,809	-410	-53,283
1978	-45,085	0	41,914	22,705	26,160	-82,135	-410	-53,362
1979	-25,566	0	39,224	23,468	26,233	-62,026	-408	-53,349
1980	-30,527	0	40,231	22,983	26,288	-66,331	-408	-53,327
1981	-22,904	0	43,707	22,609	26,365	-62,022	-409	-53,428
1982	-23,533	0	38,895	22,321	26,380	-57,713	-407	-53,311
1983	-22,895	0	36,850	22,076	26,369	-54,841	-405	-53,221
1984	-16,502	0	39,398	21,769	26,365	-50,532	-404	-53,266
1985	-3,207	0	42,070	21,381	26,370	-39,041	-405	-53,403

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<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1986	1,820	0	45,798	21,183	26,433	-37,608	-408	-53,616
1987	9,749	0	43,126	20,672	26,425	-26,117	-410	-53,696
1988	-1,625	0	36,676	20,937	26,365	-31,863	-407	-53,583
1989	-17,890	0	36,095	21,215	26,318	-47,663	-405	-53,514
1990	10,987	0	44,037	20,994	26,236	-26,117	-407	-53,808
1991	14,446	0	45,390	20,378	26,198	-23,241	-410	-53,994
1992	13,825	0	45,798	19,826	26,168	-23,240	-413	-54,129
1993	-43,217	0	37,102	21,356	26,206	-73,510	-410	-53,768
1994	-39,824	0	38,895	21,002	26,203	-72,072	-409	-53,686
1995	-44,186	0	37,431	20,986	26,159	-74,941	-407	-53,527
1996	-40,383	0	37,258	20,749	26,125	-70,628	-405	-53,420
1997	-37,116	0	42,339	19,785	26,145	-72,063	-406	-53,447
1998	-40,220	0	36,676	20,628	26,076	-70,623	-403	-53,241
1999	-40,834	0	36,503	20,490	26,025	-70,621	-401	-53,106
2000	-37,255	0	37,856	20,611	25,965	-69,183	-399	-53,046
2001	-38,980	0	36,676	20,248	25,956	-69,181	-397	-52,924
2002	-35,199	0	39,476	20,215	25,958	-67,741	-397	-52,921
2003	-37,669	0	39,649	21,259	26,060	-67,739	-396	-52,898
2004	-22,510	0	53,002	18,343	26,219	-66,301	-403	-53,301
2005	-33,930	0	39,476	19,973	26,224	-66,299	-402	-53,032

<b>Upton</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	-365	731	0	-365	0	0	0
1932	109	-274	1,000	0	-609	-5	0	0
1933	-143	-271	765	0	-631	-5	0	0
1934	-149	-269	765	0	-638	-5	0	0
1935	42	-270	941	0	-620	-5	0	0
1936	-4	-270	890	0	-620	-5	0	0
1937	-54	-270	837	0	-622	-5	0	0
1938	-83	-269	820	0	-628	-4	0	0

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<b>Upton</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1939	-90	-268	811	0	-629	-4	0	0
1940	11	-268	902	0	-617	-4	0	0
1941	213	-271	1,083	0	-596	-4	0	0
1942	-20	-271	866	0	-609	-4	0	0
1943	-93	-269	802	0	-620	-4	0	0
1944	44	-270	931	0	-613	-4	0	0
1945	-52	-269	840	0	-620	-5	0	0
1946	-23	-269	870	0	-619	-5	0	0
1947	-83	-268	803	0	-627	-5	0	0
1948	-127	-266	775	0	-630	-5	0	0
1949	63	-268	953	0	-608	-5	0	0
1950	-69	-267	820	0	-612	-5	0	0
1951	-172	-265	724	0	-625	-5	0	0
1952	-134	-263	757	0	-626	-5	0	0
1953	-142	-261	747	0	-625	-5	0	0
1954	-149	-260	737	0	-623	-5	0	0
1955	-95	-259	787	0	-613	-5	0	0
1956	-215	-257	668	0	-619	-6	0	0
1957	104	-259	955	0	-588	-6	0	0
1958	152	-262	992	0	-572	-6	0	0
1959	44	-262	889	0	-576	-6	0	0
1960	37	-263	884	0	-577	-6	0	0
1961	-13	-263	840	0	-584	-6	0	0
1962	-74	-262	783	0	-593	-6	0	0
1963	-73	-261	779	0	-599	-5	0	0
1964	-45	-260	816	0	-595	-5	0	0
1965	-11	-260	844	0	-590	-5	0	0
1966	-24	-260	830	0	-588	-5	0	0
1967	-31	-260	822	0	-588	-5	0	0
1968	99	-262	939	0	-575	-5	0	0
1969	97	-263	935	0	-571	-5	0	0
1970	-26	-262	822	0	-581	-4	0	0
1971	50	-263	895	0	-577	-4	0	0
1972	8	-263	858	0	-580	-4	0	0

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<b>Upton</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1973	49	-264	895	0	-579	-4	0	0
1974	96	-265	939	0	-574	-4	0	0
1975	35	-265	884	0	-579	-4	0	0
1976	83	-266	935	0	-576	-4	0	0
1977	-68	-265	793	0	-592	-4	0	0
1978	57	-266	913	0	-585	-4	0	0
1979	-13	-265	848	0	-590	-4	0	0
1980	12	-265	872	0	-590	-4	0	0
1981	92	-267	945	0	-584	-4	0	0
1982	-24	-266	840	0	-593	-4	0	0
1983	-69	-265	802	0	-600	-4	0	0
1984	-14	-265	852	0	-598	-4	0	0
1985	57	-265	916	0	-591	-4	0	0
1986	143	-268	995	0	-580	-4	0	0
1987	76	-268	931	0	-583	-4	0	0
1988	-70	-267	797	0	-602	-4	0	0
1989	-94	-265	783	0	-609	-4	0	0
1990	88	-267	953	0	-594	-4	0	0
1991	128	-269	986	0	-586	-4	0	0
1992	139	-270	995	0	-582	-4	0	0
1993	-65	-269	808	0	-605	-4	0	0
1994	-41	-268	840	0	-607	-4	0	0
1995	-67	-267	816	0	-613	-4	0	0
1996	-73	-266	811	0	-614	-4	0	0
1997	49	-267	923	0	-604	-4	0	0
1998	-84	-266	797	0	-611	-4	0	0
1999	-88	-264	793	0	-614	-4	0	0
2000	-53	-264	826	0	-610	-4	0	0
2001	-80	-263	797	0	-611	-4	0	0
2002	-17	-263	854	0	-602	-4	0	0
2003	-9	-263	858	0	-598	-4	0	0
2004	308	-268	1,147	0	-567	-4	0	0
2005	-5	-268	854	0	-584	-4	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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Ward								
Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1931	0	0	22,646	60,266	37,621	0	0	-120,533
1932	1,635	0	25,416	59,720	37,496	-67	0	-120,758
1933	-2,572	0	19,491	60,685	37,463	-105	0	-120,253
1934	-2,435	0	19,491	60,746	37,433	-112	0	-120,024
1935	1,023	0	24,013	60,079	37,421	-151	0	-120,273
1936	-173	0	22,610	60,133	37,382	-188	0	-120,117
1937	-662	0	21,206	60,779	37,342	-225	0	-119,955
1938	-1,371	0	20,894	60,325	37,282	-235	0	-119,729
1939	-1,717	0	20,583	60,151	37,216	-272	0	-119,451
1940	105	0	22,922	59,759	37,153	-309	0	-119,439
1941	3,954	0	27,599	59,350	37,089	-317	0	-119,721
1942	-988	0	21,986	59,550	36,988	-355	0	-119,174
1943	-2,330	0	20,427	59,449	36,876	-392	0	-118,691
1944	405	0	23,701	59,005	36,780	-429	0	-118,671
1945	-1,630	0	21,362	58,957	36,658	-436	0	-118,218
1946	-976	0	22,142	58,819	36,541	-475	0	-117,955
1947	-1,859	0	20,427	58,847	36,412	-511	0	-117,574
1948	-3,121	0	19,647	58,593	36,262	-548	0	-117,088
1949	569	0	24,169	58,006	36,144	-557	0	-117,143
1950	-2,051	0	20,894	58,413	35,987	-593	0	-116,640
1951	-4,321	0	18,400	58,040	35,810	-629	0	-115,927
1952	-3,467	0	19,335	57,604	35,637	-666	0	-115,490
1953	-3,733	0	19,023	57,340	35,456	-673	0	-114,955
1954	-4,014	0	18,712	57,057	35,270	-709	0	-114,437
1955	-2,824	0	19,959	57,109	35,091	-746	0	-114,106
1956	-5,540	0	16,996	56,624	34,882	-782	0	-113,330
1957	582	0	24,325	55,762	34,730	-788	0	-113,500
1958	1,049	0	25,260	55,373	34,539	-825	0	-113,300
1959	-1,403	0	22,610	55,229	34,328	-890	0	-112,724
1960	-1,905	0	22,454	54,677	34,113	-956	0	-112,197
1961	-2,701	0	21,362	54,688	33,896	-990	0	-111,623
1962	-3,858	0	19,959	54,429	33,672	-1,053	0	-110,980
1963	-3,154	0	19,803	54,410	33,453	-1,117	0	-110,516
1964	-3,359	0	20,738	53,837	33,231	-1,180	0	-110,009

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Ward								
Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1965	-2,678	0	21,518	53,650	33,042	-1,169	0	-109,692
1966	-3,338	0	21,050	53,164	32,859	-1,131	0	-109,310
1967	-3,298	0	20,894	53,301	32,698	-1,121	0	-109,006
1968	-821	0	23,857	52,952	32,579	-1,111	0	-109,086
1969	-973	0	23,701	52,969	32,465	-1,101	0	-109,025
1970	-3,193	0	20,894	53,247	32,333	-1,069	0	-108,649
1971	-3,200	0	22,766	53,096	32,331	-2,793	0	-108,604
1972	-1,430	0	21,830	54,346	32,199	-1,740	0	-108,412
1973	-2,019	0	22,766	53,201	32,088	-1,770	0	-108,289
1974	-2,417	0	23,857	53,026	32,067	-3,176	0	-108,203
1975	-3,208	0	22,454	53,075	31,999	-2,720	0	-107,962
1976	-1,865	0	23,701	53,125	31,986	-3,171	0	-107,967
1977	-5,554	0	20,115	53,296	31,967	-3,358	0	-107,552
1978	-3,283	0	23,233	53,201	32,034	-4,043	0	-107,715
1979	-3,581	0	21,518	54,199	32,077	-4,083	0	-107,620
1980	-7,343	0	22,142	54,234	32,365	-8,507	0	-107,567
1981	-4,869	0	24,013	53,957	32,466	-7,361	0	-107,716
1982	-6,731	0	21,362	54,429	32,522	-7,504	0	-107,461
1983	-7,189	0	20,427	54,795	32,565	-7,529	0	-107,236
1984	-5,268	0	21,674	54,583	32,569	-6,763	0	-107,236
1985	-3,868	0	23,233	54,451	32,610	-6,631	0	-107,362
1986	-1,119	0	25,260	54,309	32,609	-5,663	0	-107,662
1987	-1,941	0	23,701	54,541	32,612	-5,153	0	-107,648
1988	-4,586	0	20,271	54,720	32,614	-5,189	0	-107,320
1989	-5,833	0	19,959	54,992	32,687	-6,462	0	-107,145
1990	-1,193	0	24,169	54,373	32,707	-4,948	0	-107,509
1991	-77	0	25,105	54,256	32,725	-4,446	0	-107,723
1992	-168	0	25,260	54,169	32,760	-4,501	0	-107,840
1993	-4,581	0	20,583	54,740	32,756	-5,633	0	-107,308
1994	-4,066	0	21,362	54,801	32,771	-5,720	0	-107,195
1995	-3,856	0	20,738	54,845	32,735	-5,312	0	-106,954
1996	-4,468	0	20,583	54,950	32,756	-6,010	0	-106,774
1997	-1,856	0	23,545	54,408	32,748	-5,688	0	-106,876
1998	-5,435	0	20,271	54,900	32,784	-6,799	0	-106,523



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<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-3,766	0	20,115	54,790	32,692	-5,158	0	-106,304
2000	-4,325	0	21,050	54,521	32,734	-6,656	0	-106,229
2001	-5,524	0	20,271	54,843	32,780	-7,297	0	-106,016
2002	-5,682	0	21,674	55,043	32,930	-9,373	0	-106,030
2003	-1,812	0	21,830	56,119	32,828	-6,680	0	-106,010
2004	5,275	0	29,159	54,384	32,702	-4,219	0	-106,818
2005	2	0	21,674	54,814	32,492	-2,817	0	-106,377

<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	19,358	-12,053	-6,940	0	0	0
1932	1,684	0	21,452	-12,627	-6,909	-100	0	0
1933	-2,447	0	16,451	-11,923	-6,917	-119	0	0
1934	-2,440	0	16,451	-11,857	-6,921	-134	0	0
1935	908	0	20,267	-12,236	-6,916	-148	0	0
1936	-125	0	19,083	-12,126	-6,917	-163	0	0
1937	-741	0	17,899	-11,657	-6,920	-182	0	0
1938	-1,385	0	17,635	-11,931	-6,921	-197	0	0
1939	-1,707	0	17,372	-11,994	-6,924	-212	0	0
1940	128	0	19,346	-12,109	-6,922	-227	0	0
1941	4,045	0	23,294	-12,088	-6,912	-246	0	0
1942	-662	0	18,557	-12,050	-6,918	-267	0	0
1943	-2,020	0	17,240	-12,051	-6,926	-287	0	0
1944	694	0	20,004	-12,073	-6,926	-307	0	0
1945	-1,269	0	18,030	-12,035	-6,929	-328	0	0
1946	-621	0	18,688	-12,026	-6,932	-343	0	0
1947	-1,557	0	17,240	-11,860	-6,937	-364	0	0
1948	-2,741	0	16,582	-11,995	-6,942	-384	0	0
1949	847	0	20,399	-12,155	-6,938	-405	0	0
1950	-1,568	0	17,635	-11,847	-6,943	-424	0	0
1951	-3,833	0	15,530	-11,954	-6,951	-445	0	0

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<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-3,022	0	16,319	-11,943	-6,953	-465	0	0
1953	-3,278	0	16,056	-11,913	-6,955	-479	0	0
1954	-3,536	0	15,793	-11,890	-6,958	-499	0	0
1955	-2,429	0	16,846	-11,691	-6,959	-520	0	0
1956	-4,980	0	14,345	-11,815	-6,964	-539	0	0
1957	1,057	0	20,531	-11,944	-6,955	-559	0	0
1958	1,848	0	21,320	-11,927	-6,950	-580	0	0
1959	-363	0	19,083	-11,900	-6,957	-599	0	0
1960	-525	0	18,951	-11,896	-6,966	-614	0	0
1961	-1,455	0	18,030	-11,877	-6,975	-630	0	0
1962	-2,638	0	16,846	-11,861	-6,986	-645	0	0
1963	-2,164	0	16,714	-11,712	-6,997	-656	0	0
1964	-2,061	0	17,504	-11,893	-7,006	-671	0	0
1965	-1,440	0	18,162	-11,847	-7,010	-681	0	0
1966	-1,813	0	17,767	-11,885	-7,014	-697	0	0
1967	-1,975	0	17,635	-11,885	-7,019	-712	0	0
1968	474	0	20,136	-11,914	-7,017	-722	0	0
1969	356	0	20,004	-11,889	-7,018	-737	0	0
1970	-1,905	0	17,635	-11,784	-7,025	-747	0	0
1971	-680	0	19,215	-11,996	-7,131	-769	0	0
1972	-719	0	18,425	-11,454	-7,119	-784	0	0
1973	-672	0	19,215	-11,927	-7,119	-800	0	0
1974	26	0	20,136	-12,089	-7,205	-816	0	0
1975	-1,233	0	18,951	-12,095	-7,227	-832	0	0
1976	-201	0	20,004	-12,199	-7,268	-847	0	0
1977	-3,291	0	16,977	-12,113	-7,312	-868	0	0
1978	-922	0	19,609	-12,274	-7,375	-884	0	0
1979	-1,799	0	18,162	-11,854	-7,414	-900	0	0
1980	-2,395	0	18,688	-12,491	-7,702	-916	0	0
1981	-1,230	0	20,267	-12,820	-7,781	-888	0	0
1982	-3,325	0	18,030	-12,709	-7,842	-841	0	0
1983	-4,113	0	17,240	-12,658	-7,887	-813	0	0
1984	-3,022	0	18,293	-12,743	-7,869	-725	0	0
1985	-1,796	0	19,609	-12,818	-7,859	-723	0	0

<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1986	102	0	21,320	-12,706	-7,797	-722	0	0
1987	-988	0	20,004	-12,511	-7,745	-745	0	0
1988	-3,464	0	17,109	-12,301	-7,729	-713	0	0
1989	-3,975	0	16,846	-12,384	-7,799	-711	0	0
1990	-679	0	20,399	-12,594	-7,735	-730	0	0
1991	262	0	21,189	-12,528	-7,678	-739	0	0
1992	327	0	21,320	-12,583	-7,652	-748	0	0
1993	-3,172	0	17,372	-12,222	-7,713	-758	0	0
1994	-2,874	0	18,030	-12,384	-7,744	-782	0	0
1995	-3,245	0	17,504	-12,296	-7,734	-781	0	0
1996	-3,491	0	17,372	-12,280	-7,772	-831	0	0
1997	-1,301	0	19,873	-12,533	-7,765	-861	0	0
1998	-3,885	0	17,109	-12,324	-7,837	-860	0	0
1999	-3,791	0	16,977	-12,233	-7,772	-833	0	0
2000	-3,110	0	17,767	-12,342	-7,832	-792	0	0
2001	-3,950	0	17,109	-12,423	-7,901	-765	0	0
2002	-3,076	0	18,293	-12,582	-8,055	-764	0	0
2003	-1,912	0	18,425	-11,562	-7,960	-764	0	0
2004	3,813	0	24,610	-12,349	-7,770	-732	0	0
2005	-1,749	0	18,293	-11,793	-7,598	-757	0	0

**Table A.1.2. Water budgets of the modeled area by county for Layer 2—the Dockum Aquifer and Dewey Lake Formation—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	1,096	-1,096	0	0	0
1932	0	0	0	1,171	-1,126	0	0	0
1933	0	0	0	1,103	-1,130	0	0	0
1934	0	0	0	1,094	-1,129	0	0	0
1935	0	0	0	1,140	-1,129	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1936	0	0	0	1,131	-1,131	0	0	0
1937	0	0	0	1,107	-1,131	0	0	0
1938	0	0	0	1,107	-1,129	0	0	0
1939	0	0	0	1,103	-1,127	0	0	0
1940	0	0	0	1,125	-1,125	0	0	0
1941	1	0	0	1,159	-1,131	0	0	0
1942	0	0	0	1,123	-1,132	0	0	0
1943	0	0	0	1,108	-1,131	0	0	0
1944	0	0	0	1,139	-1,131	0	0	0
1945	0	0	0	1,119	-1,129	0	0	0
1946	0	0	0	1,120	-1,129	0	0	0
1947	0	0	0	1,105	-1,128	0	0	0
1948	-1	0	0	1,095	-1,122	0	0	0
1949	0	0	0	1,127	-1,121	0	0	0
1950	0	0	0	1,088	-1,120	0	0	0
1951	-1	0	0	1,080	-1,114	0	0	0
1952	-1	0	0	1,086	-1,109	0	0	0
1953	-1	0	0	1,082	-1,103	0	0	0
1954	-1	0	0	1,074	-1,097	0	0	0
1955	0	0	0	1,069	-1,094	0	0	0
1956	-1	0	0	1,054	-1,086	0	0	0
1957	0	0	0	1,118	-1,086	0	0	0
1958	1	0	0	1,095	-1,096	0	0	0
1959	0	0	0	1,097	-1,097	0	0	0
1960	0	0	0	1,098	-1,097	0	0	0
1961	0	0	0	1,086	-1,096	0	0	0
1962	0	0	0	1,078	-1,094	0	0	0
1963	0	0	0	1,067	-1,093	0	0	0
1964	0	0	0	1,083	-1,087	0	0	0
1965	0	0	0	1,079	-1,085	0	0	0
1966	0	0	0	1,083	-1,082	0	0	0
1967	0	0	0	1,068	-1,081	0	0	0
1968	1	0	0	1,083	-1,085	0	0	0
1969	0	0	0	1,088	-1,088	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1970	0	0	0	1,073	-1,086	0	0	0
1971	0	0	0	1,086	-1,087	0	0	0
1972	0	0	0	1,074	-1,087	0	0	0
1973	0	0	0	1,087	-1,086	0	0	0
1974	0	0	0	1,088	-1,089	0	0	0
1975	0	0	0	1,084	-1,089	0	0	0
1976	0	0	0	1,094	-1,089	0	0	0
1977	-1	0	0	1,080	-1,084	0	0	0
1978	0	0	0	1,083	-1,085	0	0	0
1979	0	0	0	1,066	-1,085	0	0	0
1980	0	0	0	1,077	-1,083	0	0	0
1981	0	0	0	1,099	-1,083	0	0	0
1982	0	0	0	1,065	-1,083	0	0	0
1983	0	0	0	1,052	-1,081	0	0	0
1984	0	0	0	1,066	-1,080	0	0	0
1985	0	0	0	1,085	-1,080	0	0	0
1986	1	0	0	1,085	-1,086	0	0	0
1987	0	0	0	1,095	-1,087	0	0	0
1988	0	0	0	1,061	-1,088	0	0	0
1989	0	0	0	1,053	-1,086	0	0	0
1990	0	0	0	1,089	-1,087	0	0	0
1991	0	0	0	1,102	-1,092	0	0	0
1992	0	0	0	1,117	-1,094	0	0	0
1993	0	0	0	1,073	-1,095	0	0	0
1994	0	0	0	1,072	-1,095	0	0	0
1995	0	0	0	1,069	-1,095	0	0	0
1996	0	0	0	1,067	-1,093	0	0	0
1997	0	0	0	1,095	-1,093	0	0	0
1998	0	0	0	1,059	-1,092	0	0	0
1999	0	0	0	1,061	-1,091	0	0	0
2000	0	0	0	1,066	-1,089	0	0	0
2001	0	0	0	1,056	-1,087	0	0	0
2002	0	0	0	1,072	-1,085	0	0	0
2003	0	0	0	1,067	-1,085	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Crane</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2004	2	0	0	1,108	-1,095	0	0	0
2005	0	0	0	1,069	-1,096	0	0	0

<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	0	0	0	0
1932	0	0	10	-3	-3	0	0	0
1933	0	0	7	-6	-3	0	0	0
1934	0	0	7	-6	-3	0	0	0
1935	0	0	9	-3	-3	0	0	0
1936	0	0	8	-5	-3	0	0	0
1937	0	0	8	-6	-3	0	0	0
1938	0	0	8	-5	-3	0	0	0
1939	0	0	8	-5	-3	0	0	0
1940	0	0	9	-6	-3	0	0	0
1941	0	0	10	-6	-4	0	0	0
1942	0	0	8	-5	-3	0	0	0
1943	0	0	8	-4	-3	0	0	0
1944	0	0	9	-5	-3	0	0	0
1945	0	0	8	-6	-3	0	0	0
1946	0	0	8	-6	-3	0	0	0
1947	0	0	8	-6	-2	0	0	0
1948	0	0	7	-5	-2	0	0	0
1949	0	0	9	-4	-2	0	0	0
1950	0	0	8	-6	-3	0	0	0
1951	0	0	7	-6	-3	0	0	0
1952	0	0	7	-7	-2	0	0	0
1953	0	0	7	-8	-1	0	0	0
1954	0	0	7	-7	-1	0	0	0
1955	0	0	7	-9	-2	0	0	0
1956	0	0	6	-7	0	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1957	0	0	9	-7	-1	0	0	0
1958	0	0	9	-8	-1	0	0	0
1959	0	0	8	-7	-2	0	0	0
1960	0	0	8	-7	-1	0	0	0
1961	0	0	8	-7	-2	0	0	0
1962	0	0	7	-7	-1	0	0	0
1963	0	0	7	-7	-1	0	0	0
1964	0	0	8	-6	-1	0	0	0
1965	0	0	8	-6	-1	0	0	0
1966	0	0	8	-6	-1	0	0	0
1967	0	0	8	-6	-1	0	0	0
1968	0	0	9	-7	-1	0	0	0
1969	0	0	9	-8	-1	0	0	0
1970	0	0	8	-7	-1	0	0	0
1971	0	0	9	-7	-1	0	0	0
1972	0	0	8	-8	-1	0	0	0
1973	0	0	9	-6	-1	0	0	0
1974	0	0	9	-7	-2	0	0	0
1975	0	0	8	-7	-1	0	0	0
1976	0	0	9	-7	-1	0	0	0
1977	0	0	8	-7	-2	0	0	0
1978	0	0	9	-7	-1	0	0	0
1979	0	0	8	-7	-1	0	0	0
1980	0	0	8	-7	-1	0	0	0
1981	0	0	9	-6	-2	0	0	0
1982	0	0	8	-7	-2	0	0	0
1983	0	0	8	-7	-1	0	0	0
1984	0	0	8	-8	-1	0	0	0
1985	0	0	9	-7	-1	0	0	0
1986	0	0	9	-8	-1	0	0	0
1987	0	0	9	-5	-2	0	0	0
1988	0	0	8	-8	-1	0	0	0
1989	0	0	7	-7	-1	0	0	0
1990	0	0	9	-7	-2	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1991	0	0	9	-6	-3	0	0	0
1992	0	0	9	-6	-3	0	0	0
1993	0	0	8	-8	-2	0	0	0
1994	0	0	8	-6	-2	0	0	0
1995	0	0	8	-7	-2	0	0	0
1996	0	0	8	-6	-3	0	0	0
1997	0	0	9	-7	-2	0	0	0
1998	0	0	8	-8	-2	0	0	0
1999	0	0	8	-8	-2	0	0	0
2000	0	0	8	-8	-2	0	0	0
2001	0	0	8	-8	-2	0	0	0
2002	0	0	8	-8	-2	0	0	0
2003	0	0	8	-8	-2	0	0	0
2004	1	0	11	-9	-2	0	0	0
2005	0	0	8	-9	-2	0	0	0

<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	365	365	-365	0	0	0
1932	3	0	381	32	-285	0	0	0
1933	1	0	292	15	-341	0	0	0
1934	-2	0	292	4	-362	0	0	0
1935	0	0	360	-2	-324	0	0	0
1936	1	0	339	0	-331	0	0	0
1937	0	0	318	-19	-337	0	0	0
1938	-1	0	313	-2	-352	0	0	0
1939	-2	0	309	4	-362	0	0	0
1940	-1	0	344	-11	-340	0	0	0
1941	8	0	414	-48	-306	0	0	0
1942	0	0	330	4	-338	0	0	0
1943	-3	0	306	17	-355	0	0	0



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1944	1	0	355	-13	-331	0	0	0
1945	-1	0	320	9	-347	0	0	0
1946	-1	0	332	-3	-344	0	0	0
1947	-1	0	306	-1	-361	0	0	0
1948	-6	0	295	18	-371	0	0	0
1949	0	0	362	-5	-329	0	0	0
1950	-1	0	313	-5	-360	0	0	0
1951	-7	0	276	34	-382	0	0	0
1952	-6	0	290	16	-383	0	0	0
1953	-7	0	285	18	-387	0	0	0
1954	-7	0	281	21	-392	0	0	0
1955	-4	0	299	-8	-386	0	0	0
1956	-11	0	255	39	-403	0	0	0
1957	-1	0	365	2	-354	0	0	0
1958	6	0	379	-22	-347	0	0	0
1959	0	0	339	17	-360	0	0	0
1960	-1	0	337	26	-361	0	0	0
1961	-2	0	320	36	-376	0	0	0
1962	-4	0	299	43	-396	0	0	0
1963	-2	0	297	26	-403	0	0	0
1964	-8	0	311	49	-387	0	0	0
1965	-2	0	323	38	-393	0	0	0
1966	-6	0	316	62	-385	0	0	0
1967	-1	0	313	53	-402	0	0	0
1968	2	0	358	30	-386	0	0	0
1969	2	0	355	39	-390	0	0	0
1970	-3	0	313	64	-411	0	0	0
1971	-2	0	341	59	-402	0	0	0
1972	0	0	327	50	-405	0	0	0
1973	-1	0	341	63	-410	0	0	0
1974	2	0	358	58	-413	0	0	0
1975	-1	0	337	72	-427	0	0	0
1976	0	0	355	74	-419	0	0	0
1977	-8	0	302	112	-433	0	0	0

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<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1978	0	0	348	87	-433	0	0	0
1979	0	0	323	79	-447	0	0	0
1980	-2	0	332	92	-462	0	0	0
1981	0	0	360	91	-453	0	0	0
1982	-2	0	320	113	-491	0	0	0
1983	-4	0	306	116	-520	0	0	0
1984	-4	0	325	111	-524	0	0	0
1985	-3	0	348	114	-516	0	0	0
1986	-1	0	379	122	-507	0	0	0
1987	-1	0	355	146	-516	0	0	0
1988	-2	0	304	141	-556	0	0	0
1989	-6	0	299	154	-571	0	0	0
1990	-6	0	362	154	-530	0	0	0
1991	1	0	376	158	-522	0	0	0
1992	1	0	379	171	-514	0	0	0
1993	-2	0	309	168	-562	0	0	0
1994	-3	0	320	173	-573	0	0	0
1995	-5	0	311	176	-585	0	0	0
1996	-6	0	309	182	-589	0	0	0
1997	-6	0	353	189	-553	0	0	0
1998	-3	0	304	197	-596	0	0	0
1999	-6	0	302	195	-609	0	0	0
2000	-4	0	316	183	-613	0	0	0
2001	-5	0	304	199	-631	0	0	0
2002	-6	0	325	200	-624	0	0	0
2003	-1	0	327	172	-622	0	0	0
2004	6	0	437	152	-581	0	0	0
2005	-1	0	325	210	-626	0	0	0

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<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-11,323	11,323	0	0	0
1932	-9	0	37	-11,854	11,671	0	0	0
1933	-56	0	29	-12,110	11,772	0	0	0
1934	-78	0	29	-12,536	11,911	0	0	0
1935	-82	0	35	-12,704	12,160	0	0	0
1936	-113	0	33	-13,031	12,375	0	0	0
1937	-44	0	32	-16,332	12,481	0	0	0
1938	-154	0	30	-14,043	12,748	0	0	0
1939	-184	0	30	-13,656	13,025	0	0	0
1940	-216	0	33	-13,476	13,312	0	0	0
1941	-214	0	40	-13,648	13,661	0	0	0
1942	-233	0	32	-14,474	14,037	0	0	0
1943	-284	0	30	-14,244	14,297	0	0	0
1944	-284	0	35	-14,539	14,680	0	0	0
1945	-306	0	32	-15,327	15,044	0	0	0
1946	-286	0	32	-17,161	15,470	0	0	0
1947	-231	0	30	-17,951	15,795	0	0	0
1948	-391	0	29	-15,919	16,033	0	0	0
1949	-315	0	36	-17,663	16,556	0	0	0
1950	-323	0	30	-20,966	16,927	0	0	0
1951	-460	0	27	-16,930	17,143	0	0	0
1952	-451	0	28	-17,712	17,501	0	0	0
1953	-464	0	28	-18,214	17,888	0	0	0
1954	-481	0	28	-18,651	18,303	0	0	0
1955	-407	0	29	-23,099	18,801	0	0	0
1956	-528	0	25	-19,199	19,096	0	0	0
1957	-459	0	36	-22,163	19,661	0	0	0
1958	-505	0	37	-20,445	19,992	0	0	0
1959	-523	0	33	-20,803	20,488	0	0	0
1960	-508	0	33	-21,250	20,696	0	0	0
1961	-526	0	32	-21,138	21,115	0	0	0
1962	-525	0	29	-21,851	21,476	0	0	0
1963	-343	0	29	-24,888	21,824	0	0	0
1964	-545	0	30	-21,917	21,774	0	0	0

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<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-436	0	32	-21,512	21,880	0	0	0
1966	-352	0	31	-22,152	21,464	0	0	0
1967	-273	0	30	-22,022	21,220	0	0	0
1968	-211	0	35	-21,159	20,742	0	0	0
1969	-148	0	35	-20,543	20,230	0	0	0
1970	-154	0	30	-20,536	19,947	0	0	0
1971	-159	0	33	-19,879	19,685	0	0	0
1972	-70	0	32	-25,003	19,839	0	0	0
1973	-237	0	33	-20,669	19,979	0	0	0
1974	-230	0	35	-20,449	19,984	0	0	0
1975	-189	0	33	-20,142	20,045	0	0	0
1976	-81	0	35	-21,696	20,034	0	0	0
1977	-119	0	29	-20,232	19,774	0	0	0
1978	-64	0	34	-19,771	19,623	0	0	0
1979	-15	0	32	-19,795	19,472	0	0	0
1980	-106	0	33	-20,307	19,731	0	0	0
1981	-90	0	35	-20,283	19,906	0	0	0
1982	-95	0	32	-20,329	19,978	0	0	0
1983	-96	0	30	-20,370	20,009	0	0	0
1984	-85	0	32	-20,314	20,050	0	0	0
1985	-44	0	34	-20,096	19,985	0	0	0
1986	9	0	37	-19,788	19,809	0	0	0
1987	18	0	35	-19,496	19,667	0	0	0
1988	2	0	30	-19,589	19,517	0	0	0
1989	-37	0	29	-19,719	19,520	0	0	0
1990	-13	0	36	-19,589	19,625	0	0	0
1991	5	0	37	-19,707	19,659	0	0	0
1992	4	0	37	-19,674	19,684	0	0	0
1993	-76	0	30	-20,354	19,787	0	0	0
1994	-70	0	32	-20,175	19,785	0	0	0
1995	-125	0	30	-20,489	19,996	0	0	0
1996	-98	0	30	-20,476	20,006	0	0	0
1997	-121	0	34	-19,824	20,073	0	0	0
1998	-116	0	30	-20,925	20,247	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-121	0	29	-20,831	20,324	0	0	0
2000	-134	0	30	-21,348	20,562	0	0	0
2001	-63	0	30	-20,664	20,272	0	0	0
2002	-50	0	32	-20,459	20,140	0	0	0
2003	28	0	32	-18,159	19,774	0	0	0
2004	68	0	43	-19,549	19,481	0	0	0
2005	1	0	32	-19,414	19,407	0	0	0

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-12,784	13,149	0	0	0
1932	-3	0	114	-13,283	13,077	0	0	0
1933	-16	0	88	-13,290	12,945	0	0	0
1934	-23	0	88	-13,311	12,807	0	0	0
1935	-27	0	109	-13,433	12,727	0	0	0
1936	-43	0	102	-13,277	12,639	0	0	0
1937	-13	0	97	-13,518	12,505	0	0	0
1938	-56	0	93	-13,579	12,332	0	0	0
1939	-71	0	92	-13,279	12,158	0	0	0
1940	-101	0	103	-12,842	12,124	0	0	0
1941	-118	0	124	-12,499	12,147	0	0	0
1942	-99	0	99	-13,009	11,928	0	0	0
1943	-142	0	91	-12,443	11,826	0	0	0
1944	-143	0	108	-12,421	11,743	0	0	0
1945	-149	0	97	-12,666	11,597	0	0	0
1946	-125	0	100	-13,155	11,343	0	0	0
1947	-88	0	91	-14,036	10,962	0	0	0
1948	-212	0	89	-11,806	11,008	0	0	0
1949	-139	0	110	-14,052	10,742	0	0	0
1950	-141	0	93	-13,003	10,448	0	0	0
1951	-260	0	82	-11,398	10,525	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-248	0	88	-12,120	10,474	0	0	0
1953	-254	0	87	-12,077	10,391	0	0	0
1954	-260	0	86	-12,022	10,281	0	0	0
1955	-192	0	90	-13,964	9,971	0	0	0
1956	-299	0	77	-10,958	9,896	0	0	0
1957	-245	0	110	-12,143	9,861	0	0	0
1958	-338	0	113	-10,590	9,974	0	0	0
1959	-289	0	102	-11,720	9,897	0	0	0
1960	-348	0	101	-10,545	9,952	0	0	0
1961	-306	0	97	-11,154	9,895	0	0	0
1962	-304	0	90	-11,854	9,808	0	0	0
1963	-154	0	89	-14,206	9,231	0	0	0
1964	-405	0	92	-9,809	9,580	0	0	0
1965	-278	0	98	-10,895	9,666	0	0	0
1966	-330	0	96	-10,721	9,967	0	0	0
1967	-205	0	93	-12,287	10,044	0	0	0
1968	-264	0	109	-11,062	10,458	0	0	0
1969	-234	0	108	-11,215	10,859	0	0	0
1970	-178	0	93	-12,279	11,012	0	0	0
1971	-209	0	102	-11,588	11,278	0	0	0
1972	-36	0	99	-12,723	11,035	0	0	0
1973	-175	0	102	-12,211	11,060	0	0	0
1974	-214	0	109	-11,540	11,270	0	0	0
1975	-131	0	101	-12,374	11,280	0	0	0
1976	-53	0	108	-13,304	11,231	0	0	0
1977	-132	0	90	-11,692	11,415	0	0	0
1978	-79	0	104	-11,885	11,592	0	0	0
1979	-17	0	98	-12,524	11,691	0	0	0
1980	-40	0	100	-12,223	11,615	0	0	0
1981	-30	0	109	-12,236	11,620	0	0	0
1982	-29	0	97	-12,183	11,583	0	0	0
1983	-28	0	91	-12,135	11,553	0	0	0
1984	-22	0	98	-12,072	11,561	0	0	0
1985	-9	0	104	-11,980	11,644	0	0	0

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 August 3, 2016

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1986	-7	0	113	-11,922	11,796	0	0	0
1987	10	0	108	-11,799	11,932	0	0	0
1988	5	0	91	-11,986	11,997	0	0	0
1989	-10	0	90	-12,185	11,957	0	0	0
1990	30	0	110	-12,265	11,919	0	0	0
1991	26	0	113	-12,011	11,960	0	0	0
1992	19	0	113	-11,863	12,049	0	0	0
1993	-32	0	92	-12,830	11,957	0	0	0
1994	-29	0	97	-12,452	11,915	0	0	0
1995	-40	0	92	-12,355	11,785	0	0	0
1996	-38	0	92	-12,183	11,742	0	0	0
1997	-61	0	105	-11,687	11,774	0	0	0
1998	-30	0	91	-12,227	11,605	0	0	0
1999	-40	0	90	-12,080	11,516	0	0	0
2000	-32	0	93	-12,245	11,357	0	0	0
2001	-36	0	91	-12,011	11,427	0	0	0
2002	-35	0	98	-11,954	11,471	0	0	0
2003	-10	0	99	-12,750	11,615	0	0	0
2004	-57	0	132	-12,055	12,003	0	0	0
2005	-18	0	98	-12,577	11,977	0	0	0

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	365	-21,915	21,550	0	0	0
1932	10	0	248	-21,296	21,344	0	0	0
1933	-17	0	190	-21,777	21,387	0	0	0
1934	-16	0	190	-21,790	21,386	0	0	0
1935	7	0	234	-21,461	21,316	0	0	0
1936	-1	0	220	-21,516	21,291	0	0	0
1937	-3	0	207	-21,779	21,289	0	0	0
1938	-10	0	204	-21,621	21,254	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1939	-12	0	201	-21,512	21,207	0	0	0
1940	0	0	223	-21,337	21,115	0	0	0
1941	29	0	269	-21,193	20,999	0	0	0
1942	-8	0	214	-21,229	20,950	0	0	0
1943	-18	0	199	-21,159	20,862	0	0	0
1944	2	0	231	-20,974	20,749	0	0	0
1945	-13	0	208	-20,938	20,661	0	0	0
1946	-7	0	216	-20,865	20,580	0	0	0
1947	-13	0	199	-20,902	20,543	0	0	0
1948	-24	0	191	-20,729	20,411	0	0	0
1949	3	0	236	-20,421	20,290	0	0	0
1950	-14	0	204	-20,568	20,244	0	0	0
1951	-33	0	179	-20,446	20,096	0	0	0
1952	-26	0	188	-20,268	19,964	0	0	0
1953	-28	0	185	-20,141	19,831	0	0	0
1954	-30	0	182	-20,008	19,694	0	0	0
1955	-19	0	194	-20,062	19,597	0	0	0
1956	-42	0	166	-19,747	19,441	0	0	0
1957	4	0	237	-19,426	19,276	0	0	0
1958	6	0	246	-19,256	19,025	0	0	0
1959	-12	0	220	-19,158	18,910	0	0	0
1960	-18	0	219	-18,893	18,671	0	0	0
1961	-20	0	208	-18,883	18,577	0	0	0
1962	-29	0	194	-18,763	18,469	0	0	0
1963	-21	0	193	-18,753	18,443	0	0	0
1964	-27	0	202	-18,473	18,210	0	0	0
1965	-20	0	210	-18,367	18,134	0	0	0
1966	-28	0	205	-18,157	17,960	0	0	0
1967	-23	0	204	-18,205	17,984	0	0	0
1968	-8	0	232	-18,093	17,871	0	0	0
1969	-8	0	231	-18,103	17,849	0	0	0
1970	-24	0	204	-18,221	17,892	0	0	0
1971	-23	0	222	-18,181	17,937	0	0	0
1972	-8	0	213	-18,785	17,963	0	0	0



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1973	-16	0	222	-18,224	17,945	0	0	0
1974	-18	0	232	-18,188	17,927	0	0	0
1975	-22	0	219	-18,161	17,980	0	0	0
1976	-11	0	231	-18,256	18,034	0	0	0
1977	-43	0	196	-18,318	18,009	0	0	0
1978	-23	0	226	-18,303	18,054	0	0	0
1979	-22	0	210	-18,857	18,180	0	0	0
1980	-45	0	216	-18,893	18,468	0	0	0
1981	-32	0	234	-18,765	18,594	0	0	0
1982	-46	0	208	-18,966	18,710	0	0	0
1983	-50	0	199	-19,149	18,791	0	0	0
1984	-39	0	211	-19,071	18,791	0	0	0
1985	-29	0	226	-19,037	18,790	0	0	0
1986	-14	0	246	-18,992	18,680	0	0	0
1987	-16	0	231	-19,120	18,710	0	0	0
1988	-33	0	198	-19,199	18,783	0	0	0
1989	-40	0	194	-19,312	18,862	0	0	0
1990	-13	0	236	-19,011	18,762	0	0	0
1991	-2	0	245	-18,977	18,742	0	0	0
1992	-3	0	246	-18,924	18,737	0	0	0
1993	-30	0	201	-19,254	18,851	0	0	0
1994	-27	0	208	-19,216	18,884	0	0	0
1995	-28	0	202	-19,254	18,855	0	0	0
1996	-31	0	201	-19,299	18,877	0	0	0
1997	-16	0	229	-19,073	18,798	0	0	0
1998	-36	0	198	-19,285	18,916	0	0	0
1999	-29	0	196	-19,248	18,840	0	0	0
2000	-29	0	205	-19,169	18,897	0	0	0
2001	-37	0	198	-19,284	18,979	0	0	0
2002	-37	0	211	-19,462	19,111	0	0	0
2003	-13	0	213	-20,162	19,078	0	0	0
2004	32	0	284	-19,178	18,898	0	0	0
2005	-5	0	211	-19,295	18,792	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	365	6,940	-7,670	0	0	0
1932	11	0	276	7,446	-7,435	0	0	0
1933	-15	0	212	7,036	-7,393	0	0	0
1934	-15	0	212	7,013	-7,375	0	0	0
1935	7	0	261	7,248	-7,399	0	0	0
1936	-1	0	246	7,147	-7,388	0	0	0
1937	-3	0	230	6,977	-7,382	0	0	0
1938	-9	0	227	7,010	-7,368	0	0	0
1939	-11	0	224	7,061	-7,356	0	0	0
1940	2	0	249	7,120	-7,364	0	0	0
1941	32	0	300	7,099	-7,382	0	0	0
1942	-6	0	239	7,090	-7,358	0	0	0
1943	-16	0	222	7,090	-7,344	0	0	0
1944	6	0	258	7,111	-7,358	0	0	0
1945	-9	0	232	7,098	-7,342	0	0	0
1946	-4	0	241	7,079	-7,343	0	0	0
1947	-10	0	222	6,956	-7,327	0	0	0
1948	-21	0	214	7,060	-7,314	0	0	0
1949	7	0	263	7,204	-7,340	0	0	0
1950	-10	0	227	7,066	-7,313	0	0	0
1951	-29	0	200	7,033	-7,291	0	0	0
1952	-21	0	210	7,049	-7,281	0	0	0
1953	-22	0	207	7,032	-7,268	0	0	0
1954	-24	0	203	7,021	-7,253	0	0	0
1955	-13	0	217	6,868	-7,249	0	0	0
1956	-36	0	185	7,029	-7,223	0	0	0
1957	10	0	264	7,034	-7,249	0	0	0
1958	16	0	275	7,003	-7,244	0	0	0
1959	-2	0	246	6,992	-7,235	0	0	0
1960	-4	0	244	6,986	-7,235	0	0	0
1961	-10	0	232	6,967	-7,227	0	0	0
1962	-19	0	217	6,980	-7,214	0	0	0
1963	-12	0	215	6,864	-7,212	0	0	0
1964	-15	0	225	6,995	-7,225	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-9	0	234	6,975	-7,220	0	0	0
1966	-13	0	229	6,979	-7,226	0	0	0
1967	-12	0	227	6,970	-7,215	0	0	0
1968	5	0	259	6,979	-7,224	0	0	0
1969	3	0	258	6,969	-7,221	0	0	0
1970	-14	0	227	6,916	-7,208	0	0	0
1971	-3	0	247	7,013	-7,264	0	0	0
1972	-3	0	237	6,809	-7,261	0	0	0
1973	-5	0	247	6,995	-7,265	0	0	0
1974	1	0	259	7,053	-7,310	0	0	0
1975	-8	0	244	7,073	-7,323	0	0	0
1976	-1	0	258	7,124	-7,356	0	0	0
1977	-24	0	219	7,068	-7,377	0	0	0
1978	-5	0	253	7,158	-7,417	0	0	0
1979	-9	0	234	6,930	-7,434	0	0	0
1980	-14	0	241	7,245	-7,575	0	0	0
1981	-4	0	261	7,378	-7,659	0	0	0
1982	-20	0	232	7,354	-7,694	0	0	0
1983	-25	0	222	7,346	-7,723	0	0	0
1984	-18	0	236	7,401	-7,738	0	0	0
1985	-10	0	253	7,451	-7,757	0	0	0
1986	2	0	275	7,436	-7,739	0	0	0
1987	-6	0	258	7,345	-7,718	0	0	0
1988	-23	0	220	7,199	-7,680	0	0	0
1989	-28	0	217	7,289	-7,698	0	0	0
1990	-5	0	263	7,437	-7,691	0	0	0
1991	2	0	273	7,392	-7,670	0	0	0
1992	2	0	275	7,430	-7,662	0	0	0
1993	-21	0	224	7,165	-7,649	0	0	0
1994	-19	0	232	7,295	-7,656	0	0	0
1995	-23	0	225	7,255	-7,639	0	0	0
1996	-24	0	224	7,288	-7,645	0	0	0
1997	-9	0	256	7,407	-7,659	0	0	0
1998	-25	0	220	7,271	-7,660	0	0	0

<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-26	0	219	7,230	-7,618	0	0	0
2000	-19	0	229	7,258	-7,640	0	0	0
2001	-26	0	220	7,309	-7,657	0	0	0
2002	-19	0	236	7,393	-7,738	0	0	0
2003	-9	0	237	6,828	-7,707	0	0	0
2004	29	0	317	7,266	-7,650	0	0	0
2005	-14	0	236	7,036	-7,526	0	0	0

**Table A.1.3. Water budgets of the modeled area by county for Layer 3—the Rustler Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	731	-731	0	0	0
1932	1	0	0	549	-494	-6	0	0
1933	-1	0	0	455	-480	-6	0	0
1934	-1	0	0	490	-472	-6	0	0
1935	1	0	0	522	-485	-6	0	0
1936	0	0	0	489	-484	-6	0	0
1937	0	0	0	451	-482	-6	0	0
1938	-1	0	0	490	-479	-6	0	0
1939	-1	0	0	480	-476	-6	0	0
1940	0	0	0	490	-482	-6	0	0
1941	3	0	0	500	-494	-6	0	0
1942	0	0	0	492	-491	-6	0	0
1943	-1	0	0	495	-486	-6	0	0
1944	1	0	0	495	-490	-6	0	0
1945	-1	0	0	489	-488	-6	0	0
1946	0	0	0	494	-487	-6	0	0
1947	-1	0	0	438	-481	-6	0	0
1948	-1	0	0	488	-481	-6	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1949	1	0	0	539	-492	-6	0	0
1950	-1	0	0	514	-483	-6	0	0
1951	-2	0	0	496	-483	-6	0	0
1952	-1	0	0	475	-483	-6	0	0
1953	-1	0	0	474	-482	-6	0	0
1954	-1	0	0	472	-481	-6	0	0
1955	-1	0	0	492	-481	-6	0	0
1956	-3	0	0	469	-481	-6	0	0
1957	1	0	0	521	-494	-6	0	0
1958	1	0	0	522	-514	-6	0	0
1959	-1	0	0	515	-516	-6	0	0
1960	-1	0	0	535	-528	-6	0	0
1961	-1	0	0	535	-526	-6	0	0
1962	-2	0	0	510	-524	-6	0	0
1963	-1	0	0	429	-514	-6	0	0
1964	-2	0	0	531	-527	-6	0	0
1965	-1	0	0	524	-530	-6	0	0
1966	-2	0	0	538	-541	-6	0	0
1967	-1	0	0	556	-537	-6	0	0
1968	-1	0	0	558	-557	-6	0	0
1969	-1	0	0	570	-565	-6	0	0
1970	-2	0	0	540	-561	-6	0	0
1971	-2	0	0	583	-580	-6	0	0
1972	0	0	0	422	-575	-6	0	0
1973	-2	0	0	564	-578	-6	0	0
1974	-2	0	0	593	-591	-6	0	0
1975	-2	0	0	569	-586	-6	0	0
1976	-1	0	0	539	-587	-6	0	0
1977	-4	0	0	604	-591	-6	0	0
1978	-2	0	0	606	-603	-6	0	0
1979	-1	0	0	632	-593	-6	0	0
1980	-2	0	0	570	-597	-6	0	0
1981	-1	0	0	605	-600	-6	0	0
1982	-2	0	0	617	-594	-6	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1983	-3	0	0	621	-591	-6	0	0
1984	-2	0	0	606	-594	-6	0	0
1985	-2	0	0	607	-602	-6	0	0
1986	-2	0	0	625	-622	-6	0	0
1987	-1	0	0	637	-615	-6	0	0
1988	-3	0	0	514	-603	-6	0	0
1989	-3	0	0	541	-603	-6	0	0
1990	-2	0	0	632	-623	-6	0	0
1991	-1	0	0	631	-625	-6	0	0
1992	-1	0	0	611	-625	-6	0	0
1993	-2	0	0	523	-609	-6	0	0
1994	-2	0	0	634	-608	-6	0	0
1995	-3	0	0	564	-611	-6	0	0
1996	-3	0	0	562	-609	-6	0	0
1997	-3	0	0	634	-623	-6	0	0
1998	-3	0	0	646	-606	-6	0	0
1999	-3	0	0	560	-607	-6	0	0
2000	-2	0	0	543	-602	-6	0	0
2001	-3	0	0	628	-600	-6	0	0
2002	-2	0	0	573	-608	-6	0	0
2003	-1	0	0	621	-605	-6	0	0
2004	0	0	0	637	-634	-6	0	0
2005	-2	0	0	658	-618	-6	0	0

<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	0	0	0	0
1932	0	2	0	26	-29	0	0	0
1933	0	2	0	27	-29	0	0	0
1934	0	3	0	27	-29	0	0	0
1935	0	3	0	26	-29	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1936	0	3	0	26	-29	0	0	0
1937	0	3	0	26	-29	0	0	0
1938	0	3	0	26	-29	0	0	0
1939	0	3	0	27	-29	0	0	0
1940	0	3	0	26	-29	0	0	0
1941	0	2	0	26	-28	0	0	0
1942	0	2	0	26	-28	0	0	0
1943	0	2	0	26	-29	0	0	0
1944	0	2	0	26	-28	0	0	0
1945	0	2	0	26	-29	0	0	0
1946	0	2	0	26	-29	0	0	0
1947	0	3	0	26	-29	0	0	0
1948	0	3	0	26	-29	0	0	0
1949	0	3	0	26	-28	0	0	0
1950	0	3	0	26	-29	0	0	0
1951	0	3	0	26	-29	0	0	0
1952	0	3	0	26	-29	0	0	0
1953	0	3	0	26	-29	0	0	0
1954	0	3	0	26	-29	0	0	0
1955	0	3	0	26	-29	0	0	0
1956	0	3	0	26	-29	0	0	0
1957	0	3	0	26	-28	0	0	0
1958	0	3	0	25	-28	0	0	0
1959	0	3	0	25	-28	0	0	0
1960	0	3	0	25	-27	0	0	0
1961	0	3	0	25	-28	0	0	0
1962	0	3	0	25	-28	0	0	0
1963	0	3	0	25	-28	0	0	0
1964	0	3	0	25	-28	0	0	0
1965	0	3	0	25	-28	0	0	0
1966	0	3	0	25	-28	0	0	0
1967	0	3	0	25	-28	0	0	0
1968	0	3	0	25	-27	0	0	0
1969	0	3	0	25	-27	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1970	0	3	0	25	-28	0	0	0
1971	0	3	0	25	-28	0	0	0
1972	0	3	0	25	-28	0	0	0
1973	0	3	0	25	-28	0	0	0
1974	0	3	0	25	-27	0	0	0
1975	0	3	0	25	-28	0	0	0
1976	0	3	0	25	-28	0	0	0
1977	0	3	0	25	-28	0	0	0
1978	0	3	0	25	-28	0	0	0
1979	0	3	0	25	-28	0	0	0
1980	0	3	0	25	-28	0	0	0
1981	0	3	0	24	-27	0	0	0
1982	0	3	0	25	-27	0	0	0
1983	0	3	0	25	-27	0	0	0
1984	0	3	0	25	-27	0	0	0
1985	0	3	0	24	-27	0	0	0
1986	0	3	0	24	-26	0	0	0
1987	0	3	0	24	-26	0	0	0
1988	0	3	0	25	-27	0	0	0
1989	0	3	0	25	-27	0	0	0
1990	0	3	0	24	-27	0	0	0
1991	0	3	0	24	-26	0	0	0
1992	0	2	0	24	-26	0	0	0
1993	0	3	0	25	-27	0	0	0
1994	0	3	0	25	-27	0	0	0
1995	0	3	0	25	-27	0	0	0
1996	0	3	0	25	-27	0	0	0
1997	0	3	0	24	-27	0	0	0
1998	0	3	0	25	-27	0	0	0
1999	0	3	0	25	-27	0	0	0
2000	0	3	0	25	-27	0	0	0
2001	0	3	0	25	-27	0	0	0
2002	0	3	0	25	-27	0	0	0
2003	0	3	0	25	-27	0	0	0



<b>Eddy, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2004	0	3	0	24	-26	0	0	0
2005	0	3	0	24	-27	0	0	0

<b>Jeff Davis</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	731	-731	0	0	0
1932	1	0	0	794	-729	-60	0	0
1933	-1	0	0	788	-727	-60	0	0
1934	-1	0	0	784	-728	-60	0	0
1935	0	0	0	784	-728	-60	0	0
1936	0	0	0	788	-727	-60	0	0
1937	0	0	0	770	-727	-60	0	0
1938	0	0	0	784	-727	-60	0	0
1939	0	0	0	782	-728	-60	0	0
1940	0	0	0	789	-726	-60	0	0
1941	1	0	0	785	-723	-60	0	0
1942	0	0	0	785	-725	-60	0	0
1943	0	0	0	786	-728	-60	0	0
1944	0	0	0	788	-727	-60	0	0
1945	0	0	0	785	-728	-60	0	0
1946	0	0	0	789	-729	-60	0	0
1947	0	0	0	792	-729	-60	0	0
1948	-1	0	0	790	-733	-60	0	0
1949	0	0	0	786	-732	-60	0	0
1950	0	0	0	792	-731	-60	0	0
1951	-1	0	0	790	-736	-60	0	0
1952	-1	0	0	788	-737	-60	0	0
1953	-1	0	0	788	-739	-60	0	0
1954	-1	0	0	789	-741	-60	0	0
1955	-1	0	0	791	-741	-60	0	0
1956	-1	0	0	798	-745	-60	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Jeff Davis</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1957	0	0	0	805	-743	-60	0	0
1958	0	0	0	803	-744	-60	0	0
1959	0	0	0	804	-747	-60	0	0
1960	0	0	0	810	-751	-60	0	0
1961	0	0	0	812	-757	-60	0	0
1962	-1	0	0	812	-762	-60	0	0
1963	-1	0	0	831	-764	-60	0	0
1964	-1	0	0	829	-770	-60	0	0
1965	-1	0	0	838	-773	-60	0	0
1966	-1	0	0	840	-778	-60	0	0
1967	-1	0	0	833	-781	-60	0	0
1968	0	0	0	846	-787	-60	0	0
1969	0	0	0	848	-791	-60	0	0
1970	-1	0	0	853	-797	-60	0	0
1971	-1	0	0	862	-803	-60	0	0
1972	0	0	0	806	-805	-60	0	0
1973	-1	0	0	873	-811	-60	0	0
1974	-1	0	0	874	-818	-60	0	0
1975	-1	0	0	890	-822	-60	0	0
1976	-1	0	0	887	-825	-60	0	0
1977	-2	0	0	883	-833	-60	0	0
1978	-1	0	0	897	-839	-60	0	0
1979	-1	0	0	888	-841	-60	0	0
1980	-1	0	0	900	-846	-60	0	0
1981	-1	0	0	903	-849	-60	0	0
1982	-1	0	0	900	-853	-60	0	0
1983	-2	0	0	898	-857	-60	0	0
1984	-2	0	0	914	-860	-60	0	0
1985	-1	0	0	914	-864	-60	0	0
1986	-1	0	0	925	-868	-60	0	0
1987	-1	0	0	919	-871	-60	0	0
1988	-2	0	0	962	-872	-60	0	0
1989	-2	0	0	940	-879	-60	0	0
1990	-1	0	0	956	-887	-60	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Jeff Davis</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1991	-1	0	0	940	-888	-60	0	0
1992	-1	0	0	950	-887	-60	0	0
1993	-2	0	0	977	-887	-60	0	0
1994	-2	0	0	944	-892	-60	0	0
1995	-2	0	0	957	-894	-60	0	0
1996	-2	0	0	946	-897	-60	0	0
1997	-1	0	0	979	-900	-60	0	0
1998	-2	0	0	943	-898	-60	0	0
1999	-2	0	0	963	-901	-60	0	0
2000	-2	0	0	1,004	-898	-60	0	0
2001	-2	0	0	943	-901	-60	0	0
2002	-2	0	0	965	-901	-60	0	0
2003	-1	0	0	934	-901	-60	0	0
2004	0	0	0	957	-898	-60	0	0
2005	-2	0	0	957	-897	-60	0	0

<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	0	0	0	0
1932	0	0	0	24	-23	0	0	0
1933	0	0	0	24	-24	0	0	0
1934	0	0	0	24	-24	0	0	0
1935	0	0	0	24	-23	0	0	0
1936	0	0	0	24	-23	0	0	0
1937	0	0	0	24	-24	0	0	0
1938	0	0	0	24	-24	0	0	0
1939	0	0	0	24	-24	0	0	0
1940	0	0	0	24	-24	0	0	0
1941	0	0	0	24	-23	0	0	0
1942	0	0	0	24	-24	0	0	0
1943	0	0	0	24	-24	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1944	0	0	0	24	-24	0	0	0
1945	0	0	0	24	-24	0	0	0
1946	0	0	0	24	-24	0	0	0
1947	0	0	0	24	-24	0	0	0
1948	0	0	0	24	-24	0	0	0
1949	0	0	0	24	-23	0	0	0
1950	0	0	0	24	-24	0	0	0
1951	0	0	0	24	-24	0	0	0
1952	0	0	0	24	-24	0	0	0
1953	0	0	0	24	-24	0	0	0
1954	0	0	0	24	-24	0	0	0
1955	0	0	0	24	-24	0	0	0
1956	0	0	0	24	-24	0	0	0
1957	0	0	0	24	-24	0	0	0
1958	0	0	0	24	-23	0	0	0
1959	0	0	0	24	-23	0	0	0
1960	0	0	0	24	-23	0	0	0
1961	0	0	0	24	-23	0	0	0
1962	0	0	0	24	-23	0	0	0
1963	0	0	0	24	-24	0	0	0
1964	0	0	0	24	-24	0	0	0
1965	0	0	0	24	-24	0	0	0
1966	0	0	0	24	-24	0	0	0
1967	0	0	0	24	-24	0	0	0
1968	0	0	0	24	-24	0	0	0
1969	0	0	0	24	-24	0	0	0
1970	0	0	0	24	-24	0	0	0
1971	0	0	0	24	-24	0	0	0
1972	0	0	0	24	-24	0	0	0
1973	0	0	0	24	-24	0	0	0
1974	0	0	0	24	-24	0	0	0
1975	0	0	0	24	-24	0	0	0
1976	0	0	0	24	-24	0	0	0
1977	0	0	0	24	-24	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1978	0	0	0	24	-24	0	0	0
1979	0	0	0	24	-24	0	0	0
1980	0	0	0	24	-24	0	0	0
1981	0	0	0	24	-23	0	0	0
1982	0	0	0	24	-24	0	0	0
1983	0	0	0	24	-24	0	0	0
1984	0	0	0	24	-24	0	0	0
1985	0	0	0	24	-24	0	0	0
1986	0	0	0	24	-24	0	0	0
1987	0	0	0	24	-24	0	0	0
1988	0	0	0	24	-24	0	0	0
1989	0	0	0	24	-24	0	0	0
1990	0	0	0	24	-24	0	0	0
1991	0	0	0	24	-24	0	0	0
1992	0	0	0	24	-24	0	0	0
1993	0	0	0	24	-24	0	0	0
1994	0	0	0	24	-24	0	0	0
1995	0	0	0	24	-24	0	0	0
1996	0	0	0	24	-24	0	0	0
1997	0	0	0	24	-24	0	0	0
1998	0	0	0	24	-24	0	0	0
1999	0	0	0	24	-24	0	0	0
2000	0	0	0	24	-24	0	0	0
2001	0	0	0	24	-24	0	0	0
2002	0	0	0	24	-24	0	0	0
2003	0	0	0	24	-24	0	0	0
2004	0	0	0	24	-24	0	0	0
2005	0	0	0	24	-24	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	-731	0	1,461	-731	0	0	0
1932	9	-910	0	1,688	-693	0	0	0
1933	-17	-909	0	1,523	-661	0	0	0
1934	-16	-908	0	1,458	-643	0	0	0
1935	8	-909	0	1,561	-659	0	0	0
1936	0	-909	0	1,565	-655	0	0	0
1937	-2	-909	0	1,402	-652	0	0	0
1938	-8	-908	0	1,506	-642	0	0	0
1939	-10	-908	0	1,485	-634	0	0	0
1940	4	-908	0	1,559	-644	0	0	0
1941	35	-909	0	1,607	-668	0	0	0
1942	-7	-909	0	1,555	-653	0	0	0
1943	-16	-908	0	1,535	-638	0	0	0
1944	8	-909	0	1,560	-649	0	0	0
1945	-8	-908	0	1,533	-639	0	0	0
1946	-2	-908	0	1,532	-639	0	0	0
1947	-8	-908	0	1,493	-629	0	0	0
1948	-19	-907	0	1,517	-620	0	0	0
1949	11	-908	0	1,529	-640	0	0	0
1950	-7	-907	0	1,484	-628	0	0	0
1951	-27	-907	0	1,499	-611	0	0	0
1952	-17	-906	0	1,476	-607	0	0	0
1953	-18	-905	0	1,462	-603	0	0	0
1954	-20	-904	0	1,455	-597	0	0	0
1955	-8	-904	0	1,446	-599	0	0	0
1956	-31	-903	0	1,433	-586	0	0	0
1957	18	-903	0	1,552	-619	0	0	0
1958	24	-904	0	1,549	-632	0	0	0
1959	2	-904	0	1,541	-633	0	0	0
1960	-1	-904	0	1,541	-636	0	0	0
1961	-6	-904	0	1,527	-631	0	0	0
1962	-14	-903	0	1,501	-622	0	0	0
1963	-8	-903	0	1,462	-616	0	0	0
1964	-11	-903	0	1,508	-627	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-3	-903	0	1,530	-629	0	0	0
1966	-9	-902	0	1,533	-636	0	0	0
1967	-6	-902	0	1,502	-632	0	0	0
1968	11	-902	0	1,574	-647	0	0	0
1969	9	-903	0	1,568	-653	0	0	0
1970	-10	-903	0	1,527	-645	0	0	0
1971	2	-903	0	1,559	-654	0	0	0
1972	-1	-903	0	1,510	-654	0	0	0
1973	2	-903	0	1,556	-659	0	0	0
1974	8	-903	0	1,583	-666	0	0	0
1975	-1	-903	0	1,562	-666	0	0	0
1976	4	-904	0	1,621	-673	0	0	0
1977	-20	-903	0	1,542	-671	0	0	0
1978	4	-904	0	1,588	-679	0	0	0
1979	-4	-903	0	1,537	-676	0	0	0
1980	-3	-903	0	1,569	-678	0	0	0
1981	7	-904	0	1,628	-693	0	0	0
1982	-8	-904	0	1,541	-686	0	0	0
1983	-13	-903	0	1,508	-682	0	0	0
1984	-6	-903	0	1,560	-690	0	0	0
1985	2	-903	0	1,610	-706	0	0	0
1986	12	-904	0	1,647	-729	0	0	0
1987	1	-904	0	1,645	-733	0	0	0
1988	-15	-904	0	1,591	-716	0	0	0
1989	-19	-903	0	1,567	-710	0	0	0
1990	5	-904	0	1,607	-741	0	0	0
1991	11	-904	0	1,662	-753	0	0	0
1992	8	-905	0	1,700	-761	0	0	0
1993	-14	-905	0	1,615	-741	0	0	0
1994	-10	-904	0	1,589	-737	0	0	0
1995	-14	-904	0	1,604	-733	0	0	0
1996	-15	-904	0	1,580	-732	0	0	0
1997	1	-904	0	1,644	-756	0	0	0
1998	-15	-903	0	1,560	-741	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Loving</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-17	-903	0	1,601	-736	0	0	0
2000	-9	-903	0	1,629	-737	0	0	0
2001	-14	-902	0	1,563	-734	0	0	0
2002	-7	-902	0	1,620	-744	0	0	0
2003	-2	-902	0	1,599	-746	0	0	0
2004	42	-903	0	1,739	-793	0	0	0
2005	-10	-903	0	1,608	-779	0	0	0

<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	20,089	-19,724	0	0	0
1932	27	0	0	19,915	-19,575	-131	0	0
1933	-210	0	0	18,852	-19,443	-131	0	0
1934	-281	0	0	19,201	-19,289	-131	0	0
1935	-193	0	0	18,764	-19,166	-131	0	0
1936	-304	0	0	19,010	-19,007	-131	0	0
1937	-138	0	0	8,892	-18,905	-131	0	0
1938	-477	0	0	18,346	-18,660	-131	0	0
1939	-547	0	0	17,589	-18,410	-131	0	0
1940	-562	0	0	17,859	-18,242	-131	0	0
1941	-470	0	0	17,705	-18,071	-131	0	0
1942	-663	0	0	17,188	-17,755	-131	0	0
1943	-813	0	0	16,966	-17,523	-132	0	0
1944	-749	0	0	16,778	-17,280	-132	0	0
1945	-867	0	0	16,347	-16,982	-132	0	0
1946	-837	0	0	15,601	-16,597	-132	0	0
1947	-733	0	0	9,835	-16,214	-133	0	0
1948	-1,139	0	0	15,247	-16,026	-133	0	0
1949	-894	0	0	15,401	-15,608	-133	0	0
1950	-1,007	0	0	13,900	-15,162	-133	0	0
1951	-1,331	0	0	14,084	-15,006	-133	0	0



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-1,314	0	0	13,805	-14,719	-144	0	0
1953	-1,361	0	0	13,225	-14,411	-145	0	0
1954	-1,418	0	0	12,887	-14,083	-146	0	0
1955	-1,241	0	0	13,327	-13,607	-147	0	0
1956	-1,589	0	0	11,567	-13,329	-147	0	0
1957	-1,254	0	0	8,550	-13,023	-148	0	0
1958	-1,400	0	0	11,582	-12,840	-149	0	0
1959	-1,476	0	0	11,371	-12,479	-149	0	0
1960	-1,488	0	0	11,086	-12,354	-150	0	0
1961	-1,529	0	0	11,115	-12,030	-376	0	0
1962	-1,578	0	0	11,259	-11,693	-796	0	0
1963	-1,149	0	0	2,317	-11,139	-1,207	0	0
1964	-1,694	0	0	10,723	-11,128	-1,607	0	0
1965	-1,343	0	0	11,967	-10,956	-1,997	0	0
1966	-1,176	0	0	12,310	-11,129	-2,384	0	0
1967	-953	0	0	12,980	-11,088	-2,764	0	0
1968	-734	0	0	13,934	-11,468	-3,134	0	0
1969	-567	0	0	14,746	-11,799	-3,503	0	0
1970	-613	0	0	14,448	-11,947	-3,866	0	0
1971	-616	0	0	16,110	-12,357	-4,365	0	0
1972	-247	0	0	-2,572	-12,243	-4,154	0	0
1973	-822	0	0	14,950	-12,209	-3,943	0	0
1974	-745	0	0	14,607	-12,342	-3,520	0	0
1975	-649	0	0	14,754	-12,274	-2,886	0	0
1976	-291	0	0	10,633	-12,224	-2,157	0	0
1977	-537	0	0	13,734	-12,448	-1,817	0	0
1978	-291	0	0	13,783	-12,695	-1,482	0	0
1979	-128	0	0	13,217	-12,742	-1,164	0	0
1980	-394	0	0	12,503	-12,684	-1,088	0	0
1981	-319	0	0	13,267	-12,631	-1,018	0	0
1982	-393	0	0	13,122	-12,563	-948	0	0
1983	-414	0	0	12,899	-12,509	-883	0	0
1984	-354	0	0	13,141	-12,477	-813	0	0
1985	-206	0	0	12,992	-12,529	-749	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1986	-47	0	0	13,572	-12,752	-677	0	0
1987	-11	0	0	13,217	-12,834	-614	0	0
1988	-131	0	0	13,446	-12,880	-548	0	0
1989	-242	0	0	12,514	-12,904	-486	0	0
1990	-110	0	0	13,492	-12,977	-422	0	0
1991	-20	0	0	13,173	-12,998	-360	0	0
1992	-10	0	0	13,292	-13,017	-299	0	0
1993	-331	0	0	12,363	-12,920	-242	0	0
1994	-311	0	0	13,344	-12,854	-355	0	0
1995	-448	0	0	11,707	-12,724	-341	0	0
1996	-390	0	0	11,126	-12,656	-315	0	0
1997	-402	0	0	13,156	-12,676	-309	0	0
1998	-452	0	0	12,413	-12,463	-312	0	0
1999	-456	0	0	11,382	-12,356	-310	0	0
2000	-494	0	0	12,155	-12,137	-298	0	0
2001	-324	0	0	12,201	-12,162	-279	0	0
2002	-242	0	0	11,890	-12,224	-272	0	0
2003	28	0	0	11,999	-12,376	-219	0	0
2004	187	0	0	13,560	-12,770	-295	0	0
2005	-87	0	0	13,005	-12,787	-292	0	0

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	3,653	-3,287	0	0	0
1932	-8	0	0	3,341	-3,405	0	0	0
1933	-67	0	0	3,186	-3,439	0	0	0
1934	-95	0	0	3,142	-3,476	0	0	0
1935	-102	0	0	3,098	-3,495	0	0	0
1936	-163	0	0	3,073	-3,508	0	0	0
1937	-50	0	0	1,524	-3,522	-6	0	0
1938	-225	0	0	2,789	-3,563	-13	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1939	-280	0	0	2,709	-3,596	-19	0	0
1940	-377	0	0	2,941	-3,575	-25	0	0
1941	-426	0	0	3,081	-3,512	-29	0	0
1942	-383	0	0	2,611	-3,557	-32	0	0
1943	-533	0	0	2,861	-3,539	-36	0	0
1944	-535	0	0	2,821	-3,512	-39	0	0
1945	-564	0	0	2,615	-3,515	-42	0	0
1946	-491	0	0	2,008	-3,546	-46	0	0
1947	-361	0	0	983	-3,587	-51	0	0
1948	-793	0	0	2,626	-3,523	-124	0	0
1949	-549	0	0	2,075	-3,553	-166	0	0
1950	-560	0	0	1,241	-3,580	-247	0	0
1951	-968	0	0	2,736	-3,481	-465	0	0
1952	-936	0	0	2,643	-3,425	-543	0	0
1953	-965	0	0	2,589	-3,370	-663	0	0
1954	-988	0	0	2,379	-3,321	-513	0	0
1955	-758	0	0	1,681	-3,341	-463	0	0
1956	-1,128	0	0	1,945	-3,252	-460	0	0
1957	-930	0	0	1,018	-3,197	-490	0	0
1958	-1,233	0	0	2,104	-3,005	-474	0	0
1959	-1,110	0	0	1,802	-2,950	-492	0	0
1960	-1,283	0	0	1,998	-2,788	-506	0	0
1961	-1,183	0	0	1,686	-2,697	-518	0	0
1962	-1,183	0	0	1,472	-2,629	-532	0	0
1963	-649	0	0	-1,885	-2,667	-544	0	0
1964	-1,509	0	0	1,627	-2,420	-557	0	0
1965	-1,103	0	0	648	-2,314	-538	0	0
1966	-1,235	0	0	1,169	-2,050	-520	0	0
1967	-858	0	0	340	-1,926	-501	0	0
1968	-1,013	0	0	998	-1,658	-483	0	0
1969	-916	0	0	998	-1,404	-464	0	0
1970	-744	0	0	145	-1,264	-459	0	0
1971	-832	0	0	702	-1,084	-454	0	0
1972	-154	0	0	-5,606	-1,089	-448	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1973	-742	0	0	-2	-1,038	-443	0	0
1974	-828	0	0	384	-896	-437	0	0
1975	-556	0	0	75	-865	-388	0	0
1976	-230	0	0	-1,264	-856	-339	0	0
1977	-502	0	0	600	-793	-292	0	0
1978	-312	0	0	620	-743	-244	0	0
1979	-81	0	0	543	-731	-196	0	0
1980	-159	0	0	465	-789	-204	0	0
1981	-114	0	0	695	-836	-203	0	0
1982	-108	0	0	776	-895	-202	0	0
1983	-103	0	0	851	-953	-201	0	0
1984	-74	0	0	981	-1,004	-200	0	0
1985	-14	0	0	1,148	-1,036	-166	0	0
1986	1	0	0	1,173	-1,038	-162	0	0
1987	56	0	0	1,394	-1,043	-133	0	0
1988	33	0	0	1,195	-1,062	-95	0	0
1989	-32	0	0	1,028	-1,107	-123	0	0
1990	137	0	0	1,231	-1,197	-90	0	0
1991	123	0	0	1,430	-1,240	-85	0	0
1992	94	0	0	1,709	-1,265	-110	0	0
1993	-123	0	0	1,189	-1,278	-505	0	0
1994	-112	0	0	1,079	-1,314	-77	0	0
1995	-149	0	0	987	-1,371	-66	0	0
1996	-139	0	0	1,025	-1,398	-85	0	0
1997	-209	0	0	1,423	-1,387	-86	0	0
1998	-117	0	0	1,111	-1,466	-29	0	0
1999	-147	0	0	1,106	-1,506	-34	0	0
2000	-119	0	0	1,145	-1,581	-34	0	0
2001	-140	0	0	1,208	-1,557	-31	0	0
2002	-131	0	0	1,203	-1,540	-30	0	0
2003	-46	0	0	1,184	-1,482	-22	0	0
2004	-225	0	0	3,146	-1,285	-1,955	0	0
2005	-81	0	0	2,059	-1,290	-1,041	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-3,287	3,287	0	0	0
1932	2	0	0	-3,057	3,075	0	0	0
1933	-5	0	0	-3,102	3,087	0	0	0
1934	-4	0	0	-3,106	3,090	0	0	0
1935	2	0	0	-3,081	3,079	0	0	0
1936	0	0	0	-3,081	3,081	0	0	0
1937	-1	0	0	-3,116	3,082	0	0	0
1938	-2	0	0	-3,094	3,085	0	0	0
1939	-3	0	0	-3,096	3,086	0	0	0
1940	1	0	0	-3,077	3,079	0	0	0
1941	10	0	0	-3,057	3,072	0	0	0
1942	-2	0	0	-3,082	3,080	0	0	0
1943	-5	0	0	-3,091	3,081	0	0	0
1944	1	0	0	-3,073	3,073	0	0	0
1945	-3	0	0	-3,083	3,075	0	0	0
1946	-1	0	0	-3,077	3,073	0	0	0
1947	-3	0	0	-3,091	3,075	0	0	0
1948	-7	0	0	-3,087	3,072	0	0	0
1949	2	0	0	-3,066	3,059	0	0	0
1950	-3	0	0	-3,079	3,067	0	0	0
1951	-9	0	0	-3,082	3,064	0	0	0
1952	-6	0	0	-3,076	3,059	0	0	0
1953	-6	0	0	-3,072	3,054	0	0	0
1954	-7	0	0	-3,068	3,049	0	0	0
1955	-3	0	0	-3,056	3,043	0	0	0
1956	-11	0	0	-3,068	3,038	0	0	0
1957	4	0	0	-3,013	3,021	0	0	0
1958	4	0	0	-3,009	3,010	0	0	0
1959	-2	0	0	-3,017	3,010	0	0	0
1960	-7	0	0	-3,002	2,997	0	0	0
1961	-4	0	0	-3,006	2,998	0	0	0
1962	-6	0	0	-3,014	2,998	0	0	0
1963	-3	0	0	-3,023	2,996	0	0	0
1964	-8	0	0	-2,996	2,980	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-3	0	0	-2,987	2,977	0	0	0
1966	-9	0	0	-2,969	2,962	0	0	0
1967	-3	0	0	-2,975	2,963	0	0	0
1968	-1	0	0	-2,948	2,945	0	0	0
1969	-2	0	0	-2,942	2,940	0	0	0
1970	-5	0	0	-2,956	2,941	0	0	0
1971	-5	0	0	-2,932	2,927	0	0	0
1972	-1	0	0	-2,967	2,929	0	0	0
1973	-2	0	0	-2,935	2,923	0	0	0
1974	-4	0	0	-2,913	2,910	0	0	0
1975	-3	0	0	-2,919	2,911	0	0	0
1976	0	0	0	-2,913	2,906	0	0	0
1977	-15	0	0	-2,906	2,894	0	0	0
1978	-5	0	0	-2,883	2,878	0	0	0
1979	-2	0	0	-2,896	2,883	0	0	0
1980	-3	0	0	-2,893	2,873	0	0	0
1981	-2	0	0	-2,876	2,861	0	0	0
1982	-6	0	0	-2,887	2,854	0	0	0
1983	-9	0	0	-2,886	2,843	0	0	0
1984	-7	0	0	-2,865	2,828	0	0	0
1985	-5	0	0	-2,843	2,813	0	0	0
1986	-10	0	0	-2,798	2,788	0	0	0
1987	-3	0	0	-2,809	2,794	0	0	0
1988	-7	0	0	-2,826	2,802	0	0	0
1989	-9	0	0	-2,831	2,797	0	0	0
1990	-6	0	0	-2,785	2,774	0	0	0
1991	0	0	0	-2,773	2,774	0	0	0
1992	0	0	0	-2,772	2,773	0	0	0
1993	-6	0	0	-2,799	2,784	0	0	0
1994	-5	0	0	-2,796	2,781	0	0	0
1995	-6	0	0	-2,799	2,775	0	0	0
1996	-7	0	0	-2,797	2,769	0	0	0
1997	-5	0	0	-2,762	2,751	0	0	0
1998	-6	0	0	-2,780	2,760	0	0	0

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-6	0	0	-2,778	2,754	0	0	0
2000	-4	0	0	-2,767	2,749	0	0	0
2001	-6	0	0	-2,768	2,746	0	0	0
2002	-5	0	0	-2,755	2,730	0	0	0
2003	-2	0	0	-2,751	2,728	0	0	0
2004	7	0	0	-2,696	2,709	0	0	0
2005	-4	0	0	-2,741	2,719	0	0	0

**Table A.1.4. Water budgets of the modeled area by county for Layer 5—the Capitan Reef Complex Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	12,784	0	-12,784	0	0	0
1932	8,582	0	20,875	0	-12,425	-7	0	0
1933	-263	0	12,459	0	-12,725	-7	0	0
1934	-4,775	0	8,174	0	-12,952	-7	0	0
1935	607	0	13,360	0	-12,777	-7	0	0
1936	6,194	0	18,743	0	-12,537	-7	0	0
1937	1,939	0	14,634	0	-12,702	-7	0	0
1938	429	0	13,206	0	-12,767	-7	0	0
1939	277	0	13,074	0	-12,790	-7	0	0
1940	4,084	0	16,876	0	-12,650	-7	0	0
1941	18,937	0	31,092	0	-12,156	-7	0	0
1942	3,137	0	15,997	0	-12,709	-7	0	0
1943	-532	0	12,459	0	-12,963	-7	0	0
1944	9,463	0	22,215	0	-12,680	-7	0	0
1945	1,619	0	14,656	0	-12,926	-7	0	0
1946	6,068	0	19,029	0	-12,781	-7	0	0
1947	5,255	0	17,579	0	-12,841	-7	0	0
1948	-1,472	0	11,602	0	-13,060	-7	0	0

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<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1949	4,151	0	16,963	0	-12,894	-7	0	0
1950	5,069	0	17,601	0	-12,821	-7	0	0
1951	-2,318	0	10,723	0	-13,041	-7	0	0
1952	-1,783	0	11,206	0	-13,020	-8	0	0
1953	-4,034	0	8,899	0	-13,050	-8	0	0
1954	-4,108	0	8,767	0	-12,993	-7	0	0
1955	163	0	12,964	0	-12,753	-7	0	0
1956	-4,306	0	8,592	0	-12,866	-7	0	0
1957	81	0	12,789	0	-12,679	-7	0	0
1958	9,178	0	21,600	0	-12,332	-7	0	0
1959	-1,884	0	10,767	0	-12,720	-7	0	0
1960	3,402	0	15,975	0	-12,600	-8	0	0
1961	6,508	0	19,073	0	-12,511	-8	0	0
1962	-2,122	0	10,657	0	-12,836	-8	0	0
1963	-81	0	12,745	0	-12,806	-9	0	0
1964	-5,211	0	7,801	0	-12,973	-9	0	0
1965	-3,194	0	9,536	0	-12,908	-9	0	0
1966	6,374	0	18,809	0	-12,537	-9	0	0
1967	1,390	0	14,107	0	-12,668	-9	0	0
1968	8,041	0	20,501	0	-12,475	-10	0	0
1969	-66	0	12,723	0	-12,775	-10	0	0
1970	4,446	0	17,139	0	-12,688	-11	0	0
1971	-1,425	0	11,492	0	-12,905	-11	0	0
1972	416	0	13,316	0	-12,863	-12	0	0
1973	3,715	0	16,370	0	-12,759	-13	0	0
1974	10,932	0	23,490	0	-12,492	-14	0	0
1975	532	0	13,448	0	-12,868	-14	0	0
1976	1,269	0	14,085	0	-12,917	-17	0	0
1977	2,140	0	15,052	0	-12,899	-14	0	0
1978	9,710	0	22,325	0	-12,645	-11	0	0
1979	4,931	0	17,820	0	-12,801	-12	0	0
1980	1,778	0	14,744	0	-12,963	-16	0	0
1981	8,148	0	20,941	0	-12,765	-14	0	0
1982	1,178	0	14,217	0	-13,033	-12	0	0



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<b>Brewster</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1983	-1,254	0	11,866	0	-13,153	-11	0	0
1984	7,768	0	20,611	0	-12,807	-9	0	0
1985	2,828	0	15,821	0	-12,969	-8	0	0
1986	9,587	0	22,347	0	-12,743	-10	0	0
1987	5,177	0	18,106	0	-12,904	-12	0	0
1988	168	0	13,272	0	-13,110	-13	0	0
1989	6,456	0	19,381	0	-12,930	-13	0	0
1990	9,037	0	21,776	0	-12,830	-13	0	0
1991	13,972	0	26,742	0	-12,669	-13	0	0
1992	5,270	0	18,304	0	-13,007	-10	0	0
1993	2,717	0	15,777	0	-13,176	-10	0	0
1994	-4,113	0	9,361	0	-13,446	-15	0	0
1995	-1,138	0	12,195	0	-13,323	-13	0	0
1996	2,488	0	15,623	0	-13,114	-11	0	0
1997	4,160	0	17,095	0	-12,998	-11	0	0
1998	-3,393	0	9,800	0	-13,238	-11	0	0
1999	2,921	0	15,931	0	-13,011	-13	0	0
2000	337	0	13,382	0	-13,043	-12	0	0
2001	-4,524	0	8,636	0	-13,214	-11	0	0
2002	-1,805	0	11,294	0	-13,096	-9	0	0
2003	598	0	13,492	0	-12,958	-9	0	0
2004	11,434	0	23,995	0	-12,547	-9	0	0
2005	3,076	0	15,733	0	-12,843	-11	0	0

<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	0	0	0	0
1932	0	0	0	-5	6	0	0	0
1933	0	0	0	-5	6	0	0	0
1934	0	0	0	-5	6	0	0	0
1935	0	0	0	-5	6	0	0	0

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<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1936	0	0	0	-5	5	0	0	0
1937	0	0	0	-5	6	0	0	0
1938	0	0	0	-5	5	0	0	0
1939	0	0	0	-6	6	0	0	0
1940	0	0	0	-6	5	0	0	0
1941	-1	0	0	-5	5	0	0	0
1942	0	0	0	-5	5	0	0	0
1943	0	0	0	-5	6	0	0	0
1944	-1	0	0	-5	8	-3	0	0
1945	0	0	0	-5	5	0	0	0
1946	0	0	0	-5	6	0	0	0
1947	0	0	0	-5	6	0	0	0
1948	0	0	0	-5	6	0	0	0
1949	0	0	0	-6	5	0	0	0
1950	0	0	0	-6	5	0	0	0
1951	0	0	0	-6	5	0	0	0
1952	0	0	0	-6	5	0	0	0
1953	0	0	0	-6	5	0	0	0
1954	0	0	0	-6	6	0	0	0
1955	0	0	0	-6	6	0	0	0
1956	0	0	0	-6	5	0	0	0
1957	0	0	0	-6	5	0	0	0
1958	-2	0	0	-6	14	-10	0	0
1959	-1	0	0	-6	14	-10	0	0
1960	1	0	0	-6	6	0	0	0
1961	0	0	0	-6	6	0	0	0
1962	0	0	0	-6	5	0	0	0
1963	-1	0	0	-6	5	0	0	0
1964	0	0	0	-6	6	0	0	0
1965	0	0	0	-6	5	0	0	0
1966	-1	0	0	-6	5	0	0	0
1967	0	0	0	-6	6	0	0	0
1968	0	0	0	-6	6	0	0	0
1969	0	0	0	-6	6	0	0	0

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<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1970	-1	0	0	-6	5	0	0	0
1971	0	0	0	-6	5	0	0	0
1972	0	0	0	-6	5	0	0	0
1973	0	0	0	-6	5	0	0	0
1974	0	0	0	-6	5	0	0	0
1975	0	0	0	-6	5	0	0	0
1976	0	0	0	-6	6	0	0	0
1977	0	0	0	-6	6	0	0	0
1978	-1	0	0	-6	4	0	0	0
1979	0	0	0	-6	6	0	0	0
1980	-1	0	0	-6	4	0	0	0
1981	0	0	0	-6	5	0	0	0
1982	0	0	0	-6	5	0	0	0
1983	0	0	0	-6	5	0	0	0
1984	0	0	0	-6	5	0	0	0
1985	0	0	0	-6	5	0	0	0
1986	0	0	0	-6	6	0	0	0
1987	0	0	0	-6	6	0	0	0
1988	-1	0	0	-6	5	0	0	0
1989	0	0	0	-6	8	-3	0	0
1990	0	0	0	-6	5	0	0	0
1991	0	0	0	-6	5	0	0	0
1992	0	0	0	-6	5	0	0	0
1993	-1	0	0	-6	5	0	0	0
1994	-1	0	0	-6	9	-5	0	0
1995	1	0	0	-6	6	0	0	0
1996	0	0	0	-6	5	0	0	0
1997	0	0	0	-6	6	0	0	0
1998	0	0	0	-6	5	0	0	0
1999	0	0	0	-6	5	0	0	0
2000	0	0	0	-6	6	0	0	0
2001	0	0	0	-6	6	0	0	0
2002	0	0	0	-6	6	0	0	0
2003	0	0	0	-6	5	0	0	0

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<b>Lea, New Mexico</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2004	0	0	0	-6	5	0	0	0
2005	0	0	0	-6	6	0	0	0

<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	3,653	-20,819	17,167	0	0	0
1932	3,006	0	6,274	-20,721	17,397	-17	0	0
1933	172	0	3,744	-20,727	17,173	-17	0	0
1934	-1,455	0	2,457	-20,739	16,861	-17	0	0
1935	242	0	4,015	-20,750	16,980	-17	0	0
1936	2,149	0	5,633	-20,767	17,319	-17	0	0
1937	857	0	4,398	-20,782	17,257	-17	0	0
1938	353	0	3,969	-20,802	17,195	-17	0	0
1939	245	0	3,929	-20,831	17,162	-17	0	0
1940	1,466	0	5,072	-20,863	17,363	-17	0	0
1941	6,679	0	9,344	-20,896	18,250	-17	0	0
1942	1,701	0	4,808	-20,934	17,928	-17	0	0
1943	401	0	3,744	-20,977	17,650	-17	0	0
1944	3,630	0	6,676	-21,024	18,052	-17	0	0
1945	1,116	0	4,405	-21,074	17,838	-21	0	0
1946	2,522	0	5,719	-21,127	18,022	-17	0	0
1947	2,377	0	5,283	-21,179	18,030	-17	0	0
1948	-23	0	3,487	-21,242	17,738	-17	0	0
1949	1,696	0	5,098	-21,302	17,885	-25	0	0
1950	2,022	0	5,290	-21,366	17,976	-21	0	0
1951	-568	0	3,223	-21,441	17,660	-30	0	0
1952	-612	0	3,368	-21,516	17,521	-39	0	0
1953	-1,567	0	2,675	-21,595	17,289	-47	0	0
1954	-1,831	0	2,635	-21,676	17,138	-34	0	0
1955	-619	0	3,896	-21,754	17,255	-26	0	0
1956	-2,285	0	2,582	-21,844	17,038	-30	0	0

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<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1957	-891	0	3,843	-21,930	17,151	-45	0	0
1958	2,056	0	6,491	-22,025	17,661	-33	0	0
1959	-1,475	0	3,236	-22,112	17,322	-21	0	0
1960	52	0	4,801	-22,215	17,492	-35	0	0
1961	1,108	0	5,732	-22,307	17,738	-27	0	0
1962	-1,721	0	3,203	-22,397	17,405	-36	0	0
1963	-1,431	0	3,830	-22,480	17,387	-29	0	0
1964	-3,212	0	2,344	-22,578	17,074	-50	0	0
1965	-2,657	0	2,866	-22,663	16,989	-58	0	0
1966	290	0	5,653	-22,750	17,417	-71	0	0
1967	-1,263	0	4,240	-22,814	17,358	-78	0	0
1968	942	0	6,161	-22,878	17,713	-68	0	0
1969	-1,690	0	3,824	-22,924	17,479	-57	0	0
1970	-276	0	5,151	-22,965	17,636	-100	0	0
1971	-2,337	0	3,454	-23,027	17,395	-160	0	0
1972	-1,693	0	4,002	-23,056	17,396	-63	0	0
1973	-687	0	4,920	-23,087	17,531	-58	0	0
1974	1,845	0	7,059	-23,126	17,995	-64	0	0
1975	-1,395	0	4,041	-23,157	17,714	-60	0	0
1976	-1,537	0	4,233	-23,176	17,633	-62	0	0
1977	-1,122	0	4,524	-23,203	17,642	-70	0	0
1978	1,448	0	6,709	-23,228	18,054	-94	0	0
1979	49	0	5,356	-23,233	18,035	-120	0	0
1980	-1,128	0	4,431	-23,246	17,870	-170	0	0
1981	1,021	0	6,293	-23,257	18,144	-180	0	0
1982	-1,169	0	4,273	-23,269	17,929	-127	0	0
1983	-2,064	0	3,566	-23,283	17,722	-112	0	0
1984	809	0	6,194	-23,297	18,099	-207	0	0
1985	-779	0	4,755	-23,305	17,999	-246	0	0
1986	1,644	0	6,716	-23,313	18,361	-113	0	0
1987	373	0	5,441	-23,311	18,311	-67	0	0
1988	-1,394	0	3,989	-23,310	18,065	-60	0	0
1989	772	0	5,824	-23,316	18,296	-39	0	0
1990	1,756	0	6,544	-23,321	18,536	-48	0	0

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<b>Pecos</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1991	3,568	0	8,037	-23,322	18,975	-53	0	0
1992	913	0	5,501	-23,320	18,780	-49	0	0
1993	-21	0	4,741	-23,324	18,604	-38	0	0
1994	-2,478	0	2,813	-23,331	18,175	-83	0	0
1995	-1,647	0	3,665	-23,345	18,090	-51	0	0
1996	-524	0	4,695	-23,361	18,197	-53	0	0
1997	17	0	5,138	-23,380	18,306	-86	0	0
1998	-2,516	0	2,945	-23,397	17,964	-44	0	0
1999	-552	0	4,788	-23,417	18,126	-52	0	0
2000	-1,447	0	4,022	-23,439	18,046	-79	0	0
2001	-3,132	0	2,595	-23,455	17,744	-37	0	0
2002	-2,402	0	3,394	-23,469	17,717	-40	0	0
2003	-1,898	0	4,055	-23,466	17,783	-41	0	0
2004	2,089	0	7,211	-23,464	18,397	-48	0	0
2005	-538	0	4,728	-23,459	18,268	-51	0	0

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	365	0	0	0
1932	0	0	0	-113	112	0	0	0
1933	0	0	0	-113	113	0	0	0
1934	-1	0	0	-113	113	0	0	0
1935	-1	0	0	-113	113	0	0	0
1936	-1	0	0	-113	113	0	0	0
1937	-1	0	0	-113	113	0	0	0
1938	-1	0	0	-113	113	0	0	0
1939	-1	0	0	-113	113	0	0	0
1940	-1	0	0	-113	113	0	0	0
1941	-1	0	0	-113	113	0	0	0
1942	-1	0	0	-113	112	0	0	0
1943	-1	0	0	-113	112	0	0	0

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<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1944	-1	0	0	-113	112	0	0	0
1945	-1	0	0	-113	112	0	0	0
1946	-1	0	0	-113	112	0	0	0
1947	-1	0	0	-113	113	0	0	0
1948	-1	0	0	-113	112	0	0	0
1949	-1	0	0	-113	112	0	0	0
1950	-2	0	0	-113	112	0	0	0
1951	-2	0	0	-114	111	0	0	0
1952	-2	0	0	-114	112	0	0	0
1953	-2	0	0	-114	112	0	0	0
1954	-2	0	0	-114	111	0	0	0
1955	-2	0	0	-114	111	0	0	0
1956	-3	0	0	-114	111	0	0	0
1957	-2	0	0	-114	110	0	0	0
1958	-3	0	0	-114	110	0	0	0
1959	-3	0	0	-114	110	0	0	0
1960	-4	0	0	-114	110	0	0	0
1961	-4	0	0	-114	110	0	0	0
1962	-4	0	0	-114	111	0	0	0
1963	-5	0	0	-114	109	0	0	0
1964	-5	0	0	-114	109	0	0	0
1965	-5	0	0	-114	110	0	0	0
1966	-5	0	0	-114	109	0	0	0
1967	-5	0	0	-114	108	0	0	0
1968	-6	0	0	-114	109	0	0	0
1969	-6	0	0	-114	109	0	0	0
1970	-6	0	0	-114	108	0	0	0
1971	-6	0	0	-114	109	0	0	0
1972	-6	0	0	-114	108	0	0	0
1973	-7	0	0	-114	108	0	0	0
1974	-7	0	0	-114	108	0	0	0
1975	-7	0	0	-114	107	0	0	0
1976	-8	0	0	-114	107	0	0	0
1977	-7	0	0	-114	108	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1978	-7	0	0	-114	107	0	0	0
1979	-7	0	0	-114	107	0	0	0
1980	-8	0	0	-114	107	0	0	0
1981	-8	0	0	-114	106	0	0	0
1982	-8	0	0	-114	105	0	0	0
1983	-9	0	0	-114	105	0	0	0
1984	-10	0	0	-114	104	0	0	0
1985	-9	0	0	-114	105	0	0	0
1986	-9	0	0	-114	104	0	0	0
1987	-9	0	0	-114	105	0	0	0
1988	-10	0	0	-114	104	0	0	0
1989	-11	0	0	-114	103	0	0	0
1990	-10	0	0	-114	104	0	0	0
1991	-9	0	0	-114	105	0	0	0
1992	-9	0	0	-114	105	0	0	0
1993	-9	0	0	-114	105	0	0	0
1994	-9	0	0	-114	105	0	0	0
1995	-9	0	0	-114	105	0	0	0
1996	-9	0	0	-114	105	0	0	0
1997	-9	0	0	-114	105	0	0	0
1998	-9	0	0	-114	105	0	0	0
1999	-9	0	0	-114	104	0	0	0
2000	-9	0	0	-114	105	0	0	0
2001	-9	0	0	-114	104	0	0	0
2002	-10	0	0	-114	105	0	0	0
2003	-11	0	0	-114	104	0	0	0
2004	-10	0	0	-114	105	0	0	0
2005	-10	0	0	-114	104	0	0	0



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-3,653	3,653	0	0	0
1932	-22	0	0	-3,502	3,484	-4	0	0
1933	-21	0	0	-3,502	3,485	-4	0	0
1934	-25	0	0	-3,503	3,485	-8	0	0
1935	-24	0	0	-3,503	3,485	-6	0	0
1936	-29	0	0	-3,503	3,487	-13	0	0
1937	-27	0	0	-3,503	3,486	-13	0	0
1938	-23	0	0	-3,503	3,486	-6	0	0
1939	-20	0	0	-3,504	3,486	-2	0	0
1940	-18	0	0	-3,504	3,486	0	0	0
1941	-21	0	0	-3,504	3,485	-2	0	0
1942	-21	0	0	-3,504	3,484	-2	0	0
1943	-20	0	0	-3,504	3,484	0	0	0
1944	-23	0	0	-3,505	3,483	-2	0	0
1945	-23	0	0	-3,505	3,483	-2	0	0
1946	-25	0	0	-3,505	3,482	-2	0	0
1947	-28	0	0	-3,506	3,481	0	0	0
1948	-26	0	0	-3,507	3,480	0	0	0
1949	-29	0	0	-3,508	3,480	0	0	0
1950	-47	0	0	-3,508	3,480	-17	0	0
1951	-40	0	0	-3,510	3,479	-10	0	0
1952	-39	0	0	-3,511	3,479	-8	0	0
1953	-39	0	0	-3,513	3,477	-4	0	0
1954	-63	0	0	-3,515	3,477	-27	0	0
1955	-78	0	0	-3,516	3,476	-40	0	0
1956	-70	0	0	-3,519	3,474	-25	0	0
1957	-60	0	0	-3,520	3,468	-15	0	0
1958	-82	0	0	-3,521	3,467	-28	0	0
1959	-152	0	0	-3,521	3,461	-99	0	0
1960	-93	0	0	-3,522	3,457	-27	0	0
1961	-133	0	0	-3,523	3,452	-63	0	0
1962	-109	0	0	-3,524	3,438	-27	0	0
1963	-230	0	0	-3,525	3,454	-139	0	0
1964	-140	0	0	-3,527	3,452	-65	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1965	-101	0	0	-3,529	3,451	-31	0	0
1966	-112	0	0	-3,530	3,444	-23	0	0
1967	-105	0	0	-3,532	3,443	-19	0	0
1968	-163	0	0	-3,533	3,429	-59	0	0
1969	-191	0	0	-3,533	3,434	-90	0	0
1970	-143	0	0	-3,535	3,434	-42	0	0
1971	-148	0	0	-3,536	3,428	-40	0	0
1972	-144	0	0	-3,538	3,431	-40	0	0
1973	-136	0	0	-3,538	3,431	-23	0	0
1974	-136	0	0	-3,539	3,425	-23	0	0
1975	-150	0	0	-3,541	3,429	-46	0	0
1976	-167	0	0	-3,542	3,427	-34	0	0
1977	-163	0	0	-3,543	3,420	-40	0	0
1978	-150	0	0	-3,545	3,419	-23	0	0
1979	-160	0	0	-3,546	3,418	-34	0	0
1980	-197	0	0	-3,549	3,410	-57	0	0
1981	-226	0	0	-3,551	3,415	-90	0	0
1982	-330	0	0	-3,553	3,422	-206	0	0
1983	-378	0	0	-3,555	3,424	-253	0	0
1984	-337	0	0	-3,558	3,430	-210	0	0
1985	-266	0	0	-3,561	3,429	-136	0	0
1986	-194	0	0	-3,563	3,407	-38	0	0
1987	-224	0	0	-3,565	3,402	-63	0	0
1988	-343	0	0	-3,567	3,400	-162	0	0
1989	-280	0	0	-3,569	3,404	-113	0	0
1990	-267	0	0	-3,571	3,406	-101	0	0
1991	-241	0	0	-3,572	3,401	-71	0	0
1992	-227	0	0	-3,573	3,393	-48	0	0
1993	-217	0	0	-3,575	3,389	-23	0	0
1994	-203	0	0	-3,577	3,389	-13	0	0
1995	-244	0	0	-3,578	3,386	-50	0	0
1996	-288	0	0	-3,580	3,386	-94	0	0
1997	-362	0	0	-3,581	3,377	-153	0	0
1998	-301	0	0	-3,583	3,383	-105	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Ward</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1999	-223	0	0	-3,585	3,375	-13	0	0
2000	-227	0	0	-3,588	3,369	-8	0	0
2001	-219	0	0	-3,590	3,371	-2	0	0
2002	-232	0	0	-3,593	3,369	-8	0	0
2003	-286	0	0	-3,594	3,367	-25	0	0
2004	-258	0	0	-3,595	3,363	-27	0	0
2005	-391	0	0	-3,594	3,339	-103	0	0

<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-1,096	731	0	0	0
1932	-9	0	0	-967	958	0	0	0
1933	-9	0	0	-967	958	0	0	0
1934	-10	0	0	-968	958	0	0	0
1935	-20	0	0	-968	959	-10	0	0
1936	-37	0	0	-968	956	-26	0	0
1937	-36	0	0	-968	957	-26	0	0
1938	-25	0	0	-969	957	-13	0	0
1939	-25	0	0	-970	959	-13	0	0
1940	-17	0	0	-970	959	-6	0	0
1941	-17	0	0	-969	956	-3	0	0
1942	-12	0	0	-969	956	0	0	0
1943	-16	0	0	-969	957	-3	0	0
1944	-21	0	0	-969	955	-6	0	0
1945	-18	0	0	-970	958	-6	0	0
1946	-17	0	0	-970	959	-6	0	0
1947	-14	0	0	-971	958	0	0	0
1948	-32	0	0	-972	959	-19	0	0
1949	-19	0	0	-972	960	-6	0	0
1950	-22	0	0	-973	959	-6	0	0
1951	-31	0	0	-975	959	-16	0	0

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<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-20	0	0	-976	959	-3	0	0
1953	-53	0	0	-978	960	-35	0	0
1954	-40	0	0	-981	958	-19	0	0
1955	-32	0	0	-983	957	-6	0	0
1956	-49	0	0	-985	958	-22	0	0
1957	-70	0	0	-987	956	-48	0	0
1958	-142	0	0	-987	961	-117	0	0
1959	-217	0	0	-987	957	-195	0	0
1960	-188	0	0	-987	966	-166	0	0
1961	-238	0	0	-987	969	-221	0	0
1962	-150	0	0	-988	959	-128	0	0
1963	-162	0	0	-989	961	-118	0	0
1964	-160	0	0	-990	961	-131	0	0
1965	-112	0	0	-992	965	-93	0	0
1966	-89	0	0	-993	967	-61	0	0
1967	-55	0	0	-995	967	-29	0	0
1968	-158	0	0	-995	990	-152	0	0
1969	-43	0	0	-996	976	-22	0	0
1970	-147	0	0	-996	967	-118	0	0
1971	-57	0	0	-997	966	-26	0	0
1972	-51	0	0	-999	968	-22	0	0
1973	-49	0	0	-999	966	-13	0	0
1974	-92	0	0	-1,000	967	-61	0	0
1975	-80	0	0	-1,000	962	-45	0	0
1976	-103	0	0	-1,001	965	-58	0	0
1977	-148	0	0	-1,002	970	-115	0	0
1978	-129	0	0	-1,003	977	-102	0	0
1979	-95	0	0	-1,004	969	-61	0	0
1980	-145	0	0	-1,005	977	-115	0	0
1981	-119	0	0	-1,007	962	-77	0	0
1982	-117	0	0	-1,009	968	-79	0	0
1983	-202	0	0	-1,010	966	-162	0	0
1984	-260	0	0	-1,012	964	-213	0	0
1985	-259	0	0	-1,014	967	-218	0	0

<b>Winkler</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1986	-167	0	0	-1,015	976	-128	0	0
1987	-195	0	0	-1,016	986	-163	0	0
1988	-214	0	0	-1,018	981	-166	0	0
1989	-221	0	0	-1,020	979	-179	0	0
1990	-172	0	0	-1,021	973	-122	0	0
1991	-126	0	0	-1,023	969	-74	0	0
1992	-79	0	0	-1,024	973	-29	0	0
1993	-158	0	0	-1,025	972	-99	0	0
1994	-117	0	0	-1,027	965	-54	0	0
1995	-110	0	0	-1,029	970	-51	0	0
1996	-155	0	0	-1,031	960	-83	0	0
1997	-223	0	0	-1,032	961	-149	0	0
1998	-145	0	0	-1,035	955	-67	0	0
1999	-96	0	0	-1,038	964	-22	0	0
2000	-149	0	0	-1,040	970	-80	0	0
2001	-137	0	0	-1,043	962	-58	0	0
2002	-100	0	0	-1,046	961	-16	0	0
2003	-114	0	0	-1,048	964	-16	0	0
2004	-101	0	0	-1,048	964	-16	0	0
2005	-327	0	0	-1,048	1,003	-274	0	0

**A.2 Water Budgets by Groundwater Conservation District**

**Table A.2.1. Water budgets of the modeled area by groundwater conservation district for Layer 1 —the Edwards-Trinity (Plateau) and Pecos Valley aquifers—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	4,745	-4,015	-365	0	0	0
1932	388	0	5,168	-4,300	-475	-2	0	0
1933	-467	0	3,954	-3,951	-466	-2	0	0

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<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1934	-392	0	3,954	-3,872	-462	-2	0	0
1935	322	0	4,864	-4,060	-469	-2	0	0
1936	69	0	4,603	-4,062	-471	-2	0	0
1937	-85	0	4,331	-3,911	-470	-2	0	0
1938	-181	0	4,237	-3,962	-469	-2	0	0
1939	-218	0	4,195	-3,942	-467	-2	0	0
1940	164	0	4,665	-4,030	-471	-2	0	0
1941	952	0	5,597	-4,155	-487	-2	0	0
1942	-118	0	4,477	-4,107	-486	-2	0	0
1943	-376	0	4,142	-4,036	-479	-2	0	0
1944	225	0	4,812	-4,104	-482	-2	0	0
1945	-195	0	4,341	-4,059	-479	-2	0	0
1946	-45	0	4,498	-4,060	-478	-2	0	0
1947	-260	0	4,153	-3,970	-474	-2	0	0
1948	-440	0	4,006	-3,975	-470	-2	0	0
1949	317	0	4,927	-4,107	-477	-2	0	0
1950	-266	0	4,237	-4,010	-475	-2	0	0
1951	-683	0	3,745	-3,956	-467	-2	0	0
1952	-481	0	3,912	-3,939	-462	-2	0	0
1953	-516	0	3,860	-3,921	-458	-2	0	0
1954	-552	0	3,808	-3,910	-454	-2	0	0
1955	-307	0	4,069	-3,910	-457	-2	0	0
1956	-900	0	3,452	-3,904	-448	-2	0	0
1957	354	0	4,937	-4,158	-462	-3	0	0
1958	383	0	5,126	-4,265	-475	-3	0	0
1959	-154	0	4,592	-4,273	-477	-3	0	0
1960	-320	0	4,571	-4,413	-475	-3	0	0
1961	-456	0	4,341	-4,319	-472	-3	0	0
1962	-661	0	4,048	-4,260	-464	-3	0	0
1963	-529	0	4,027	-4,133	-459	-3	0	0
1964	-587	0	4,216	-4,340	-458	-3	0	0
1965	-404	0	4,362	-4,312	-460	-3	0	0
1966	-633	0	4,289	-4,466	-457	-3	0	0

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<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1967	-584	0	4,247	-4,363	-457	-3	0	0
1968	-204	0	4,854	-4,597	-462	-3	0	0
1969	-301	0	4,833	-4,667	-464	-3	0	0
1970	-769	0	4,247	-4,539	-459	-3	0	0
1971	-635	0	4,624	-4,798	-457	-3	0	0
1972	-381	0	4,435	-4,213	-456	-3	0	0
1973	-522	0	4,624	-4,679	-457	-3	0	0
1974	-478	0	4,854	-4,867	-458	-3	0	0
1975	-646	0	4,571	-4,762	-456	-4	0	0
1976	-301	0	4,833	-4,692	-457	-4	0	0
1977	-1,197	0	4,101	-4,847	-448	-4	0	0
1978	-695	0	4,718	-4,966	-447	-4	0	0
1979	-640	0	4,383	-4,668	-449	-4	0	0
1980	-697	0	4,509	-4,745	-448	-4	0	0
1981	-419	0	4,885	-4,836	-453	-4	0	0
1982	-866	0	4,341	-4,742	-452	-4	0	0
1983	-1,003	0	4,142	-4,664	-451	-4	0	0
1984	-785	0	4,404	-4,726	-453	-5	0	0
1985	-556	0	4,739	-4,816	-459	-7	0	0
1986	-434	0	5,147	-5,105	-465	-7	0	0
1987	-565	0	4,812	-4,912	-467	-8	0	0
1988	-1,074	0	4,122	-4,759	-460	-8	0	0
1989	-1,140	0	4,048	-4,716	-455	-5	0	0
1990	-660	0	4,927	-5,139	-457	-5	0	0
1991	-422	0	5,094	-5,077	-462	-5	0	0
1992	-370	0	5,147	-5,042	-468	-6	0	0
1993	-1,082	0	4,174	-4,820	-461	-6	0	0
1994	-946	0	4,341	-4,811	-464	-6	0	0
1995	-1,047	0	4,216	-4,799	-461	-6	0	0
1996	-1,068	0	4,195	-4,763	-458	-6	0	0
1997	-818	0	4,770	-5,138	-459	-6	0	0
1998	-1,150	0	4,122	-4,789	-458	-6	0	0
1999	-1,118	0	4,101	-4,757	-454	-6	0	0

<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2000	-923	0	4,268	-4,779	-453	-6	0	0
2001	-1,071	0	4,122	-4,714	-458	-6	0	0
2002	-851	0	4,414	-4,797	-461	-5	0	0
2003	-522	0	4,435	-4,552	-472	-5	0	0
2004	270	0	5,931	-5,187	-489	-5	0	0
2005	-918	0	4,414	-4,860	-488	-8	0	0

<b>Crockett County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	-1,095	2,920	0	2,920	0	0	-1,095
1932	226	-1,272	3,209	0	3,049	-4	0	-1,272
1933	-341	-1,257	2,456	0	3,060	-4	0	-1,257
1934	-275	-1,246	2,456	0	3,043	-4	0	-1,246
1935	163	-1,253	3,021	0	2,987	-4	0	-1,253
1936	5	-1,254	2,858	0	2,947	-4	0	-1,254
1937	-97	-1,250	2,690	0	2,906	-4	0	-1,250
1938	-156	-1,244	2,631	0	2,859	-3	0	-1,244
1939	-146	-1,238	2,605	0	2,812	-4	0	-1,238
1940	85	-1,243	2,897	0	2,746	-4	0	-1,243
1941	459	-1,263	3,476	0	2,664	-4	0	-1,263
1942	-113	-1,258	2,781	0	2,635	-4	0	-1,258
1943	-229	-1,248	2,573	0	2,600	-4	0	-1,248
1944	106	-1,254	2,989	0	2,533	-4	0	-1,254
1945	-124	-1,249	2,696	0	2,489	-4	0	-1,249
1946	-35	-1,248	2,794	0	2,430	-5	0	-1,248
1947	-172	-1,241	2,579	0	2,394	-5	0	-1,241
1948	-219	-1,232	2,488	0	2,341	-5	0	-1,232
1949	214	-1,242	3,060	0	2,253	-5	0	-1,242
1950	-128	-1,237	2,631	0	2,209	-5	0	-1,237



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Crockett County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1951	-334	-1,223	2,326	0	2,168	-5	0	-1,223
1952	-202	-1,216	2,430	0	2,107	-5	0	-1,216
1953	-202	-1,209	2,397	0	2,045	-6	0	-1,209
1954	-203	-1,202	2,365	0	1,982	-6	0	-1,202
1955	-73	-1,200	2,527	0	1,904	-6	0	-1,200
1956	-348	-1,186	2,144	0	1,858	-6	0	-1,186
1957	345	-1,203	3,066	0	1,753	-6	0	-1,203
1958	336	-1,218	3,183	0	1,681	-6	0	-1,218
1959	40	-1,220	2,852	0	1,647	-6	0	-1,220
1960	32	-1,222	2,839	0	1,613	-7	0	-1,222
1961	-69	-1,219	2,696	0	1,590	-7	0	-1,219
1962	-178	-1,212	2,514	0	1,569	-7	0	-1,212
1963	-142	-1,206	2,501	0	1,549	-7	0	-1,206
1964	-54	-1,204	2,618	0	1,513	-7	0	-1,204
1965	18	-1,205	2,709	0	1,519	-7	0	-1,205
1966	-13	-1,206	2,664	0	1,565	-7	0	-1,206
1967	-31	-1,204	2,637	0	1,648	-7	0	-1,204
1968	243	-1,214	3,015	0	1,716	-7	0	-1,214
1969	190	-1,221	3,002	0	1,813	-7	0	-1,221
1970	-94	-1,216	2,637	0	1,904	-7	0	-1,216
1971	97	-1,220	2,871	0	1,953	-6	0	-1,220
1972	-2	-1,220	2,755	0	1,954	-6	0	-1,220
1973	79	-1,223	2,871	0	1,943	-6	0	-1,223
1974	168	-1,230	3,015	0	1,931	-6	0	-1,230
1975	21	-1,230	2,839	0	1,959	-6	0	-1,230
1976	134	-1,235	3,002	0	1,992	-6	0	-1,235
1977	-195	-1,226	2,547	0	2,066	-6	0	-1,226
1978	120	-1,231	2,930	0	2,116	-7	0	-1,231
1979	-43	-1,229	2,722	0	2,189	-7	0	-1,229
1980	18	-1,229	2,800	0	2,184	-7	0	-1,229
1981	178	-1,237	3,034	0	2,174	-7	0	-1,237
1982	-90	-1,232	2,696	0	2,192	-7	0	-1,232
1983	-153	-1,225	2,573	0	2,207	-7	0	-1,225

<b>Crockett County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1984	-9	-1,225	2,735	0	2,211	-7	0	-1,225
1985	137	-1,231	2,943	0	2,229	-6	0	-1,231
1986	285	-1,243	3,196	0	2,266	-6	0	-1,243
1987	96	-1,246	2,989	0	2,322	-6	0	-1,246
1988	-215	-1,236	2,560	0	2,378	-6	0	-1,236
1989	-196	-1,228	2,514	0	2,387	-7	0	-1,228
1990	220	-1,237	3,060	0	2,372	-6	0	-1,237
1991	247	-1,247	3,164	0	2,373	-6	0	-1,247
1992	226	-1,256	3,196	0	2,378	-6	0	-1,256
1993	-232	-1,246	2,592	0	2,374	-6	0	-1,246
1994	-101	-1,241	2,696	0	2,361	-6	0	-1,241
1995	-139	-1,236	2,618	0	2,321	-6	0	-1,236
1996	-121	-1,231	2,605	0	2,304	-6	0	-1,231
1997	143	-1,237	2,962	0	2,269	-6	0	-1,237
1998	-174	-1,230	2,560	0	2,258	-7	0	-1,230
1999	-150	-1,224	2,547	0	2,245	-6	0	-1,224
2000	-56	-1,222	2,650	0	2,209	-7	0	-1,222
2001	-114	-1,217	2,560	0	2,240	-7	0	-1,217
2002	30	-1,219	2,742	0	2,258	-7	0	-1,219
2003	34	-1,220	2,755	0	2,350	-7	0	-1,220
2004	664	-1,249	3,684	0	2,352	-6	0	-1,249
2005	-113	-1,243	2,742	0	2,398	-7	0	-1,243

<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	16,790	-2,190	-14,235	0	0	0
1932	1,892	0	18,582	-2,123	-14,519	-26	0	0
1933	-2,455	0	14,219	-2,124	-14,520	-39	0	0
1934	-2,515	0	14,219	-2,112	-14,518	-52	0	0

<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1935	761	0	17,492	-2,092	-14,540	-66	0	0
1936	-200	0	16,551	-2,107	-14,567	-79	0	0
1937	-1,053	0	15,574	-2,052	-14,590	-92	0	0
1938	-1,693	0	15,234	-2,094	-14,619	-106	0	0
1939	-1,865	0	15,083	-2,107	-14,647	-119	0	0
1940	-152	0	16,776	-2,101	-14,692	-132	0	0
1941	3,177	0	20,124	-2,043	-14,765	-146	0	0
1942	-960	0	16,100	-2,069	-14,826	-159	0	0
1943	-2,246	0	14,895	-2,087	-14,879	-173	0	0
1944	76	0	17,304	-2,091	-14,953	-187	0	0
1945	-1,708	0	15,611	-2,096	-15,025	-199	0	0
1946	-1,277	0	16,175	-2,100	-15,105	-214	0	0
1947	-2,375	0	14,933	-2,144	-15,185	-227	0	0
1948	-3,210	0	14,407	-2,114	-15,261	-240	0	0
1949	-25	0	17,717	-2,084	-15,371	-254	0	0
1950	-2,592	0	15,234	-2,108	-15,462	-267	0	0
1951	-4,503	0	13,466	-2,115	-15,562	-280	0	0
1952	-4,026	0	14,069	-2,152	-15,682	-295	0	0
1953	-4,363	0	13,881	-2,160	-15,802	-307	0	0
1954	-4,697	0	13,693	-2,173	-15,924	-321	0	0
1955	-4,050	0	14,632	-2,147	-16,061	-335	0	0
1956	-6,346	0	12,413	-2,221	-16,190	-348	0	0
1957	-1,168	0	17,755	-2,196	-16,358	-361	0	0
1958	-656	0	18,431	-2,164	-16,541	-375	0	0
1959	-2,790	0	16,513	-2,186	-16,729	-388	0	0
1960	-3,097	0	16,438	-2,215	-16,913	-400	0	0
1961	-4,127	0	15,611	-2,232	-17,099	-413	0	0
1962	-5,412	0	14,557	-2,280	-17,296	-425	0	0
1963	-5,114	0	14,482	-2,383	-17,489	-438	0	0
1964	-5,328	0	15,158	-2,350	-17,684	-450	0	0
1965	-4,998	0	15,686	-2,357	-17,878	-429	0	0
1966	-5,416	0	15,423	-2,391	-18,066	-409	0	0
1967	-5,888	0	15,271	-2,394	-18,242	-389	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1968	-3,765	0	17,454	-2,415	-18,435	-368	0	0
1969	-4,030	0	17,379	-2,436	-18,623	-348	0	0
1970	-6,339	0	15,271	-2,480	-18,801	-343	0	0
1971	-5,219	0	16,626	-2,524	-18,983	-337	0	0
1972	-5,240	0	15,949	-2,331	-19,128	-333	0	0
1973	-5,553	0	16,626	-2,563	-19,323	-329	0	0
1974	-4,980	0	17,454	-2,587	-19,515	-326	0	0
1975	-6,161	0	16,438	-2,650	-19,678	-286	0	0
1976	-5,092	0	17,379	-2,669	-19,822	-245	0	0
1977	-8,104	0	14,745	-2,672	-19,931	-204	0	0
1978	-5,962	0	16,964	-2,730	-20,031	-164	0	0
1979	-7,165	0	15,762	-2,647	-20,097	-123	0	0
1980	-6,799	0	16,212	-2,743	-20,203	-81	0	0
1981	-5,653	0	17,567	-2,758	-20,294	-75	0	0
1982	-7,732	0	15,611	-2,773	-20,360	-70	0	0
1983	-8,557	0	14,895	-2,769	-20,413	-66	0	0
1984	-7,652	0	15,837	-2,825	-20,462	-61	0	0
1985	-6,470	0	17,039	-2,819	-20,495	-54	0	0
1986	-4,940	0	18,507	-2,849	-20,540	-46	0	0
1987	-6,177	0	17,304	-2,805	-20,558	-34	0	0
1988	-8,657	0	14,820	-3,019	-20,569	-40	0	0
1989	-8,959	0	14,557	-2,940	-20,581	-61	0	0
1990	-5,810	0	17,717	-2,987	-20,566	-46	0	0
1991	-5,176	0	18,319	-2,920	-20,556	-45	0	0
1992	-5,047	0	18,507	-2,951	-20,546	-45	0	0
1993	-8,598	0	15,008	-3,089	-20,596	-75	0	0
1994	-8,170	0	15,611	-2,956	-20,602	-73	0	0
1995	-8,432	0	15,158	-3,009	-20,596	-71	0	0
1996	-8,563	0	15,083	-2,987	-20,576	-68	0	0
1997	-6,529	0	17,152	-3,088	-20,570	-68	0	0
1998	-8,953	0	14,820	-2,982	-20,540	-76	0	0
1999	-8,789	0	14,745	-3,048	-20,508	-78	0	0
2000	-8,230	0	15,346	-3,211	-20,485	-74	0	0

<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2001	-8,937	0	14,820	-2,993	-20,439	-114	0	0
2002	-7,613	0	15,874	-3,043	-20,408	-110	0	0
2003	-7,475	0	15,949	-2,754	-20,400	-80	0	0
2004	-2,111	0	21,329	-2,947	-20,405	-91	0	0
2005	-7,520	0	15,874	-2,927	-20,393	-77	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	-36,865	160,600	8,760	-12,045	-6,205	0	-39,420
1932	11,785	-37,070	178,792	8,885	-11,939	-12,537	-153	-39,573
1933	-32,258	-36,993	136,898	12,080	-11,960	-18,673	-153	-39,503
1934	-37,930	-36,906	136,898	12,200	-11,939	-24,809	-152	-39,423
1935	-12,068	-36,877	168,449	13,213	-11,822	-31,317	-152	-39,391
1936	-26,577	-36,819	159,268	12,886	-11,729	-37,453	-151	-39,334
1937	-22,302	-36,740	149,979	32,999	-11,655	-43,589	-151	-39,257
1938	-46,228	-36,640	146,539	14,980	-11,566	-50,091	-150	-39,161
1939	-56,727	-36,537	145,099	12,802	-11,468	-56,227	-149	-39,062
1940	-46,381	-36,466	161,410	14,096	-11,327	-62,369	-148	-38,991
1941	-19,831	-36,455	193,681	14,626	-11,114	-68,876	-146	-38,970
1942	-62,840	-36,358	154,983	15,757	-11,012	-75,018	-145	-38,874
1943	-79,262	-36,239	143,325	15,610	-10,938	-81,166	-144	-38,760
1944	-61,281	-36,163	166,658	16,136	-10,781	-87,667	-142	-38,682
1945	-82,221	-36,049	150,347	17,214	-10,666	-93,809	-141	-38,571
1946	-81,041	-35,939	155,703	18,968	-10,519	-99,958	-139	-38,462
1947	-82,389	-35,823	143,677	25,618	-10,416	-106,458	-138	-38,350
1948	-107,727	-35,678	138,672	19,040	-10,325	-112,601	-136	-38,211
1949	-79,399	-35,596	170,574	20,779	-10,117	-118,748	-135	-38,125
1950	-105,031	-35,469	146,539	27,113	-9,985	-125,250	-133	-38,002
1951	-130,715	-35,298	129,508	21,188	-9,916	-131,391	-131	-37,839

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1952	-129,553	-35,138	135,475	22,255	-9,784	-137,545	-129	-37,686
1953	-135,876	-34,972	133,684	23,460	-9,653	-143,686	-127	-37,527
1954	-142,274	-34,801	131,894	24,412	-9,514	-150,188	-125	-37,364
1955	-130,483	-34,637	140,815	32,631	-9,326	-156,336	-123	-37,204
1956	-162,998	-34,437	119,516	25,764	-9,232	-162,477	-121	-37,015
1957	-111,156	-34,335	170,943	38,019	-8,966	-168,984	-118	-36,908
1958	-116,401	-34,250	177,370	25,323	-8,740	-175,133	-116	-36,817
1959	-134,741	-34,136	158,917	27,050	-8,591	-177,679	-114	-36,702
1960	-137,370	-34,026	158,197	25,804	-8,469	-179,868	-112	-36,592
1961	-145,410	-33,907	150,347	27,313	-8,370	-182,415	-109	-36,475
1962	-156,875	-33,769	140,112	27,611	-8,281	-184,602	-107	-36,342
1963	-134,866	-33,647	139,392	39,556	-8,178	-187,150	-106	-36,225
1964	-154,018	-33,522	145,820	27,683	-8,114	-189,337	-103	-36,103
1965	-133,107	-33,462	151,067	26,412	-8,103	-172,405	-102	-36,045
1966	-119,540	-33,441	148,556	25,334	-8,219	-155,483	-101	-36,026
1967	-106,762	-33,457	146,891	23,639	-8,363	-138,551	-100	-36,045
1968	-69,906	-33,537	168,081	22,993	-8,521	-121,617	-100	-36,122
1969	-54,084	-33,638	167,361	22,523	-8,726	-104,691	-100	-36,220
1970	-72,121	-33,677	146,891	24,689	-8,909	-102,886	-100	-36,263
1971	-61,828	-33,731	159,988	19,843	-9,030	-101,075	-100	-36,316
1972	-43,051	-33,722	153,561	65,164	-8,997	-117,616	-100	-36,308
1973	-74,083	-33,710	159,988	24,290	-8,972	-118,335	-100	-36,296
1974	-69,055	-33,711	168,081	22,633	-8,951	-119,060	-99	-36,295
1975	-71,002	-33,715	158,197	21,608	-8,977	-110,350	-99	-36,299
1976	-38,389	-33,755	167,361	32,275	-9,009	-100,926	-99	-36,337
1977	-64,811	-33,761	141,886	24,134	-9,154	-91,138	-99	-36,349
1978	-36,587	-33,824	163,202	22,319	-9,228	-80,997	-99	-36,411
1979	-28,704	-33,875	151,770	27,174	-9,343	-70,124	-99	-36,465
1980	-49,259	-33,873	156,055	27,293	-9,281	-90,637	-99	-36,464
1981	-37,034	-33,892	169,152	24,978	-9,209	-89,180	-99	-36,481
1982	-54,724	-33,874	150,347	25,021	-9,197	-88,442	-99	-36,466
1983	-60,502	-33,840	143,326	25,764	-9,192	-87,351	-99	-36,438
1984	-49,797	-33,826	152,490	25,106	-9,160	-85,894	-99	-36,427

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1985	-29,867	-33,857	163,905	25,698	-9,148	-77,216	-99	-36,457
1986	-6,072	-33,936	178,073	23,930	-9,172	-65,707	-99	-36,532
1987	-10,953	-33,996	166,658	25,881	-9,232	-60,983	-99	-36,591
1988	-35,368	-33,993	142,606	24,830	-9,315	-61,009	-99	-36,594
1989	-44,395	-33,958	140,112	27,181	-9,333	-68,987	-100	-36,566
1990	-15,407	-33,983	170,575	23,354	-9,256	-67,094	-100	-36,589
1991	-6,113	-34,023	176,299	25,097	-9,207	-64,930	-100	-36,626
1992	-4,162	-34,063	178,073	25,556	-9,175	-64,936	-100	-36,662
1993	-51,392	-33,992	144,397	27,418	-9,154	-81,334	-100	-36,597
1994	-45,120	-33,940	150,347	25,603	-9,128	-78,817	-99	-36,550
1995	-58,575	-33,852	145,820	29,142	-9,043	-91,770	-99	-36,468
1996	-53,470	-33,783	145,100	30,272	-9,013	-86,365	-98	-36,405
1997	-40,351	-33,747	164,993	24,636	-8,923	-89,970	-98	-36,370
1998	-63,925	-33,664	142,606	27,680	-8,869	-93,558	-97	-36,293
1999	-62,300	-33,584	141,886	29,882	-8,834	-93,564	-97	-36,221
2000	-63,744	-33,502	147,611	28,991	-8,732	-101,112	-96	-36,144
2001	-51,318	-33,464	142,606	27,556	-8,792	-80,983	-96	-36,113
2002	-36,422	-33,452	152,841	29,136	-8,819	-78,106	-96	-36,105
2003	-8,008	-33,515	153,561	28,078	-8,994	-51,154	-96	-36,172
2004	33,073	-33,645	205,339	25,188	-8,989	-56,180	-96	-36,291
2005	-22,704	-33,640	152,841	27,326	-9,051	-61,936	-97	-36,290

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	41,245	17,885	16,060	-5,840	-365	0
1932	-2,445	0	45,971	18,159	15,875	-13,037	-503	0
1933	-18,012	0	35,340	18,360	15,820	-18,784	-499	0
1934	-23,545	0	35,340	18,463	15,774	-24,534	-496	0
1935	-22,613	0	43,551	18,683	15,821	-31,718	-497	0

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<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1936	-30,852	0	40,985	18,582	15,856	-37,466	-497	0
1937	-36,578	0	38,799	20,552	15,874	-43,214	-496	0
1938	-46,850	0	37,605	19,355	15,906	-50,400	-493	0
1939	-51,781	0	37,258	19,104	15,933	-56,147	-491	0
1940	-53,869	0	41,489	18,524	16,023	-61,895	-491	0
1941	-52,865	0	49,873	18,068	16,210	-69,083	-495	0
1942	-65,555	0	39,979	19,133	16,289	-74,835	-494	0
1943	-77,377	0	36,850	18,374	16,374	-82,022	-490	0
1944	-76,913	0	43,126	18,480	16,523	-87,772	-491	0
1945	-85,023	0	38,895	19,043	16,641	-93,525	-488	0
1946	-88,513	0	40,153	20,221	16,774	-100,713	-487	0
1947	-98,350	0	36,928	22,291	16,905	-106,466	-483	0
1948	-106,154	0	35,748	18,475	17,057	-112,216	-479	0
1949	-100,840	0	44,037	21,503	17,266	-119,405	-480	0
1950	-112,198	0	37,605	21,303	17,423	-125,155	-477	0
1951	-125,854	0	33,200	18,263	17,612	-130,912	-472	0
1952	-129,316	0	35,011	19,250	17,822	-138,102	-467	0
1953	-134,769	0	34,586	19,344	18,034	-143,858	-463	0
1954	-140,158	0	34,161	19,603	18,249	-149,612	-459	0
1955	-140,925	0	36,251	22,574	18,481	-156,804	-456	0
1956	-155,174	0	30,858	19,103	18,707	-162,558	-450	0
1957	-138,352	0	44,132	21,560	19,041	-168,316	-451	0
1958	-152,255	0	45,642	18,808	19,440	-175,506	-453	0
1959	-159,937	0	40,907	20,411	19,783	-181,262	-451	0
1960	-166,813	0	40,734	19,084	20,161	-187,016	-449	0
1961	-172,484	0	38,895	20,067	20,511	-192,758	-446	0
1962	-178,314	0	36,095	21,206	20,860	-198,503	-442	0
1963	-181,927	0	35,922	27,008	21,198	-204,247	-437	0
1964	-188,742	0	37,431	19,252	21,620	-209,991	-434	0
1965	-172,182	0	39,068	21,378	22,018	-199,934	-431	0
1966	-165,771	0	38,470	20,839	22,453	-191,313	-428	0
1967	-151,107	0	37,683	23,163	22,829	-181,256	-425	0
1968	-138,183	0	43,455	21,458	23,284	-171,201	-425	0



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<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1969	-128,986	0	43,282	21,720	23,722	-162,583	-424	0
1970	-129,343	0	37,683	23,668	24,071	-159,708	-421	0
1971	-123,890	0	41,159	22,404	24,444	-156,833	-419	0
1972	-114,660	0	39,649	30,265	24,677	-156,833	-417	0
1973	-120,992	0	41,159	23,886	25,005	-156,830	-416	0
1974	-119,566	0	43,455	22,780	25,360	-156,830	-416	0
1975	-100,155	0	40,734	23,858	25,616	-138,156	-414	0
1976	-81,350	0	43,282	26,172	25,850	-119,481	-414	0
1977	-69,904	0	36,503	22,734	26,009	-100,809	-410	0
1978	-45,085	0	41,914	22,705	26,160	-82,135	-410	0
1979	-25,566	0	39,224	23,468	26,233	-62,026	-408	0
1980	-30,527	0	40,231	22,983	26,288	-66,331	-408	0
1981	-22,904	0	43,707	22,609	26,365	-62,022	-409	0
1982	-23,533	0	38,895	22,321	26,380	-57,713	-407	0
1983	-22,895	0	36,850	22,076	26,369	-54,841	-405	0
1984	-16,502	0	39,398	21,769	26,365	-50,532	-404	0
1985	-3,207	0	42,070	21,381	26,370	-39,041	-405	0
1986	1,820	0	45,798	21,183	26,433	-37,608	-408	0
1987	9,749	0	43,126	20,672	26,425	-26,117	-410	0
1988	-1,625	0	36,676	20,937	26,365	-31,863	-407	0
1989	-17,890	0	36,095	21,215	26,318	-47,663	-405	0
1990	10,987	0	44,037	20,994	26,236	-26,117	-407	0
1991	14,446	0	45,390	20,378	26,198	-23,241	-410	0
1992	13,825	0	45,798	19,826	26,168	-23,240	-413	0
1993	-43,217	0	37,102	21,356	26,206	-73,510	-410	0
1994	-39,824	0	38,895	21,002	26,203	-72,072	-409	0
1995	-44,186	0	37,431	20,986	26,159	-74,941	-407	0
1996	-40,383	0	37,258	20,749	26,125	-70,628	-405	0
1997	-37,116	0	42,339	19,785	26,145	-72,063	-406	0
1998	-40,220	0	36,676	20,628	26,076	-70,623	-403	0
1999	-40,834	0	36,503	20,490	26,025	-70,621	-401	0
2000	-37,255	0	37,856	20,611	25,965	-69,183	-399	0
2001	-38,980	0	36,676	20,248	25,956	-69,181	-397	0

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2002	-35,199	0	39,476	20,215	25,958	-67,741	-397	0
2003	-37,669	0	39,649	21,259	26,060	-67,739	-396	0
2004	-22,510	0	53,002	18,343	26,219	-66,301	-403	0
2005	-33,930	0	39,476	19,973	26,224	-66,299	-402	0

**Table A.2.2. Water budgets of the modeled area by groundwater conservation district for Layer 2—the Dockum Aquifer and Dewey Lake Formation—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-11,315	11,315	0	0	0
1932	-9	0	37	-11,854	11,671	0	0	0
1933	-56	0	29	-12,110	11,772	0	0	0
1934	-78	0	29	-12,536	11,911	0	0	0
1935	-82	0	35	-12,704	12,160	0	0	0
1936	-113	0	33	-13,031	12,375	0	0	0
1937	-44	0	32	-16,332	12,481	0	0	0
1938	-154	0	30	-14,043	12,748	0	0	0
1939	-184	0	30	-13,656	13,025	0	0	0
1940	-216	0	33	-13,476	13,312	0	0	0
1941	-214	0	40	-13,648	13,661	0	0	0
1942	-233	0	32	-14,474	14,037	0	0	0
1943	-284	0	30	-14,244	14,297	0	0	0
1944	-284	0	35	-14,539	14,680	0	0	0
1945	-306	0	32	-15,327	15,044	0	0	0
1946	-286	0	32	-17,161	15,470	0	0	0
1947	-231	0	30	-17,951	15,795	0	0	0
1948	-391	0	29	-15,919	16,033	0	0	0
1949	-315	0	36	-17,663	16,556	0	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1950	-323	0	30	-20,966	16,927	0	0	0
1951	-460	0	27	-16,930	17,143	0	0	0
1952	-451	0	28	-17,712	17,501	0	0	0
1953	-464	0	28	-18,214	17,888	0	0	0
1954	-481	0	28	-18,651	18,303	0	0	0
1955	-407	0	29	-23,099	18,801	0	0	0
1956	-528	0	25	-19,199	19,096	0	0	0
1957	-459	0	36	-22,163	19,661	0	0	0
1958	-505	0	37	-20,445	19,992	0	0	0
1959	-523	0	33	-20,803	20,488	0	0	0
1960	-508	0	33	-21,250	20,696	0	0	0
1961	-526	0	32	-21,138	21,115	0	0	0
1962	-525	0	29	-21,851	21,476	0	0	0
1963	-343	0	29	-24,888	21,824	0	0	0
1964	-545	0	30	-21,917	21,774	0	0	0
1965	-436	0	32	-21,512	21,880	0	0	0
1966	-352	0	31	-22,152	21,464	0	0	0
1967	-273	0	30	-22,022	21,220	0	0	0
1968	-211	0	35	-21,159	20,742	0	0	0
1969	-148	0	35	-20,543	20,230	0	0	0
1970	-154	0	30	-20,536	19,947	0	0	0
1971	-159	0	33	-19,879	19,685	0	0	0
1972	-70	0	32	-25,003	19,839	0	0	0
1973	-237	0	33	-20,669	19,979	0	0	0
1974	-230	0	35	-20,449	19,984	0	0	0
1975	-189	0	33	-20,142	20,045	0	0	0
1976	-81	0	35	-21,696	20,034	0	0	0
1977	-119	0	29	-20,232	19,774	0	0	0
1978	-64	0	34	-19,771	19,623	0	0	0
1979	-15	0	32	-19,795	19,472	0	0	0
1980	-106	0	33	-20,307	19,731	0	0	0
1981	-90	0	35	-20,283	19,906	0	0	0
1982	-95	0	32	-20,329	19,978	0	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1983	-96	0	30	-20,370	20,009	0	0	0
1984	-85	0	32	-20,314	20,050	0	0	0
1985	-44	0	34	-20,096	19,985	0	0	0
1986	9	0	37	-19,788	19,809	0	0	0
1987	18	0	35	-19,496	19,667	0	0	0
1988	2	0	30	-19,589	19,517	0	0	0
1989	-37	0	29	-19,719	19,520	0	0	0
1990	-13	0	36	-19,589	19,625	0	0	0
1991	5	0	37	-19,707	19,659	0	0	0
1992	4	0	37	-19,674	19,684	0	0	0
1993	-76	0	30	-20,354	19,787	0	0	0
1994	-70	0	32	-20,175	19,785	0	0	0
1995	-125	0	30	-20,489	19,996	0	0	0
1996	-98	0	30	-20,476	20,006	0	0	0
1997	-121	0	34	-19,824	20,073	0	0	0
1998	-116	0	30	-20,925	20,247	0	0	0
1999	-121	0	29	-20,831	20,324	0	0	0
2000	-134	0	30	-21,348	20,562	0	0	0
2001	-63	0	30	-20,664	20,272	0	0	0
2002	-50	0	32	-20,459	20,140	0	0	0
2003	28	0	32	-18,159	19,774	0	0	0
2004	68	0	43	-19,549	19,481	0	0	0
2005	1	0	32	-19,414	19,407	0	0	0

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	-12,775	13,140	0	0	0
1932	-3	0	114	-13,283	13,077	0	0	0
1933	-16	0	88	-13,290	12,945	0	0	0

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<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1934	-23	0	88	-13,311	12,807	0	0	0
1935	-27	0	109	-13,433	12,727	0	0	0
1936	-43	0	102	-13,277	12,639	0	0	0
1937	-13	0	97	-13,518	12,505	0	0	0
1938	-56	0	93	-13,579	12,332	0	0	0
1939	-71	0	92	-13,279	12,158	0	0	0
1940	-101	0	103	-12,842	12,124	0	0	0
1941	-118	0	124	-12,499	12,147	0	0	0
1942	-99	0	99	-13,009	11,928	0	0	0
1943	-142	0	91	-12,443	11,826	0	0	0
1944	-143	0	108	-12,421	11,743	0	0	0
1945	-149	0	97	-12,666	11,597	0	0	0
1946	-125	0	100	-13,155	11,343	0	0	0
1947	-88	0	91	-14,036	10,962	0	0	0
1948	-212	0	89	-11,806	11,008	0	0	0
1949	-139	0	110	-14,052	10,742	0	0	0
1950	-141	0	93	-13,003	10,448	0	0	0
1951	-260	0	82	-11,398	10,525	0	0	0
1952	-248	0	88	-12,120	10,474	0	0	0
1953	-254	0	87	-12,077	10,391	0	0	0
1954	-260	0	86	-12,022	10,281	0	0	0
1955	-192	0	90	-13,964	9,971	0	0	0
1956	-299	0	77	-10,958	9,896	0	0	0
1957	-245	0	110	-12,143	9,861	0	0	0
1958	-338	0	113	-10,590	9,974	0	0	0
1959	-289	0	102	-11,720	9,897	0	0	0
1960	-348	0	101	-10,545	9,952	0	0	0
1961	-306	0	97	-11,154	9,895	0	0	0
1962	-304	0	90	-11,854	9,808	0	0	0
1963	-154	0	89	-14,206	9,231	0	0	0
1964	-405	0	92	-9,809	9,580	0	0	0
1965	-278	0	98	-10,895	9,666	0	0	0
1966	-330	0	96	-10,721	9,967	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1967	-205	0	93	-12,287	10,044	0	0	0
1968	-264	0	109	-11,062	10,458	0	0	0
1969	-234	0	108	-11,215	10,859	0	0	0
1970	-178	0	93	-12,279	11,012	0	0	0
1971	-209	0	102	-11,588	11,278	0	0	0
1972	-36	0	99	-12,723	11,035	0	0	0
1973	-175	0	102	-12,211	11,060	0	0	0
1974	-214	0	109	-11,540	11,270	0	0	0
1975	-131	0	101	-12,374	11,280	0	0	0
1976	-53	0	108	-13,304	11,231	0	0	0
1977	-132	0	90	-11,692	11,415	0	0	0
1978	-79	0	104	-11,885	11,592	0	0	0
1979	-17	0	98	-12,524	11,691	0	0	0
1980	-40	0	100	-12,223	11,615	0	0	0
1981	-30	0	109	-12,236	11,620	0	0	0
1982	-29	0	97	-12,183	11,583	0	0	0
1983	-28	0	91	-12,135	11,553	0	0	0
1984	-22	0	98	-12,072	11,561	0	0	0
1985	-9	0	104	-11,980	11,644	0	0	0
1986	-7	0	113	-11,922	11,796	0	0	0
1987	10	0	108	-11,799	11,932	0	0	0
1988	5	0	91	-11,986	11,997	0	0	0
1989	-10	0	90	-12,185	11,957	0	0	0
1990	30	0	110	-12,265	11,919	0	0	0
1991	26	0	113	-12,011	11,960	0	0	0
1992	19	0	113	-11,863	12,049	0	0	0
1993	-32	0	92	-12,830	11,957	0	0	0
1994	-29	0	97	-12,452	11,915	0	0	0
1995	-40	0	92	-12,355	11,785	0	0	0
1996	-38	0	92	-12,183	11,742	0	0	0
1997	-61	0	105	-11,687	11,774	0	0	0
1998	-30	0	91	-12,227	11,605	0	0	0
1999	-40	0	90	-12,080	11,516	0	0	0

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
2000	-32	0	93	-12,245	11,357	0	0	0
2001	-36	0	91	-12,011	11,427	0	0	0
2002	-35	0	98	-11,954	11,471	0	0	0
2003	-10	0	99	-12,750	11,615	0	0	0
2004	-57	0	132	-12,055	12,003	0	0	0
2005	-18	0	98	-12,577	11,977	0	0	0

**Table A.2.3. Water budgets of the modeled area by groundwater conservation district for Layer 3—the Rustler Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	730	-730	0	0	0
1932	1	0	0	549	-494	-6	0	0
1933	-1	0	0	455	-480	-6	0	0
1934	-1	0	0	490	-472	-6	0	0
1935	1	0	0	522	-485	-6	0	0
1936	0	0	0	489	-484	-6	0	0
1937	0	0	0	451	-482	-6	0	0
1938	-1	0	0	490	-479	-6	0	0
1939	-1	0	0	480	-476	-6	0	0
1940	0	0	0	490	-482	-6	0	0
1941	3	0	0	500	-494	-6	0	0
1942	0	0	0	492	-491	-6	0	0
1943	-1	0	0	495	-486	-6	0	0
1944	1	0	0	495	-490	-6	0	0
1945	-1	0	0	489	-488	-6	0	0
1946	0	0	0	494	-487	-6	0	0
1947	-1	0	0	438	-481	-6	0	0

<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1948	-1	0	0	488	-481	-6	0	0
1949	1	0	0	539	-492	-6	0	0
1950	-1	0	0	514	-483	-6	0	0
1951	-2	0	0	496	-483	-6	0	0
1952	-1	0	0	475	-483	-6	0	0
1953	-1	0	0	474	-482	-6	0	0
1954	-1	0	0	472	-481	-6	0	0
1955	-1	0	0	492	-481	-6	0	0
1956	-3	0	0	469	-481	-6	0	0
1957	1	0	0	521	-494	-6	0	0
1958	1	0	0	522	-514	-6	0	0
1959	-1	0	0	515	-516	-6	0	0
1960	-1	0	0	535	-528	-6	0	0
1961	-1	0	0	535	-526	-6	0	0
1962	-2	0	0	510	-524	-6	0	0
1963	-1	0	0	429	-514	-6	0	0
1964	-2	0	0	531	-527	-6	0	0
1965	-1	0	0	524	-530	-6	0	0
1966	-2	0	0	538	-541	-6	0	0
1967	-1	0	0	556	-537	-6	0	0
1968	-1	0	0	558	-557	-6	0	0
1969	-1	0	0	570	-565	-6	0	0
1970	-2	0	0	540	-561	-6	0	0
1971	-2	0	0	583	-580	-6	0	0
1972	0	0	0	422	-575	-6	0	0
1973	-2	0	0	564	-578	-6	0	0
1974	-2	0	0	593	-591	-6	0	0
1975	-2	0	0	569	-586	-6	0	0
1976	-1	0	0	539	-587	-6	0	0
1977	-4	0	0	604	-591	-6	0	0
1978	-2	0	0	606	-603	-6	0	0
1979	-1	0	0	632	-593	-6	0	0
1980	-2	0	0	570	-597	-6	0	0



<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1981	-1	0	0	605	-600	-6	0	0
1982	-2	0	0	617	-594	-6	0	0
1983	-3	0	0	621	-591	-6	0	0
1984	-2	0	0	606	-594	-6	0	0
1985	-2	0	0	607	-602	-6	0	0
1986	-2	0	0	625	-622	-6	0	0
1987	-1	0	0	637	-615	-6	0	0
1988	-3	0	0	514	-603	-6	0	0
1989	-3	0	0	541	-603	-6	0	0
1990	-2	0	0	632	-623	-6	0	0
1991	-1	0	0	631	-625	-6	0	0
1992	-1	0	0	611	-625	-6	0	0
1993	-2	0	0	523	-609	-6	0	0
1994	-2	0	0	634	-608	-6	0	0
1995	-3	0	0	564	-611	-6	0	0
1996	-3	0	0	562	-609	-6	0	0
1997	-3	0	0	634	-623	-6	0	0
1998	-3	0	0	646	-606	-6	0	0
1999	-3	0	0	560	-607	-6	0	0
2000	-2	0	0	543	-602	-6	0	0
2001	-3	0	0	628	-600	-6	0	0
2002	-2	0	0	573	-608	-6	0	0
2003	-1	0	0	621	-605	-6	0	0
2004	0	0	0	637	-634	-6	0	0
2005	-2	0	0	658	-618	-6	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	730	-730	0	0	0
1932	1	0	0	794	-729	-60	0	0
1933	-1	0	0	788	-727	-60	0	0
1934	-1	0	0	784	-728	-60	0	0
1935	0	0	0	784	-728	-60	0	0
1936	0	0	0	788	-727	-60	0	0
1937	0	0	0	770	-727	-60	0	0
1938	0	0	0	784	-727	-60	0	0
1939	0	0	0	782	-728	-60	0	0
1940	0	0	0	789	-726	-60	0	0
1941	1	0	0	785	-723	-60	0	0
1942	0	0	0	785	-725	-60	0	0
1943	0	0	0	786	-728	-60	0	0
1944	0	0	0	788	-727	-60	0	0
1945	0	0	0	785	-728	-60	0	0
1946	0	0	0	789	-729	-60	0	0
1947	0	0	0	792	-729	-60	0	0
1948	-1	0	0	790	-733	-60	0	0
1949	0	0	0	786	-732	-60	0	0
1950	0	0	0	792	-731	-60	0	0
1951	-1	0	0	790	-736	-60	0	0
1952	-1	0	0	788	-737	-60	0	0
1953	-1	0	0	788	-739	-60	0	0
1954	-1	0	0	789	-741	-60	0	0
1955	-1	0	0	791	-741	-60	0	0
1956	-1	0	0	798	-745	-60	0	0
1957	0	0	0	805	-743	-60	0	0
1958	0	0	0	803	-744	-60	0	0
1959	0	0	0	804	-747	-60	0	0
1960	0	0	0	810	-751	-60	0	0
1961	0	0	0	812	-757	-60	0	0
1962	-1	0	0	812	-762	-60	0	0
1963	-1	0	0	831	-764	-60	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1964	-1	0	0	829	-770	-60	0	0
1965	-1	0	0	838	-773	-60	0	0
1966	-1	0	0	840	-778	-60	0	0
1967	-1	0	0	833	-781	-60	0	0
1968	0	0	0	846	-787	-60	0	0
1969	0	0	0	848	-791	-60	0	0
1970	-1	0	0	853	-797	-60	0	0
1971	-1	0	0	862	-803	-60	0	0
1972	0	0	0	806	-805	-60	0	0
1973	-1	0	0	873	-811	-60	0	0
1974	-1	0	0	874	-818	-60	0	0
1975	-1	0	0	890	-822	-60	0	0
1976	-1	0	0	887	-825	-60	0	0
1977	-2	0	0	883	-833	-60	0	0
1978	-1	0	0	897	-839	-60	0	0
1979	-1	0	0	888	-841	-60	0	0
1980	-1	0	0	900	-846	-60	0	0
1981	-1	0	0	903	-849	-60	0	0
1982	-1	0	0	900	-853	-60	0	0
1983	-2	0	0	898	-857	-60	0	0
1984	-2	0	0	914	-860	-60	0	0
1985	-1	0	0	914	-864	-60	0	0
1986	-1	0	0	925	-868	-60	0	0
1987	-1	0	0	919	-871	-60	0	0
1988	-2	0	0	962	-872	-60	0	0
1989	-2	0	0	940	-879	-60	0	0
1990	-1	0	0	956	-887	-60	0	0
1991	-1	0	0	940	-888	-60	0	0
1992	-1	0	0	950	-887	-60	0	0
1993	-2	0	0	977	-887	-60	0	0
1994	-2	0	0	944	-892	-60	0	0
1995	-2	0	0	957	-894	-60	0	0
1996	-2	0	0	946	-897	-60	0	0

<b>Jeff Davis County Underground Water Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1997	-1	0	0	979	-900	-60	0	0
1998	-2	0	0	943	-898	-60	0	0
1999	-2	0	0	963	-901	-60	0	0
2000	-2	0	0	1,004	-898	-60	0	0
2001	-2	0	0	943	-901	-60	0	0
2002	-2	0	0	965	-901	-60	0	0
2003	-1	0	0	934	-901	-60	0	0
2004	0	0	0	957	-898	-60	0	0
2005	-2	0	0	957	-897	-60	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	20,075	-19,710	0	0	0
1932	27	0	0	19,915	-19,575	-131	0	0
1933	-210	0	0	18,852	-19,443	-131	0	0
1934	-281	0	0	19,201	-19,289	-131	0	0
1935	-193	0	0	18,764	-19,166	-131	0	0
1936	-304	0	0	19,010	-19,007	-131	0	0
1937	-138	0	0	8,892	-18,905	-131	0	0
1938	-477	0	0	18,346	-18,660	-131	0	0
1939	-547	0	0	17,589	-18,410	-131	0	0
1940	-562	0	0	17,859	-18,242	-131	0	0
1941	-470	0	0	17,705	-18,071	-131	0	0
1942	-663	0	0	17,188	-17,755	-131	0	0
1943	-813	0	0	16,966	-17,523	-132	0	0
1944	-749	0	0	16,778	-17,280	-132	0	0
1945	-867	0	0	16,347	-16,982	-132	0	0
1946	-837	0	0	15,601	-16,597	-132	0	0
1947	-733	0	0	9,835	-16,214	-133	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1948	-1,139	0	0	15,247	-16,026	-133	0	0
1949	-894	0	0	15,401	-15,608	-133	0	0
1950	-1,007	0	0	13,900	-15,162	-133	0	0
1951	-1,331	0	0	14,084	-15,006	-133	0	0
1952	-1,314	0	0	13,805	-14,719	-144	0	0
1953	-1,361	0	0	13,225	-14,411	-145	0	0
1954	-1,418	0	0	12,887	-14,083	-146	0	0
1955	-1,241	0	0	13,327	-13,607	-147	0	0
1956	-1,589	0	0	11,567	-13,329	-147	0	0
1957	-1,254	0	0	8,550	-13,023	-148	0	0
1958	-1,400	0	0	11,582	-12,840	-149	0	0
1959	-1,476	0	0	11,371	-12,479	-149	0	0
1960	-1,488	0	0	11,086	-12,354	-150	0	0
1961	-1,529	0	0	11,115	-12,030	-376	0	0
1962	-1,578	0	0	11,259	-11,693	-796	0	0
1963	-1,149	0	0	2,317	-11,139	-1,207	0	0
1964	-1,694	0	0	10,723	-11,128	-1,607	0	0
1965	-1,343	0	0	11,967	-10,956	-1,997	0	0
1966	-1,176	0	0	12,310	-11,129	-2,384	0	0
1967	-953	0	0	12,980	-11,088	-2,764	0	0
1968	-734	0	0	13,934	-11,468	-3,134	0	0
1969	-567	0	0	14,746	-11,799	-3,503	0	0
1970	-613	0	0	14,448	-11,947	-3,866	0	0
1971	-616	0	0	16,110	-12,357	-4,365	0	0
1972	-247	0	0	-2,572	-12,243	-4,154	0	0
1973	-822	0	0	14,950	-12,209	-3,943	0	0
1974	-745	0	0	14,607	-12,342	-3,520	0	0
1975	-649	0	0	14,754	-12,274	-2,886	0	0
1976	-291	0	0	10,633	-12,224	-2,157	0	0
1977	-537	0	0	13,734	-12,448	-1,817	0	0
1978	-291	0	0	13,783	-12,695	-1,482	0	0
1979	-128	0	0	13,217	-12,742	-1,164	0	0
1980	-394	0	0	12,503	-12,684	-1,088	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1981	-319	0	0	13,267	-12,631	-1,018	0	0
1982	-393	0	0	13,122	-12,563	-948	0	0
1983	-414	0	0	12,899	-12,509	-883	0	0
1984	-354	0	0	13,141	-12,477	-813	0	0
1985	-206	0	0	12,992	-12,529	-749	0	0
1986	-47	0	0	13,572	-12,752	-677	0	0
1987	-11	0	0	13,217	-12,834	-614	0	0
1988	-131	0	0	13,446	-12,880	-548	0	0
1989	-242	0	0	12,514	-12,904	-486	0	0
1990	-110	0	0	13,492	-12,977	-422	0	0
1991	-20	0	0	13,173	-12,998	-360	0	0
1992	-10	0	0	13,292	-13,017	-299	0	0
1993	-331	0	0	12,363	-12,920	-242	0	0
1994	-311	0	0	13,344	-12,854	-355	0	0
1995	-448	0	0	11,707	-12,724	-341	0	0
1996	-390	0	0	11,126	-12,656	-315	0	0
1997	-402	0	0	13,156	-12,676	-309	0	0
1998	-452	0	0	12,413	-12,463	-312	0	0
1999	-456	0	0	11,382	-12,356	-310	0	0
2000	-494	0	0	12,155	-12,137	-298	0	0
2001	-324	0	0	12,201	-12,162	-279	0	0
2002	-242	0	0	11,890	-12,224	-272	0	0
2003	28	0	0	11,999	-12,376	-219	0	0
2004	187	0	0	13,560	-12,770	-295	0	0
2005	-87	0	0	13,005	-12,787	-292	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	3,650	-3,285	0	0	0
1932	-8	0	0	3,341	-3,405	0	0	0
1933	-67	0	0	3,186	-3,439	0	0	0
1934	-95	0	0	3,142	-3,476	0	0	0
1935	-102	0	0	3,098	-3,495	0	0	0
1936	-163	0	0	3,073	-3,508	0	0	0
1937	-50	0	0	1,524	-3,522	-6	0	0
1938	-225	0	0	2,789	-3,563	-13	0	0
1939	-280	0	0	2,709	-3,596	-19	0	0
1940	-377	0	0	2,941	-3,575	-25	0	0
1941	-426	0	0	3,081	-3,512	-29	0	0
1942	-383	0	0	2,611	-3,557	-32	0	0
1943	-533	0	0	2,861	-3,539	-36	0	0
1944	-535	0	0	2,821	-3,512	-39	0	0
1945	-564	0	0	2,615	-3,515	-42	0	0
1946	-491	0	0	2,008	-3,546	-46	0	0
1947	-361	0	0	983	-3,587	-51	0	0
1948	-793	0	0	2,626	-3,523	-124	0	0
1949	-549	0	0	2,075	-3,553	-166	0	0
1950	-560	0	0	1,241	-3,580	-247	0	0
1951	-968	0	0	2,736	-3,481	-465	0	0
1952	-936	0	0	2,643	-3,425	-543	0	0
1953	-965	0	0	2,589	-3,370	-663	0	0
1954	-988	0	0	2,379	-3,321	-513	0	0
1955	-758	0	0	1,681	-3,341	-463	0	0
1956	-1,128	0	0	1,945	-3,252	-460	0	0
1957	-930	0	0	1,018	-3,197	-490	0	0
1958	-1,233	0	0	2,104	-3,005	-474	0	0
1959	-1,110	0	0	1,802	-2,950	-492	0	0
1960	-1,283	0	0	1,998	-2,788	-506	0	0
1961	-1,183	0	0	1,686	-2,697	-518	0	0
1962	-1,183	0	0	1,472	-2,629	-532	0	0
1963	-649	0	0	-1,885	-2,667	-544	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1964	-1,509	0	0	1,627	-2,420	-557	0	0
1965	-1,103	0	0	648	-2,314	-538	0	0
1966	-1,235	0	0	1,169	-2,050	-520	0	0
1967	-858	0	0	340	-1,926	-501	0	0
1968	-1,013	0	0	998	-1,658	-483	0	0
1969	-916	0	0	998	-1,404	-464	0	0
1970	-744	0	0	145	-1,264	-459	0	0
1971	-832	0	0	702	-1,084	-454	0	0
1972	-154	0	0	-5,606	-1,089	-448	0	0
1973	-742	0	0	-2	-1,038	-443	0	0
1974	-828	0	0	384	-896	-437	0	0
1975	-556	0	0	75	-865	-388	0	0
1976	-230	0	0	-1,264	-856	-339	0	0
1977	-502	0	0	600	-793	-292	0	0
1978	-312	0	0	620	-743	-244	0	0
1979	-81	0	0	543	-731	-196	0	0
1980	-159	0	0	465	-789	-204	0	0
1981	-114	0	0	695	-836	-203	0	0
1982	-108	0	0	776	-895	-202	0	0
1983	-103	0	0	851	-953	-201	0	0
1984	-74	0	0	981	-1,004	-200	0	0
1985	-14	0	0	1,148	-1,036	-166	0	0
1986	1	0	0	1,173	-1,038	-162	0	0
1987	56	0	0	1,394	-1,043	-133	0	0
1988	33	0	0	1,195	-1,062	-95	0	0
1989	-32	0	0	1,028	-1,107	-123	0	0
1990	137	0	0	1,231	-1,197	-90	0	0
1991	123	0	0	1,430	-1,240	-85	0	0
1992	94	0	0	1,709	-1,265	-110	0	0
1993	-123	0	0	1,189	-1,278	-505	0	0
1994	-112	0	0	1,079	-1,314	-77	0	0
1995	-149	0	0	987	-1,371	-66	0	0
1996	-139	0	0	1,025	-1,398	-85	0	0



<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1997	-209	0	0	1,423	-1,387	-86	0	0
1998	-117	0	0	1,111	-1,466	-29	0	0
1999	-147	0	0	1,106	-1,506	-34	0	0
2000	-119	0	0	1,145	-1,581	-34	0	0
2001	-140	0	0	1,208	-1,557	-31	0	0
2002	-131	0	0	1,203	-1,540	-30	0	0
2003	-46	0	0	1,184	-1,482	-22	0	0
2004	-225	0	0	3,146	-1,285	-1,955	0	0
2005	-81	0	0	2,059	-1,290	-1,041	0	0

**Table A.2.4. Water budgets of the modeled area by groundwater conservation district for Layer 5—the Capitan Reef Complex Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	12,775	0	-12,775	0	0	0
1932	8,582	0	20,875	0	-12,425	-7	0	0
1933	-263	0	12,459	0	-12,725	-7	0	0
1934	-4,775	0	8,174	0	-12,952	-7	0	0
1935	607	0	13,360	0	-12,777	-7	0	0
1936	6,194	0	18,743	0	-12,537	-7	0	0
1937	1,939	0	14,634	0	-12,702	-7	0	0
1938	429	0	13,206	0	-12,767	-7	0	0
1939	277	0	13,074	0	-12,790	-7	0	0
1940	4,084	0	16,876	0	-12,650	-7	0	0
1941	18,937	0	31,092	0	-12,156	-7	0	0
1942	3,137	0	15,997	0	-12,709	-7	0	0
1943	-532	0	12,459	0	-12,963	-7	0	0
1944	9,463	0	22,215	0	-12,680	-7	0	0

<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1945	1,619	0	14,656	0	-12,926	-7	0	0
1946	6,068	0	19,029	0	-12,781	-7	0	0
1947	5,255	0	17,579	0	-12,841	-7	0	0
1948	-1,472	0	11,602	0	-13,060	-7	0	0
1949	4,151	0	16,963	0	-12,894	-7	0	0
1950	5,069	0	17,601	0	-12,821	-7	0	0
1951	-2,318	0	10,723	0	-13,041	-7	0	0
1952	-1,783	0	11,206	0	-13,020	-8	0	0
1953	-4,034	0	8,899	0	-13,050	-8	0	0
1954	-4,108	0	8,767	0	-12,993	-7	0	0
1955	163	0	12,964	0	-12,753	-7	0	0
1956	-4,306	0	8,592	0	-12,866	-7	0	0
1957	81	0	12,789	0	-12,679	-7	0	0
1958	9,178	0	21,600	0	-12,332	-7	0	0
1959	-1,884	0	10,767	0	-12,720	-7	0	0
1960	3,402	0	15,975	0	-12,600	-8	0	0
1961	6,508	0	19,073	0	-12,511	-8	0	0
1962	-2,122	0	10,657	0	-12,836	-8	0	0
1963	-81	0	12,745	0	-12,806	-9	0	0
1964	-5,211	0	7,801	0	-12,973	-9	0	0
1965	-3,194	0	9,536	0	-12,908	-9	0	0
1966	6,374	0	18,809	0	-12,537	-9	0	0
1967	1,390	0	14,107	0	-12,668	-9	0	0
1968	8,041	0	20,501	0	-12,475	-10	0	0
1969	-66	0	12,723	0	-12,775	-10	0	0
1970	4,446	0	17,139	0	-12,688	-11	0	0
1971	-1,425	0	11,492	0	-12,905	-11	0	0
1972	416	0	13,316	0	-12,863	-12	0	0
1973	3,715	0	16,370	0	-12,759	-13	0	0
1974	10,932	0	23,490	0	-12,492	-14	0	0
1975	532	0	13,448	0	-12,868	-14	0	0
1976	1,269	0	14,085	0	-12,917	-17	0	0
1977	2,140	0	15,052	0	-12,899	-14	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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<b>Brewster County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1978	9,710	0	22,325	0	-12,645	-11	0	0
1979	4,931	0	17,820	0	-12,801	-12	0	0
1980	1,778	0	14,744	0	-12,963	-16	0	0
1981	8,148	0	20,941	0	-12,765	-14	0	0
1982	1,178	0	14,217	0	-13,033	-12	0	0
1983	-1,254	0	11,866	0	-13,153	-11	0	0
1984	7,768	0	20,611	0	-12,807	-9	0	0
1985	2,828	0	15,821	0	-12,969	-8	0	0
1986	9,587	0	22,347	0	-12,743	-10	0	0
1987	5,177	0	18,106	0	-12,904	-12	0	0
1988	168	0	13,272	0	-13,110	-13	0	0
1989	6,456	0	19,381	0	-12,930	-13	0	0
1990	9,037	0	21,776	0	-12,830	-13	0	0
1991	13,972	0	26,742	0	-12,669	-13	0	0
1992	5,270	0	18,304	0	-13,007	-10	0	0
1993	2,717	0	15,777	0	-13,176	-10	0	0
1994	-4,113	0	9,361	0	-13,446	-15	0	0
1995	-1,138	0	12,195	0	-13,323	-13	0	0
1996	2,488	0	15,623	0	-13,114	-11	0	0
1997	4,160	0	17,095	0	-12,998	-11	0	0
1998	-3,393	0	9,800	0	-13,238	-11	0	0
1999	2,921	0	15,931	0	-13,011	-13	0	0
2000	337	0	13,382	0	-13,043	-12	0	0
2001	-4,524	0	8,636	0	-13,214	-11	0	0
2002	-1,805	0	11,294	0	-13,096	-9	0	0
2003	598	0	13,492	0	-12,958	-9	0	0
2004	11,434	0	23,995	0	-12,547	-9	0	0
2005	3,076	0	15,733	0	-12,843	-11	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	3,650	-20,805	17,155	0	0	0
1932	3,006	0	6,274	-20,721	17,397	-17	0	0
1933	172	0	3,744	-20,727	17,173	-17	0	0
1934	-1,455	0	2,457	-20,739	16,861	-17	0	0
1935	242	0	4,015	-20,750	16,980	-17	0	0
1936	2,149	0	5,633	-20,767	17,319	-17	0	0
1937	857	0	4,398	-20,782	17,257	-17	0	0
1938	353	0	3,969	-20,802	17,195	-17	0	0
1939	245	0	3,929	-20,831	17,162	-17	0	0
1940	1,466	0	5,072	-20,863	17,363	-17	0	0
1941	6,679	0	9,344	-20,896	18,250	-17	0	0
1942	1,701	0	4,808	-20,934	17,928	-17	0	0
1943	401	0	3,744	-20,977	17,650	-17	0	0
1944	3,630	0	6,676	-21,024	18,052	-17	0	0
1945	1,116	0	4,405	-21,074	17,838	-21	0	0
1946	2,522	0	5,719	-21,127	18,022	-17	0	0
1947	2,377	0	5,283	-21,179	18,030	-17	0	0
1948	-23	0	3,487	-21,242	17,738	-17	0	0
1949	1,696	0	5,098	-21,302	17,885	-25	0	0
1950	2,022	0	5,290	-21,366	17,976	-21	0	0
1951	-568	0	3,223	-21,441	17,660	-30	0	0
1952	-612	0	3,368	-21,516	17,521	-39	0	0
1953	-1,567	0	2,675	-21,595	17,289	-47	0	0
1954	-1,831	0	2,635	-21,676	17,138	-34	0	0
1955	-619	0	3,896	-21,754	17,255	-26	0	0
1956	-2,285	0	2,582	-21,844	17,038	-30	0	0
1957	-891	0	3,843	-21,930	17,151	-45	0	0
1958	2,056	0	6,491	-22,025	17,661	-33	0	0
1959	-1,475	0	3,236	-22,112	17,322	-21	0	0
1960	52	0	4,801	-22,215	17,492	-35	0	0
1961	1,108	0	5,732	-22,307	17,738	-27	0	0
1962	-1,721	0	3,203	-22,397	17,405	-36	0	0
1963	-1,431	0	3,830	-22,480	17,387	-29	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1964	-3,212	0	2,344	-22,578	17,074	-50	0	0
1965	-2,657	0	2,866	-22,663	16,989	-58	0	0
1966	290	0	5,653	-22,750	17,417	-71	0	0
1967	-1,263	0	4,240	-22,814	17,358	-78	0	0
1968	942	0	6,161	-22,878	17,713	-68	0	0
1969	-1,690	0	3,824	-22,924	17,479	-57	0	0
1970	-276	0	5,151	-22,965	17,636	-100	0	0
1971	-2,337	0	3,454	-23,027	17,395	-160	0	0
1972	-1,693	0	4,002	-23,056	17,396	-63	0	0
1973	-687	0	4,920	-23,087	17,531	-58	0	0
1974	1,845	0	7,059	-23,126	17,995	-64	0	0
1975	-1,395	0	4,041	-23,157	17,714	-60	0	0
1976	-1,537	0	4,233	-23,176	17,633	-62	0	0
1977	-1,122	0	4,524	-23,203	17,642	-70	0	0
1978	1,448	0	6,709	-23,228	18,054	-94	0	0
1979	49	0	5,356	-23,233	18,035	-120	0	0
1980	-1,128	0	4,431	-23,246	17,870	-170	0	0
1981	1,021	0	6,293	-23,257	18,144	-180	0	0
1982	-1,169	0	4,273	-23,269	17,929	-127	0	0
1983	-2,064	0	3,566	-23,283	17,722	-112	0	0
1984	809	0	6,194	-23,297	18,099	-207	0	0
1985	-779	0	4,755	-23,305	17,999	-246	0	0
1986	1,644	0	6,716	-23,313	18,361	-113	0	0
1987	373	0	5,441	-23,311	18,311	-67	0	0
1988	-1,394	0	3,989	-23,310	18,065	-60	0	0
1989	772	0	5,824	-23,316	18,296	-39	0	0
1990	1,756	0	6,544	-23,321	18,536	-48	0	0
1991	3,568	0	8,037	-23,322	18,975	-53	0	0
1992	913	0	5,501	-23,320	18,780	-49	0	0
1993	-21	0	4,741	-23,324	18,604	-38	0	0
1994	-2,478	0	2,813	-23,331	18,175	-83	0	0
1995	-1,647	0	3,665	-23,345	18,090	-51	0	0
1996	-524	0	4,695	-23,361	18,197	-53	0	0

<b>Middle Pecos Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1997	17	0	5,138	-23,380	18,306	-86	0	0
1998	-2,516	0	2,945	-23,397	17,964	-44	0	0
1999	-552	0	4,788	-23,417	18,126	-52	0	0
2000	-1,447	0	4,022	-23,439	18,046	-79	0	0
2001	-3,132	0	2,595	-23,455	17,744	-37	0	0
2002	-2,402	0	3,394	-23,469	17,717	-40	0	0
2003	-1,898	0	4,055	-23,466	17,783	-41	0	0
2004	2,089	0	7,211	-23,464	18,397	-48	0	0
2005	-538	0	4,728	-23,459	18,268	-51	0	0

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1931	0	0	0	0	365	0	0	0
1932	0	0	0	-113	112	0	0	0
1933	0	0	0	-113	113	0	0	0
1934	-1	0	0	-113	113	0	0	0
1935	-1	0	0	-113	113	0	0	0
1936	-1	0	0	-113	113	0	0	0
1937	-1	0	0	-113	113	0	0	0
1938	-1	0	0	-113	113	0	0	0
1939	-1	0	0	-113	113	0	0	0
1940	-1	0	0	-113	113	0	0	0
1941	-1	0	0	-113	113	0	0	0
1942	-1	0	0	-113	112	0	0	0
1943	-1	0	0	-113	112	0	0	0
1944	-1	0	0	-113	112	0	0	0
1945	-1	0	0	-113	112	0	0	0
1946	-1	0	0	-113	112	0	0	0
1947	-1	0	0	-113	113	0	0	0

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<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1948	-1	0	0	-113	112	0	0	0
1949	-1	0	0	-113	112	0	0	0
1950	-2	0	0	-113	112	0	0	0
1951	-2	0	0	-114	111	0	0	0
1952	-2	0	0	-114	112	0	0	0
1953	-2	0	0	-114	112	0	0	0
1954	-2	0	0	-114	111	0	0	0
1955	-2	0	0	-114	111	0	0	0
1956	-3	0	0	-114	111	0	0	0
1957	-2	0	0	-114	110	0	0	0
1958	-3	0	0	-114	110	0	0	0
1959	-3	0	0	-114	110	0	0	0
1960	-4	0	0	-114	110	0	0	0
1961	-4	0	0	-114	110	0	0	0
1962	-4	0	0	-114	111	0	0	0
1963	-5	0	0	-114	109	0	0	0
1964	-5	0	0	-114	109	0	0	0
1965	-5	0	0	-114	110	0	0	0
1966	-5	0	0	-114	109	0	0	0
1967	-5	0	0	-114	108	0	0	0
1968	-6	0	0	-114	109	0	0	0
1969	-6	0	0	-114	109	0	0	0
1970	-6	0	0	-114	108	0	0	0
1971	-6	0	0	-114	109	0	0	0
1972	-6	0	0	-114	108	0	0	0
1973	-7	0	0	-114	108	0	0	0
1974	-7	0	0	-114	108	0	0	0
1975	-7	0	0	-114	107	0	0	0
1976	-8	0	0	-114	107	0	0	0
1977	-7	0	0	-114	108	0	0	0
1978	-7	0	0	-114	107	0	0	0
1979	-7	0	0	-114	107	0	0	0
1980	-8	0	0	-114	107	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

<b>Reeves County Groundwater Conservation District</b>								
<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1981	-8	0	0	-114	106	0	0	0
1982	-8	0	0	-114	105	0	0	0
1983	-9	0	0	-114	105	0	0	0
1984	-10	0	0	-114	104	0	0	0
1985	-9	0	0	-114	105	0	0	0
1986	-9	0	0	-114	104	0	0	0
1987	-9	0	0	-114	105	0	0	0
1988	-10	0	0	-114	104	0	0	0
1989	-11	0	0	-114	103	0	0	0
1990	-10	0	0	-114	104	0	0	0
1991	-9	0	0	-114	105	0	0	0
1992	-9	0	0	-114	105	0	0	0
1993	-9	0	0	-114	105	0	0	0
1994	-9	0	0	-114	105	0	0	0
1995	-9	0	0	-114	105	0	0	0
1996	-9	0	0	-114	105	0	0	0
1997	-9	0	0	-114	105	0	0	0
1998	-9	0	0	-114	105	0	0	0
1999	-9	0	0	-114	104	0	0	0
2000	-9	0	0	-114	105	0	0	0
2001	-9	0	0	-114	104	0	0	0
2002	-10	0	0	-114	105	0	0	0
2003	-11	0	0	-114	104	0	0	0
2004	-10	0	0	-114	105	0	0	0
2005	-10	0	0	-114	104	0	0	0



**A.3 Water Budgets by Model Layer**

**Table A.3.1. Water budgets of the modeled area for model Layer 1—the Edwards-Trinity (Plateau) and Pecos Valley aquifers—for the period 1931 through 2005 expressed in acre-feet per year.**

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1931	0	43,465	305,349	779,444	1,096	-12,053	-365	-326,899
1932	-36,177	43,622	339,967	782,071	1	-25,905	-656	-327,763
1933	-63,572	43,541	260,530	779,408	2	-37,870	-652	-325,893
1934	-74,130	43,455	260,530	780,961	-2	-49,804	-648	-324,940
1935	-53,821	43,428	320,726	784,713	2	-63,573	-649	-325,605
1936	-58,942	43,373	302,776	788,786	0	-75,536	-648	-324,833
1937	-63,267	43,294	285,032	792,913	2	-87,500	-647	-324,024
1938	-100,375	43,195	278,774	797,139	-2	-101,240	-643	-322,983
1939	-116,986	43,093	275,716	802,050	1	-113,201	-640	-321,767
1940	-104,078	43,027	306,828	808,371	3	-125,168	-639	-321,384
1941	-138,454	43,019	368,556	816,236	-2	-138,911	-641	-321,999
1942	-132,534	42,919	294,668	822,643	-1	-150,882	-639	-319,869
1943	-167,220	42,798	272,691	827,353	1	-164,294	-634	-317,906
1944	-146,442	42,725	317,173	834,929	-1	-176,621	-633	-317,533
1945	-174,099	42,611	286,059	841,068	1	-188,563	-629	-315,693
1946	-173,269	42,502	296,196	849,101	0	-201,976	-626	-314,548
1947	-189,569	42,386	273,190	855,746	0	-214,304	-621	-313,040
1948	-227,819	42,242	263,555	861,580	1	-226,273	-615	-311,039
1949	-191,931	42,164	324,252	872,281	-1	-239,659	-615	-310,971
1950	-226,049	42,039	278,774	881,005	-1	-251,986	-610	-309,015
1951	-276,258	41,868	246,134	883,586	-1	-263,962	-603	-306,265
1952	-274,473	41,713	258,003	889,935	1	-277,390	-596	-304,487
1953	-287,473	41,552	254,448	896,795	0	-289,329	-590	-302,410
1954	-300,488	41,389	250,896	904,109	-1	-301,664	-584	-300,394
1955	-284,253	41,230	267,610	914,640	-1	-315,084	-579	-299,057
1956	-343,747	41,036	227,391	918,821	-1	-327,056	-571	-296,151
1957	-263,289	40,943	325,280	932,141	0	-339,369	-569	-296,923
1958	-287,058	40,864	337,443	938,719	0	-352,790	-569	-296,608
1959	-301,014	40,750	302,277	942,851	-1	-361,197	-565	-293,247
1960	-311,041	40,643	300,749	947,976	-1	-369,246	-561	-291,706
1961	-328,183	40,525	286,059	952,027	0	-377,601	-555	-289,199

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Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1962	-351,451	40,389	266,611	953,999	1	-385,632	-549	-286,926
1963	-330,843	40,270	265,084	959,281	2	-394,014	-543	-285,317
1964	-356,317	40,148	277,246	962,763	-1	-402,039	-537	-283,436
1965	-316,591	40,093	287,586	953,248	1	-375,035	-533	-282,508
1966	-300,261	40,077	282,506	938,034	1	-349,455	-529	-282,359
1967	-275,629	40,097	279,272	922,574	-1	-322,458	-525	-281,018
1968	-230,486	40,183	319,698	904,128	1	-295,451	-525	-282,792
1969	-211,649	40,286	318,172	885,931	-2	-269,900	-524	-282,427
1970	-224,059	40,327	279,272	874,741	-1	-265,195	-521	-281,623
1971	-203,699	40,384	304,306	870,032	-2	-262,251	-519	-281,889
1972	-167,060	40,377	292,140	871,453	-1	-277,756	-517	-281,329
1973	-205,818	40,369	304,306	879,061	3	-278,521	-516	-280,972
1974	-202,741	40,374	319,698	879,520	-1	-280,670	-515	-280,996
1975	-184,689	40,378	300,749	874,252	1	-252,811	-513	-280,318
1976	-140,083	40,420	318,172	864,659	-1	-225,142	-513	-280,745
1977	-175,222	40,428	269,638	851,340	0	-196,852	-509	-279,621
1978	-138,301	40,495	310,385	841,202	0	-168,707	-509	-280,356
1979	-134,501	40,549	288,587	828,035	-3	-137,745	-507	-280,361
1980	-134,546	40,549	296,696	835,883	-1	-166,965	-507	-280,357
1981	-117,629	40,574	321,725	837,566	0	-160,013	-508	-280,993
1982	-138,224	40,556	286,059	834,851	-1	-155,081	-506	-280,290
1983	-146,798	40,526	272,692	831,813	-2	-151,091	-504	-279,694
1984	-128,084	40,518	290,115	829,620	1	-144,457	-503	-279,855
1985	-116,835	40,553	311,383	822,742	-3	-124,023	-504	-280,508
1986	-108,463	40,639	338,440	812,397	-1	-110,111	-507	-281,962
1987	-113,332	40,700	317,173	804,285	0	-93,361	-509	-282,186
1988	-132,629	40,698	271,165	802,058	0	-99,202	-506	-281,357
1989	-117,314	40,667	266,611	803,275	0	-124,264	-505	-280,921
1990	-97,219	40,699	324,253	802,830	0	-99,298	-507	-282,754
1991	-91,557	40,745	335,418	799,894	1	-93,728	-510	-283,229
1992	-85,623	40,787	338,440	798,836	1	-93,708	-513	-283,636
1993	-118,369	40,717	274,718	811,470	-2	-161,566	-510	-281,885
1994	-103,938	40,669	286,059	812,081	0	-157,744	-508	-281,478
1995	-122,426	40,587	277,246	818,903	1	-173,147	-506	-280,534
1996	-114,574	40,524	275,717	816,642	0	-164,169	-503	-279,889

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1997	-91,136	40,497	313,940	819,269	0	-168,896	-504	-280,110
1998	-127,180	40,418	271,165	822,186	-3	-172,185	-500	-278,926
1999	-124,392	40,346	269,638	822,196	0	-170,472	-498	-278,196
2000	-119,876	40,272	280,799	828,972	0	-178,264	-495	-277,866
2001	-116,382	40,242	271,165	818,444	0	-158,703	-493	-277,353
2002	-92,989	40,240	290,613	812,539	-1	-156,457	-493	-277,618
2003	-86,299	40,312	292,140	788,206	2	-126,779	-492	-277,953
2004	-89,783	40,454	390,531	794,665	0	-127,876	-499	-281,085
2005	-80,684	40,451	290,613	792,781	2	-132,347	-499	-279,731

**Table A.3.2. Water budgets of the modeled area for model Layer 2—the Dockum Aquifer and Dewey Lake Formation—for the period 1931 through 2005 expressed in acre-feet per year.**

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1931	0	0	5,114	767,025	-365	0	0	0
1932	-161	0	5,709	768,727	-1	0	0	0
1933	-306	0	4,372	763,552	0	0	0	0
1934	-356	0	4,372	763,541	-1	0	0	0
1935	-266	0	5,382	765,987	-1	0	0	0
1936	-319	0	5,082	767,819	0	0	0	0
1937	-148	0	4,780	762,090	0	0	0	0
1938	-491	0	4,683	769,801	0	0	0	0
1939	-584	0	4,631	773,967	-2	0	0	0
1940	-588	0	5,151	776,580	2	0	0	0
1941	-776	0	6,188	781,693	-1	0	0	0
1942	-680	0	4,943	783,853	2	0	0	0
1943	-910	0	4,579	786,569	0	0	0	0
1944	-785	0	5,321	790,760	3	0	0	0
1945	-913	0	4,798	792,191	1	0	0	0
1946	-823	0	4,971	795,742	0	0	0	0
1947	-742	0	4,587	798,224	1	0	0	0
1948	-1,270	0	4,423	803,936	0	0	0	0

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<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1949	-884	0	5,441	807,763	1	0	0	0
1950	-1,012	0	4,683	808,636	0	0	0	0
1951	-1,538	0	4,134	815,654	-3	0	0	0
1952	-1,448	0	4,330	816,362	-1	0	0	0
1953	-1,501	0	4,269	819,735	1	0	0	0
1954	-1,561	0	4,208	823,415	0	0	0	0
1955	-1,274	0	4,490	823,128	-1	0	0	0
1956	-1,833	0	3,816	832,406	1	0	0	0
1957	-1,300	0	5,459	835,974	0	0	0	0
1958	-1,619	0	5,666	846,621	0	0	0	0
1959	-1,518	0	5,075	846,417	-2	0	0	0
1960	-1,763	0	5,048	851,943	1	0	0	0
1961	-1,620	0	4,798	854,663	-1	0	0	0
1962	-1,713	0	4,475	852,430	0	0	0	0
1963	-1,180	0	4,448	852,196	1	0	0	0
1964	-1,922	0	4,655	860,245	1	0	0	0
1965	-1,456	0	4,827	856,989	1	0	0	0
1966	-1,508	0	4,737	847,777	-1	0	0	0
1967	-1,108	0	4,690	838,833	-2	0	0	0
1968	-1,070	0	5,363	831,025	-1	0	0	0
1969	-905	0	5,336	821,849	-1	0	0	0
1970	-869	0	4,690	813,560	1	0	0	0
1971	-1,006	0	5,109	814,196	-1	0	0	0
1972	-290	0	4,902	792,002	-3	0	0	0
1973	-934	0	5,109	816,008	1	0	0	0
1974	-982	0	5,363	817,623	0	0	0	0
1975	-767	0	5,048	815,491	1	0	0	0
1976	-380	0	5,336	801,976	1	0	0	0
1977	-915	0	4,526	801,725	-1	0	0	0
1978	-665	0	5,213	797,208	1	0	0	0
1979	-386	0	4,842	787,309	-1	0	0	0
1980	-531	0	4,980	790,609	0	0	0	0
1981	-413	0	5,397	793,258	-2	0	0	0
1982	-542	0	4,798	791,090	-1	0	0	0
1983	-596	0	4,579	788,610	0	0	0	0

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1984	-500	0	4,868	788,567	1	0	0	0
1985	-391	0	5,228	785,201	-1	0	0	0
1986	-435	0	5,681	781,182	2	0	0	0
1987	-298	0	5,321	776,910	0	0	0	0
1988	-432	0	4,554	775,375	3	0	0	0
1989	-469	0	4,475	773,820	0	0	0	0
1990	-369	0	5,441	776,856	1	0	0	0
1991	-214	0	5,632	774,842	-1	0	0	0
1992	-167	0	5,681	773,944	0	0	0	0
1993	-476	0	4,616	778,232	2	0	0	0
1994	-447	0	4,798	778,893	0	0	0	0
1995	-595	0	4,655	780,918	-2	0	0	0
1996	-551	0	4,631	778,248	-3	0	0	0
1997	-546	0	5,274	783,998	1	0	0	0
1998	-578	0	4,554	782,021	0	0	0	0
1999	-614	0	4,526	781,579	2	0	0	0
2000	-581	0	4,717	786,035	1	0	0	0
2001	-528	0	4,554	780,102	1	0	0	0
2002	-430	0	4,875	776,381	0	0	0	0
2003	-251	0	4,902	766,592	2	0	0	0
2004	-485	0	6,553	771,259	-1	0	0	0
2005	-284	0	4,875	767,580	-1	0	0	0

**Table A.3.3. Water budgets of the modeled area for model Layer 3—the Rustler Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1931	0	5,844	365	278,686	0	-2,557	0	0
1932	-231	5,845	260	279,066	-1	-2,663	0	0
1933	-488	5,843	199	276,857	0	-2,663	0	0
1934	-587	5,843	199	276,777	1	-2,663	0	0
1935	-446	5,843	245	277,589	-1	-2,663	0	0

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<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1936	-568	5,842	231	278,045	1	-2,663	0	0
1937	-239	5,842	218	270,545	-1	-2,669	0	0
1938	-894	5,841	213	277,847	-1	-2,676	0	0
1939	-1,056	5,840	211	277,745	0	-2,682	0	0
1940	-1,111	5,839	235	279,067	-2	-2,688	0	0
1941	-1,370	5,837	281	280,272	3	-2,692	0	0
1942	-1,273	5,836	225	280,022	-1	-2,696	0	0
1943	-1,708	5,834	208	280,661	-1	-2,701	0	0
1944	-1,512	5,834	242	281,578	-1	-2,704	0	0
1945	-1,744	5,832	218	281,484	0	-2,707	0	0
1946	-1,571	5,832	226	281,386	0	-2,711	0	0
1947	-1,353	5,833	209	278,718	1	-2,717	0	0
1948	-2,437	5,831	201	283,834	0	-2,790	0	0
1949	-1,687	5,831	248	284,989	0	-2,832	0	0
1950	-1,904	5,830	213	282,577	0	-2,913	0	0
1951	-2,941	5,830	188	286,215	-1	-3,131	0	0
1952	-2,807	5,828	197	286,259	-1	-3,220	0	0
1953	-2,907	5,827	194	286,826	-2	-3,341	0	0
1954	-3,021	5,826	191	287,630	0	-3,192	0	0
1955	-2,447	5,825	205	288,350	-2	-3,143	0	0
1956	-3,506	5,824	174	288,467	-1	-3,140	0	0
1957	-2,572	5,823	248	289,195	-1	-3,171	0	0
1958	-3,234	5,822	258	293,211	-1	-3,156	0	0
1959	-3,047	5,821	231	292,926	0	-3,174	0	0
1960	-3,485	5,819	230	294,752	0	-3,189	0	0
1961	-3,240	5,818	218	295,764	0	-3,427	0	0
1962	-3,388	5,817	204	295,154	0	-3,861	0	0
1963	-2,225	5,817	202	288,665	-2	-4,284	0	0
1964	-3,945	5,817	212	297,065	-2	-4,697	0	0
1965	-2,965	5,816	219	297,775	-1	-5,068	0	0
1966	-3,113	5,814	216	297,300	1	-5,437	0	0
1967	-2,273	5,814	214	295,295	0	-5,798	0	0
1968	-2,295	5,813	244	296,363	-1	-6,150	0	0
1969	-1,993	5,813	243	295,667	0	-6,500	0	0
1970	-1,804	5,813	214	293,616	0	-6,858	0	0

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<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1971	-2,010	5,811	232	295,280	0	-7,352	0	0
1972	-515	5,811	223	275,111	1	-7,135	0	0
1973	-1,943	5,810	232	294,103	-2	-6,919	0	0
1974	-2,030	5,809	244	294,670	-1	-6,490	0	0
1975	-1,550	5,809	230	294,477	-2	-5,807	0	0
1976	-748	5,810	243	288,372	-1	-5,029	0	0
1977	-1,703	5,809	206	292,118	0	-4,642	0	0
1978	-1,181	5,809	237	291,620	-2	-4,259	0	0
1979	-658	5,808	220	289,654	-2	-3,893	0	0
1980	-897	5,807	227	289,218	-2	-3,825	0	0
1981	-723	5,808	246	290,087	1	-3,754	0	0
1982	-899	5,808	218	289,140	2	-3,683	0	0
1983	-974	5,807	208	288,332	-2	-3,617	0	0
1984	-827	5,807	221	289,014	1	-3,546	0	0
1985	-673	5,807	238	288,784	-1	-3,448	0	0
1986	-725	5,807	259	288,946	0	-3,372	0	0
1987	-502	5,806	242	288,146	0	-3,280	0	0
1988	-679	5,807	207	287,697	2	-3,176	0	0
1989	-721	5,806	204	286,428	3	-3,142	0	0
1990	-626	5,806	248	288,146	-1	-3,045	0	0
1991	-390	5,805	256	287,622	0	-2,978	0	0
1992	-306	5,805	259	287,362	0	-2,942	0	0
1993	-765	5,806	210	287,071	1	-3,280	0	0
1994	-711	5,805	218	287,092	0	-2,965	0	0
1995	-942	5,805	212	286,791	0	-2,940	0	0
1996	-879	5,805	211	285,544	0	-2,933	0	0
1997	-909	5,805	240	288,639	0	-2,928	0	0
1998	-908	5,804	207	286,907	-1	-2,874	0	0
1999	-977	5,804	206	287,015	-1	-2,877	0	0
2000	-924	5,804	215	288,690	-1	-2,865	0	0
2001	-848	5,803	207	286,905	-2	-2,843	0	0
2002	-696	5,803	222	286,801	0	-2,835	0	0
2003	-400	5,803	223	286,267	1	-2,774	0	0
2004	-827	5,803	298	288,529	2	-4,784	0	0
2005	-452	5,803	222	286,294	-1	-3,867	0	0

**Table A.3.4. Water budgets of the modeled area for model Layer 4—the confining unit above the Capitan Reef Complex Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1931	0	14,610	365	114,689	0	0	0	0
1932	-77	14,343	381	114,659	0	0	0	0
1933	-116	14,341	292	114,664	0	0	0	0
1934	-174	14,342	292	114,679	0	0	0	0
1935	-182	14,344	360	114,721	0	0	0	0
1936	-201	14,344	339	114,791	0	0	0	0
1937	-281	14,344	318	114,846	0	0	0	0
1938	-240	14,344	313	114,896	0	0	0	0
1939	-395	14,345	309	114,988	0	0	0	0
1940	-477	14,348	344	115,109	0	0	0	0
1941	-591	14,350	414	115,272	0	0	0	0
1942	-621	14,349	330	115,385	0	0	0	0
1943	-724	14,351	306	115,511	0	0	0	0
1944	-786	14,354	355	115,691	0	0	0	0
1945	-876	14,356	320	115,848	0	0	0	0
1946	-917	14,359	332	116,031	0	0	0	0
1947	-1,044	14,361	306	116,229	0	0	0	0
1948	-1,136	14,366	295	116,418	0	0	0	0
1949	-1,220	14,371	362	116,634	0	0	0	0
1950	-1,135	14,374	313	116,825	0	0	0	0
1951	-1,445	14,378	276	117,066	0	0	0	0
1952	-1,571	14,384	290	117,320	0	0	0	0
1953	-1,716	14,390	285	117,588	0	0	0	0
1954	-1,847	14,397	281	117,875	0	0	0	0
1955	-1,767	14,404	299	118,135	0	0	0	0
1956	-2,102	14,411	255	118,454	0	0	0	0
1957	-2,253	14,422	365	118,808	0	0	0	0
1958	-2,121	14,430	379	119,179	0	0	0	0
1959	-2,163	14,436	339	119,453	0	0	0	0
1960	-2,291	14,444	337	119,836	0	0	0	0
1961	-2,364	14,453	320	120,160	0	0	0	0
1962	-2,447	14,462	299	120,445	0	0	0	0



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<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1963	-2,598	14,472	297	120,804	0	0	0	0
1964	-2,459	14,482	311	121,091	0	0	0	0
1965	-2,541	14,492	323	121,375	0	0	0	0
1966	-2,516	14,503	316	121,704	0	0	0	0
1967	-2,345	14,512	313	121,896	0	0	0	0
1968	-2,414	14,524	358	122,159	0	0	0	0
1969	-2,273	14,535	355	122,314	0	0	0	0
1970	-2,281	14,544	313	122,470	0	0	0	0
1971	-2,141	14,555	341	122,699	0	0	0	0
1972	-2,632	14,566	327	122,917	0	0	0	0
1973	-1,622	14,571	341	122,924	0	0	0	0
1974	-1,903	14,581	358	123,055	0	0	0	0
1975	-1,895	14,589	337	123,125	0	0	0	0
1976	-1,910	14,598	355	123,209	0	0	0	0
1977	-1,696	14,604	302	123,262	0	0	0	0
1978	-1,643	14,612	348	123,362	0	0	0	0
1979	-1,289	14,617	323	123,315	0	0	0	0
1980	-1,583	14,624	332	123,352	0	0	0	0
1981	-1,374	14,631	360	123,375	0	0	0	0
1982	-1,363	14,635	320	123,386	0	0	0	0
1983	-1,367	14,641	306	123,398	0	0	0	0
1984	-1,311	14,647	325	123,449	0	0	0	0
1985	-1,261	14,653	348	123,471	0	0	0	0
1986	-1,263	14,658	379	123,532	0	0	0	0
1987	-1,040	14,662	355	123,510	0	0	0	0
1988	-1,162	14,665	304	123,495	0	0	0	0
1989	-1,146	14,670	299	123,526	0	0	0	0
1990	-971	14,674	362	123,555	0	0	0	0
1991	-877	14,678	376	123,572	0	0	0	0
1992	-906	14,681	379	123,554	0	0	0	0
1993	-905	14,682	309	123,548	0	0	0	0
1994	-817	14,686	320	123,527	0	0	0	0
1995	-958	14,690	311	123,560	0	0	0	0
1996	-1,012	14,694	309	123,625	0	0	0	0
1997	-935	14,698	353	123,694	0	0	0	0

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1998	-960	14,701	304	123,728	0	0	0	0
1999	-1,058	14,705	302	123,812	0	0	0	0
2000	-1,059	14,709	316	123,891	0	0	0	0
2001	-957	14,712	304	123,924	0	0	0	0
2002	-1,036	14,717	325	123,989	0	0	0	0
2003	-724	14,720	327	123,967	0	0	0	0
2004	-882	14,726	437	124,017	0	0	0	0
2005	-713	14,726	325	123,990	0	0	0	0

**Table A.3.5. Water budgets of the modeled area for model Layer 5—the Capitan Reef Complex Aquifer—for the period 1931 through 2005 expressed in acre-feet per year.**

Year	Storage	General-Head Boundary	Recharge	Inter-Aquifer	Lateral Flow	Wells	Drains	River Leakage
1931	0	28,855	36,160	1,096	365	0	0	0
1932	-23,912	28,785	59,794	1,079	0	-43	0	0
1933	-3,490	28,787	35,687	1,074	2	-48	0	0
1934	-13,596	28,786	23,414	1,071	1	-62	0	0
1935	-2,282	28,785	38,268	1,073	2	-87	0	0
1936	-17,433	28,787	53,687	1,073	1	-98	0	0
1937	-5,765	28,788	41,918	1,071	1	-98	0	0
1938	-3,038	28,791	37,827	1,070	-2	-92	0	0
1939	-2,359	28,792	37,449	1,069	1	-64	0	0
1940	-11,793	28,794	48,339	1,070	1	-70	0	0
1941	-52,894	28,802	89,059	1,076	1	-74	0	0
1942	-11,755	28,807	45,821	1,075	-2	-41	0	0
1943	-8,394	28,810	35,687	1,072	1	-52	0	0
1944	-27,334	28,814	63,632	1,074	-1	-75	0	0
1945	-8,924	28,817	41,981	1,072	1	-70	0	0
1946	-18,165	28,822	54,506	1,072	1	-62	0	0
1947	-15,852	28,826	50,352	1,070	1	-49	0	0
1948	-9,333	28,828	33,233	1,067	0	-73	0	0
1949	-13,000	28,832	48,589	1,070	0	-83	0	0

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<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1950	-15,502	28,836	50,416	1,069	-1	-117	0	0
1951	-10,449	28,838	30,715	1,065	-2	-135	0	0
1952	-8,258	28,840	32,099	1,062	0	-109	0	0
1953	-13,921	28,841	25,491	1,060	1	-160	0	0
1954	-13,783	28,842	25,113	1,058	1	-158	0	0
1955	-4,401	28,844	37,134	1,057	0	-104	0	0
1956	-14,392	28,847	24,610	1,053	-1	-150	0	0
1957	-4,544	28,851	36,631	1,058	1	-234	0	0
1958	-26,948	28,859	61,870	1,063	0	-288	0	0
1959	-9,207	28,864	30,841	1,064	-2	-426	0	0
1960	-11,413	28,872	45,758	1,065	0	-357	0	0
1961	-20,167	28,882	54,632	1,065	0	-396	0	0
1962	-10,608	28,889	30,526	1,063	0	-308	0	0
1963	-4,977	28,896	36,505	1,060	-2	-383	0	0
1964	-18,247	28,901	22,344	1,060	0	-351	0	0
1965	-12,461	28,907	27,315	1,061	0	-267	0	0
1966	-20,591	28,916	53,876	1,060	-1	-205	0	0
1967	-6,755	28,927	40,408	1,060	0	-166	0	0
1968	-25,149	28,939	58,722	1,063	1	-335	0	0
1969	-7,104	28,948	36,443	1,065	0	-229	0	0
1970	-15,491	28,959	49,093	1,064	0	-321	0	0
1971	-9,544	28,967	32,918	1,065	2	-307	0	0
1972	-5,719	28,975	38,142	1,064	0	-194	0	0
1973	-13,633	28,984	46,890	1,065	1	-200	0	0
1974	-33,382	28,997	67,283	1,067	-2	-247	0	0
1975	-9,195	29,007	38,519	1,067	0	-279	0	0
1976	-8,813	29,015	40,345	1,069	0	-297	0	0
1977	-9,580	29,024	43,114	1,066	1	-351	0	0
1978	-30,198	29,035	63,947	1,068	-1	-391	0	0
1979	-16,899	29,046	51,044	1,067	0	-388	0	0
1980	-10,696	29,053	42,232	1,067	2	-606	0	0
1981	-26,097	29,063	59,982	1,069	0	-583	0	0
1982	-10,638	29,071	40,723	1,068	-2	-592	0	0
1983	-10,692	29,076	33,988	1,066	1	-699	0	0
1984	-25,323	29,083	59,037	1,066	0	-739	0	0

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<b>Year</b>	<b>Storage</b>	<b>General-Head Boundary</b>	<b>Recharge</b>	<b>Inter-Aquifer</b>	<b>Lateral Flow</b>	<b>Wells</b>	<b>Drains</b>	<b>River Leakage</b>
1985	-11,959	29,091	45,317	1,067	-1	-692	0	0
1986	-29,836	29,099	64,010	1,071	-1	-373	0	0
1987	-17,696	29,107	51,862	1,072	1	-416	0	0
1988	-10,923	29,111	38,016	1,069	-1	-530	0	0
1989	-21,162	29,118	55,513	1,066	-1	-466	0	0
1990	-28,162	29,126	62,373	1,069	-3	-431	0	0
1991	-41,690	29,135	76,598	1,072	-1	-369	0	0
1992	-18,960	29,141	52,429	1,075	-1	-279	0	0
1993	-14,427	29,146	45,190	1,072	-1	-405	0	0
1994	-18,944	29,148	26,813	1,072	-1	-546	0	0
1995	-10,354	29,148	34,931	1,070	0	-437	0	0
1996	-10,618	29,151	44,750	1,068	-1	-560	0	0
1997	-14,778	29,154	48,967	1,070	1	-697	0	0
1998	-15,470	29,155	28,071	1,068	0	-411	0	0
1999	-11,219	29,157	45,632	1,066	-1	-335	0	0
2000	-6,564	29,158	38,331	1,066	2	-487	0	0
2001	-17,693	29,158	24,736	1,065	0	-540	0	0
2002	-9,761	29,158	32,350	1,066	0	-259	0	0
2003	-6,817	29,161	38,646	1,067	-1	-554	0	0
2004	-34,139	29,167	68,730	1,076	-1	-527	0	0
2005	-11,840	29,173	45,065	1,074	2	-858	0	0

## APPENDIX B TARGETS

### B.1 Simulated and Measured Water Levels at Wells

Table B.1.1. Water-level targets, simulated values, and residuals in Layer 1—the Edwards-Trinity (Plateau) and Pecos Valley aquifers. AMSL – above mean sea level.

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4510801	1	205	217	26	1956	2868	2711	157
4510801	1	205	217	37	1967	2868	2710	158
4510801	1	205	217	44	1974	2865	2710	155
4510801	1	205	217	45	1975	2858	2710	148
4510801	1	205	217	46	1976	2867	2710	157
4510801	1	205	217	47	1977	2857	2710	147
4510801	1	205	217	48	1978	2853	2710	143
4510801	1	205	217	50	1980	2861	2710	151
4510801	1	205	217	51	1981	2857	2710	147
4510801	1	205	217	52	1982	2857	2710	147
4510801	1	205	217	53	1983	2858	2710	148
4510801	1	205	217	54	1984	2867	2710	157
4510801	1	205	217	57	1987	2861	2710	151
4510801	1	205	217	58	1988	2866	2710	156
4510801	1	205	217	59	1989	2860	2710	150
4510801	1	205	217	60	1990	2864	2710	154
4510801	1	205	217	62	1992	2862	2710	152
4517801	1	218	198	26	1956	2594	2628	-34
4517801	1	218	198	27	1957	2594	2628	-34
4517801	1	218	198	29	1959	2593	2628	-35
4517801	1	218	198	31	1961	2593	2628	-35
4517801	1	218	198	32	1962	2593	2628	-35
4517801	1	218	198	33	1963	2593	2628	-35
4517801	1	218	198	34	1964	2593	2628	-35
4517801	1	218	198	35	1965	2592	2628	-36
4517801	1	218	198	36	1966	2591	2628	-37
4517801	1	218	198	37	1967	2593	2628	-35
4517801	1	218	198	40	1970	2591	2628	-37
4517901	1	214	204	26	1956	2688	2642	46

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4517901	1	214	204	28	1958	2688	2642	46
4517901	1	214	204	30	1960	2688	2642	46
4517901	1	214	204	31	1961	2688	2642	46
4517901	1	214	204	32	1962	2688	2642	46
4517901	1	214	204	33	1963	2688	2642	46
4517901	1	214	204	34	1964	2688	2642	46
4517901	1	214	204	35	1965	2687	2642	45
4517901	1	214	204	36	1966	2687	2642	45
4517901	1	214	204	37	1967	2687	2642	45
4517901	1	214	204	38	1968	2687	2642	45
4517901	1	214	204	39	1969	2687	2642	45
4517901	1	214	204	41	1971	2688	2642	46
4517901	1	214	204	42	1972	2687	2642	45
4517901	1	214	204	43	1973	2687	2642	45
4517901	1	214	204	44	1974	2688	2642	46
4517901	1	214	204	45	1975	2689	2642	47
4517901	1	214	204	46	1976	2689	2642	47
4517901	1	214	204	47	1977	2688	2642	46
4517901	1	214	204	48	1978	2689	2642	47
4517901	1	214	204	50	1980	2691	2641	50
4517901	1	214	204	54	1984	2691	2641	50
4517901	1	214	204	57	1987	2691	2641	50
4525204	1	218	197	26	1956	2591	2628	-37
4525204	1	218	197	27	1957	2590	2628	-38
4525204	1	218	197	29	1959	2590	2628	-38
4525204	1	218	197	31	1961	2590	2628	-38
4525204	1	218	197	32	1962	2590	2628	-38
4525204	1	218	197	33	1963	2590	2628	-38
4525204	1	218	197	34	1964	2589	2627	-38
4525204	1	218	197	35	1965	2589	2627	-38
4525204	1	218	197	36	1966	2588	2627	-39
4525204	1	218	197	37	1967	2589	2627	-38
4525204	1	218	197	38	1968	2589	2627	-38
4525204	1	218	197	39	1969	2589	2627	-38

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4525204	1	218	197	41	1971	2588	2627	-39
4525204	1	218	197	42	1972	2589	2627	-38
4525204	1	218	197	43	1973	2589	2627	-38
4525204	1	218	197	44	1974	2589	2627	-38
4525204	1	218	197	46	1976	2588	2627	-39
4525204	1	218	197	47	1977	2588	2627	-39
4525204	1	218	197	48	1978	2588	2627	-39
4525204	1	218	197	50	1980	2588	2627	-39
4525204	1	218	197	52	1982	2588	2627	-39
4525204	1	218	197	54	1984	2589	2626	-37
4525204	1	218	197	56	1986	2590	2626	-36
4525204	1	218	197	57	1987	2590	2626	-36
4525204	1	218	197	58	1988	2591	2626	-35
4525204	1	218	197	59	1989	2590	2626	-36
4525204	1	218	197	60	1990	2590	2626	-36
4525204	1	218	197	61	1991	2591	2626	-35
4525204	1	218	197	62	1992	2591	2626	-35
4525204	1	218	197	63	1993	2589	2626	-37
4525204	1	218	197	64	1994	2590	2625	-35
4525204	1	218	197	65	1995	2584	2625	-41
4525204	1	218	197	67	1997	2588	2625	-37
4525321	1	224	201	16	1946	2570	2609	-39
4525321	1	224	201	37	1967	2554	2607	-53
4525321	1	224	201	41	1971	2569	2607	-38
4525321	1	224	201	42	1972	2570	2607	-37
4525321	1	224	201	43	1973	2568	2607	-39
4525321	1	224	201	44	1974	2573	2607	-34
4525321	1	224	201	45	1975	2574	2607	-33
4525321	1	224	201	46	1976	2575	2607	-32
4525321	1	224	201	47	1977	2576	2607	-31
4525321	1	224	201	48	1978	2578	2607	-29
4525321	1	224	201	50	1980	2578	2607	-29
4525321	1	224	201	51	1981	2582	2607	-25
4525321	1	224	201	53	1983	2585	2607	-22

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4525321	1	224	201	56	1986	2589	2607	-18
4525321	1	224	201	57	1987	2588	2607	-19
4525321	1	224	201	58	1988	2590	2606	-16
4525321	1	224	201	59	1989	2589	2606	-17
4525321	1	224	201	60	1990	2589	2606	-17
4525321	1	224	201	61	1991	2589	2606	-17
4525321	1	224	201	62	1992	2589	2606	-17
4525321	1	224	201	63	1993	2585	2606	-21
4525321	1	224	201	64	1994	2589	2606	-17
4525321	1	224	201	65	1995	2588	2606	-18
4525321	1	224	201	66	1996	2588	2606	-18
4525321	1	224	201	67	1997	2588	2606	-18
4525321	1	224	201	68	1998	2588	2605	-17
4525321	1	224	201	69	1999	2587	2605	-18
4525321	1	224	201	70	2000	2587	2605	-18
4525321	1	224	201	71	2001	2585	2605	-20
4525321	1	224	201	72	2002	2586	2605	-19
4525321	1	224	201	74	2004	2584	2605	-21
4525321	1	224	201	75	2005	2585	2605	-20
4525709	1	230	187	41	1971	2517	2580	-63
4525709	1	230	187	51	1981	2481	2580	-99
4525709	1	230	187	52	1982	2480	2579	-99
4525709	1	230	187	53	1983	2482	2579	-97
4525709	1	230	187	54	1984	2479	2579	-100
4525709	1	230	187	55	1985	2479	2579	-100
4525709	1	230	187	56	1986	2478	2579	-101
4525709	1	230	187	57	1987	2479	2579	-100
4525709	1	230	187	58	1988	2483	2579	-96
4525709	1	230	187	59	1989	2451	2578	-127
4525709	1	230	187	60	1990	2477	2578	-101
4525709	1	230	187	61	1991	2479	2578	-99
4525709	1	230	187	62	1992	2478	2578	-100
4525709	1	230	187	63	1993	2478	2578	-100
4525709	1	230	187	64	1994	2478	2578	-100



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4525709	1	230	187	65	1995	2475	2578	-103
4525709	1	230	187	66	1996	2464	2578	-114
4525709	1	230	187	67	1997	2472	2578	-106
4525709	1	230	187	68	1998	2473	2578	-105
4525709	1	230	187	69	1999	2472	2578	-106
4525709	1	230	187	70	2000	2470	2577	-107
4525901	1	231	198	25	1955	2541	2582	-41
4525901	1	231	198	26	1956	2541	2581	-40
4525901	1	231	198	27	1957	2542	2582	-40
4525901	1	231	198	29	1959	2542	2582	-40
4525901	1	231	198	31	1961	2542	2582	-40
4525901	1	231	198	32	1962	2541	2581	-40
4525901	1	231	198	33	1963	2540	2581	-41
4525901	1	231	198	34	1964	2540	2581	-41
4525901	1	231	198	35	1965	2539	2581	-42
4525901	1	231	198	36	1966	2539	2581	-42
4525901	1	231	198	37	1967	2539	2581	-42
4525901	1	231	198	38	1968	2539	2581	-42
4525901	1	231	198	39	1969	2539	2581	-42
4525901	1	231	198	41	1971	2539	2581	-42
4525901	1	231	198	42	1972	2540	2581	-41
4525901	1	231	198	43	1973	2538	2581	-43
4525903	1	231	199	35	1965	2540	2582	-42
4525903	1	231	199	36	1966	2540	2582	-42
4525903	1	231	199	37	1967	2540	2582	-42
4525903	1	231	199	38	1968	2540	2582	-42
4525903	1	231	199	39	1969	2539	2582	-43
4525903	1	231	199	41	1971	2540	2582	-42
4525903	1	231	199	42	1972	2541	2582	-41
4525903	1	231	199	43	1973	2539	2582	-43
4525903	1	231	199	45	1975	2534	2581	-47
4525903	1	231	199	46	1976	2536	2581	-45
4525903	1	231	199	47	1977	2505	2581	-76
4525903	1	231	199	48	1978	2541	2581	-40

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4525903	1	231	199	50	1980	2542	2581	-39
4525903	1	231	199	52	1982	2547	2581	-34
4525903	1	231	199	56	1986	2543	2581	-38
4525903	1	231	199	57	1987	2543	2581	-38
4525903	1	231	199	58	1988	2545	2581	-36
4525903	1	231	199	59	1989	2544	2581	-37
4525903	1	231	199	60	1990	2544	2581	-37
4525903	1	231	199	61	1991	2543	2581	-38
4525903	1	231	199	62	1992	2543	2581	-38
4525903	1	231	199	63	1993	2543	2580	-37
4525903	1	231	199	64	1994	2543	2580	-37
4525903	1	231	199	65	1995	2542	2580	-38
4525903	1	231	199	66	1996	2543	2580	-37
4525903	1	231	199	67	1997	2542	2580	-38
4526202	1	224	211	37	1967	2654	2615	39
4526202	1	224	211	44	1974	2656	2615	41
4526202	1	224	211	45	1975	2657	2615	42
4526202	1	224	211	47	1977	2655	2615	40
4526202	1	224	211	48	1978	2657	2615	42
4526202	1	224	211	50	1980	2657	2615	42
4526202	1	224	211	51	1981	2657	2615	42
4526202	1	224	211	53	1983	2660	2615	45
4526202	1	224	211	54	1984	2659	2615	44
4526202	1	224	211	56	1986	2659	2615	44
4526202	1	224	211	57	1987	2658	2615	43
4526202	1	224	211	58	1988	2663	2615	48
4526202	1	224	211	59	1989	2659	2615	44
4526202	1	224	211	60	1990	2660	2615	45
4526202	1	224	211	61	1991	2662	2615	47
4526202	1	224	211	62	1992	2658	2615	43
4526202	1	224	211	63	1993	2658	2615	43
4526202	1	224	211	64	1994	2659	2615	44
4526202	1	224	211	65	1995	2655	2614	41
4526202	1	224	211	66	1996	2661	2614	47

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4526202	1	224	211	67	1997	2655	2614	41
4526202	1	224	211	68	1998	2660	2614	46
4526202	1	224	211	69	1999	2658	2614	44
4526202	1	224	211	70	2000	2657	2614	43
4526202	1	224	211	71	2001	2654	2613	41
4526202	1	224	211	72	2002	2658	2613	45
4526202	1	224	211	73	2003	2657	2613	44
4526202	1	224	211	74	2004	2657	2614	43
4526202	1	224	211	75	2005	2658	2614	44
4526703	1	235	201	37	1967	2511	2568	-57
4526703	1	235	201	44	1974	2511	2568	-57
4526703	1	235	201	45	1975	2511	2568	-57
4526703	1	235	201	46	1976	2512	2568	-56
4526703	1	235	201	47	1977	2512	2568	-56
4526703	1	235	201	48	1978	2510	2568	-58
4526703	1	235	201	50	1980	2505	2567	-62
4526703	1	235	201	51	1981	2509	2567	-58
4526703	1	235	201	53	1983	2513	2567	-54
4526703	1	235	201	54	1984	2512	2567	-55
4526703	1	235	201	56	1986	2512	2567	-55
4526703	1	235	201	57	1987	2512	2567	-55
4526703	1	235	201	58	1988	2513	2567	-54
4526703	1	235	201	59	1989	2513	2567	-54
4526703	1	235	201	60	1990	2513	2567	-54
4526703	1	235	201	61	1991	2515	2567	-52
4526703	1	235	201	62	1992	2513	2567	-54
4526703	1	235	201	63	1993	2513	2567	-54
4526703	1	235	201	64	1994	2513	2567	-54
4526703	1	235	201	65	1995	2512	2567	-55
4526703	1	235	201	66	1996	2512	2566	-54
4526703	1	235	201	67	1997	2513	2566	-53
4526703	1	235	201	68	1998	2513	2566	-53
4526703	1	235	201	69	1999	2512	2566	-54
4526703	1	235	201	70	2000	2512	2566	-54

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4526703	1	235	201	73	2003	2512	2566	-54
4526703	1	235	201	74	2004	2512	2566	-54
4526703	1	235	201	75	2005	2512	2566	-54
4533101	1	239	189	18	1948	2506	2543	-37
4533101	1	239	189	19	1949	2506	2543	-37
4533101	1	239	189	20	1950	2506	2543	-37
4533101	1	239	189	21	1951	2505	2543	-38
4533101	1	239	189	22	1952	2505	2543	-38
4533101	1	239	189	23	1953	2505	2542	-37
4533101	1	239	189	24	1954	2504	2542	-38
4533101	1	239	189	25	1955	2503	2542	-39
4533101	1	239	189	26	1956	2502	2542	-40
4533101	1	239	189	27	1957	2502	2542	-40
4533101	1	239	189	28	1958	2501	2542	-41
4533101	1	239	189	29	1959	2501	2542	-41
4533101	1	239	189	31	1961	2501	2542	-41
4533101	1	239	189	32	1962	2502	2542	-40
4533101	1	239	189	33	1963	2500	2542	-42
4533101	1	239	189	34	1964	2500	2542	-42
4533101	1	239	189	35	1965	2500	2542	-42
4533101	1	239	189	36	1966	2500	2542	-42
4533101	1	239	189	37	1967	2500	2542	-42
4533101	1	239	189	38	1968	2499	2542	-43
4533101	1	239	189	39	1969	2496	2542	-46
4533102	1	234	189	10	1940	2510	2566	-56
4533102	1	234	189	37	1967	2505	2564	-59
4533102	1	234	189	40	1970	2504	2564	-60
4533102	1	234	189	41	1971	2504	2564	-60
4533102	1	234	189	42	1972	2504	2564	-60
4533102	1	234	189	43	1973	2504	2564	-60
4533102	1	234	189	44	1974	2503	2564	-61
4533102	1	234	189	45	1975	2503	2564	-61
4533102	1	234	189	46	1976	2502	2564	-62
4533102	1	234	189	47	1977	2502	2564	-62

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4533102	1	234	189	50	1980	2499	2564	-65
4533102	1	234	189	52	1982	2497	2563	-66
4533102	1	234	189	54	1984	2495	2563	-68
4533102	1	234	189	56	1986	2493	2563	-70
4533102	1	234	189	57	1987	2493	2563	-70
4533102	1	234	189	58	1988	2492	2563	-71
4533102	1	234	189	59	1989	2491	2563	-72
4533102	1	234	189	60	1990	2491	2563	-72
4533102	1	234	189	61	1991	2490	2563	-73
4533102	1	234	189	62	1992	2489	2563	-74
4533102	1	234	189	63	1993	2472	2562	-90
4533102	1	234	189	64	1994	2485	2562	-77
4533102	1	234	189	65	1995	2488	2562	-74
4533102	1	234	189	66	1996	2479	2562	-83
4533102	1	234	189	67	1997	2487	2562	-75
4533501	1	243	191	19	1949	2493	2526	-33
4533501	1	243	191	20	1950	2492	2526	-34
4533501	1	243	191	21	1951	2492	2526	-34
4533501	1	243	191	22	1952	2492	2526	-34
4533501	1	243	191	24	1954	2491	2526	-35
4533501	1	243	191	25	1955	2491	2526	-35
4533501	1	243	191	26	1956	2491	2526	-35
4533501	1	243	191	27	1957	2491	2526	-35
4533501	1	243	191	28	1958	2490	2526	-36
4533501	1	243	191	29	1959	2489	2526	-37
4533501	1	243	191	31	1961	2489	2526	-37
4533501	1	243	191	32	1962	2488	2525	-37
4533501	1	243	191	33	1963	2486	2525	-39
4533501	1	243	191	34	1964	2486	2525	-39
4533501	1	243	191	35	1965	2487	2525	-38
4533501	1	243	191	36	1966	2484	2525	-41
4533501	1	243	191	37	1967	2486	2525	-39
4533501	1	243	191	38	1968	2487	2525	-38
4533501	1	243	191	39	1969	2486	2525	-39

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4533501	1	243	191	41	1971	2485	2525	-40
4533501	1	243	191	42	1972	2484	2525	-41
4533501	1	243	191	43	1973	2483	2525	-42
4533501	1	243	191	44	1974	2485	2525	-40
4533501	1	243	191	45	1975	2483	2525	-42
4533501	1	243	191	46	1976	2484	2525	-41
4533501	1	243	191	47	1977	2486	2525	-39
4533501	1	243	191	48	1978	2487	2525	-38
4533501	1	243	191	50	1980	2485	2525	-40
4533501	1	243	191	51	1981	2485	2525	-40
4533501	1	243	191	53	1983	2485	2525	-40
4533501	1	243	191	54	1984	2485	2525	-40
4533501	1	243	191	56	1986	2485	2524	-39
4533501	1	243	191	57	1987	2485	2524	-39
4533501	1	243	191	58	1988	2485	2524	-39
4533501	1	243	191	59	1989	2484	2524	-40
4533501	1	243	191	60	1990	2483	2524	-41
4533501	1	243	191	61	1991	2484	2524	-40
4533501	1	243	191	62	1992	2483	2524	-41
4533501	1	243	191	63	1993	2477	2524	-47
4533501	1	243	191	64	1994	2485	2524	-39
4533501	1	243	191	65	1995	2482	2524	-42
4533501	1	243	191	66	1996	2479	2524	-45
4533501	1	243	191	67	1997	2481	2524	-43
4533501	1	243	191	68	1998	2482	2524	-42
4533501	1	243	191	69	1999	2483	2524	-41
4533501	1	243	191	70	2000	2482	2524	-42
4533501	1	243	191	71	2001	2481	2524	-43
4533501	1	243	191	72	2002	2482	2524	-42
4533501	1	243	191	73	2003	2483	2524	-41
4533501	1	243	191	74	2004	2482	2524	-42
4533501	1	243	191	75	2005	2483	2524	-41
4533502	1	243	189	19	1949	2492	2524	-32
4533502	1	243	189	20	1950	2492	2524	-32

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4533502	1	243	189	21	1951	2491	2524	-33
4533502	1	243	189	22	1952	2489	2524	-35
4533502	1	243	189	23	1953	2488	2524	-36
4533502	1	243	189	24	1954	2488	2523	-35
4533502	1	243	189	25	1955	2487	2523	-36
4533502	1	243	189	26	1956	2487	2523	-36
4533502	1	243	189	28	1958	2486	2523	-37
4533502	1	243	189	31	1961	2485	2523	-38
4533502	1	243	189	32	1962	2485	2523	-38
4533502	1	243	189	33	1963	2484	2523	-39
4533502	1	243	189	34	1964	2490	2523	-33
4533502	1	243	189	35	1965	2485	2523	-38
4533502	1	243	189	36	1966	2485	2523	-38
4533502	1	243	189	37	1967	2484	2523	-39
4533502	1	243	189	38	1968	2484	2523	-39
4533502	1	243	189	39	1969	2483	2523	-40
4533503	1	243	192	18	1948	2500	2527	-27
4533503	1	243	192	19	1949	2500	2527	-27
4533503	1	243	192	20	1950	2500	2527	-27
4533503	1	243	192	21	1951	2500	2527	-27
4533503	1	243	192	22	1952	2499	2527	-28
4533503	1	243	192	23	1953	2499	2527	-28
4533503	1	243	192	24	1954	2498	2527	-29
4533504	1	245	189	18	1948	2490	2514	-24
4533504	1	245	189	19	1949	2490	2514	-24
4533504	1	245	189	20	1950	2490	2514	-24
4533504	1	245	189	21	1951	2467	2513	-46
4533504	1	245	189	22	1952	2485	2513	-28
4533504	1	245	189	37	1967	2483	2513	-30
4533505	1	244	189	18	1948	2492	2519	-27
4533505	1	244	189	19	1949	2492	2519	-27
4533505	1	244	189	20	1950	2491	2519	-28
4533505	1	244	189	21	1951	2477	2519	-42
4533505	1	244	189	37	1967	2484	2518	-34

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4533803	1	246	190	19	1949	2489	2510	-21
4533803	1	246	190	20	1950	2489	2510	-21
4533803	1	246	190	21	1951	2489	2510	-21
4533803	1	246	190	22	1952	2487	2510	-23
4533803	1	246	190	23	1953	2487	2510	-23
4533803	1	246	190	24	1954	2486	2509	-23
4533803	1	246	190	25	1955	2485	2509	-24
4533803	1	246	190	26	1956	2484	2509	-25
4533803	1	246	190	27	1957	2484	2509	-25
4533803	1	246	190	28	1958	2484	2509	-25
4533803	1	246	190	29	1959	2484	2509	-25
4533803	1	246	190	31	1961	2483	2509	-26
4533803	1	246	190	32	1962	2482	2509	-27
4533803	1	246	190	33	1963	2481	2509	-28
4533803	1	246	190	34	1964	2478	2509	-31
4533803	1	246	190	35	1965	2478	2509	-31
4533803	1	246	190	36	1966	2480	2509	-29
4533803	1	246	190	37	1967	2480	2509	-29
4533803	1	246	190	38	1968	2478	2509	-31
4533803	1	246	190	39	1969	2477	2509	-32
4533803	1	246	190	41	1971	2479	2509	-30
4533803	1	246	190	42	1972	2479	2509	-30
4533803	1	246	190	43	1973	2480	2509	-29
4533803	1	246	190	44	1974	2479	2509	-30
4533803	1	246	190	45	1975	2479	2509	-30
4533803	1	246	190	46	1976	2479	2509	-30
4533803	1	246	190	47	1977	2480	2509	-29
4533803	1	246	190	48	1978	2480	2509	-29
4533803	1	246	190	50	1980	2480	2509	-29
4533803	1	246	190	52	1982	2480	2509	-29
4533803	1	246	190	54	1984	2481	2508	-27
4533803	1	246	190	56	1986	2481	2508	-27
4533803	1	246	190	57	1987	2481	2508	-27
4533803	1	246	190	58	1988	2481	2508	-27



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4533803	1	246	190	59	1989	2482	2508	-26
4533803	1	246	190	60	1990	2485	2508	-23
4533803	1	246	190	61	1991	2482	2508	-26
4533803	1	246	190	62	1992	2481	2508	-27
4533803	1	246	190	63	1993	2478	2508	-30
4533803	1	246	190	64	1994	2481	2508	-27
4533803	1	246	190	65	1995	2482	2508	-26
4533806	1	247	190	18	1948	2484	2504	-20
4533806	1	247	190	19	1949	2484	2505	-21
4533806	1	247	190	20	1950	2477	2504	-27
4533806	1	247	190	22	1952	2475	2504	-29
4533806	1	247	190	23	1953	2477	2504	-27
4533806	1	247	190	24	1954	2477	2504	-27
4533806	1	247	190	25	1955	2479	2504	-25
4533807	1	246	188	18	1948	2495	2507	-12
4533807	1	246	188	19	1949	2495	2507	-12
4533807	1	246	188	20	1950	2494	2507	-13
4533807	1	246	188	21	1951	2494	2507	-13
4533807	1	246	188	22	1952	2492	2506	-14
4533807	1	246	188	23	1953	2491	2506	-15
4533807	1	246	188	25	1955	2489	2506	-17
4533807	1	246	188	26	1956	2488	2506	-18
4533809	1	245	188	18	1948	2498	2512	-14
4533809	1	245	188	19	1949	2506	2512	-6
4533809	1	245	188	20	1950	2502	2512	-10
4533809	1	245	188	21	1951	2498	2512	-14
4533809	1	245	188	22	1952	2492	2512	-20
4533809	1	245	188	23	1953	2493	2512	-19
4533809	1	245	188	24	1954	2494	2512	-18
4533809	1	245	188	25	1955	2492	2512	-20
4533809	1	245	188	26	1956	2490	2512	-22
4533809	1	245	188	27	1957	2490	2512	-22
4533809	1	245	188	28	1958	2489	2512	-23
4533809	1	245	188	29	1959	2487	2512	-25

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4533809	1	245	188	37	1967	2487	2511	-24
4533905	1	250	190	10	1940	2477	2488	-11
4533905	1	250	190	18	1948	2475	2488	-13
4533905	1	250	190	19	1949	2475	2488	-13
4533905	1	250	190	20	1950	2474	2488	-14
4533905	1	250	190	21	1951	2474	2488	-14
4533905	1	250	190	37	1967	2465	2487	-22
4534401	1	244	202	25	1955	2447	2534	-87
4534401	1	244	202	26	1956	2444	2534	-90
4534401	1	244	202	27	1957	2446	2534	-88
4534401	1	244	202	29	1959	2446	2534	-88
4534401	1	244	202	37	1967	2446	2534	-88
4534402	1	247	196	25	1955	2472	2513	-41
4534402	1	247	196	26	1956	2472	2513	-41
4534402	1	247	196	29	1959	2471	2513	-42
4534402	1	247	196	31	1961	2472	2513	-41
4534402	1	247	196	32	1962	2472	2513	-41
4534402	1	247	196	33	1963	2470	2513	-43
4534402	1	247	196	35	1965	2471	2513	-42
4534402	1	247	196	36	1966	2468	2513	-45
4534402	1	247	196	37	1967	2454	2513	-59
4534402	1	247	196	38	1968	2472	2513	-41
4534402	1	247	196	39	1969	2472	2513	-41
4534402	1	247	196	41	1971	2472	2513	-41
4534402	1	247	196	42	1972	2471	2513	-42
4534402	1	247	196	43	1973	2471	2513	-42
4534402	1	247	196	44	1974	2472	2513	-41
4534402	1	247	196	45	1975	2422	2513	-91
4534402	1	247	196	46	1976	2470	2513	-43
4534402	1	247	196	47	1977	2472	2513	-41
4534402	1	247	196	48	1978	2472	2513	-41
4534402	1	247	196	50	1980	2470	2513	-43
4534402	1	247	196	52	1982	2472	2513	-41
4534402	1	247	196	54	1984	2472	2513	-41

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4534402	1	247	196	56	1986	2471	2513	-42
4534402	1	247	196	57	1987	2473	2513	-40
4534402	1	247	196	58	1988	2473	2513	-40
4534402	1	247	196	59	1989	2473	2512	-39
4534402	1	247	196	60	1990	2473	2512	-39
4534402	1	247	196	61	1991	2472	2513	-41
4534402	1	247	196	62	1992	2472	2513	-41
4534402	1	247	196	63	1993	2470	2512	-42
4534402	1	247	196	64	1994	2471	2512	-41
4534402	1	247	196	65	1995	2471	2512	-41
4534402	1	247	196	66	1996	2472	2512	-40
4534402	1	247	196	67	1997	2472	2512	-40
4534402	1	247	196	68	1998	2472	2512	-40
4534402	1	247	196	69	1999	2465	2512	-47
4534402	1	247	196	70	2000	2460	2512	-52
4534402	1	247	196	72	2002	2471	2512	-41
4534402	1	247	196	74	2004	2471	2512	-41
4534402	1	247	196	75	2005	2471	2512	-41
4534404	1	245	202	24	1954	2444	2530	-86
4534404	1	245	202	25	1955	2444	2530	-86
4534404	1	245	202	26	1956	2441	2530	-89
4534404	1	245	202	27	1957	2443	2530	-87
4534404	1	245	202	29	1959	2443	2530	-87
4534405	1	247	197	26	1956	2465	2515	-50
4534405	1	247	197	27	1957	2464	2515	-51
4534405	1	247	197	31	1961	2464	2515	-51
4534405	1	247	197	32	1962	2463	2515	-52
4534405	1	247	197	33	1963	2461	2515	-54
4534405	1	247	197	34	1964	2463	2514	-51
4534405	1	247	197	35	1965	2463	2514	-51
4534405	1	247	197	36	1966	2458	2514	-56
4534405	1	247	197	37	1967	2464	2514	-50
4534405	1	247	197	38	1968	2465	2514	-49
4534405	1	247	197	39	1969	2464	2514	-50

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4534405	1	247	197	43	1973	2463	2514	-51
4534701	1	252	198	37	1967	2436	2491	-55
4534701	1	252	198	44	1974	2429	2491	-62
4534701	1	252	198	45	1975	2413	2491	-78
4534701	1	252	198	46	1976	2436	2491	-55
4534701	1	252	198	47	1977	2437	2491	-54
4534701	1	252	198	48	1978	2437	2491	-54
4534701	1	252	198	50	1980	2437	2491	-54
4534701	1	252	198	51	1981	2438	2491	-53
4534701	1	252	198	52	1982	2438	2491	-53
4534701	1	252	198	53	1983	2438	2491	-53
4534701	1	252	198	54	1984	2436	2491	-55
4534701	1	252	198	56	1986	2436	2491	-55
4534701	1	252	198	57	1987	2437	2491	-54
4534701	1	252	198	59	1989	2439	2491	-52
4534701	1	252	198	60	1990	2438	2491	-53
4534701	1	252	198	61	1991	2438	2491	-53
4534701	1	252	198	62	1992	2437	2491	-54
4534701	1	252	198	63	1993	2431	2491	-60
4534701	1	252	198	64	1994	2437	2491	-54
4534701	1	252	198	65	1995	2437	2491	-54
4534701	1	252	198	66	1996	2434	2490	-56
4534701	1	252	198	67	1997	2438	2490	-52
4535702	1	257	211	25	1955	2424	2482	-58
4535702	1	257	211	26	1956	2424	2482	-58
4535702	1	257	211	30	1960	2423	2482	-59
4535702	1	257	211	31	1961	2424	2482	-58
4535702	1	257	211	32	1962	2424	2482	-58
4535702	1	257	211	33	1963	2424	2482	-58
4535702	1	257	211	34	1964	2422	2482	-60
4535702	1	257	211	35	1965	2422	2482	-60
4535702	1	257	211	36	1966	2420	2482	-62
4535702	1	257	211	37	1967	2420	2482	-62
4535702	1	257	211	39	1969	2421	2482	-61

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4536802	1	261	229	24	1954	2427	2534	-107
4536802	1	261	229	25	1955	2429	2534	-105
4536802	1	261	229	26	1956	2429	2533	-104
4536802	1	261	229	27	1957	2426	2533	-107
4536802	1	261	229	29	1959	2430	2533	-103
4536802	1	261	229	30	1960	2430	2533	-103
4536802	1	261	229	31	1961	2432	2533	-101
4536802	1	261	229	32	1962	2424	2533	-109
4536802	1	261	229	34	1964	2425	2532	-107
4536802	1	261	229	35	1965	2425	2532	-107
4536802	1	261	229	36	1966	2425	2532	-107
4536802	1	261	229	37	1967	2427	2532	-105
4536802	1	261	229	38	1968	2428	2532	-104
4536802	1	261	229	39	1969	2428	2532	-104
4536802	1	261	229	41	1971	2426	2532	-106
4536802	1	261	229	42	1972	2426	2532	-106
4536802	1	261	229	44	1974	2425	2532	-107
4536802	1	261	229	45	1975	2427	2532	-105
4536802	1	261	229	46	1976	2429	2532	-103
4536802	1	261	229	47	1977	2429	2532	-103
4536802	1	261	229	48	1978	2427	2532	-105
4536802	1	261	229	50	1980	2409	2531	-122
4536802	1	261	229	51	1981	2399	2532	-133
4536802	1	261	229	54	1984	2428	2531	-103
4542512	1	267	199	37	1967	2394	2407	-13
4542512	1	267	199	41	1971	2393	2407	-14
4542512	1	267	199	42	1972	2385	2407	-22
4542512	1	267	199	43	1973	2391	2407	-16
4542512	1	267	199	44	1974	2392	2407	-15
4542512	1	267	199	45	1975	2391	2407	-16
4542512	1	267	199	46	1976	2386	2407	-21
4542512	1	267	199	47	1977	2390	2407	-17
4542512	1	267	199	48	1978	2388	2407	-19
4542512	1	267	199	50	1980	2389	2407	-18

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4542512	1	267	199	51	1981	2390	2407	-17
4542512	1	267	199	53	1983	2389	2407	-18
4543701	1	273	206	16	1946	2382	2423	-41
4543701	1	273	206	17	1947	2382	2423	-41
4543701	1	273	206	18	1948	2379	2422	-43
4543701	1	273	206	19	1949	2377	2422	-45
4543701	1	273	206	20	1950	2376	2421	-45
4543701	1	273	206	22	1952	2376	2420	-44
4543701	1	273	206	23	1953	2374	2419	-45
4543701	1	273	206	24	1954	2375	2418	-43
4543701	1	273	206	25	1955	2378	2418	-40
4543701	1	273	206	26	1956	2378	2417	-39
4543701	1	273	206	27	1957	2378	2416	-38
4543701	1	273	206	28	1958	2377	2415	-38
4543701	1	273	206	29	1959	2376	2415	-39
4543804	1	273	211	16	1946	2377	2396	-19
4543804	1	273	211	17	1947	2375	2395	-20
4543804	1	273	211	19	1949	2374	2393	-19
4543804	1	273	211	20	1950	2373	2392	-19
4543804	1	273	211	22	1952	2373	2390	-17
4543804	1	273	211	23	1953	2370	2388	-18
4543804	1	273	211	24	1954	2370	2387	-17
4543804	1	273	211	25	1955	2372	2386	-14
4543804	1	273	211	27	1957	2372	2384	-12
4543804	1	273	211	29	1959	2370	2382	-12
4543805	1	273	210	16	1946	2377	2401	-24
4543805	1	273	210	17	1947	2376	2401	-25
4543805	1	273	210	18	1948	2374	2399	-25
4543805	1	273	210	19	1949	2371	2398	-27
4543805	1	273	210	20	1950	2372	2398	-26
4543805	1	273	210	22	1952	2371	2395	-24
4543805	1	273	210	23	1953	2369	2394	-25
4543805	1	273	210	24	1954	2370	2393	-23
4543805	1	273	210	25	1955	2372	2392	-20

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4543805	1	273	210	26	1956	2371	2391	-20
4543805	1	273	210	27	1957	2372	2390	-18
4543805	1	273	210	29	1959	2371	2388	-17
4543901	1	277	215	16	1946	2364	2388	-24
4543901	1	277	215	17	1947	2363	2387	-24
4543901	1	277	215	18	1948	2362	2386	-24
4543901	1	277	215	19	1949	2361	2384	-23
4543901	1	277	215	20	1950	2361	2383	-22
4543901	1	277	215	22	1952	2361	2381	-20
4543901	1	277	215	23	1953	2359	2379	-20
4543901	1	277	215	24	1954	2359	2378	-19
4543901	1	277	215	25	1955	2361	2377	-16
4543901	1	277	215	26	1956	2361	2376	-15
4543901	1	277	215	27	1957	2360	2374	-14
4543901	1	277	215	29	1959	2358	2372	-14
4543903	1	276	214	16	1946	2367	2390	-23
4543903	1	276	214	17	1947	2367	2388	-21
4543903	1	276	214	18	1948	2365	2387	-22
4543903	1	276	214	19	1949	2364	2386	-22
4543903	1	276	214	20	1950	2364	2384	-20
4543903	1	276	214	22	1952	2364	2382	-18
4543903	1	276	214	23	1953	2362	2380	-18
4543903	1	276	214	24	1954	2362	2379	-17
4543903	1	276	214	25	1955	2364	2377	-13
4543903	1	276	214	26	1956	2364	2376	-12
4543903	1	276	214	27	1957	2364	2375	-11
4543903	1	276	214	28	1958	2363	2373	-10
4543903	1	276	214	29	1959	2362	2372	-10
4544701	1	276	217	16	1946	2358	2372	-14
4544701	1	276	217	18	1948	2359	2371	-12
4544701	1	276	217	19	1949	2358	2371	-13
4544701	1	276	217	22	1952	2357	2369	-12
4544701	1	276	217	23	1953	2355	2369	-14
4544701	1	276	217	24	1954	2355	2368	-13

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4544701	1	276	217	25	1955	2356	2368	-12
4544701	1	276	217	26	1956	2356	2367	-11
4544701	1	276	217	27	1957	2356	2366	-10
4544701	1	276	217	29	1959	2354	2365	-11
4549101	1	270	176	28	1958	2523	2594	-71
4549101	1	270	176	29	1959	2504	2593	-89
4549101	1	270	176	31	1961	2484	2591	-107
4549101	1	270	176	32	1962	2474	2590	-116
4549101	1	270	176	33	1963	2455	2590	-135
4549101	1	270	176	34	1964	2440	2588	-148
4549101	1	270	176	35	1965	2411	2588	-177
4549101	1	270	176	36	1966	2403	2587	-184
4549101	1	270	176	37	1967	2400	2587	-187
4549101	1	270	176	39	1969	2398	2587	-189
4549101	1	270	176	40	1970	2418	2587	-169
4549101	1	270	176	41	1971	2416	2587	-171
4549102	1	265	174	28	1958	2423	2572	-149
4549102	1	265	174	29	1959	2408	2571	-163
4549102	1	265	174	31	1961	2379	2569	-190
4549102	1	265	174	32	1962	2369	2568	-199
4549102	1	265	174	33	1963	2347	2568	-221
4549201	1	270	182	20	1950	2500	2573	-73
4549201	1	270	182	27	1957	2459	2567	-108
4549201	1	270	182	31	1961	2438	2564	-126
4549201	1	270	182	32	1962	2430	2563	-133
4549201	1	270	182	33	1963	2421	2563	-142
4549201	1	270	182	34	1964	2415	2562	-147
4549201	1	270	182	35	1965	2407	2561	-154
4549201	1	270	182	36	1966	2401	2561	-160
4549201	1	270	182	37	1967	2400	2561	-161
4549201	1	270	182	38	1968	2402	2560	-158
4549201	1	270	182	40	1970	2419	2560	-141
4549201	1	270	182	41	1971	2422	2560	-138
4549201	1	270	182	44	1974	2434	2560	-126



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4549201	1	270	182	45	1975	2454	2560	-106
4549201	1	270	182	46	1976	2454	2560	-106
4549201	1	270	182	47	1977	2470	2559	-89
4549201	1	270	182	48	1978	2471	2560	-89
4549201	1	270	182	49	1979	2469	2560	-91
4549201	1	270	182	54	1984	2464	2559	-95
4549301	1	274	185	25	1955	2481	2583	-102
4549301	1	274	185	26	1956	2479	2582	-103
4549301	1	274	185	27	1957	2479	2581	-102
4549301	1	274	185	28	1958	2481	2581	-100
4549301	1	274	185	29	1959	2478	2580	-102
4549301	1	274	185	32	1962	2476	2577	-101
4549301	1	274	185	34	1964	2477	2576	-99
4549301	1	274	185	37	1967	2476	2574	-98
4549301	1	274	185	38	1968	2477	2574	-97
4549301	1	274	185	39	1969	2473	2574	-101
4549301	1	274	185	40	1970	2472	2573	-101
4549301	1	274	185	41	1971	2471	2573	-102
4549301	1	274	185	42	1972	2471	2573	-102
4549301	1	274	185	44	1974	2474	2573	-99
4549301	1	274	185	45	1975	2478	2572	-94
4549301	1	274	185	46	1976	2480	2572	-92
4549301	1	274	185	47	1977	2474	2572	-98
4549301	1	274	185	49	1979	2480	2572	-92
4549301	1	274	185	50	1980	2480	2572	-92
4549301	1	274	185	51	1981	2480	2572	-92
4549301	1	274	185	53	1983	2480	2571	-91
4549301	1	274	185	54	1984	2480	2571	-91
4549301	1	274	185	56	1986	2478	2571	-93
4549301	1	274	185	57	1987	2481	2571	-90
4549301	1	274	185	58	1988	2479	2571	-92
4549301	1	274	185	59	1989	2479	2571	-92
4549301	1	274	185	60	1990	2478	2571	-93
4549301	1	274	185	61	1991	2478	2571	-93

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4549301	1	274	185	62	1992	2478	2571	-93
4549301	1	274	185	63	1993	2478	2571	-93
4549301	1	274	185	64	1994	2477	2571	-94
4549301	1	274	185	65	1995	2477	2571	-94
4549301	1	274	185	66	1996	2476	2571	-95
4549301	1	274	185	67	1997	2476	2570	-94
4549301	1	274	185	68	1998	2474	2570	-96
4549301	1	274	185	69	1999	2473	2570	-97
4549301	1	274	185	70	2000	2473	2570	-97
4549301	1	274	185	71	2001	2475	2570	-95
4549301	1	274	185	72	2002	2477	2569	-92
4549301	1	274	185	74	2004	2476	2570	-94
4549301	1	274	185	75	2005	2474	2570	-96
4549401	1	270	173	27	1957	2486	2606	-120
4549401	1	270	173	28	1958	2481	2605	-124
4549401	1	270	173	29	1959	2474	2603	-129
4549401	1	270	173	31	1961	2463	2601	-138
4549401	1	270	173	32	1962	2462	2600	-138
4549401	1	270	173	33	1963	2456	2599	-143
4549401	1	270	173	34	1964	2453	2598	-145
4549401	1	270	173	35	1965	2461	2597	-136
4549401	1	270	173	36	1966	2466	2597	-131
4549401	1	270	173	37	1967	2472	2597	-125
4549401	1	270	173	38	1968	2469	2597	-128
4549401	1	270	173	39	1969	2472	2597	-125
4549401	1	270	173	40	1970	2473	2597	-124
4549401	1	270	173	41	1971	2471	2597	-126
4549401	1	270	173	42	1972	2467	2597	-130
4549401	1	270	173	44	1974	2465	2596	-131
4549401	1	270	173	45	1975	2465	2596	-131
4549401	1	270	173	46	1976	2466	2596	-130
4549401	1	270	173	47	1977	2455	2596	-141
4550501	1	280	195	17	1947	2434	2576	-142
4550501	1	280	195	18	1948	2423	2575	-152

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4550501	1	280	195	19	1949	2426	2574	-148
4550501	1	280	195	20	1950	2425	2574	-149
4550501	1	280	195	22	1952	2420	2572	-152
4550501	1	280	195	23	1953	2418	2571	-153
4550501	1	280	195	24	1954	2420	2570	-150
4550501	1	280	195	25	1955	2423	2570	-147
4550501	1	280	195	26	1956	2420	2569	-149
4550501	1	280	195	27	1957	2421	2568	-147
4550501	1	280	195	28	1958	2421	2566	-145
4551101	1	279	201	16	1946	2389	2524	-135
4551101	1	279	201	17	1947	2389	2524	-135
4551101	1	279	201	18	1948	2387	2522	-135
4551101	1	279	201	19	1949	2383	2522	-139
4551101	1	279	201	20	1950	2382	2521	-139
4551101	1	279	201	22	1952	2383	2518	-135
4551101	1	279	201	23	1953	2382	2517	-135
4551101	1	279	201	24	1954	2384	2516	-132
4551101	1	279	201	25	1955	2386	2515	-129
4551101	1	279	201	26	1956	2387	2513	-126
4551101	1	279	201	27	1957	2387	2512	-125
4551101	1	279	201	28	1958	2387	2510	-123
4551101	1	279	201	29	1959	2386	2509	-123
4551202	1	281	209	17	1947	2376	2482	-106
4551202	1	281	209	18	1948	2374	2480	-106
4551202	1	281	209	19	1949	2372	2479	-107
4551202	1	281	209	20	1950	2373	2478	-105
4551202	1	281	209	22	1952	2373	2475	-102
4551202	1	281	209	23	1953	2370	2473	-103
4551202	1	281	209	24	1954	2371	2471	-100
4551202	1	281	209	25	1955	2372	2470	-98
4551202	1	281	209	26	1956	2373	2468	-95
4551202	1	281	209	27	1957	2371	2467	-96
4551203	1	279	209	16	1946	2376	2463	-87
4551203	1	279	209	17	1947	2376	2462	-86

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4551203	1	279	209	18	1948	2374	2461	-87
4551203	1	279	209	19	1949	2372	2459	-87
4551203	1	279	209	20	1950	2372	2458	-86
4551203	1	279	209	22	1952	2372	2455	-83
4551203	1	279	209	23	1953	2370	2453	-83
4551203	1	279	209	24	1954	2370	2452	-82
4551203	1	279	209	25	1955	2372	2450	-78
4551203	1	279	209	26	1956	2373	2449	-76
4551203	1	279	209	27	1957	2373	2447	-74
4551203	1	279	209	28	1958	2372	2445	-73
4551203	1	279	209	29	1959	2371	2444	-73
4551302	1	283	215	16	1946	2358	2421	-63
4551302	1	283	215	17	1947	2358	2420	-62
4551302	1	283	215	18	1948	2357	2419	-62
4551302	1	283	215	19	1949	2355	2417	-62
4551302	1	283	215	20	1950	2356	2416	-60
4551302	1	283	215	22	1952	2355	2413	-58
4551302	1	283	215	23	1953	2353	2412	-59
4551302	1	283	215	24	1954	2353	2410	-57
4551302	1	283	215	25	1955	2354	2409	-55
4551302	1	283	215	26	1956	2353	2407	-54
4551303	1	283	214	17	1947	2360	2432	-72
4551303	1	283	214	18	1948	2356	2431	-75
4551303	1	283	214	24	1954	2355	2422	-67
4551303	1	283	214	25	1955	2357	2421	-64
4551303	1	283	214	26	1956	2356	2419	-63
4551304	1	279	213	16	1946	2369	2415	-46
4551304	1	279	213	17	1947	2370	2414	-44
4551304	1	279	213	18	1948	2367	2412	-45
4551304	1	279	213	19	1949	2365	2410	-45
4551304	1	279	213	20	1950	2365	2409	-44
4551304	1	279	213	22	1952	2366	2405	-39
4551304	1	279	213	23	1953	2362	2404	-42
4551304	1	279	213	24	1954	2364	2402	-38

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4551304	1	279	213	25	1955	2366	2400	-34
4551304	1	279	213	26	1956	2366	2398	-32
4551305	1	279	216	16	1946	2356	2390	-34
4551305	1	279	216	17	1947	2355	2389	-34
4551305	1	279	216	18	1948	2354	2388	-34
4551305	1	279	216	19	1949	2353	2387	-34
4551305	1	279	216	20	1950	2353	2386	-33
4551305	1	279	216	22	1952	2353	2383	-30
4551305	1	279	216	23	1953	2351	2382	-31
4551305	1	279	216	24	1954	2352	2381	-29
4551305	1	279	216	25	1955	2353	2379	-26
4551305	1	279	216	26	1956	2353	2378	-25
4551305	1	279	216	27	1957	2353	2377	-24
4551401	1	281	202	17	1947	2379	2542	-163
4551401	1	281	202	18	1948	2375	2541	-166
4551401	1	281	202	19	1949	2379	2540	-161
4551401	1	281	202	20	1950	2379	2540	-161
4551401	1	281	202	22	1952	2379	2537	-158
4551401	1	281	202	23	1953	2378	2536	-158
4551401	1	281	202	24	1954	2378	2535	-157
4551401	1	281	202	25	1955	2382	2534	-152
4552101	1	280	218	16	1946	2350	2381	-31
4552101	1	280	218	17	1947	2350	2380	-30
4552101	1	280	218	18	1948	2349	2379	-30
4552101	1	280	218	19	1949	2348	2378	-30
4552101	1	280	218	20	1950	2347	2378	-31
4552101	1	280	218	22	1952	2347	2376	-29
4552101	1	280	218	23	1953	2346	2375	-29
4552101	1	280	218	24	1954	2347	2374	-27
4552101	1	280	218	25	1955	2348	2374	-26
4552101	1	280	218	29	1959	2355	2370	-15
4552102	1	282	220	16	1946	2343	2376	-33
4552102	1	282	220	17	1947	2343	2376	-33
4552102	1	282	220	18	1948	2342	2375	-33

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4552102	1	282	220	19	1949	2341	2374	-33
4552102	1	282	220	20	1950	2341	2374	-33
4552102	1	282	220	22	1952	2341	2372	-31
4552102	1	282	220	23	1953	2339	2372	-33
4552102	1	282	220	24	1954	2340	2371	-31
4552102	1	282	220	25	1955	2341	2370	-29
4552103	1	281	220	16	1946	2341	2371	-30
4552103	1	281	220	18	1948	2339	2370	-31
4552103	1	281	220	19	1949	2339	2369	-30
4552103	1	281	220	24	1954	2337	2367	-30
4552103	1	281	220	25	1955	2338	2366	-28
4552103	1	281	220	26	1956	2337	2365	-28
4552103	1	281	220	27	1957	2338	2365	-27
4552105	1	282	216	16	1946	2358	2405	-47
4552105	1	282	216	17	1947	2358	2404	-46
4552105	1	282	216	18	1948	2356	2403	-47
4552105	1	282	216	19	1949	2355	2402	-47
4552105	1	282	216	20	1950	2355	2400	-45
4552105	1	282	216	22	1952	2355	2398	-43
4552105	1	282	216	23	1953	2353	2396	-43
4552105	1	282	216	24	1954	2354	2395	-41
4552105	1	282	216	25	1955	2354	2393	-39
4552105	1	282	216	26	1956	2354	2392	-38
4552105	1	282	216	27	1957	2355	2391	-36
4552105	1	282	216	28	1958	2354	2389	-35
4552201	1	285	223	16	1946	2341	2370	-29
4552201	1	285	223	17	1947	2340	2369	-29
4552201	1	285	223	18	1948	2339	2369	-30
4552201	1	285	223	19	1949	2338	2368	-30
4552201	1	285	223	20	1950	2338	2368	-30
4552201	1	285	223	22	1952	2339	2367	-28
4552201	1	285	223	23	1953	2336	2367	-31
4552201	1	285	223	24	1954	2336	2366	-30
4552201	1	285	223	25	1955	2338	2366	-28

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4552201	1	285	223	26	1956	2336	2365	-29
4552201	1	285	223	27	1957	2337	2365	-28
4552201	1	285	223	28	1958	2336	2364	-28
4552201	1	285	223	29	1959	2335	2364	-29
4552502	1	292	218	17	1947	2341	2423	-82
4552502	1	292	218	19	1949	2339	2422	-83
4552502	1	292	218	22	1952	2337	2420	-83
4552502	1	292	218	23	1953	2336	2419	-83
4552502	1	292	218	24	1954	2337	2419	-82
4552502	1	292	218	25	1955	2336	2418	-82
4552502	1	292	218	26	1956	2335	2417	-82
4552502	1	292	218	27	1957	2341	2417	-76
4552502	1	292	218	29	1959	2337	2415	-78
4552601	1	291	226	16	1946	2330	2362	-32
4552601	1	291	226	17	1947	2329	2361	-32
4552601	1	291	226	18	1948	2327	2361	-34
4552601	1	291	226	19	1949	2327	2361	-34
4552601	1	291	226	20	1950	2327	2361	-34
4552601	1	291	226	22	1952	2326	2360	-34
4552601	1	291	226	23	1953	2324	2360	-36
4552601	1	291	226	24	1954	2324	2359	-35
4552601	1	291	226	25	1955	2325	2359	-34
4552601	1	291	226	26	1956	2325	2359	-34
4552601	1	291	226	27	1957	2325	2359	-34
4552601	1	291	226	28	1958	2325	2358	-33
4552601	1	291	226	29	1959	2325	2358	-33
4553401	1	295	229	16	1946	2321	2350	-29
4553401	1	295	229	17	1947	2322	2350	-28
4553401	1	295	229	18	1948	2320	2350	-30
4553401	1	295	229	19	1949	2319	2350	-31
4553401	1	295	229	20	1950	2319	2349	-30
4553401	1	295	229	22	1952	2319	2349	-30
4553401	1	295	229	23	1953	2318	2349	-31
4553401	1	295	229	24	1954	2318	2349	-31

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4553401	1	295	229	25	1955	2318	2348	-30
4553401	1	295	229	26	1956	2318	2348	-30
4553401	1	295	229	27	1957	2318	2348	-30
4553401	1	295	229	28	1958	2317	2348	-31
4553401	1	295	229	29	1959	2318	2348	-30
4557601	1	293	178	16	1946	2637	2748	-111
4557601	1	293	178	25	1955	2631	2741	-110
4557601	1	293	178	26	1956	2623	2740	-117
4557601	1	293	178	27	1957	2667	2739	-72
4557601	1	293	178	28	1958	2670	2739	-69
4557601	1	293	178	29	1959	2614	2738	-124
4557601	1	293	178	31	1961	2614	2735	-121
4557601	1	293	178	32	1962	2613	2734	-121
4557601	1	293	178	33	1963	2606	2733	-127
4557601	1	293	178	34	1964	2597	2732	-135
4557601	1	293	178	35	1965	2600	2731	-131
4557601	1	293	178	36	1966	2592	2730	-138
4557601	1	293	178	37	1967	2596	2728	-132
4557601	1	293	178	38	1968	2595	2727	-132
4557601	1	293	178	39	1969	2595	2727	-132
4557601	1	293	178	40	1970	2604	2726	-122
4557601	1	293	178	41	1971	2594	2725	-131
4557601	1	293	178	42	1972	2599	2724	-125
4557601	1	293	178	44	1974	2598	2723	-125
4557601	1	293	178	45	1975	2598	2722	-124
4557601	1	293	178	46	1976	2599	2722	-123
4557601	1	293	178	47	1977	2602	2721	-119
4557601	1	293	178	48	1978	2601	2720	-119
4557601	1	293	178	57	1987	2648	2717	-69
4557601	1	293	178	58	1988	2660	2716	-56
4557601	1	293	178	59	1989	2657	2716	-59
4561401	1	309	224	27	1957	2317	2461	-144
4561401	1	309	224	28	1958	2328	2460	-132
4561401	1	309	224	33	1963	2326	2456	-130



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4561401	1	309	224	34	1964	2332	2456	-124
4561401	1	309	224	35	1965	2331	2455	-124
4561401	1	309	224	37	1967	2329	2455	-126
4561601	1	315	235	16	1946	2232	2357	-125
4561601	1	315	235	27	1957	2230	2354	-124
4561601	1	315	235	31	1961	2232	2354	-122
4561601	1	315	235	32	1962	2225	2354	-129
4561601	1	315	235	33	1963	2219	2353	-134
4561601	1	315	235	35	1965	2248	2353	-105
4561601	1	315	235	36	1966	2230	2353	-123
4561601	1	315	235	37	1967	2238	2353	-115
4561601	1	315	235	38	1968	2232	2353	-121
4561601	1	315	235	39	1969	2245	2353	-108
4561601	1	315	235	40	1970	2214	2353	-139
4561601	1	315	235	41	1971	2213	2353	-140
4561601	1	315	235	42	1972	2208	2352	-144
4561601	1	315	235	45	1975	2224	2352	-128
4561601	1	315	235	46	1976	2223	2352	-129
4561601	1	315	235	47	1977	2223	2352	-129
4561601	1	315	235	48	1978	2224	2352	-128
4561601	1	315	235	49	1979	2227	2352	-125
4561601	1	315	235	50	1980	2222	2352	-130
4561601	1	315	235	51	1981	2226	2352	-126
4561601	1	315	235	53	1983	2216	2352	-136
4561601	1	315	235	54	1984	2213	2352	-139
4561601	1	315	235	57	1987	2224	2353	-129
4561601	1	315	235	58	1988	2236	2352	-116
4561601	1	315	235	59	1989	2236	2352	-116
4561601	1	315	235	60	1990	2243	2353	-110
4561601	1	315	235	61	1991	2235	2353	-118
4561601	1	315	235	62	1992	2232	2353	-121
4561602	1	311	234	27	1957	2278	2315	-37
4561602	1	311	234	28	1958	2277	2314	-37
4561602	1	311	234	31	1961	2284	2314	-30

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4561602	1	311	234	32	1962	2284	2314	-30
4561602	1	311	234	33	1963	2281	2314	-33
4561602	1	311	234	34	1964	2282	2314	-32
4561602	1	311	234	35	1965	2281	2314	-33
4561602	1	311	234	36	1966	2277	2314	-37
4561602	1	311	234	37	1967	2277	2314	-37
4561602	1	311	234	38	1968	2275	2314	-39
4561701	1	313	223	27	1957	2320	2509	-189
4561701	1	313	223	28	1958	2336	2508	-172
4561701	1	313	223	31	1961	2334	2505	-171
4561701	1	313	223	32	1962	2336	2504	-168
4561701	1	313	223	33	1963	2330	2503	-173
4561701	1	313	223	34	1964	2327	2502	-175
4561701	1	313	223	35	1965	2328	2501	-173
4561701	1	313	223	36	1966	2326	2502	-176
4561701	1	313	223	37	1967	2312	2502	-190
4561701	1	313	223	38	1968	2311	2503	-192

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4561701	1	313	223	39	1969	2327	2504	-177
4561701	1	313	223	40	1970	2324	2505	-181
4561701	1	313	223	41	1971	2307	2506	-199
4561701	1	313	223	42	1972	2301	2506	-205
4561701	1	313	223	45	1975	2319	2506	-187
4561701	1	313	223	46	1976	2320	2506	-186
4561701	1	313	223	47	1977	2328	2507	-179
4561701	1	313	223	48	1978	2335	2508	-173
4561701	1	313	223	49	1979	2338	2509	-171
4561701	1	313	223	50	1980	2332	2509	-177
4561701	1	313	223	51	1981	2335	2509	-174

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4561701	1	313	223	53	1983	2329	2509	-180
4561701	1	313	223	57	1987	2319	2511	-192
4562101	1	310	241	25	1955	2285	2295	-10
4562101	1	310	241	27	1957	2287	2295	-8
4562101	1	310	241	29	1959	2290	2296	-6
4562101	1	310	241	31	1961	2287	2296	-9
4562101	1	310	241	32	1962	2286	2296	-10
4562101	1	310	241	33	1963	2287	2296	-9
4562101	1	310	241	34	1964	2289	2296	-7
4562101	1	310	241	35	1965	2287	2296	-9
4562101	1	310	241	36	1966	2286	2296	-10
4562101	1	310	241	37	1967	2286	2296	-10
4562101	1	310	241	38	1968	2286	2296	-10
4562101	1	310	241	39	1969	2289	2296	-7
4562101	1	310	241	41	1971	2288	2296	-8
4562101	1	310	241	42	1972	2288	2296	-8
4562101	1	310	241	44	1974	2302	2296	6
4562101	1	310	241	45	1975	2293	2296	-3
4562101	1	310	241	46	1976	2290	2296	-6
4562101	1	310	241	47	1977	2289	2296	-7
4562101	1	310	241	48	1978	2287	2296	-9
4562101	1	310	241	50	1980	2291	2296	-5
4562101	1	310	241	51	1981	2291	2296	-5
4562101	1	310	241	53	1983	2287	2296	-9
4562101	1	310	241	54	1984	2287	2296	-9
4562101	1	310	241	57	1987	2292	2296	-4
4562101	1	310	241	58	1988	2292	2296	-4
4562101	1	310	241	59	1989	2291	2296	-5
4562101	1	310	241	60	1990	2289	2296	-7
4562101	1	310	241	61	1991	2288	2296	-8
4562101	1	310	241	62	1992	2288	2297	-9
4562101	1	310	241	63	1993	2289	2296	-7
4562101	1	310	241	65	1995	2286	2296	-10
4562101	1	310	241	66	1996	2286	2296	-10

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4562101	1	310	241	67	1997	2287	2296	-9
4562101	1	310	241	68	1998	2286	2296	-10
4562101	1	310	241	69	1999	2286	2296	-10
4562101	1	310	241	70	2000	2285	2296	-11
4562101	1	310	241	71	2001	2285	2296	-11
4562101	1	310	241	72	2002	2285	2296	-11
4562101	1	310	241	73	2003	2287	2296	-9
4562101	1	310	241	75	2005	2288	2296	-8
4562901	1	325	246	22	1952	2229	2280	-51
4562901	1	325	246	23	1953	2211	2279	-68
4562901	1	325	246	24	1954	2208	2277	-69
4562901	1	325	246	25	1955	2211	2276	-65
4562901	1	325	246	26	1956	2209	2274	-65
4562901	1	325	246	27	1957	2199	2273	-74
4562901	1	325	246	31	1961	2223	2269	-46
4562901	1	325	246	34	1964	2220	2267	-47
4562901	1	325	246	35	1965	2214	2267	-53
4562901	1	325	246	36	1966	2208	2269	-61
4562901	1	325	246	37	1967	2207	2271	-64
4562901	1	325	246	38	1968	2209	2273	-64
4562901	1	325	246	39	1969	2208	2276	-68
4562901	1	325	246	40	1970	2211	2277	-66
4562901	1	325	246	41	1971	2211	2279	-68
4562901	1	325	246	42	1972	2217	2278	-61
4562901	1	325	246	45	1975	2239	2279	-40
4562901	1	325	246	46	1976	2238	2280	-42
4562901	1	325	246	49	1979	2244	2284	-40
4562901	1	325	246	50	1980	2239	2284	-45
4562901	1	325	246	51	1981	2241	2284	-43
4562901	1	325	246	53	1983	2242	2284	-42
4562901	1	325	246	58	1988	2252	2288	-36
4562901	1	325	246	59	1989	2251	2288	-37
4562901	1	325	246	60	1990	2250	2288	-38
4562901	1	325	246	61	1991	2252	2288	-36

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4562901	1	325	246	62	1992	2250	2289	-39
4562901	1	325	246	63	1993	2250	2288	-38
4562901	1	325	246	64	1994	2248	2287	-39
4562901	1	325	246	65	1995	2246	2286	-40
4562901	1	325	246	66	1996	2247	2286	-39
4562901	1	325	246	67	1997	2247	2285	-38
4562901	1	325	246	68	1998	2247	2285	-38
4562901	1	325	246	69	1999	2244	2285	-41
4562901	1	325	246	70	2000	2241	2284	-43
4562901	1	325	246	71	2001	2242	2285	-43
4562901	1	325	246	72	2002	2243	2285	-42
4562901	1	325	246	74	2004	2244	2289	-45
4562901	1	325	246	75	2005	2247	2289	-42
4562902	1	324	245	18	1948	2259	2291	-32
4562902	1	324	245	20	1950	2257	2289	-32
4562902	1	324	245	22	1952	2240	2286	-46
4562902	1	324	245	23	1953	2222	2285	-63
4562902	1	324	245	25	1955	2224	2283	-59
4562902	1	324	245	26	1956	2221	2282	-61
4562902	1	324	245	27	1957	2215	2281	-66
4563701	1	326	248	16	1946	2251	2277	-26
4563701	1	326	248	18	1948	2250	2274	-24
4563701	1	326	248	20	1950	2245	2272	-27
4563701	1	326	248	21	1951	2235	2271	-36
4563701	1	326	248	27	1957	2235	2263	-28
4563701	1	326	248	28	1958	2219	2262	-43
4563701	1	326	248	31	1961	2217	2259	-42
4563701	1	326	248	32	1962	2217	2258	-41
4563701	1	326	248	33	1963	2219	2258	-39
4563701	1	326	248	34	1964	2214	2257	-43
4563701	1	326	248	35	1965	2211	2258	-47
4563701	1	326	248	36	1966	2211	2259	-48
4563701	1	326	248	37	1967	2201	2261	-60
4563701	1	326	248	38	1968	2209	2263	-54

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4563701	1	326	248	39	1969	2207	2265	-58
4563701	1	326	248	40	1970	2211	2267	-56
4563701	1	326	248	41	1971	2215	2268	-53
4563701	1	326	248	42	1972	2213	2268	-55
4563701	1	326	248	45	1975	2237	2268	-31
4563701	1	326	248	46	1976	2234	2269	-35
4563701	1	326	248	47	1977	2234	2270	-36
4563701	1	326	248	48	1978	2237	2272	-35
4563701	1	326	248	49	1979	2242	2273	-31
4563701	1	326	248	50	1980	2241	2273	-32
4563701	1	326	248	52	1982	2242	2273	-31
4563701	1	326	248	54	1984	2240	2274	-34
4563701	1	326	248	56	1986	2241	2275	-34
4563701	1	326	248	57	1987	2249	2277	-28
4563701	1	326	248	58	1988	2248	2277	-29
4563701	1	326	248	59	1989	2249	2277	-28
4563701	1	326	248	60	1990	2247	2277	-30
4563701	1	326	248	61	1991	2248	2278	-30
4563701	1	326	248	62	1992	2249	2278	-29
4563701	1	326	248	63	1993	2248	2277	-29
4563701	1	326	248	64	1994	2245	2277	-32
4563701	1	326	248	65	1995	2244	2276	-32
4563701	1	326	248	66	1996	2245	2275	-30
4563701	1	326	248	67	1997	2244	2275	-31
4563701	1	326	248	68	1998	2244	2274	-30
4563701	1	326	248	69	1999	2241	2274	-33
4563701	1	326	248	70	2000	2240	2273	-33
4563701	1	326	248	71	2001	2240	2274	-34
4563701	1	326	248	72	2002	2240	2275	-35
4563701	1	326	248	74	2004	2242	2278	-36
4563701	1	326	248	75	2005	2244	2278	-34
4602304	1	137	126	44	1974	2905	2806	99
4602304	1	137	126	45	1975	2903	2806	97
4602304	1	137	126	46	1976	2906	2806	100

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4602304	1	137	126	47	1977	2907	2806	101
4602304	1	137	126	48	1978	2901	2806	95
4602304	1	137	126	50	1980	2903	2806	97
4602304	1	137	126	51	1981	2900	2806	94
4602304	1	137	126	53	1983	2901	2806	95
4602603	1	146	120	44	1974	2858	2796	62
4602603	1	146	120	45	1975	2851	2796	55
4602603	1	146	120	46	1976	2870	2796	74
4602603	1	146	120	52	1982	2866	2796	70
4602603	1	146	120	54	1984	2872	2796	76
4602603	1	146	120	57	1987	2875	2796	79
4602603	1	146	120	58	1988	2876	2796	80
4602603	1	146	120	59	1989	2875	2796	79
4602603	1	146	120	60	1990	2876	2796	80
4602603	1	146	120	61	1991	2861	2796	65
4602603	1	146	120	62	1992	2874	2796	78
4602603	1	146	120	63	1993	2876	2796	80
4602603	1	146	120	65	1995	2870	2796	74
4602603	1	146	120	66	1996	2870	2796	74
4603401	1	146	128	10	1940	2871	2792	79
4603401	1	146	128	58	1988	2889	2792	97
4603401	1	146	128	59	1989	2890	2792	98
4603401	1	146	128	60	1990	2881	2792	89
4603401	1	146	128	61	1991	2893	2792	101
4603401	1	146	128	62	1992	2886	2792	94
4603401	1	146	128	63	1993	2890	2792	98
4603401	1	146	128	65	1995	2889	2792	97
4603401	1	146	128	66	1996	2885	2792	93
4603401	1	146	128	67	1997	2881	2792	89
4603401	1	146	128	68	1998	2890	2792	98
4603401	1	146	128	69	1999	2891	2792	99
4603401	1	146	128	70	2000	2890	2792	98
4603401	1	146	128	71	2001	2890	2792	98
4603401	1	146	128	72	2002	2891	2792	99

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4603401	1	146	128	73	2003	2890	2792	98
4603401	1	146	128	74	2004	2890	2792	98
4603401	1	146	128	75	2005	2887	2792	95
4606301	1	158	180	26	1956	2761	2761	0
4606301	1	158	180	45	1975	2748	2761	-13
4606301	1	158	180	47	1977	2748	2761	-13
4606301	1	158	180	50	1980	2747	2761	-14
4606301	1	158	180	51	1981	2748	2761	-13
4606301	1	158	180	53	1983	2749	2761	-12
4606301	1	158	180	54	1984	2748	2761	-13
4606301	1	158	180	56	1986	2753	2761	-8
4606301	1	158	180	57	1987	2749	2761	-12
4606301	1	158	180	58	1988	2743	2761	-18
4606301	1	158	180	60	1990	2750	2761	-11
4606301	1	158	180	63	1993	2749	2761	-12
4606301	1	158	180	64	1994	2748	2761	-13
4606301	1	158	180	66	1996	2739	2761	-22
4606301	1	158	180	67	1997	2738	2761	-23
4606301	1	158	180	68	1998	2750	2761	-11
4606301	1	158	180	69	1999	2748	2761	-13
4606301	1	158	180	70	2000	2743	2761	-18
4606301	1	158	180	71	2001	2743	2761	-18
4606301	1	158	180	72	2002	2742	2761	-19
4606301	1	158	180	73	2003	2741	2761	-20
4606301	1	158	180	74	2004	2748	2761	-13
4606301	1	158	180	75	2005	2752	2761	-9
4606901	1	169	176	26	1956	2736	2744	-8
4606901	1	169	176	27	1957	2738	2744	-6
4606901	1	169	176	38	1968	2738	2744	-6
4606901	1	169	176	45	1975	2737	2744	-7
4606901	1	169	176	46	1976	2737	2744	-7
4606901	1	169	176	47	1977	2739	2744	-5
4606901	1	169	176	48	1978	2732	2744	-12
4606901	1	169	176	50	1980	2731	2744	-13



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4606901	1	169	176	52	1982	2735	2744	-9
4606901	1	169	176	54	1984	2732	2743	-11
4606901	1	169	176	57	1987	2740	2743	-3
4606901	1	169	176	58	1988	2740	2743	-3
4606901	1	169	176	59	1989	2739	2743	-4
4606901	1	169	176	60	1990	2737	2743	-6
4606901	1	169	176	61	1991	2738	2743	-5
4606901	1	169	176	62	1992	2737	2743	-6
4607401	1	166	179	10	1940	2744	2750	-6
4607401	1	166	179	26	1956	2744	2749	-5
4607401	1	166	179	45	1975	2739	2749	-10
4607401	1	166	179	47	1977	2741	2749	-8
4607401	1	166	179	48	1978	2738	2749	-11
4607401	1	166	179	50	1980	2739	2749	-10
4607401	1	166	179	51	1981	2739	2749	-10
4607401	1	166	179	53	1983	2741	2749	-8
4607401	1	166	179	59	1989	2744	2749	-5
4607401	1	166	179	60	1990	2740	2749	-9
4607401	1	166	179	61	1991	2742	2749	-7
4607401	1	166	179	62	1992	2741	2749	-8
4607401	1	166	179	63	1993	2780	2749	31
4607401	1	166	179	64	1994	2742	2749	-7
4607401	1	166	179	66	1996	2740	2749	-9
4607401	1	166	179	67	1997	2745	2749	-4
4607401	1	166	179	68	1998	2746	2749	-3
4607401	1	166	179	69	1999	2744	2749	-5
4607401	1	166	179	70	2000	2743	2749	-6
4607401	1	166	179	71	2001	2741	2748	-7
4607401	1	166	179	72	2002	2746	2748	-2
4607401	1	166	179	73	2003	2748	2748	0
4607401	1	166	179	75	2005	2746	2748	-2
4607402	1	167	182	26	1956	2764	2748	16
4607402	1	167	182	38	1968	2763	2748	15
4607402	1	167	182	45	1975	2761	2748	13

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4607402	1	167	182	46	1976	2761	2748	13
4607402	1	167	182	50	1980	2758	2748	10
4607402	1	167	182	51	1981	2757	2748	9
4607402	1	167	182	52	1982	2758	2748	10
4607402	1	167	182	54	1984	2759	2748	11
4607402	1	167	182	57	1987	2764	2748	16
4607402	1	167	182	58	1988	2759	2748	11
4607402	1	167	182	59	1989	2759	2748	11
4607402	1	167	182	60	1990	2754	2748	6
4607402	1	167	182	61	1991	2757	2748	9
4607402	1	167	182	62	1992	2756	2748	8
4607402	1	167	182	63	1993	2761	2748	13
4607402	1	167	182	64	1994	2762	2748	14
4607402	1	167	182	66	1996	2757	2748	9
4607402	1	167	182	67	1997	2763	2748	15
4607402	1	167	182	69	1999	2761	2748	13
4607402	1	167	182	73	2003	2772	2747	25
4607402	1	167	182	74	2004	2761	2748	13
4607402	1	167	182	75	2005	2760	2747	13
4607901	1	173	189	26	1956	2780	2741	39
4607901	1	173	189	27	1957	2780	2741	39
4607901	1	173	189	31	1961	2780	2741	39
4607901	1	173	189	32	1962	2780	2741	39
4607901	1	173	189	33	1963	2782	2741	41
4607901	1	173	189	34	1964	2783	2741	42
4607901	1	173	189	35	1965	2785	2741	44
4607901	1	173	189	36	1966	2784	2741	43
4607901	1	173	189	37	1967	2786	2741	45
4607901	1	173	189	38	1968	2789	2741	48
4607901	1	173	189	39	1969	2788	2741	47
4607901	1	173	189	41	1971	2788	2741	47
4607901	1	173	189	42	1972	2792	2741	51
4607901	1	173	189	43	1973	2791	2741	50
4607901	1	173	189	44	1974	2792	2741	51

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4607901	1	173	189	45	1975	2793	2741	52
4607901	1	173	189	46	1976	2793	2741	52
4607901	1	173	189	47	1977	2793	2741	52
4607901	1	173	189	48	1978	2792	2741	51
4607901	1	173	189	50	1980	2790	2741	49
4607901	1	173	189	54	1984	2793	2741	52
4607901	1	173	189	57	1987	2794	2741	53
4607901	1	173	189	58	1988	2794	2741	53
4607901	1	173	189	59	1989	2794	2741	53
4607901	1	173	189	60	1990	2794	2741	53
4607901	1	173	189	61	1991	2793	2741	52
4607901	1	173	189	62	1992	2793	2741	52
4607901	1	173	189	63	1993	2793	2741	52
4607901	1	173	189	64	1994	2793	2741	52
4607901	1	173	189	66	1996	2790	2741	49
4607901	1	173	189	67	1997	2792	2741	51
4607901	1	173	189	68	1998	2791	2740	51
4607901	1	173	189	69	1999	2788	2740	48
4607901	1	173	189	70	2000	2782	2740	42
4607901	1	173	189	71	2001	2761	2740	21
4607901	1	173	189	74	2004	2790	2740	50
4607901	1	173	189	75	2005	2789	2740	49
4608401	1	169	195	26	1956	2876	2750	126
4608401	1	169	195	30	1960	2781	2751	30
4608401	1	169	195	31	1961	2875	2751	124
4608401	1	169	195	37	1967	2871	2750	121
4608401	1	169	195	38	1968	2876	2750	126
4608401	1	169	195	39	1969	2877	2750	127
4608401	1	169	195	41	1971	2876	2750	126
4608401	1	169	195	42	1972	2877	2750	127
4608401	1	169	195	43	1973	2876	2750	126
4608401	1	169	195	44	1974	2877	2750	127
4608401	1	169	195	45	1975	2875	2750	125
4608401	1	169	195	46	1976	2876	2750	126

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4608401	1	169	195	47	1977	2876	2750	126
4608401	1	169	195	48	1978	2875	2750	125
4608401	1	169	195	50	1980	2876	2750	126
4608401	1	169	195	51	1981	2876	2750	126
4608401	1	169	195	53	1983	2875	2750	125
4608401	1	169	195	54	1984	2877	2750	127
4608401	1	169	195	57	1987	2877	2750	127
4608501	1	174	199	26	1956	2874	2745	129
4608501	1	174	199	27	1957	2874	2745	129
4608501	1	174	199	30	1960	2876	2745	131
4608501	1	174	199	31	1961	2878	2745	133
4608501	1	174	199	32	1962	2877	2745	132
4608501	1	174	199	33	1963	2876	2745	131
4608501	1	174	199	34	1964	2876	2745	131
4608501	1	174	199	35	1965	2875	2745	130
4608501	1	174	199	36	1966	2874	2745	129
4608501	1	174	199	37	1967	2874	2745	129
4608501	1	174	199	39	1969	2875	2745	130
4608501	1	174	199	41	1971	2876	2745	131
4608501	1	174	199	42	1972	2877	2745	132
4608501	1	174	199	43	1973	2877	2745	132
4608501	1	174	199	44	1974	2876	2745	131
4608501	1	174	199	45	1975	2875	2745	130
4608501	1	174	199	46	1976	2875	2745	130
4608501	1	174	199	47	1977	2877	2745	132
4608501	1	174	199	48	1978	2877	2745	132
4608501	1	174	199	50	1980	2879	2745	134
4608501	1	174	199	51	1981	2878	2745	133
4608501	1	174	199	53	1983	2880	2745	135
4608501	1	174	199	54	1984	2880	2745	135
4608501	1	174	199	56	1986	2881	2745	136
4608501	1	174	199	57	1987	2882	2745	137
4608501	1	174	199	58	1988	2883	2745	138
4608501	1	174	199	59	1989	2883	2745	138

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4608501	1	174	199	60	1990	2883	2745	138
4608501	1	174	199	61	1991	2883	2745	138
4608501	1	174	199	62	1992	2883	2745	138
4608501	1	174	199	63	1993	2884	2745	139
4608501	1	174	199	64	1994	2884	2745	139
4608501	1	174	199	66	1996	2883	2745	138
4608501	1	174	199	67	1997	2884	2745	139
4608501	1	174	199	68	1998	2882	2745	137
4608501	1	174	199	69	1999	2882	2745	137
4608501	1	174	199	70	2000	2882	2744	138
4608501	1	174	199	71	2001	2882	2744	138
4608501	1	174	199	72	2002	2878	2744	134
4608501	1	174	199	73	2003	2882	2744	138
4608501	1	174	199	74	2004	2850	2745	105
4608501	1	174	199	75	2005	2881	2744	137
4609901	1	159	101	40	1970	2812	2702	110
4609901	1	159	101	58	1988	2812	2702	110
4609901	1	159	101	59	1989	2815	2702	113
4609901	1	159	101	60	1990	2815	2702	113
4609901	1	159	101	61	1991	2815	2702	113
4609901	1	159	101	62	1992	2813	2702	111
4609901	1	159	101	63	1993	2811	2702	109
4609901	1	159	101	64	1994	2804	2702	102
4609901	1	159	101	65	1995	2802	2702	100
4609901	1	159	101	66	1996	2813	2702	111
4609901	1	159	101	67	1997	2814	2702	112
4609901	1	159	101	68	1998	2802	2702	100
4609901	1	159	101	69	1999	2818	2702	116
4609901	1	159	101	70	2000	2816	2702	114
4609901	1	159	101	71	2001	2816	2702	114
4609901	1	159	101	72	2002	2816	2702	114
4609901	1	159	101	73	2003	2816	2702	114
4609901	1	159	101	74	2004	2816	2702	114
4609901	1	159	101	75	2005	2815	2701	114

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4610701	1	162	104	10	1940	2755	2702	53
4610701	1	162	104	11	1941	2744	2702	42
4610701	1	162	104	18	1948	2753	2702	51
4610701	1	162	104	19	1949	2754	2702	52
4610701	1	162	104	20	1950	2755	2702	53
4610701	1	162	104	28	1958	2756	2702	54
4610701	1	162	104	29	1959	2755	2702	53
4610701	1	162	104	65	1995	2751	2701	50
4611501	1	163	124	44	1974	2768	2753	15
4611501	1	163	124	45	1975	2763	2753	10
4611501	1	163	124	46	1976	2768	2753	15
4611501	1	163	124	47	1977	2766	2753	13
4611501	1	163	124	48	1978	2765	2753	12
4611501	1	163	124	50	1980	2768	2753	15
4611501	1	163	124	52	1982	2766	2753	13
4611501	1	163	124	54	1984	2768	2753	15
4611501	1	163	124	56	1986	2768	2753	15
4611501	1	163	124	57	1987	2769	2753	16
4611501	1	163	124	58	1988	2769	2753	16
4611501	1	163	124	59	1989	2759	2753	6
4611501	1	163	124	60	1990	2769	2753	16
4611501	1	163	124	62	1992	2769	2754	15
4611501	1	163	124	63	1993	2770	2753	17
4611501	1	163	124	65	1995	2770	2753	17
4611501	1	163	124	66	1996	2769	2753	16
4611501	1	163	124	67	1997	2770	2753	17
4611501	1	163	124	68	1998	2769	2753	16
4611501	1	163	124	69	1999	2769	2753	16
4611501	1	163	124	70	2000	2768	2753	15
4611501	1	163	124	71	2001	2768	2753	15
4611501	1	163	124	72	2002	2769	2753	16
4611501	1	163	124	75	2005	2768	2753	15
4611702	1	166	119	44	1974	2686	2727	-41
4611702	1	166	119	45	1975	2691	2727	-36

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4611702	1	166	119	46	1976	2690	2727	-37
4611702	1	166	119	47	1977	2691	2727	-36
4611702	1	166	119	48	1978	2689	2727	-38
4611702	1	166	119	52	1982	2688	2727	-39
4611702	1	166	119	54	1984	2688	2727	-39
4611702	1	166	119	56	1986	2687	2727	-40
4611702	1	166	119	57	1987	2691	2727	-36
4611702	1	166	119	59	1989	2692	2727	-35
4611702	1	166	119	60	1990	2688	2727	-39
4611702	1	166	119	61	1991	2691	2727	-36
4611702	1	166	119	63	1993	2675	2727	-52
4611702	1	166	119	66	1996	2688	2727	-39
4611901	1	169	130	9	1939	2718	2740	-22
4611901	1	169	130	10	1940	2716	2740	-24
4611901	1	169	130	11	1941	2723	2741	-18
4611901	1	169	130	12	1942	2726	2741	-15
4611901	1	169	130	30	1960	2727	2740	-13
4611901	1	169	130	44	1974	2721	2740	-19
4611901	1	169	130	45	1975	2717	2740	-23
4611901	1	169	130	46	1976	2719	2740	-21
4611901	1	169	130	47	1977	2719	2740	-21
4611901	1	169	130	52	1982	2717	2740	-23
4611901	1	169	130	54	1984	2721	2740	-19
4611901	1	169	130	56	1986	2716	2740	-24
4612402	1	167	131	9	1939	2699	2746	-47
4612402	1	167	131	10	1940	2697	2746	-49
4612402	1	167	131	11	1941	2699	2746	-47
4612402	1	167	131	30	1960	2702	2746	-44
4612402	1	167	131	44	1974	2700	2746	-46
4612402	1	167	131	45	1975	2701	2746	-45
4612402	1	167	131	46	1976	2699	2746	-47
4612402	1	167	131	47	1977	2705	2746	-41
4612402	1	167	131	48	1978	2700	2746	-46
4612402	1	167	131	50	1980	2701	2746	-45

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4612402	1	167	131	52	1982	2699	2746	-47
4612402	1	167	131	54	1984	2707	2746	-39
4612402	1	167	131	56	1986	2704	2746	-42
4612402	1	167	131	57	1987	2707	2746	-39
4612402	1	167	131	58	1988	2706	2746	-40
4612402	1	167	131	59	1989	2705	2746	-41
4612402	1	167	131	60	1990	2705	2746	-41
4612402	1	167	131	61	1991	2699	2746	-47
4612402	1	167	131	62	1992	2704	2746	-42
4612402	1	167	131	63	1993	2704	2746	-42
4612402	1	167	131	65	1995	2705	2746	-41
4612402	1	167	131	66	1996	2703	2746	-43
4612402	1	167	131	67	1997	2697	2746	-49
4612402	1	167	131	68	1998	2703	2746	-43
4612402	1	167	131	69	1999	2704	2746	-42
4612402	1	167	131	70	2000	2701	2746	-45
4612402	1	167	131	71	2001	2705	2746	-41
4612402	1	167	131	72	2002	2705	2746	-41
4612402	1	167	131	73	2003	2704	2746	-42
4612402	1	167	131	74	2004	2704	2746	-42
4612402	1	167	131	75	2005	2702	2746	-44
4615402	1	181	178	38	1968	2733	2721	12
4615402	1	181	178	45	1975	2728	2721	7
4615402	1	181	178	46	1976	2737	2721	16
4615402	1	181	178	50	1980	2737	2721	16
4615402	1	181	178	51	1981	2738	2721	17
4615402	1	181	178	53	1983	2736	2720	16
4615402	1	181	178	54	1984	2740	2720	20
4615402	1	181	178	57	1987	2713	2720	-7
4615402	1	181	178	58	1988	2718	2720	-2
4615402	1	181	178	59	1989	2738	2720	18
4615402	1	181	178	60	1990	2736	2720	16
4615402	1	181	178	61	1991	2736	2720	16
4615402	1	181	178	62	1992	2738	2720	18



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4615402	1	181	178	63	1993	2734	2720	14
4615402	1	181	178	64	1994	2732	2720	12
4615402	1	181	178	66	1996	2721	2720	1
4615402	1	181	178	68	1998	2729	2720	9
4615402	1	181	178	69	1999	2736	2720	16
4615402	1	181	178	70	2000	2733	2719	14
4615402	1	181	178	71	2001	2732	2719	13
4615402	1	181	178	72	2002	2720	2719	1
4615402	1	181	178	73	2003	2734	2719	15
4615402	1	181	178	74	2004	2728	2719	9
4615402	1	181	178	75	2005	2731	2719	12
4616102	1	183	191	27	1957	2787	2723	64
4616102	1	183	191	30	1960	2785	2723	62
4616102	1	183	191	32	1962	2784	2723	61
4616102	1	183	191	35	1965	2781	2723	58
4616102	1	183	191	36	1966	2783	2722	61
4616102	1	183	191	37	1967	2782	2722	60
4616102	1	183	191	38	1968	2784	2722	62
4616102	1	183	191	39	1969	2784	2722	62
4616102	1	183	191	41	1971	2784	2722	62
4616102	1	183	191	42	1972	2785	2722	63
4616102	1	183	191	43	1973	2784	2722	62
4616102	1	183	191	44	1974	2785	2722	63
4616102	1	183	191	45	1975	2779	2722	57
4616102	1	183	191	46	1976	2778	2722	56
4616102	1	183	191	47	1977	2782	2722	60
4616102	1	183	191	48	1978	2780	2722	58
4616102	1	183	191	50	1980	2782	2722	60
4616102	1	183	191	54	1984	2784	2722	62
4616102	1	183	191	56	1986	2785	2722	63
4616102	1	183	191	57	1987	2787	2722	65
4616102	1	183	191	58	1988	2768	2722	46
4616102	1	183	191	60	1990	2785	2722	63
4616102	1	183	191	63	1993	2786	2722	64

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4616102	1	183	191	64	1994	2781	2722	59
4616102	1	183	191	66	1996	2787	2721	66
4616102	1	183	191	67	1997	2783	2721	62
4616102	1	183	191	68	1998	2785	2721	64
4616102	1	183	191	69	1999	2786	2721	65
4616102	1	183	191	70	2000	2785	2721	64
4616102	1	183	191	72	2002	2785	2721	64
4616102	1	183	191	73	2003	2787	2721	66
4616102	1	183	191	74	2004	2785	2721	64
4616102	1	183	191	75	2005	2786	2721	65
4616103	1	183	191	27	1957	2788	2723	65
4616103	1	183	191	30	1960	2784	2723	61
4616103	1	183	191	31	1961	2784	2723	61
4616103	1	183	191	32	1962	2784	2723	61
4616103	1	183	191	33	1963	2776	2723	53
4616103	1	183	191	36	1966	2783	2722	61
4616103	1	183	191	37	1967	2784	2722	62
4616103	1	183	191	38	1968	2783	2722	61
4616103	1	183	191	39	1969	2784	2722	62
4616103	1	183	191	41	1971	2785	2722	63
4616103	1	183	191	42	1972	2785	2722	63
4616103	1	183	191	43	1973	2783	2722	61
4616103	1	183	191	44	1974	2783	2722	61
4616103	1	183	191	45	1975	2782	2722	60
4616103	1	183	191	46	1976	2779	2722	57
4616103	1	183	191	47	1977	2783	2722	61
4616103	1	183	191	48	1978	2774	2722	52
4616103	1	183	191	50	1980	2780	2722	58
4616103	1	183	191	53	1983	2783	2722	61
4616103	1	183	191	54	1984	2784	2722	62
4616103	1	183	191	56	1986	2786	2722	64
4616103	1	183	191	57	1987	2788	2722	66
4616103	1	183	191	58	1988	2786	2722	64
4616103	1	183	191	59	1989	2787	2722	65

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4616103	1	183	191	60	1990	2785	2722	63
4616103	1	183	191	61	1991	2788	2722	66
4616103	1	183	191	62	1992	2788	2722	66
4616103	1	183	191	63	1993	2789	2722	67
4616103	1	183	191	64	1994	2786	2722	64
4616103	1	183	191	66	1996	2789	2721	68
4616103	1	183	191	67	1997	2788	2721	67
4616103	1	183	191	68	1998	2788	2721	67
4616103	1	183	191	69	1999	2788	2721	67
4616103	1	183	191	70	2000	2789	2721	68
4616103	1	183	191	71	2001	2787	2721	66
4616103	1	183	191	72	2002	2788	2721	67
4616103	1	183	191	73	2003	2788	2721	67
4616103	1	183	191	74	2004	2788	2721	67
4616103	1	183	191	75	2005	2788	2721	67
4616901	1	197	197	27	1957	2739	2689	50
4616901	1	197	197	28	1958	2739	2689	50
4616901	1	197	197	30	1960	2739	2689	50
4616901	1	197	197	31	1961	2740	2689	51
4616901	1	197	197	32	1962	2739	2689	50
4616901	1	197	197	33	1963	2739	2689	50
4616901	1	197	197	34	1964	2739	2688	51
4616901	1	197	197	35	1965	2739	2688	51
4616901	1	197	197	36	1966	2740	2688	52
4616901	1	197	197	37	1967	2739	2688	51
4616901	1	197	197	38	1968	2738	2688	50
4616901	1	197	197	39	1969	2737	2688	49
4616901	1	197	197	41	1971	2738	2688	50
4616901	1	197	197	42	1972	2737	2688	49
4616901	1	197	197	43	1973	2737	2688	49
4616901	1	197	197	44	1974	2738	2688	50
4616901	1	197	197	45	1975	2739	2688	51
4616901	1	197	197	46	1976	2739	2688	51
4616901	1	197	197	47	1977	2739	2688	51

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4616901	1	197	197	48	1978	2739	2688	51
4616901	1	197	197	50	1980	2740	2688	52
4616901	1	197	197	52	1982	2739	2688	51
4616901	1	197	197	54	1984	2739	2688	51
4616901	1	197	197	57	1987	2740	2688	52
4616901	1	197	197	58	1988	2740	2687	53
4616901	1	197	197	59	1989	2740	2687	53
4616901	1	197	197	60	1990	2740	2687	53
4616901	1	197	197	61	1991	2740	2687	53
4616901	1	197	197	63	1993	2740	2687	53
4616901	1	197	197	64	1994	2738	2687	51
4616901	1	197	197	66	1996	2740	2687	53
4616901	1	197	197	67	1997	2740	2686	54
4616901	1	197	197	68	1998	2740	2686	54
4616901	1	197	197	69	1999	2740	2686	54
4616901	1	197	197	70	2000	2740	2686	54
4616901	1	197	197	71	2001	2739	2686	53
4616901	1	197	197	72	2002	2739	2686	53
4616901	1	197	197	74	2004	2739	2686	53
4616901	1	197	197	75	2005	2739	2686	53
4618801	1	178	102	29	1959	2809	2692	117
4618801	1	178	102	59	1989	2800	2691	109
4618801	1	178	102	60	1990	2801	2690	111
4618801	1	178	102	61	1991	2803	2690	113
4618801	1	178	102	62	1992	2796	2690	106
4618801	1	178	102	64	1994	2777	2690	87
4618801	1	178	102	65	1995	2763	2690	73
4618801	1	178	102	66	1996	2778	2690	88
4618801	1	178	102	67	1997	2798	2690	108
4618801	1	178	102	68	1998	2798	2690	108
4618801	1	178	102	69	1999	2809	2690	119
4618801	1	178	102	70	2000	2796	2690	106
4618801	1	178	102	71	2001	2801	2690	111
4618801	1	178	102	72	2002	2800	2690	110

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4618801	1	178	102	73	2003	2802	2689	113
4618801	1	178	102	74	2004	2800	2689	111
4618801	1	178	102	75	2005	2806	2689	117
4618901	1	181	109	10	1940	2819	2689	130
4618901	1	181	109	18	1948	2826	2689	137
4618901	1	181	109	19	1949	2827	2689	138
4618901	1	181	109	20	1950	2827	2689	138
4618901	1	181	109	21	1951	2827	2689	138
4618901	1	181	109	29	1959	2813	2689	124
4620104	1	176	128	58	1988	2655	2716	-61
4620104	1	176	128	60	1990	2662	2716	-54
4620104	1	176	128	61	1991	2662	2716	-54
4620104	1	176	128	62	1992	2662	2716	-54
4620104	1	176	128	63	1993	2663	2716	-53
4620104	1	176	128	66	1996	2664	2716	-52
4620403	1	186	127	10	1940	2647	2671	-24
4620403	1	186	127	11	1941	2647	2671	-24
4620403	1	186	127	30	1960	2650	2670	-20
4620403	1	186	127	33	1963	2649	2670	-21
4620403	1	186	127	34	1964	2646	2670	-24
4620403	1	186	127	35	1965	2645	2670	-25
4620403	1	186	127	36	1966	2646	2670	-24
4620403	1	186	127	37	1967	2645	2670	-25
4620403	1	186	127	38	1968	2646	2670	-24
4620403	1	186	127	39	1969	2646	2670	-24
4620403	1	186	127	41	1971	2647	2670	-23
4620403	1	186	127	42	1972	2647	2670	-23
4620403	1	186	127	44	1974	2647	2670	-23
4620403	1	186	127	45	1975	2646	2670	-24
4620403	1	186	127	46	1976	2647	2670	-23
4620403	1	186	127	47	1977	2646	2670	-24
4620403	1	186	127	48	1978	2648	2670	-22
4620403	1	186	127	50	1980	2648	2670	-22
4620403	1	186	127	51	1981	2649	2670	-21

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4620403	1	186	127	53	1983	2647	2670	-23
4620403	1	186	127	54	1984	2647	2670	-23
4620403	1	186	127	57	1987	2648	2670	-22
4620403	1	186	127	58	1988	2649	2670	-21
4620403	1	186	127	59	1989	2648	2670	-22
4620403	1	186	127	60	1990	2648	2670	-22
4620403	1	186	127	61	1991	2648	2670	-22
4620403	1	186	127	62	1992	2648	2670	-22
4620403	1	186	127	63	1993	2649	2670	-21
4620403	1	186	127	65	1995	2648	2669	-21
4620403	1	186	127	66	1996	2647	2669	-22
4620403	1	186	127	68	1998	2647	2669	-22
4620403	1	186	127	71	2001	2646	2669	-23
4620403	1	186	127	73	2003	2646	2669	-23
4620403	1	186	127	74	2004	2645	2669	-24
4620403	1	186	127	75	2005	2648	2669	-21
4623304	1	194	180	39	1969	2729	2691	38
4623304	1	194	180	44	1974	2725	2691	34
4623304	1	194	180	45	1975	2723	2691	32
4623304	1	194	180	46	1976	2734	2691	43
4623304	1	194	180	47	1977	2722	2691	31
4623304	1	194	180	48	1978	2722	2690	32
4623304	1	194	180	50	1980	2721	2690	31
4623304	1	194	180	51	1981	2722	2690	32
4623304	1	194	180	53	1983	2721	2690	31
4623603	1	204	175	26	1956	2599	2664	-65
4623603	1	204	175	27	1957	2598	2664	-66
4623603	1	204	175	28	1958	2588	2664	-76
4623603	1	204	175	30	1960	2591	2664	-73
4623603	1	204	175	31	1961	2592	2664	-72
4623603	1	204	175	32	1962	2590	2664	-74
4623603	1	204	175	33	1963	2598	2664	-66
4623603	1	204	175	34	1964	2598	2664	-66
4623603	1	204	175	35	1965	2598	2664	-66

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4623603	1	204	175	36	1966	2598	2664	-66
4623603	1	204	175	37	1967	2591	2664	-73
4623902	1	207	176	29	1959	2583	2657	-74
4623902	1	207	176	31	1961	2583	2657	-74
4623902	1	207	176	32	1962	2582	2656	-74
4623902	1	207	176	33	1963	2583	2656	-73
4623902	1	207	176	34	1964	2582	2656	-74
4623902	1	207	176	35	1965	2582	2656	-74
4623902	1	207	176	36	1966	2583	2656	-73
4623902	1	207	176	37	1967	2582	2656	-74
4623905	1	205	176	10	1940	2592	2663	-71
4623905	1	205	176	26	1956	2591	2662	-71
4623905	1	205	176	27	1957	2590	2662	-72
4623905	1	205	176	30	1960	2582	2662	-80
4623905	1	205	176	31	1961	2584	2662	-78
4623905	1	205	176	32	1962	2582	2662	-80
4623905	1	205	176	33	1963	2590	2662	-72
4623905	1	205	176	34	1964	2590	2662	-72
4623905	1	205	176	35	1965	2589	2661	-72
4623905	1	205	176	36	1966	2590	2661	-71
4623905	1	205	176	37	1967	2591	2661	-70
4623905	1	205	176	38	1968	2593	2661	-68
4624301	1	202	196	26	1956	2707	2675	32
4624301	1	202	196	28	1958	2707	2675	32
4624301	1	202	196	30	1960	2708	2675	33
4624301	1	202	196	31	1961	2708	2675	33
4624301	1	202	196	32	1962	2708	2675	33
4624301	1	202	196	33	1963	2708	2675	33
4624301	1	202	196	34	1964	2708	2675	33
4624301	1	202	196	35	1965	2707	2675	32
4624301	1	202	196	36	1966	2701	2675	26
4624301	1	202	196	37	1967	2705	2675	30
4624301	1	202	196	38	1968	2707	2675	32
4624301	1	202	196	39	1969	2707	2675	32

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4624301	1	202	196	41	1971	2707	2675	32
4624301	1	202	196	42	1972	2710	2675	35
4624301	1	202	196	43	1973	2707	2675	32
4624301	1	202	196	44	1974	2709	2675	34
4624301	1	202	196	45	1975	2708	2675	33
4624301	1	202	196	46	1976	2708	2675	33
4624301	1	202	196	47	1977	2708	2674	34
4624301	1	202	196	48	1978	2707	2674	33
4624301	1	202	196	50	1980	2709	2674	35
4624301	1	202	196	51	1981	2708	2674	34
4624301	1	202	196	53	1983	2709	2674	35
4624301	1	202	196	54	1984	2709	2674	35
4624301	1	202	196	57	1987	2709	2674	35
4624301	1	202	196	58	1988	2710	2674	36
4624301	1	202	196	59	1989	2710	2673	37
4624301	1	202	196	60	1990	2709	2673	36
4624301	1	202	196	61	1991	2709	2673	36
4624301	1	202	196	63	1993	2710	2673	37
4624301	1	202	196	64	1994	2707	2673	34
4624301	1	202	196	66	1996	2710	2673	37
4624301	1	202	196	67	1997	2710	2673	37
4624301	1	202	196	68	1998	2710	2672	38
4624301	1	202	196	69	1999	2709	2672	37
4624301	1	202	196	70	2000	2709	2672	37
4624301	1	202	196	71	2001	2709	2672	37
4624301	1	202	196	72	2002	2709	2672	37
4624301	1	202	196	73	2003	2709	2672	37
4624301	1	202	196	74	2004	2709	2672	37
4624301	1	202	196	75	2005	2709	2672	37
4624703	1	211	182	27	1957	2576	2647	-71
4624703	1	211	182	57	1987	2547	2643	-96
4624703	1	211	182	58	1988	2550	2643	-93
4624703	1	211	182	59	1989	2548	2642	-94
4624703	1	211	182	60	1990	2548	2642	-94



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4624703	1	211	182	61	1991	2547	2642	-95
4624703	1	211	182	62	1992	2547	2642	-95
4624703	1	211	182	63	1993	2544	2642	-98
4624703	1	211	182	64	1994	2546	2642	-96
4624703	1	211	182	65	1995	2546	2642	-96
4624703	1	211	182	66	1996	2546	2642	-96
4624703	1	211	182	68	1998	2544	2641	-97
4624703	1	211	182	69	1999	2542	2641	-99
4624703	1	211	182	70	2000	2541	2641	-100
4624703	1	211	182	71	2001	2543	2641	-98
4624703	1	211	182	72	2002	2540	2641	-101
4624703	1	211	182	73	2003	2546	2640	-94
4624703	1	211	182	74	2004	2538	2641	-103
4624703	1	211	182	75	2005	2538	2641	-103
4624705	1	210	182	37	1967	2576	2649	-73
4624705	1	210	182	57	1987	2555	2646	-91
4624705	1	210	182	58	1988	2554	2645	-91
4624705	1	210	182	59	1989	2554	2645	-91
4624705	1	210	182	60	1990	2551	2645	-94
4624705	1	210	182	61	1991	2552	2645	-93
4624705	1	210	182	62	1992	2551	2645	-94
4624705	1	210	182	63	1993	2549	2645	-96
4624705	1	210	182	64	1994	2549	2645	-96
4624705	1	210	182	65	1995	2549	2645	-96
4624705	1	210	182	66	1996	2549	2644	-95
4624705	1	210	182	68	1998	2548	2644	-96
4624705	1	210	182	69	1999	2546	2644	-98
4624705	1	210	182	70	2000	2545	2644	-99
4624705	1	210	182	71	2001	2542	2644	-102
4624705	1	210	182	72	2002	2544	2643	-99
4624705	1	210	182	73	2003	2545	2643	-98
4624705	1	210	182	74	2004	2544	2643	-99
4624705	1	210	182	75	2005	2543	2643	-100
4624801	1	211	186	27	1957	2575	2647	-72

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4624801	1	211	186	37	1967	2567	2646	-79
4624801	1	211	186	40	1970	2570	2646	-76
4624801	1	211	186	41	1971	2570	2646	-76
4624801	1	211	186	43	1973	2569	2646	-77
4624801	1	211	186	44	1974	2569	2646	-77
4624801	1	211	186	45	1975	2569	2646	-77
4624801	1	211	186	46	1976	2560	2646	-86
4624801	1	211	186	47	1977	2568	2646	-78
4624801	1	211	186	50	1980	2565	2645	-80
4624801	1	211	186	52	1982	2556	2645	-89
4624801	1	211	186	54	1984	2552	2644	-92
4624801	1	211	186	56	1986	2554	2644	-90
4624801	1	211	186	57	1987	2544	2644	-100
4624801	1	211	186	58	1988	2549	2644	-95
4624801	1	211	186	59	1989	2545	2644	-99
4624801	1	211	186	60	1990	2543	2643	-100
4624802	1	212	186	26	1956	2574	2644	-70
4624802	1	212	186	27	1957	2573	2644	-71
4624802	1	212	186	29	1959	2574	2644	-70
4624802	1	212	186	31	1961	2574	2644	-70
4624802	1	212	186	32	1962	2573	2644	-71
4624802	1	212	186	33	1963	2570	2644	-74
4624802	1	212	186	35	1965	2572	2644	-72
4624802	1	212	186	36	1966	2568	2644	-76
4624802	1	212	186	37	1967	2572	2644	-72
4624802	1	212	186	38	1968	2573	2644	-71
4624802	1	212	186	39	1969	2571	2643	-72
4624802	1	212	186	41	1971	2570	2643	-73
4624802	1	212	186	42	1972	2564	2643	-79
4624802	1	212	186	43	1973	2569	2643	-74
4624802	1	212	186	46	1976	2563	2643	-80
4624802	1	212	186	47	1977	2568	2643	-75
4624802	1	212	186	48	1978	2570	2643	-73
4624802	1	212	186	54	1984	2565	2642	-77

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4624803	1	211	183	26	1956	2575	2647	-72
4624803	1	211	183	27	1957	2575	2647	-72
4624803	1	211	183	29	1959	2573	2647	-74
4624803	1	211	183	31	1961	2573	2647	-74
4624803	1	211	183	37	1967	2569	2646	-77
4624803	1	211	183	41	1971	2566	2646	-80
4624803	1	211	183	42	1972	2559	2646	-87
4624803	1	211	183	44	1974	2564	2646	-82
4624803	1	211	183	45	1975	2563	2646	-83
4624803	1	211	183	46	1976	2562	2646	-84
4624803	1	211	183	47	1977	2561	2645	-84
4624803	1	211	183	51	1981	2552	2644	-92
4624803	1	211	183	53	1983	2549	2644	-95
4624902	1	213	190	26	1956	2584	2642	-58
4624902	1	213	190	27	1957	2584	2642	-58
4624902	1	213	190	29	1959	2585	2642	-57
4624902	1	213	190	31	1961	2585	2642	-57
4624902	1	213	190	32	1962	2585	2642	-57
4624902	1	213	190	33	1963	2585	2642	-57
4624902	1	213	190	34	1964	2585	2642	-57
4624902	1	213	190	35	1965	2585	2642	-57
4624902	1	213	190	36	1966	2585	2642	-57
4624902	1	213	190	37	1967	2585	2642	-57
4625301	1	183	93	10	1940	3000	2691	309
4625301	1	183	93	18	1948	3003	2691	312
4625301	1	183	93	19	1949	3004	2691	313
4625301	1	183	93	20	1950	3002	2691	311
4626401	1	188	93	39	1969	2915	2689	226
4626401	1	188	93	40	1970	2915	2689	226
4626401	1	188	93	41	1971	2916	2689	227
4626401	1	188	93	42	1972	2916	2689	227
4626401	1	188	93	58	1988	2916	2687	229
4626401	1	188	93	59	1989	2912	2687	225
4626401	1	188	93	60	1990	2914	2687	227

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4626401	1	188	93	61	1991	2912	2687	225
4626401	1	188	93	62	1992	2916	2686	230
4626401	1	188	93	63	1993	2916	2686	230
4626401	1	188	93	64	1994	2911	2686	225
4626401	1	188	93	65	1995	2916	2686	230
4626401	1	188	93	66	1996	2908	2686	222
4626401	1	188	93	67	1997	2914	2686	228
4626401	1	188	93	68	1998	2915	2686	229
4626401	1	188	93	69	1999	2915	2686	229
4626401	1	188	93	70	2000	2911	2685	226
4626401	1	188	93	71	2001	2916	2685	231
4626401	1	188	93	72	2002	2916	2685	231
4626401	1	188	93	73	2003	2916	2685	231
4626401	1	188	93	74	2004	2916	2685	231
4626401	1	188	93	75	2005	2915	2685	230
4626701	1	197	91	10	1940	2895	2691	204
4626701	1	197	91	18	1948	2902	2691	211
4626701	1	197	91	19	1949	2907	2691	216
4626701	1	197	91	20	1950	2902	2691	211
4626701	1	197	91	21	1951	2901	2691	210
4626701	1	197	91	29	1959	2900	2690	210
4627301	1	194	119	10	1940	2626	2663	-37
4627301	1	194	119	19	1949	2626	2663	-37
4627301	1	194	119	20	1950	2626	2663	-37
4627301	1	194	119	21	1951	2626	2663	-37
4627301	1	194	119	22	1952	2626	2663	-37
4627301	1	194	119	23	1953	2626	2663	-37
4627301	1	194	119	24	1954	2624	2662	-38
4627301	1	194	119	25	1955	2620	2662	-42
4627301	1	194	119	26	1956	2618	2662	-44
4627301	1	194	119	27	1957	2616	2662	-46
4627301	1	194	119	28	1958	2614	2662	-48
4627301	1	194	119	29	1959	2613	2662	-49
4627302	1	194	119	58	1988	2543	2658	-115

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4627302	1	194	119	59	1989	2557	2658	-101
4627302	1	194	119	60	1990	2579	2658	-79
4627302	1	194	119	61	1991	2578	2658	-80
4627302	1	194	119	62	1992	2578	2658	-80
4627302	1	194	119	63	1993	2578	2658	-80
4627302	1	194	119	64	1994	2577	2658	-81
4627302	1	194	119	65	1995	2577	2658	-81
4627302	1	194	119	66	1996	2576	2658	-82
4627302	1	194	119	67	1997	2576	2657	-81
4627302	1	194	119	68	1998	2576	2657	-81
4627302	1	194	119	69	1999	2576	2657	-81
4627302	1	194	119	71	2001	2575	2657	-82
4627302	1	194	119	72	2002	2575	2657	-82
4627302	1	194	119	73	2003	2575	2657	-82
4627302	1	194	119	74	2004	2574	2657	-83
4627302	1	194	119	75	2005	2574	2657	-83
4628301	1	197	131	10	1940	2619	2638	-19
4628301	1	197	131	11	1941	2619	2638	-19
4628301	1	197	131	12	1942	2620	2638	-18
4628301	1	197	131	19	1949	2618	2638	-20
4628301	1	197	131	20	1950	2617	2638	-21
4628301	1	197	131	21	1951	2617	2638	-21
4628301	1	197	131	22	1952	2617	2638	-21
4628301	1	197	131	23	1953	2616	2638	-22
4628301	1	197	131	24	1954	2615	2638	-23
4628301	1	197	131	25	1955	2615	2637	-22
4628301	1	197	131	26	1956	2617	2637	-20
4628301	1	197	131	28	1958	2615	2637	-22
4628301	1	197	131	29	1959	2616	2637	-21
4628501	1	204	124	10	1940	2603	2641	-38
4628501	1	204	124	11	1941	2603	2641	-38
4628501	1	204	124	19	1949	2602	2640	-38
4628501	1	204	124	20	1950	2603	2640	-37
4628501	1	204	124	21	1951	2602	2640	-38

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4628801	1	207	123	29	1959	2548	2637	-89
4628801	1	207	123	30	1960	2538	2637	-99
4628801	1	207	123	31	1961	2570	2637	-67
4628801	1	207	123	32	1962	2568	2636	-68
4628801	1	207	123	33	1963	2565	2636	-71
4628801	1	207	123	34	1964	2575	2635	-60
4628801	1	207	123	35	1965	2539	2635	-96
4628801	1	207	123	36	1966	2540	2635	-95
4628801	1	207	123	37	1967	2536	2634	-98
4628801	1	207	123	38	1968	2537	2634	-97
4628801	1	207	123	39	1969	2515	2634	-119
4628801	1	207	123	40	1970	2522	2634	-112
4628801	1	207	123	41	1971	2516	2633	-117
4628801	1	207	123	42	1972	2507	2633	-126
4628801	1	207	123	45	1975	2515	2633	-118
4628801	1	207	123	46	1976	2520	2633	-113
4628801	1	207	123	47	1977	2541	2632	-91
4628801	1	207	123	48	1978	2539	2632	-93
4628801	1	207	123	49	1979	2541	2632	-91
4628801	1	207	123	50	1980	2543	2632	-89
4628801	1	207	123	53	1983	2544	2632	-88
4628801	1	207	123	54	1984	2543	2633	-90
4628801	1	207	123	56	1986	2539	2633	-94
4628801	1	207	123	57	1987	2546	2633	-87
4628802	1	209	126	28	1958	2588	2622	-34
4628802	1	209	126	29	1959	2587	2622	-35
4628802	1	209	126	30	1960	2588	2622	-34
4628802	1	209	126	31	1961	2589	2621	-32
4628802	1	209	126	32	1962	2589	2621	-32
4628802	1	209	126	34	1964	2580	2620	-40
4628802	1	209	126	35	1965	2581	2620	-39
4628802	1	209	126	36	1966	2579	2620	-41
4628802	1	209	126	37	1967	2580	2620	-40
4628802	1	209	126	38	1968	2587	2620	-33

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4628802	1	209	126	39	1969	2591	2620	-29
4628802	1	209	126	40	1970	2591	2619	-28
4628802	1	209	126	41	1971	2590	2619	-29
4628802	1	209	126	42	1972	2588	2619	-31
4628802	1	209	126	44	1974	2590	2619	-29
4628802	1	209	126	45	1975	2592	2619	-27
4628802	1	209	126	46	1976	2596	2619	-23
4628802	1	209	126	47	1977	2590	2619	-29
4628802	1	209	126	49	1979	2586	2619	-33
4628802	1	209	126	51	1981	2577	2619	-42
4628802	1	209	126	53	1983	2578	2619	-41
4628802	1	209	126	54	1984	2573	2619	-46
4628802	1	209	126	58	1988	2573	2620	-47
4628901	1	211	129	16	1946	2583	2606	-23
4628901	1	211	129	17	1947	2583	2606	-23
4628901	1	211	129	18	1948	2581	2605	-24
4628901	1	211	129	19	1949	2583	2605	-22
4628901	1	211	129	20	1950	2581	2605	-24
4628901	1	211	129	21	1951	2582	2605	-23
4628901	1	211	129	22	1952	2580	2605	-25
4628901	1	211	129	23	1953	2580	2605	-25
4628901	1	211	129	24	1954	2576	2605	-29
4628901	1	211	129	25	1955	2576	2605	-29
4628901	1	211	129	29	1959	2575	2604	-29
4628902	1	209	127	10	1940	2592	2621	-29
4628902	1	209	127	11	1941	2591	2621	-30
4628902	1	209	127	18	1948	2590	2620	-30
4628902	1	209	127	19	1949	2590	2620	-30
4628902	1	209	127	20	1950	2589	2620	-31
4628902	1	209	127	21	1951	2589	2619	-30
4628902	1	209	127	23	1953	2587	2619	-32
4628902	1	209	127	24	1954	2588	2619	-31
4628902	1	209	127	25	1955	2591	2619	-28
4628902	1	209	127	26	1956	2594	2618	-24

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4628902	1	209	127	27	1957	2594	2618	-24
4628902	1	209	127	28	1958	2593	2618	-25

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4628902	1	209	127	29	1959	2595	2618	-23
4629201	1	201	144	37	1967	2614	2649	-35
4629201	1	201	144	44	1974	2616	2649	-33
4629201	1	201	144	45	1975	2615	2649	-34
4629201	1	201	144	46	1976	2589	2649	-60
4629201	1	201	144	47	1977	2615	2649	-34
4629201	1	201	144	48	1978	2626	2649	-23
4629201	1	201	144	50	1980	2618	2649	-31
4629201	1	201	144	51	1981	2619	2649	-30
4629201	1	201	144	53	1983	2618	2649	-31
4629201	1	201	144	69	1999	2612	2648	-36
4629201	1	201	144	72	2002	2611	2648	-37
4629402	1	206	137	9	1939	2593	2620	-27
4629402	1	206	137	10	1940	2593	2620	-27
4629402	1	206	137	11	1941	2593	2620	-27
4629402	1	206	137	19	1949	2590	2620	-30
4629402	1	206	137	20	1950	2590	2620	-30
4629402	1	206	137	37	1967	2585	2620	-35
4629503	1	205	139	9	1939	2595	2629	-34
4629503	1	205	139	10	1940	2597	2629	-32
4629503	1	205	139	11	1941	2597	2629	-32
4629503	1	205	139	12	1942	2598	2629	-31
4629503	1	205	139	19	1949	2595	2629	-34
4629503	1	205	139	20	1950	2595	2629	-34
4629503	1	205	139	37	1967	2591	2629	-38
4629701	1	211	135	11	1941	2596	2603	-7



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4629701	1	211	135	16	1946	2590	2603	-13
4629701	1	211	135	17	1947	2589	2603	-14
4629701	1	211	135	18	1948	2586	2603	-17
4629701	1	211	135	19	1949	2584	2603	-19
4629701	1	211	135	20	1950	2583	2603	-20
4629701	1	211	135	21	1951	2585	2603	-18
4629701	1	211	135	22	1952	2581	2603	-22
4629701	1	211	135	23	1953	2580	2603	-23
4629701	1	211	135	24	1954	2577	2603	-26
4629701	1	211	135	25	1955	2578	2603	-25
4629701	1	211	135	26	1956	2583	2603	-20
4629701	1	211	135	27	1957	2581	2603	-22
4629701	1	211	135	28	1958	2578	2603	-25
4629701	1	211	135	29	1959	2583	2603	-20
4629701	1	211	135	31	1961	2586	2603	-17
4629701	1	211	135	32	1962	2580	2603	-23
4629701	1	211	135	33	1963	2575	2603	-28
4629701	1	211	135	34	1964	2569	2603	-34
4629701	1	211	135	35	1965	2573	2603	-30
4629701	1	211	135	36	1966	2572	2603	-31
4629701	1	211	135	37	1967	2585	2603	-18
4629701	1	211	135	38	1968	2584	2603	-19
4629701	1	211	135	39	1969	2579	2603	-24
4629701	1	211	135	41	1971	2576	2603	-27
4629701	1	211	135	42	1972	2576	2603	-27
4629701	1	211	135	43	1973	2582	2603	-21
4629701	1	211	135	44	1974	2582	2603	-21
4629701	1	211	135	45	1975	2591	2603	-12
4629701	1	211	135	46	1976	2575	2603	-28
4629701	1	211	135	47	1977	2587	2603	-16
4629701	1	211	135	48	1978	2583	2603	-20
4629701	1	211	135	50	1980	2583	2603	-20
4629701	1	211	135	52	1982	2586	2603	-17
4629701	1	211	135	54	1984	2581	2603	-22

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4629701	1	211	135	56	1986	2583	2603	-20
4629701	1	211	135	57	1987	2575	2603	-28
4629701	1	211	135	58	1988	2576	2603	-27
4629701	1	211	135	59	1989	2576	2603	-27
4629701	1	211	135	60	1990	2580	2603	-23
4629701	1	211	135	61	1991	2581	2603	-22
4629701	1	211	135	62	1992	2580	2603	-23
4629701	1	211	135	63	1993	2581	2603	-22
4629701	1	211	135	65	1995	2586	2603	-17
4629701	1	211	135	66	1996	2585	2602	-17
4629701	1	211	135	67	1997	2583	2602	-19
4629701	1	211	135	68	1998	2583	2602	-19
4629701	1	211	135	69	1999	2580	2602	-22
4629701	1	211	135	70	2000	2577	2602	-25
4629701	1	211	135	71	2001	2577	2602	-25
4629701	1	211	135	72	2002	2577	2602	-25
4629701	1	211	135	73	2003	2575	2602	-27
4629701	1	211	135	74	2004	2573	2602	-29
4629701	1	211	135	75	2005	2573	2602	-29
4629702	1	213	134	16	1946	2577	2597	-20
4629702	1	213	134	17	1947	2576	2597	-21
4629702	1	213	134	19	1949	2572	2597	-25
4629702	1	213	134	20	1950	2570	2597	-27
4629702	1	213	134	21	1951	2574	2597	-23
4629702	1	213	134	22	1952	2572	2597	-25
4629702	1	213	134	23	1953	2569	2597	-28
4629702	1	213	134	24	1954	2566	2597	-31
4629702	1	213	134	25	1955	2566	2597	-31
4629702	1	213	134	26	1956	2570	2597	-27
4629702	1	213	134	27	1957	2569	2597	-28
4629702	1	213	134	28	1958	2568	2597	-29
4629702	1	213	134	29	1959	2570	2597	-27
4629702	1	213	134	31	1961	2573	2597	-24
4629702	1	213	134	33	1963	2565	2597	-32

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4629702	1	213	134	34	1964	2561	2597	-36
4629702	1	213	134	35	1965	2563	2597	-34
4629702	1	213	134	36	1966	2563	2597	-34
4629702	1	213	134	37	1967	2570	2597	-27
4629702	1	213	134	38	1968	2571	2597	-26
4629702	1	213	134	39	1969	2568	2597	-29
4629702	1	213	134	41	1971	2567	2597	-30
4629702	1	213	134	42	1972	2563	2597	-34
4629702	1	213	134	43	1973	2564	2597	-33
4629702	1	213	134	44	1974	2567	2597	-30
4629702	1	213	134	45	1975	2573	2597	-24
4629704	1	208	134	9	1939	2603	2609	-6
4629704	1	208	134	10	1940	2599	2609	-10
4629704	1	208	134	11	1941	2602	2609	-7
4629704	1	208	134	12	1942	2603	2609	-6
4629704	1	208	134	37	1967	2592	2608	-16
4629705	1	210	134	16	1946	2587	2604	-17
4629705	1	210	134	17	1947	2585	2604	-19
4629705	1	210	134	18	1948	2582	2604	-22
4629705	1	210	134	19	1949	2580	2604	-24
4629705	1	210	134	20	1950	2579	2604	-25
4629705	1	210	134	37	1967	2581	2603	-22
4629706	1	213	134	16	1946	2582	2597	-15
4629706	1	213	134	17	1947	2581	2597	-16
4629706	1	213	134	19	1949	2577	2597	-20
4629706	1	213	134	20	1950	2575	2597	-22
4629706	1	213	134	28	1958	2573	2597	-24
4629706	1	213	134	29	1959	2575	2597	-22
4629706	1	213	134	37	1967	2577	2597	-20
4629708	1	213	134	16	1946	2586	2597	-11
4629708	1	213	134	17	1947	2584	2597	-13
4629708	1	213	134	19	1949	2580	2597	-17
4629708	1	213	134	20	1950	2578	2597	-19
4629708	1	213	134	37	1967	2581	2597	-16

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4629801	1	212	140	16	1946	2576	2608	-32
4629801	1	212	140	17	1947	2577	2608	-31
4629801	1	212	140	20	1950	2574	2608	-34
4629801	1	212	140	21	1951	2574	2608	-34
4629801	1	212	140	22	1952	2572	2608	-36
4629801	1	212	140	23	1953	2571	2608	-37
4629801	1	212	140	24	1954	2571	2608	-37
4629801	1	212	140	25	1955	2570	2607	-37
4629801	1	212	140	26	1956	2570	2607	-37
4629801	1	212	140	27	1957	2571	2607	-36
4629801	1	212	140	28	1958	2570	2608	-38
4629801	1	212	140	31	1961	2571	2608	-37
4629801	1	212	140	32	1962	2570	2607	-37
4629801	1	212	140	33	1963	2570	2607	-37
4629801	1	212	140	34	1964	2569	2607	-38
4629801	1	212	140	35	1965	2569	2607	-38
4629801	1	212	140	36	1966	2569	2607	-38
4629801	1	212	140	37	1967	2568	2607	-39
4629801	1	212	140	38	1968	2569	2607	-38
4629801	1	212	140	39	1969	2569	2607	-38
4629801	1	212	140	41	1971	2569	2607	-38
4629801	1	212	140	42	1972	2565	2607	-42
4629801	1	212	140	43	1973	2568	2607	-39
4629801	1	212	140	44	1974	2567	2607	-40
4629801	1	212	140	45	1975	2569	2607	-38
4629801	1	212	140	46	1976	2567	2607	-40
4629801	1	212	140	47	1977	2568	2607	-39
4629801	1	212	140	48	1978	2566	2607	-41
4629801	1	212	140	50	1980	2570	2607	-37
4629801	1	212	140	52	1982	2570	2607	-37
4629801	1	212	140	54	1984	2570	2607	-37
4629801	1	212	140	56	1986	2569	2607	-38
4631302	1	214	174	26	1956	2566	2638	-72
4631302	1	214	174	27	1957	2564	2638	-74

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4631302	1	214	174	29	1959	2565	2638	-73
4631302	1	214	174	31	1961	2566	2638	-72
4631302	1	214	174	32	1962	2566	2637	-71
4631302	1	214	174	33	1963	2564	2637	-73
4631302	1	214	174	34	1964	2565	2637	-72
4631302	1	214	174	35	1965	2565	2637	-72
4631302	1	214	174	36	1966	2565	2637	-72
4631302	1	214	174	37	1967	2565	2637	-72
4631302	1	214	174	38	1968	2565	2637	-72
4631302	1	214	174	39	1969	2565	2637	-72
4631302	1	214	174	41	1971	2565	2637	-72
4631302	1	214	174	42	1972	2554	2636	-82
4631302	1	214	174	43	1973	2564	2636	-72
4631302	1	214	174	44	1974	2562	2636	-74
4631302	1	214	174	45	1975	2551	2636	-85
4631302	1	214	174	46	1976	2553	2636	-83
4631302	1	214	174	47	1977	2563	2636	-73
4631302	1	214	174	48	1978	2563	2635	-72
4631302	1	214	174	50	1980	2554	2635	-81
4631302	1	214	174	52	1982	2552	2634	-82
4631302	1	214	174	54	1984	2551	2633	-82
4631302	1	214	174	56	1986	2554	2633	-79
4631302	1	214	174	57	1987	2562	2633	-71
4631302	1	214	174	58	1988	2562	2632	-70
4631302	1	214	174	59	1989	2561	2632	-71
4631302	1	214	174	60	1990	2561	2632	-71
4631302	1	214	174	61	1991	2561	2632	-71
4631302	1	214	174	62	1992	2561	2632	-71
4631302	1	214	174	63	1993	2556	2632	-76
4631302	1	214	174	64	1994	2560	2632	-72
4631302	1	214	174	65	1995	2560	2632	-72
4631302	1	214	174	67	1997	2559	2631	-72
4631601	1	217	175	26	1956	2566	2629	-63
4631601	1	217	175	27	1957	2562	2629	-67

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4631601	1	217	175	29	1959	2563	2629	-66
4631601	1	217	175	31	1961	2565	2629	-64
4631601	1	217	175	32	1962	2565	2629	-64
4631601	1	217	175	33	1963	2564	2629	-65
4631601	1	217	175	34	1964	2564	2629	-65
4631601	1	217	175	35	1965	2564	2629	-65
4631601	1	217	175	36	1966	2564	2629	-65
4631601	1	217	175	37	1967	2564	2628	-64
4631601	1	217	175	38	1968	2562	2628	-66
4631601	1	217	175	39	1969	2564	2628	-64
4631601	1	217	175	41	1971	2562	2628	-66
4631601	1	217	175	42	1972	2552	2628	-76
4631602	1	218	174	26	1956	2560	2626	-66
4631602	1	218	174	27	1957	2559	2626	-67
4631602	1	218	174	29	1959	2559	2626	-67
4631602	1	218	174	31	1961	2560	2626	-66
4631602	1	218	174	32	1962	2560	2626	-66
4631602	1	218	174	33	1963	2559	2626	-67
4631602	1	218	174	37	1967	2556	2626	-70
4631901	1	225	168	27	1957	2547	2608	-61
4631901	1	225	168	29	1959	2550	2608	-58
4631901	1	225	168	31	1961	2550	2607	-57
4631901	1	225	168	32	1962	2551	2607	-56
4631901	1	225	168	34	1964	2551	2607	-56
4631901	1	225	168	35	1965	2551	2607	-56
4631901	1	225	168	36	1966	2551	2606	-55
4631901	1	225	168	37	1967	2543	2606	-63
4631901	1	225	168	38	1968	2548	2606	-58
4631901	1	225	168	39	1969	2550	2606	-56
4632403	1	221	174	26	1956	2552	2618	-66
4632403	1	221	174	27	1957	2549	2618	-69
4632403	1	221	174	29	1959	2549	2618	-69
4632403	1	221	174	31	1961	2551	2617	-66
4632403	1	221	174	32	1962	2550	2617	-67

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632403	1	221	174	33	1963	2549	2617	-68
4632403	1	221	174	34	1964	2549	2617	-68
4632403	1	221	174	35	1965	2549	2617	-68
4632403	1	221	174	36	1966	2549	2617	-68
4632403	1	221	174	37	1967	2548	2617	-69
4632403	1	221	174	38	1968	2549	2617	-68
4632403	1	221	174	39	1969	2549	2617	-68
4632403	1	221	174	41	1971	2548	2616	-68
4632403	1	221	174	42	1972	2540	2616	-76
4632403	1	221	174	43	1973	2547	2616	-69
4632403	1	221	174	44	1974	2548	2616	-68
4632403	1	221	174	45	1975	2537	2616	-79
4632403	1	221	174	46	1976	2547	2616	-69
4632403	1	221	174	47	1977	2547	2616	-69
4632403	1	221	174	48	1978	2547	2615	-68
4632403	1	221	174	50	1980	2546	2615	-69
4632403	1	221	174	51	1981	2547	2615	-68
4632403	1	221	174	53	1983	2548	2614	-66
4632403	1	221	174	54	1984	2547	2614	-67
4632405	1	221	176	26	1956	2549	2617	-68
4632405	1	221	176	27	1957	2547	2617	-70
4632405	1	221	176	29	1959	2548	2617	-69
4632405	1	221	176	31	1961	2548	2617	-69
4632405	1	221	176	32	1962	2548	2617	-69
4632405	1	221	176	33	1963	2547	2617	-70
4632405	1	221	176	34	1964	2547	2617	-70
4632405	1	221	176	35	1965	2547	2616	-69
4632405	1	221	176	36	1966	2546	2616	-70
4632405	1	221	176	37	1967	2546	2616	-70
4632405	1	221	176	39	1969	2546	2616	-70
4632405	1	221	176	41	1971	2545	2616	-71
4632405	1	221	176	44	1974	2545	2616	-71
4632504	1	223	183	10	1940	2542	2609	-67
4632504	1	223	183	22	1952	2540	2609	-69

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632504	1	223	183	23	1953	2540	2609	-69
4632504	1	223	183	24	1954	2539	2609	-70
4632504	1	223	183	25	1955	2539	2609	-70
4632504	1	223	183	26	1956	2539	2608	-69
4632504	1	223	183	27	1957	2539	2608	-69
4632504	1	223	183	28	1958	2538	2608	-70
4632504	1	223	183	29	1959	2537	2608	-71
4632504	1	223	183	31	1961	2537	2608	-71
4632504	1	223	183	32	1962	2537	2608	-71
4632504	1	223	183	33	1963	2536	2608	-72
4632504	1	223	183	34	1964	2536	2608	-72
4632504	1	223	183	35	1965	2536	2608	-72
4632504	1	223	183	36	1966	2535	2608	-73
4632504	1	223	183	37	1967	2534	2608	-74
4632504	1	223	183	39	1969	2532	2608	-76
4632504	1	223	183	41	1971	2532	2607	-75
4632504	1	223	183	43	1973	2530	2607	-77
4632504	1	223	183	44	1974	2529	2607	-78
4632504	1	223	183	45	1975	2528	2607	-79
4632504	1	223	183	46	1976	2527	2607	-80
4632504	1	223	183	47	1977	2528	2607	-79
4632504	1	223	183	48	1978	2526	2607	-81
4632504	1	223	183	50	1980	2524	2607	-83
4632504	1	223	183	52	1982	2522	2606	-84
4632504	1	223	183	54	1984	2520	2606	-86
4632504	1	223	183	56	1986	2516	2605	-89
4632504	1	223	183	57	1987	2517	2605	-88
4632504	1	223	183	58	1988	2510	2605	-95
4632506	1	223	181	25	1955	2536	2609	-73
4632506	1	223	181	29	1959	2534	2609	-75
4632506	1	223	181	31	1961	2535	2609	-74
4632506	1	223	181	32	1962	2534	2609	-75
4632506	1	223	181	33	1963	2532	2609	-77
4632506	1	223	181	34	1964	2532	2608	-76



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632506	1	223	181	35	1965	2532	2608	-76
4632506	1	223	181	36	1966	2531	2608	-77
4632506	1	223	181	37	1967	2531	2608	-77
4632506	1	223	181	39	1969	2529	2608	-79
4632506	1	223	181	41	1971	2528	2608	-80
4632506	1	223	181	42	1972	2548	2608	-60
4632506	1	223	181	44	1974	2526	2608	-82
4632514	1	224	181	15	1945	2523	2606	-83
4632514	1	224	181	37	1967	2530	2605	-75
4632514	1	224	181	53	1983	2518	2603	-85
4632514	1	224	181	54	1984	2516	2602	-86
4632514	1	224	181	55	1985	2521	2602	-81
4632514	1	224	181	56	1986	2516	2602	-86
4632514	1	224	181	57	1987	2516	2602	-86
4632514	1	224	181	59	1989	2515	2602	-87
4632514	1	224	181	60	1990	2514	2602	-88
4632514	1	224	181	61	1991	2513	2602	-89
4632514	1	224	181	62	1992	2513	2601	-88
4632514	1	224	181	63	1993	2508	2601	-93
4632514	1	224	181	64	1994	2512	2601	-89
4632514	1	224	181	65	1995	2510	2601	-91
4632514	1	224	181	66	1996	2510	2601	-91
4632514	1	224	181	67	1997	2508	2601	-93
4632516	1	224	181	52	1982	2523	2603	-80
4632516	1	224	181	53	1983	2520	2603	-83
4632516	1	224	181	54	1984	2519	2602	-83
4632516	1	224	181	55	1985	2519	2602	-83
4632516	1	224	181	56	1986	2518	2602	-84
4632516	1	224	181	57	1987	2519	2602	-83
4632516	1	224	181	58	1988	2519	2602	-83
4632516	1	224	181	59	1989	2517	2602	-85
4632516	1	224	181	60	1990	2503	2602	-99
4632516	1	224	181	61	1991	2516	2602	-86
4632516	1	224	181	63	1993	2505	2601	-96

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632516	1	224	181	64	1994	2515	2601	-86
4632516	1	224	181	65	1995	2512	2601	-89
4632516	1	224	181	66	1996	2513	2601	-88
4632516	1	224	181	67	1997	2508	2601	-93
4632516	1	224	181	70	2000	2510	2600	-90
4632516	1	224	181	72	2002	2507	2600	-93
4632626	1	224	186	41	1971	2534	2603	-69
4632626	1	224	186	51	1981	2509	2603	-94
4632626	1	224	186	52	1982	2511	2602	-91
4632626	1	224	186	53	1983	2510	2602	-92
4632626	1	224	186	54	1984	2507	2602	-95
4632626	1	224	186	55	1985	2506	2602	-96
4632626	1	224	186	56	1986	2506	2602	-96
4632626	1	224	186	57	1987	2505	2602	-97
4632626	1	224	186	58	1988	2506	2601	-95
4632626	1	224	186	59	1989	2463	2601	-138
4632626	1	224	186	60	1990	2503	2601	-98
4632626	1	224	186	61	1991	2503	2601	-98
4632626	1	224	186	62	1992	2502	2601	-99
4632626	1	224	186	63	1993	2499	2601	-102
4632626	1	224	186	64	1994	2500	2601	-101
4632626	1	224	186	65	1995	2496	2601	-105
4632626	1	224	186	66	1996	2494	2601	-107
4632626	1	224	186	67	1997	2497	2600	-103
4632626	1	224	186	68	1998	2497	2600	-103
4632626	1	224	186	69	1999	2496	2600	-104
4632626	1	224	186	70	2000	2495	2600	-105
4632626	1	224	186	71	2001	2495	2600	-105
4632626	1	224	186	72	2002	2481	2600	-119
4632626	1	224	186	73	2003	2491	2600	-109
4632626	1	224	186	74	2004	2494	2600	-106
4632626	1	224	186	75	2005	2495	2600	-105
4632906	1	229	185	40	1970	2520	2584	-64
4632906	1	229	185	51	1981	2501	2583	-82

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632906	1	229	185	52	1982	2492	2583	-91
4632906	1	229	185	53	1983	2491	2583	-92
4632906	1	229	185	54	1984	2488	2583	-95
4632906	1	229	185	55	1985	2488	2583	-95
4632906	1	229	185	56	1986	2488	2583	-95
4632906	1	229	185	57	1987	2489	2583	-94
4632906	1	229	185	58	1988	2491	2582	-91
4632906	1	229	185	59	1989	2436	2582	-146
4632906	1	229	185	60	1990	2484	2582	-98
4632906	1	229	185	61	1991	2487	2582	-95
4632906	1	229	185	62	1992	2485	2582	-97
4632906	1	229	185	63	1993	2487	2582	-95
4632906	1	229	185	64	1994	2484	2582	-98
4632906	1	229	185	65	1995	2482	2582	-100
4632906	1	229	185	66	1996	2482	2582	-100
4632906	1	229	185	67	1997	2483	2582	-99
4632912	1	227	187	41	1971	2525	2592	-67
4632912	1	227	187	51	1981	2485	2591	-106
4632912	1	227	187	52	1982	2488	2591	-103
4632912	1	227	187	53	1983	2486	2591	-105
4632912	1	227	187	54	1984	2482	2591	-109
4632912	1	227	187	55	1985	2481	2591	-110
4632912	1	227	187	56	1986	2480	2591	-111
4632912	1	227	187	57	1987	2482	2590	-108
4632912	1	227	187	58	1988	2486	2590	-104
4632912	1	227	187	59	1989	2483	2590	-107
4632912	1	227	187	60	1990	2476	2590	-114
4632912	1	227	187	61	1991	2482	2590	-108
4632912	1	227	187	62	1992	2480	2590	-110
4632912	1	227	187	63	1993	2482	2590	-108
4632912	1	227	187	64	1994	2480	2590	-110
4632912	1	227	187	65	1995	2478	2590	-112
4632912	1	227	187	66	1996	2479	2589	-110
4632912	1	227	187	67	1997	2478	2589	-111

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632912	1	227	187	68	1998	2476	2589	-113
4632912	1	227	187	69	1999	2468	2589	-121
4632912	1	227	187	70	2000	2466	2589	-123
4632912	1	227	187	71	2001	2472	2589	-117
4632912	1	227	187	72	2002	2468	2589	-121
4632912	1	227	187	73	2003	2469	2589	-120
4632912	1	227	187	74	2004	2476	2589	-113
4632921	1	232	186	47	1977	2498	2572	-74
4632921	1	232	186	51	1981	2493	2571	-78
4632921	1	232	186	52	1982	2492	2571	-79
4632921	1	232	186	53	1983	2492	2571	-79
4632921	1	232	186	54	1984	2490	2571	-81
4632921	1	232	186	55	1985	2489	2571	-82
4632921	1	232	186	56	1986	2488	2571	-83
4632921	1	232	186	57	1987	2488	2570	-82
4632921	1	232	186	58	1988	2490	2570	-80
4632921	1	232	186	59	1989	2360	2570	-210
4632921	1	232	186	60	1990	2486	2570	-84
4632921	1	232	186	61	1991	2486	2570	-84
4632921	1	232	186	62	1992	2484	2570	-86
4632921	1	232	186	63	1993	2487	2570	-83
4632921	1	232	186	64	1994	2486	2570	-84
4632921	1	232	186	65	1995	2485	2570	-85
4632921	1	232	186	66	1996	2483	2570	-87
4632921	1	232	186	67	1997	2483	2570	-87
4632921	1	232	186	68	1998	2483	2569	-86
4632921	1	232	186	69	1999	2481	2569	-88
4632921	1	232	186	70	2000	2482	2569	-87
4632921	1	232	186	71	2001	2482	2569	-87
4632921	1	232	186	72	2002	2480	2569	-89
4632921	1	232	186	73	2003	2478	2569	-91
4632921	1	232	186	74	2004	2479	2569	-90
4632921	1	232	186	75	2005	2479	2569	-90
4634903	1	216	97	22	1952	2809	2723	86

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4634903	1	216	97	23	1953	2811	2723	88
4634903	1	216	97	24	1954	2809	2722	87
4634903	1	216	97	25	1955	2810	2722	88
4634903	1	216	97	26	1956	2811	2721	90
4634903	1	216	97	27	1957	2812	2720	92
4634903	1	216	97	28	1958	2812	2720	92
4634903	1	216	97	29	1959	2814	2719	95
4634903	1	216	97	30	1960	2813	2718	95
4635101	1	205	106	18	1948	2636	2684	-48
4635101	1	205	106	19	1949	2639	2684	-45
4635101	1	205	106	20	1950	2639	2683	-44
4635101	1	205	106	21	1951	2637	2683	-46
4635101	1	205	106	22	1952	2637	2683	-46
4635101	1	205	106	23	1953	2636	2683	-47
4635101	1	205	106	24	1954	2635	2682	-47
4635101	1	205	106	25	1955	2633	2682	-49
4635101	1	205	106	26	1956	2630	2682	-52
4635101	1	205	106	27	1957	2627	2681	-54
4635101	1	205	106	28	1958	2624	2681	-57
4635101	1	205	106	29	1959	2625	2681	-56
4635501	1	212	107	28	1958	2556	2681	-125
4635501	1	212	107	29	1959	2555	2680	-125
4635501	1	212	107	31	1961	2535	2679	-144
4635501	1	212	107	33	1963	2508	2677	-169
4635501	1	212	107	36	1966	2439	2675	-236
4635501	1	212	107	37	1967	2432	2674	-242
4635501	1	212	107	38	1968	2427	2673	-246
4635501	1	212	107	39	1969	2419	2673	-254
4635501	1	212	107	40	1970	2426	2672	-246
4635501	1	212	107	41	1971	2402	2672	-270
4635501	1	212	107	42	1972	2394	2671	-277
4635501	1	212	107	44	1974	2397	2670	-273
4635501	1	212	107	45	1975	2395	2670	-275
4635501	1	212	107	46	1976	2401	2670	-269

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4635501	1	212	107	47	1977	2407	2670	-263
4635501	1	212	107	48	1978	2411	2669	-258
4635501	1	212	107	50	1980	2410	2669	-259
4635501	1	212	107	51	1981	2414	2669	-255
4635501	1	212	107	54	1984	2428	2670	-242
4635501	1	212	107	56	1986	2423	2670	-247
4635501	1	212	107	57	1987	2434	2670	-236
4635501	1	212	107	58	1988	2442	2670	-228
4635501	1	212	107	59	1989	2443	2670	-227
4635501	1	212	107	60	1990	2445	2670	-225
4635501	1	212	107	61	1991	2448	2670	-222
4635501	1	212	107	62	1992	2451	2670	-219
4635501	1	212	107	63	1993	2454	2670	-216
4635501	1	212	107	64	1994	2458	2670	-212
4635501	1	212	107	65	1995	2460	2670	-210
4635501	1	212	107	66	1996	2463	2670	-207
4635501	1	212	107	67	1997	2468	2670	-202
4635501	1	212	107	68	1998	2471	2670	-199
4635501	1	212	107	71	2001	2478	2669	-191
4635501	1	212	107	72	2002	2482	2669	-187
4635501	1	212	107	73	2003	2484	2669	-185
4635501	1	212	107	74	2004	2487	2669	-182
4635501	1	212	107	75	2005	2489	2669	-180
4635502	1	216	106	19	1949	2623	2696	-73
4635502	1	216	106	20	1950	2626	2695	-69
4635502	1	216	106	21	1951	2618	2694	-76
4635502	1	216	106	28	1958	2524	2688	-164
4635502	1	216	106	30	1960	2519	2686	-167
4635601	1	217	111	17	1947	2623	2683	-60
4635601	1	217	111	18	1948	2614	2682	-68
4635601	1	217	111	19	1949	2605	2681	-76
4635601	1	217	111	20	1950	2600	2680	-80
4635601	1	217	111	21	1951	2585	2680	-95
4635601	1	217	111	22	1952	2567	2679	-112

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4635601	1	217	111	23	1953	2550	2678	-128
4635601	1	217	111	24	1954	2558	2677	-119
4635601	1	217	111	26	1956	2555	2675	-120
4635601	1	217	111	27	1957	2551	2674	-123
4635601	1	217	111	28	1958	2561	2673	-112
4635601	1	217	111	29	1959	2548	2672	-124
4635601	1	217	111	30	1960	2553	2670	-117
4635601	1	217	111	31	1961	2558	2669	-111
4635601	1	217	111	32	1962	2551	2668	-117
4635601	1	217	111	33	1963	2551	2667	-116
4635601	1	217	111	34	1964	2543	2666	-123
4635601	1	217	111	35	1965	2538	2665	-127
4635601	1	217	111	36	1966	2545	2664	-119
4635601	1	217	111	37	1967	2554	2663	-109
4635601	1	217	111	38	1968	2551	2662	-111
4635601	1	217	111	39	1969	2549	2662	-113
4635601	1	217	111	40	1970	2548	2661	-113
4635601	1	217	111	41	1971	2547	2661	-114
4635601	1	217	111	42	1972	2547	2660	-113
4635601	1	217	111	44	1974	2548	2659	-111
4635601	1	217	111	45	1975	2502	2659	-157
4635601	1	217	111	46	1976	2496	2658	-162
4635601	1	217	111	47	1977	2510	2658	-148
4635601	1	217	111	48	1978	2501	2659	-158
4635601	1	217	111	49	1979	2500	2659	-159
4635601	1	217	111	50	1980	2502	2659	-157
4635601	1	217	111	52	1982	2502	2660	-158
4635601	1	217	111	54	1984	2494	2660	-166
4635601	1	217	111	57	1987	2500	2661	-161
4635601	1	217	111	58	1988	2507	2662	-155
4635601	1	217	111	59	1989	2503	2662	-159
4635601	1	217	111	60	1990	2503	2662	-159
4635601	1	217	111	61	1991	2502	2663	-161
4635601	1	217	111	62	1992	2464	2663	-199

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4635601	1	217	111	63	1993	2503	2663	-160
4635601	1	217	111	64	1994	2501	2662	-161
4635601	1	217	111	65	1995	2503	2662	-159
4635601	1	217	111	66	1996	2502	2662	-160
4635601	1	217	111	67	1997	2498	2662	-164
4635601	1	217	111	68	1998	2503	2662	-159
4635601	1	217	111	69	1999	2489	2662	-173
4635601	1	217	111	70	2000	2503	2662	-159
4635601	1	217	111	71	2001	2503	2661	-158
4635601	1	217	111	72	2002	2503	2661	-158
4635601	1	217	111	73	2003	2502	2661	-159
4635601	1	217	111	74	2004	2501	2661	-160
4635601	1	217	111	75	2005	2502	2661	-159
4635702	1	218	101	29	1959	2610	2709	-99
4635702	1	218	101	30	1960	2608	2708	-100
4635702	1	218	101	31	1961	2604	2707	-103
4635702	1	218	101	32	1962	2600	2706	-106
4635702	1	218	101	33	1963	2558	2705	-147
4635702	1	218	101	34	1964	2531	2704	-173
4635702	1	218	101	35	1965	2587	2703	-116
4635702	1	218	101	36	1966	2578	2702	-124
4635702	1	218	101	37	1967	2577	2701	-124
4635702	1	218	101	38	1968	2576	2701	-125
4635702	1	218	101	39	1969	2573	2700	-127
4635801	1	216	104	19	1949	2647	2702	-55
4635801	1	216	104	20	1950	2642	2701	-59
4635801	1	216	104	21	1951	2634	2700	-66
4635801	1	216	104	22	1952	2625	2700	-75
4635801	1	216	104	23	1953	2618	2699	-81
4635801	1	216	104	24	1954	2609	2698	-89
4635801	1	216	104	27	1957	2567	2696	-129
4635801	1	216	104	28	1958	2560	2695	-135
4635801	1	216	104	29	1959	2549	2694	-145
4635801	1	216	104	30	1960	2535	2693	-158



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4635801	1	216	104	31	1961	2519	2692	-173
4635801	1	216	104	32	1962	2501	2691	-190
4635801	1	216	104	33	1963	2485	2690	-205
4635801	1	216	104	36	1966	2482	2687	-205
4635801	1	216	104	37	1967	2391	2686	-295
4635801	1	216	104	38	1968	2390	2685	-295
4635801	1	216	104	39	1969	2388	2685	-297
4635801	1	216	104	41	1971	2392	2683	-291
4635801	1	216	104	42	1972	2392	2683	-291
4635803	1	217	107	24	1954	2577	2690	-113
4635803	1	217	107	25	1955	2571	2689	-118
4635803	1	217	107	27	1957	2527	2687	-160
4635803	1	217	107	28	1958	2510	2686	-176
4635803	1	217	107	31	1961	2462	2683	-221
4635803	1	217	107	33	1963	2420	2680	-260
4635803	1	217	107	34	1964	2402	2679	-277
4635803	1	217	107	35	1965	2386	2678	-292
4635803	1	217	107	38	1968	2382	2676	-294
4635803	1	217	107	39	1969	2381	2675	-294
4635803	1	217	107	40	1970	2380	2675	-295
4635803	1	217	107	41	1971	2370	2674	-304
4635803	1	217	107	42	1972	2391	2673	-282
4635803	1	217	107	45	1975	2383	2672	-289
4635803	1	217	107	46	1976	2392	2672	-280
4635803	1	217	107	47	1977	2396	2672	-276
4635803	1	217	107	48	1978	2398	2672	-274
4635803	1	217	107	49	1979	2399	2672	-273
4635803	1	217	107	50	1980	2447	2672	-225
4635803	1	217	107	51	1981	2440	2672	-232
4635803	1	217	107	53	1983	2410	2673	-263
4635803	1	217	107	54	1984	2434	2673	-239
4635803	1	217	107	56	1986	2437	2673	-236
4635803	1	217	107	57	1987	2423	2674	-251
4635803	1	217	107	58	1988	2430	2674	-244

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4635902	1	219	111	28	1958	2457	2675	-218
4635902	1	219	111	29	1959	2479	2674	-195
4635902	1	219	111	30	1960	2458	2673	-215
4635902	1	219	111	31	1961	2446	2671	-225
4635902	1	219	111	32	1962	2420	2670	-250
4635902	1	219	111	35	1965	2364	2666	-302
4635902	1	219	111	36	1966	2361	2665	-304
4635902	1	219	111	38	1968	2360	2664	-304
4635902	1	219	111	39	1969	2359	2663	-304
4635902	1	219	111	40	1970	2346	2663	-317
4635902	1	219	111	41	1971	2297	2662	-365
4635902	1	219	111	46	1976	2396	2660	-264
4635902	1	219	111	47	1977	2405	2660	-255
4635902	1	219	111	48	1978	2408	2660	-252
4635902	1	219	111	50	1980	2403	2661	-258
4635902	1	219	111	52	1982	2417	2661	-244
4635902	1	219	111	54	1984	2389	2662	-273
4635902	1	219	111	56	1986	2404	2663	-259
4635902	1	219	111	57	1987	2453	2663	-210
4635902	1	219	111	58	1988	2463	2663	-200
4635904	1	218	108	19	1949	2617	2693	-76
4635904	1	218	108	20	1950	2622	2692	-70
4635904	1	218	108	21	1951	2606	2691	-85
4635904	1	218	108	22	1952	2590	2690	-100
4635904	1	218	108	23	1953	2574	2689	-115
4636101	1	210	117	28	1958	2531	2653	-122
4636101	1	210	117	29	1959	2534	2653	-119
4636101	1	210	117	30	1960	2532	2652	-120
4636101	1	210	117	31	1961	2529	2651	-122
4636101	1	210	117	32	1962	2519	2651	-132
4636101	1	210	117	34	1964	2497	2649	-152
4636101	1	210	117	35	1965	2494	2649	-155
4636101	1	210	117	36	1966	2492	2648	-156
4636101	1	210	117	37	1967	2470	2648	-178

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636101	1	210	117	38	1968	2470	2647	-177
4636102	1	213	118	19	1949	2604	2654	-50
4636102	1	213	118	20	1950	2597	2653	-56
4636102	1	213	118	21	1951	2593	2653	-60
4636102	1	213	118	22	1952	2580	2652	-72
4636102	1	213	118	23	1953	2568	2651	-83
4636102	1	213	118	24	1954	2561	2651	-90
4636102	1	213	118	25	1955	2554	2650	-96
4636102	1	213	118	26	1956	2546	2649	-103
4636102	1	213	118	27	1957	2539	2649	-110
4636102	1	213	118	28	1958	2530	2648	-118
4636102	1	213	118	29	1959	2536	2647	-111
4636102	1	213	118	30	1960	2516	2646	-130
4636102	1	213	118	31	1961	2512	2645	-133
4636102	1	213	118	34	1964	2489	2643	-154
4636102	1	213	118	35	1965	2481	2642	-161
4636102	1	213	118	36	1966	2480	2642	-162
4636102	1	213	118	37	1967	2478	2641	-163
4636102	1	213	118	38	1968	2476	2641	-165
4636103	1	214	119	19	1949	2594	2650	-56
4636103	1	214	119	20	1950	2585	2650	-65
4636103	1	214	119	21	1951	2585	2649	-64
4636103	1	214	119	23	1953	2561	2648	-87
4636103	1	214	119	24	1954	2557	2647	-90
4636201	1	211	121	28	1958	2532	2640	-108
4636201	1	211	121	29	1959	2540	2639	-99
4636201	1	211	121	30	1960	2533	2639	-106
4636201	1	211	121	31	1961	2531	2638	-107
4636201	1	211	121	32	1962	2527	2637	-110
4636201	1	211	121	33	1963	2521	2637	-116
4636201	1	211	121	34	1964	2515	2636	-121
4636201	1	211	121	35	1965	2511	2635	-124
4636201	1	211	121	36	1966	2510	2635	-125
4636201	1	211	121	37	1967	2508	2635	-127

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636201	1	211	121	38	1968	2504	2634	-130
4636201	1	211	121	39	1969	2497	2634	-137
4636201	1	211	121	40	1970	2498	2634	-136
4636201	1	211	121	41	1971	2495	2633	-138
4636201	1	211	121	42	1972	2492	2633	-141
4636201	1	211	121	44	1974	2490	2632	-142
4636201	1	211	121	45	1975	2491	2632	-141
4636201	1	211	121	46	1976	2495	2632	-137
4636201	1	211	121	47	1977	2506	2632	-126
4636201	1	211	121	48	1978	2511	2632	-121
4636201	1	211	121	49	1979	2513	2632	-119
4636201	1	211	121	50	1980	2517	2633	-116
4636201	1	211	121	51	1981	2517	2633	-116
4636201	1	211	121	53	1983	2521	2633	-112
4636201	1	211	121	54	1984	2522	2633	-111
4636201	1	211	121	56	1986	2513	2633	-120
4636201	1	211	121	57	1987	2525	2634	-109
4636201	1	211	121	58	1988	2526	2634	-108
4636201	1	211	121	59	1989	2526	2634	-108
4636201	1	211	121	60	1990	2523	2634	-111
4636201	1	211	121	61	1991	2523	2634	-111
4636202	1	211	125	28	1958	2493	2623	-130
4636202	1	211	125	29	1959	2496	2623	-127
4636202	1	211	125	30	1960	2502	2622	-120
4636202	1	211	125	31	1961	2497	2622	-125
4636202	1	211	125	32	1962	2498	2621	-123
4636202	1	211	125	33	1963	2490	2621	-131
4636202	1	211	125	34	1964	2472	2621	-149
4636202	1	211	125	35	1965	2469	2620	-151
4636202	1	211	125	36	1966	2472	2620	-148
4636202	1	211	125	37	1967	2475	2620	-145
4636202	1	211	125	38	1968	2474	2620	-146
4636202	1	211	125	39	1969	2473	2619	-146
4636301	1	212	130	9	1939	2599	2599	0

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636301	1	212	130	10	1940	2598	2599	-1
4636301	1	212	130	11	1941	2600	2599	1
4636301	1	212	130	12	1942	2600	2599	1
4636301	1	212	130	19	1949	2595	2599	-4
4636401	1	216	117	23	1953	2531	2656	-125
4636401	1	216	117	24	1954	2532	2655	-123
4636401	1	216	117	25	1955	2523	2654	-131
4636401	1	216	117	26	1956	2512	2653	-141
4636401	1	216	117	27	1957	2497	2652	-155
4636401	1	216	117	28	1958	2490	2651	-161
4636401	1	216	117	30	1960	2473	2649	-176
4636401	1	216	117	31	1961	2459	2648	-189
4636401	1	216	117	32	1962	2453	2647	-194
4636401	1	216	117	33	1963	2440	2646	-206
4636401	1	216	117	35	1965	2426	2644	-218
4636401	1	216	117	36	1966	2425	2644	-219
4636401	1	216	117	37	1967	2434	2643	-209
4636401	1	216	117	38	1968	2442	2642	-200
4636401	1	216	117	39	1969	2439	2642	-203
4636401	1	216	117	40	1970	2443	2641	-198
4636401	1	216	117	41	1971	2469	2641	-172
4636401	1	216	117	42	1972	2461	2641	-180
4636401	1	216	117	43	1973	2482	2640	-158
4636401	1	216	117	45	1975	2479	2639	-160
4636401	1	216	117	46	1976	2506	2639	-133
4636401	1	216	117	47	1977	2482	2639	-157
4636401	1	216	117	48	1978	2466	2640	-174
4636401	1	216	117	49	1979	2479	2640	-161
4636401	1	216	117	50	1980	2481	2640	-159
4636401	1	216	117	51	1981	2547	2641	-94
4636401	1	216	117	53	1983	2492	2641	-149
4636401	1	216	117	54	1984	2494	2641	-147
4636401	1	216	117	56	1986	2498	2642	-144
4636401	1	216	117	57	1987	2497	2643	-146

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636401	1	216	117	58	1988	2499	2643	-144
4636401	1	216	117	59	1989	2500	2643	-143
4636401	1	216	117	60	1990	2501	2643	-142
4636401	1	216	117	61	1991	2501	2644	-143
4636401	1	216	117	62	1992	2501	2644	-143
4636401	1	216	117	63	1993	2502	2644	-142
4636401	1	216	117	65	1995	2504	2644	-140
4636402	1	219	117	17	1947	2616	2663	-47
4636402	1	219	117	18	1948	2607	2662	-55
4636402	1	219	117	19	1949	2595	2661	-66
4636402	1	219	117	20	1950	2582	2660	-78
4636402	1	219	117	21	1951	2574	2659	-85
4636402	1	219	117	22	1952	2534	2658	-124
4636402	1	219	117	23	1953	2506	2657	-151
4636402	1	219	117	24	1954	2580	2656	-76
4636402	1	219	117	25	1955	2591	2655	-64
4636402	1	219	117	26	1956	2591	2654	-63
4636403	1	216	116	11	1941	2611	2667	-56
4636403	1	216	116	16	1946	2608	2665	-57
4636403	1	216	116	17	1947	2609	2664	-55
4636403	1	216	116	18	1948	2607	2663	-56
4636403	1	216	116	19	1949	2597	2662	-65
4636403	1	216	116	21	1951	2579	2661	-82
4636403	1	216	116	23	1953	2541	2659	-118
4636403	1	216	116	24	1954	2533	2658	-125
4636403	1	216	116	29	1959	2485	2654	-169
4636403	1	216	116	30	1960	2490	2653	-163
4636404	1	219	117	27	1957	2478	2653	-175
4636404	1	219	117	28	1958	2459	2652	-193
4636404	1	219	117	29	1959	2450	2651	-201
4636404	1	219	117	31	1961	2433	2649	-216
4636404	1	219	117	32	1962	2432	2648	-216
4636404	1	219	117	33	1963	2427	2647	-220
4636404	1	219	117	34	1964	2408	2645	-237

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636404	1	219	117	35	1965	2403	2644	-241
4636404	1	219	117	36	1966	2413	2643	-230
4636404	1	219	117	37	1967	2418	2643	-225
4636404	1	219	117	38	1968	2418	2642	-224
4636404	1	219	117	39	1969	2412	2642	-230
4636404	1	219	117	40	1970	2413	2641	-228
4636404	1	219	117	41	1971	2412	2641	-229
4636404	1	219	117	42	1972	2400	2640	-240
4636404	1	219	117	45	1975	2417	2639	-222
4636502	1	216	121	1	1931	2610	2649	-39
4636502	1	216	121	2	1932	2610	2648	-38
4636502	1	216	121	9	1939	2607	2647	-40
4636502	1	216	121	10	1940	2608	2647	-39
4636502	1	216	121	11	1941	2611	2646	-35
4636502	1	216	121	12	1942	2611	2646	-35
4636502	1	216	121	16	1946	2609	2644	-35
4636502	1	216	121	17	1947	2608	2643	-35
4636502	1	216	121	18	1948	2608	2643	-35
4636502	1	216	121	19	1949	2609	2642	-33
4636502	1	216	121	20	1950	2608	2642	-34
4636502	1	216	121	21	1951	2607	2641	-34
4636502	1	216	121	28	1958	2462	2636	-174
4636502	1	216	121	30	1960	2471	2635	-164
4636504	1	219	119	16	1946	2607	2654	-47
4636504	1	219	119	19	1949	2595	2652	-57
4636504	1	219	119	20	1950	2583	2651	-68
4636504	1	219	119	21	1951	2569	2651	-82
4636504	1	219	119	28	1958	2492	2644	-152
4636505	1	220	119	16	1946	2607	2655	-48
4636505	1	220	119	19	1949	2594	2653	-59
4636505	1	220	119	20	1950	2581	2652	-71
4636505	1	220	119	21	1951	2560	2651	-91
4636505	1	220	119	28	1958	2563	2645	-82
4636506	1	220	121	9	1939	2612	2649	-37

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636506	1	220	121	10	1940	2613	2649	-36
4636506	1	220	121	11	1941	2612	2648	-36
4636506	1	220	121	16	1946	2606	2646	-40
4636506	1	220	121	17	1947	2606	2645	-39
4636506	1	220	121	18	1948	2603	2644	-41
4636506	1	220	121	19	1949	2595	2644	-49
4636506	1	220	121	20	1950	2582	2643	-61
4636506	1	220	121	21	1951	2571	2642	-71
4636506	1	220	121	22	1952	2543	2641	-98
4636506	1	220	121	23	1953	2520	2641	-121
4636506	1	220	121	28	1958	2619	2636	-17
4636507	1	215	119	19	1949	2595	2650	-55
4636507	1	215	119	20	1950	2585	2650	-65
4636507	1	215	119	21	1951	2576	2649	-73
4636507	1	215	119	28	1958	2488	2644	-156
4636507	1	215	119	30	1960	2497	2642	-145
4636601	1	220	128	17	1947	2583	2598	-15
4636601	1	220	128	18	1948	2584	2598	-14
4636601	1	220	128	19	1949	2579	2598	-19
4636601	1	220	128	20	1950	2573	2597	-24
4636601	1	220	128	21	1951	2567	2597	-30
4636601	1	220	128	22	1952	2545	2597	-52
4636601	1	220	128	23	1953	2527	2597	-70
4636602	1	222	126	9	1939	2589	2619	-30
4636602	1	222	126	10	1940	2591	2619	-28
4636602	1	222	126	11	1941	2593	2619	-26
4636602	1	222	126	12	1942	2591	2618	-27
4636602	1	222	126	17	1947	2585	2617	-32
4636602	1	222	126	18	1948	2589	2617	-28
4636602	1	222	126	20	1950	2572	2616	-44
4636602	1	222	126	21	1951	2567	2615	-48
4636602	1	222	126	22	1952	2558	2615	-57
4636602	1	222	126	23	1953	2554	2615	-61
4636602	1	222	126	24	1954	2550	2614	-64



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636602	1	222	126	25	1955	2557	2614	-57
4636602	1	222	126	26	1956	2558	2613	-55
4636602	1	222	126	27	1957	2567	2613	-46
4636602	1	222	126	28	1958	2571	2612	-41
4636602	1	222	126	29	1959	2574	2612	-38
4636603	1	222	127	9	1939	2591	2611	-20
4636603	1	222	127	10	1940	2592	2610	-18
4636603	1	222	127	11	1941	2593	2610	-17
4636603	1	222	127	12	1942	2592	2610	-18
4636603	1	222	127	17	1947	2586	2609	-23
4636603	1	222	127	18	1948	2590	2609	-19
4636603	1	222	127	20	1950	2576	2608	-32
4636603	1	222	127	22	1952	2553	2608	-55
4636702	1	220	114	19	1949	2601	2675	-74
4636702	1	220	114	20	1950	2588	2674	-86
4636702	1	220	114	21	1951	2573	2673	-100
4636702	1	220	114	23	1953	2514	2671	-157
4636702	1	220	114	28	1958	2423	2665	-242
4636702	1	220	114	29	1959	2439	2664	-225
4636702	1	220	114	30	1960	2425	2663	-238
4636703	1	222	114	19	1949	2599	2678	-79
4636703	1	222	114	22	1952	2538	2675	-137
4636703	1	222	114	24	1954	2473	2673	-200
4636703	1	222	114	25	1955	2452	2672	-220
4636703	1	222	114	26	1956	2439	2671	-232
4636703	1	222	114	27	1957	2425	2669	-244
4636703	1	222	114	28	1958	2420	2668	-248
4636703	1	222	114	30	1960	2405	2666	-261
4636705	1	222	114	9	1939	2621	2686	-65
4636705	1	222	114	19	1949	2602	2678	-76
4636705	1	222	114	20	1950	2587	2677	-90
4636705	1	222	114	21	1951	2572	2676	-104
4636705	1	222	114	22	1952	2540	2675	-135
4636707	1	223	111	19	1949	2601	2693	-92

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636707	1	223	111	20	1950	2587	2692	-105
4636707	1	223	111	21	1951	2573	2691	-118
4636707	1	223	111	28	1958	2428	2683	-255
4636707	1	223	111	57	1987	2441	2668	-227
4636801	1	222	117	9	1939	2613	2673	-60
4636801	1	222	117	10	1940	2614	2672	-58
4636801	1	222	117	11	1941	2614	2671	-57
4636801	1	222	117	12	1942	2614	2671	-57
4636801	1	222	117	19	1949	2605	2665	-60
4636801	1	222	117	20	1950	2600	2664	-64
4636802	1	221	117	17	1947	2612	2665	-53
4636802	1	221	117	19	1949	2614	2663	-49
4636802	1	221	117	20	1950	2599	2662	-63
4636802	1	221	117	21	1951	2590	2661	-71
4636802	1	221	117	22	1952	2555	2660	-105
4636802	1	221	117	26	1956	2618	2656	-38
4636802	1	221	117	28	1958	2505	2654	-149
4636802	1	221	117	30	1960	2457	2652	-195
4636803	1	221	118	17	1947	2617	2661	-44
4636803	1	221	118	19	1949	2596	2659	-63
4636803	1	221	118	20	1950	2587	2658	-71
4636803	1	221	118	21	1951	2568	2657	-89
4636803	1	221	118	22	1952	2536	2656	-120
4636803	1	221	118	23	1953	2509	2655	-146
4636803	1	221	118	24	1954	2488	2654	-166
4636803	1	221	118	25	1955	2473	2653	-180
4636803	1	221	118	26	1956	2466	2652	-186
4636803	1	221	118	27	1957	2459	2651	-192
4636803	1	221	118	28	1958	2455	2650	-195
4636803	1	221	118	30	1960	2441	2647	-206
4636804	1	224	116	19	1949	2599	2674	-75
4636804	1	224	116	20	1950	2592	2673	-81
4636804	1	224	116	21	1951	2587	2672	-85
4636804	1	224	116	22	1952	2588	2671	-83

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636804	1	224	116	23	1953	2594	2670	-76
4636804	1	224	116	24	1954	2608	2668	-60
4636804	1	224	116	25	1955	2615	2667	-52
4636804	1	224	116	26	1956	2619	2666	-47
4636804	1	224	116	27	1957	2620	2665	-45
4636804	1	224	116	28	1958	2621	2663	-42
4636805	1	222	119	9	1939	2612	2663	-51
4636805	1	222	119	10	1940	2613	2662	-49
4636805	1	222	119	11	1941	2612	2662	-50
4636805	1	222	119	16	1946	2608	2658	-50
4636805	1	222	119	17	1947	2610	2657	-47
4636805	1	222	119	18	1948	2608	2657	-49
4636807	1	222	120	10	1940	2603	2657	-54
4636807	1	222	120	11	1941	2610	2656	-46
4636807	1	222	120	16	1946	2603	2653	-50
4636807	1	222	120	17	1947	2603	2653	-50
4636807	1	222	120	18	1948	2598	2652	-54
4636807	1	222	120	19	1949	2590	2651	-61
4636808	1	221	119	1	1931	2618	2664	-46
4636808	1	221	119	2	1932	2612	2663	-51
4636808	1	221	119	9	1939	2606	2661	-55
4636808	1	221	119	10	1940	2607	2661	-54
4636808	1	221	119	11	1941	2606	2660	-54
4636808	1	221	119	16	1946	2604	2657	-53
4636808	1	221	119	17	1947	2605	2656	-51
4636808	1	221	119	18	1948	2603	2655	-52
4636808	1	221	119	19	1949	2622	2654	-32
4636903	1	225	121	19	1949	2596	2652	-56
4636903	1	225	121	20	1950	2584	2651	-67
4636903	1	225	121	21	1951	2574	2650	-76
4636903	1	225	121	23	1953	2519	2649	-130
4636903	1	225	121	24	1954	2491	2648	-157
4636903	1	225	121	25	1955	2475	2647	-172
4636903	1	225	121	26	1956	2463	2646	-183

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636903	1	225	121	27	1957	2454	2645	-191
4636903	1	225	121	28	1958	2448	2644	-196
4636903	1	225	121	30	1960	2433	2642	-209
4636903	1	225	121	31	1961	2441	2641	-200
4636903	1	225	121	33	1963	2430	2638	-208
4636903	1	225	121	34	1964	2422	2637	-215
4636903	1	225	121	35	1965	2418	2636	-218
4636903	1	225	121	36	1966	2414	2635	-221
4636903	1	225	121	37	1967	2417	2635	-218
4636903	1	225	121	38	1968	2415	2634	-219
4636903	1	225	121	39	1969	2478	2633	-155
4636903	1	225	121	40	1970	2482	2633	-151
4636903	1	225	121	41	1971	2479	2632	-153
4636903	1	225	121	42	1972	2481	2632	-151
4636903	1	225	121	44	1974	2479	2631	-152
4636903	1	225	121	45	1975	2478	2630	-152
4636903	1	225	121	46	1976	2479	2630	-151
4636903	1	225	121	47	1977	2487	2630	-143
4636903	1	225	121	48	1978	2476	2631	-155
4636903	1	225	121	49	1979	2480	2631	-151
4636903	1	225	121	51	1981	2479	2632	-153
4636903	1	225	121	53	1983	2480	2632	-152
4636903	1	225	121	54	1984	2492	2632	-140
4636903	1	225	121	57	1987	2501	2634	-133
4636903	1	225	121	58	1988	2501	2634	-133
4636903	1	225	121	60	1990	2505	2635	-130
4636903	1	225	121	61	1991	2507	2635	-128
4636903	1	225	121	62	1992	2506	2635	-129
4636903	1	225	121	63	1993	2510	2635	-125
4636903	1	225	121	64	1994	2507	2635	-128
4636909	1	225	121	65	1995	2494	2635	-141
4636909	1	225	121	66	1996	2508	2635	-127
4636909	1	225	121	67	1997	2503	2634	-131
4636909	1	225	121	68	1998	2503	2634	-131

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4636909	1	225	121	71	2001	2501	2634	-133
4636909	1	225	121	72	2002	2500	2634	-134
4636909	1	225	121	73	2003	2500	2634	-134
4636909	1	225	121	75	2005	2498	2634	-136
4637101	1	218	131	28	1958	2559	2583	-24
4637101	1	218	131	29	1959	2560	2583	-23
4637101	1	218	131	31	1961	2562	2582	-20
4637101	1	218	131	32	1962	2560	2582	-22
4637101	1	218	131	33	1963	2557	2582	-25
4637101	1	218	131	35	1965	2557	2582	-25
4637101	1	218	131	36	1966	2557	2582	-25
4637101	1	218	131	37	1967	2556	2582	-26
4637101	1	218	131	39	1969	2559	2582	-23
4637101	1	218	131	41	1971	2560	2582	-22
4637101	1	218	131	42	1972	2557	2582	-25
4637101	1	218	131	43	1973	2546	2582	-36
4637101	1	218	131	44	1974	2558	2582	-24
4637101	1	218	131	45	1975	2561	2582	-21
4637101	1	218	131	46	1976	2561	2582	-21
4637101	1	218	131	50	1980	2560	2582	-22
4637101	1	218	131	51	1981	2562	2582	-20

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637101	1	218	131	52	1982	2562	2582	-20
4637101	1	218	131	53	1983	2559	2582	-23
4637101	1	218	131	54	1984	2559	2582	-23
4637101	1	218	131	56	1986	2559	2582	-23
4637101	1	218	131	57	1987	2561	2582	-21
4637101	1	218	131	58	1988	2562	2582	-20
4637101	1	218	131	59	1989	2562	2582	-20

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637101	1	218	131	60	1990	2565	2582	-17
4637101	1	218	131	61	1991	2564	2582	-18
4637101	1	218	131	62	1992	2565	2582	-17
4637101	1	218	131	64	1994	2565	2582	-17
4637101	1	218	131	65	1995	2564	2582	-18
4637101	1	218	131	66	1996	2565	2582	-17
4637101	1	218	131	67	1997	2563	2582	-19
4637101	1	218	131	68	1998	2562	2582	-20
4637101	1	218	131	69	1999	2563	2582	-19
4637101	1	218	131	70	2000	2562	2582	-20
4637101	1	218	131	71	2001	2559	2582	-23
4637101	1	218	131	72	2002	2561	2582	-21
4637101	1	218	131	73	2003	2556	2582	-26
4637101	1	218	131	74	2004	2556	2582	-26
4637101	1	218	131	75	2005	2557	2582	-25
4637102	1	214	134	1	1931	2586	2595	-9
4637102	1	214	134	2	1932	2585	2595	-10
4637102	1	214	134	9	1939	2584	2595	-11
4637102	1	214	134	10	1940	2582	2595	-13
4637102	1	214	134	11	1941	2581	2595	-14
4637102	1	214	134	12	1942	2585	2595	-10
4637103	1	217	132	9	1939	2572	2586	-14
4637103	1	217	132	10	1940	2571	2586	-15
4637103	1	217	132	11	1941	2578	2586	-8
4637103	1	217	132	12	1942	2574	2586	-12
4637103	1	217	132	21	1951	2566	2586	-20
4637201	1	215	135	16	1946	2575	2593	-18
4637201	1	215	135	17	1947	2575	2593	-18
4637201	1	215	135	19	1949	2573	2593	-20
4637201	1	215	135	20	1950	2570	2593	-23
4637201	1	215	135	23	1953	2569	2593	-24
4637201	1	215	135	24	1954	2566	2593	-27
4637201	1	215	135	25	1955	2572	2593	-21
4637201	1	215	135	26	1956	2574	2593	-19

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637201	1	215	135	27	1957	2574	2593	-19
4637201	1	215	135	28	1958	2573	2593	-20
4637201	1	215	135	29	1959	2572	2593	-21
4637201	1	215	135	31	1961	2575	2593	-18
4637201	1	215	135	33	1963	2568	2593	-25
4637201	1	215	135	34	1964	2556	2593	-37
4637201	1	215	135	35	1965	2556	2593	-37
4637201	1	215	135	37	1967	2573	2593	-20
4637201	1	215	135	41	1971	2571	2593	-22
4637201	1	215	135	42	1972	2565	2593	-28
4637201	1	215	135	43	1973	2566	2593	-27
4637201	1	215	135	44	1974	2567	2593	-26
4637203	1	217	137	16	1946	2573	2590	-17
4637203	1	217	137	17	1947	2571	2590	-19
4637203	1	217	137	20	1950	2565	2590	-25
4637203	1	217	137	21	1951	2573	2590	-17
4637203	1	217	137	23	1953	2565	2590	-25
4637203	1	217	137	24	1954	2563	2590	-27
4637203	1	217	137	25	1955	2564	2590	-26
4637203	1	217	137	26	1956	2573	2590	-17
4637203	1	217	137	27	1957	2568	2590	-22
4637203	1	217	137	28	1958	2567	2590	-23
4637203	1	217	137	29	1959	2567	2590	-23
4637204	1	216	138	16	1946	2574	2594	-20
4637204	1	216	138	17	1947	2572	2594	-22
4637204	1	216	138	19	1949	2569	2594	-25
4637204	1	216	138	20	1950	2574	2594	-20
4637204	1	216	138	21	1951	2573	2594	-21
4637204	1	216	138	23	1953	2566	2594	-28
4637204	1	216	138	24	1954	2564	2594	-30
4637204	1	216	138	25	1955	2564	2594	-30
4637204	1	216	138	26	1956	2573	2593	-20
4637204	1	216	138	27	1957	2569	2593	-24
4637204	1	216	138	28	1958	2568	2594	-26

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637204	1	216	138	29	1959	2567	2594	-27
4637204	1	216	138	31	1961	2572	2594	-22
4637204	1	216	138	37	1967	2572	2593	-21
4637207	1	215	135	1	1931	2585	2593	-8
4637207	1	215	135	2	1932	2585	2593	-8
4637207	1	215	135	9	1939	2581	2593	-12
4637207	1	215	135	10	1940	2579	2593	-14
4637207	1	215	135	11	1941	2578	2593	-15
4637207	1	215	135	12	1942	2581	2593	-12
4637207	1	215	135	16	1946	2573	2593	-20
4637208	1	215	136	16	1946	2575	2594	-19
4637208	1	215	136	17	1947	2574	2594	-20
4637208	1	215	136	19	1949	2571	2594	-23
4637208	1	215	136	20	1950	2569	2594	-25
4637208	1	215	136	21	1951	2574	2594	-20
4637208	1	215	136	23	1953	2567	2594	-27
4637208	1	215	136	24	1954	2565	2594	-29
4637208	1	215	136	25	1955	2568	2594	-26
4637208	1	215	136	26	1956	2577	2594	-17
4637208	1	215	136	37	1967	2572	2594	-22
4637211	1	220	138	29	1959	2556	2582	-26
4637211	1	220	138	31	1961	2560	2582	-22
4637211	1	220	138	32	1962	2555	2582	-27
4637211	1	220	138	33	1963	2556	2582	-26
4637211	1	220	138	34	1964	2552	2582	-30
4637211	1	220	138	35	1965	2552	2582	-30
4637211	1	220	138	36	1966	2555	2582	-27
4637211	1	220	138	37	1967	2557	2582	-25
4637211	1	220	138	38	1968	2557	2582	-25
4637211	1	220	138	39	1969	2555	2582	-27
4637211	1	220	138	41	1971	2554	2582	-28
4637211	1	220	138	42	1972	2555	2582	-27
4637211	1	220	138	43	1973	2554	2582	-28
4637211	1	220	138	44	1974	2558	2582	-24



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637211	1	220	138	45	1975	2559	2582	-23
4637211	1	220	138	46	1976	2559	2582	-23
4637211	1	220	138	47	1977	2557	2582	-25
4637211	1	220	138	48	1978	2558	2582	-24
4637211	1	220	138	50	1980	2557	2582	-25
4637211	1	220	138	54	1984	2553	2582	-29
4637213	1	215	137	1	1931	2584	2595	-11
4637213	1	215	137	9	1939	2581	2595	-14
4637213	1	215	137	10	1940	2578	2595	-17
4637213	1	215	137	11	1941	2581	2595	-14
4637213	1	215	137	12	1942	2580	2595	-15
4637213	1	215	137	17	1947	2573	2595	-22
4637213	1	215	137	37	1967	2570	2595	-25
4637302	1	219	141	17	1947	2559	2590	-31
4637302	1	219	141	18	1948	2558	2590	-32
4637302	1	219	141	19	1949	2558	2590	-32
4637302	1	219	141	21	1951	2559	2590	-31
4637302	1	219	141	24	1954	2543	2590	-47
4637302	1	219	141	26	1956	2556	2590	-34
4637302	1	219	141	37	1967	2554	2590	-36
4637305	1	221	142	1	1931	2561	2588	-27
4637305	1	221	142	9	1939	2560	2588	-28
4637305	1	221	142	10	1940	2560	2588	-28
4637305	1	221	142	11	1941	2557	2588	-31
4637305	1	221	142	12	1942	2560	2588	-28
4637305	1	221	142	16	1946	2558	2588	-30
4637305	1	221	142	37	1967	2554	2587	-33
4637305	1	221	142	41	1971	2552	2587	-35
4637305	1	221	142	42	1972	2551	2587	-36
4637305	1	221	142	44	1974	2552	2587	-35
4637305	1	221	142	45	1975	2551	2587	-36
4637305	1	221	142	46	1976	2554	2587	-33
4637305	1	221	142	47	1977	2552	2587	-35
4637305	1	221	142	48	1978	2553	2587	-34

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637305	1	221	142	50	1980	2553	2586	-33
4637305	1	221	142	52	1982	2552	2586	-34
4637305	1	221	142	54	1984	2549	2586	-37
4637305	1	221	142	56	1986	2550	2586	-36
4637305	1	221	142	57	1987	2550	2586	-36
4637305	1	221	142	58	1988	2554	2586	-32
4637305	1	221	142	59	1989	2555	2586	-31
4637305	1	221	142	60	1990	2555	2586	-31
4637305	1	221	142	62	1992	2554	2586	-32
4637305	1	221	142	63	1993	2552	2586	-34
4637305	1	221	142	64	1994	2554	2586	-32
4637305	1	221	142	65	1995	2554	2586	-32
4637305	1	221	142	66	1996	2556	2586	-30
4637305	1	221	142	67	1997	2555	2586	-31
4637307	1	220	138	1	1931	2565	2583	-18
4637307	1	220	138	2	1932	2564	2583	-19
4637307	1	220	138	9	1939	2565	2583	-18
4637307	1	220	138	10	1940	2559	2583	-24
4637307	1	220	138	11	1941	2562	2583	-21
4637307	1	220	138	12	1942	2566	2583	-17
4637307	1	220	138	37	1967	2557	2582	-25
4637308	1	222	142	1	1931	2556	2585	-29
4637308	1	222	142	2	1932	2556	2585	-29
4637308	1	222	142	9	1939	2557	2584	-27
4637308	1	222	142	10	1940	2557	2585	-28
4637308	1	222	142	11	1941	2555	2585	-30
4637308	1	222	142	12	1942	2557	2585	-28
4637401	1	219	130	9	1939	2573	2579	-6
4637401	1	219	130	10	1940	2573	2579	-6
4637401	1	219	130	11	1941	2574	2579	-5
4637401	1	219	130	19	1949	2562	2578	-16
4637401	1	219	130	20	1950	2567	2578	-11
4637401	1	219	130	21	1951	2566	2578	-12
4637401	1	219	130	22	1952	2561	2578	-17

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637401	1	219	130	23	1953	2555	2578	-23
4637401	1	219	130	24	1954	2551	2578	-27
4637401	1	219	130	25	1955	2549	2578	-29
4637401	1	219	130	26	1956	2552	2578	-26
4637401	1	219	130	27	1957	2556	2578	-22
4637401	1	219	130	28	1958	2553	2578	-25
4637401	1	219	130	29	1959	2552	2578	-26
4637405	1	223	127	9	1939	2589	2613	-24
4637405	1	223	127	10	1940	2589	2613	-24
4637405	1	223	127	11	1941	2591	2613	-22
4637405	1	223	127	12	1942	2591	2613	-22
4637405	1	223	127	19	1949	2581	2611	-30
4637405	1	223	127	20	1950	2577	2611	-34
4637405	1	223	127	21	1951	2574	2610	-36
4637406	1	221	128	9	1939	2591	2600	-9
4637406	1	221	128	10	1940	2592	2600	-8
4637406	1	221	128	11	1941	2593	2600	-7
4637406	1	221	128	12	1942	2593	2599	-6
4637406	1	221	128	17	1947	2585	2599	-14
4637406	1	221	128	18	1948	2587	2599	-12
4637406	1	221	128	19	1949	2582	2598	-16
4637406	1	221	128	20	1950	2576	2598	-22
4637406	1	221	128	21	1951	2569	2598	-29
4637406	1	221	128	22	1952	2547	2598	-51
4637406	1	221	128	23	1953	2528	2598	-70
4637406	1	221	128	24	1954	2506	2597	-91
4637406	1	221	128	25	1955	2496	2597	-101
4637406	1	221	128	26	1956	2496	2597	-101
4637406	1	221	128	27	1957	2475	2597	-122
4637406	1	221	128	28	1958	2469	2596	-127
4637406	1	221	128	29	1959	2469	2596	-127
4637407	1	223	127	10	1940	2585	2613	-28
4637407	1	223	127	11	1941	2589	2613	-24
4637407	1	223	127	12	1942	2590	2613	-23

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637407	1	223	127	17	1947	2583	2612	-29
4637407	1	223	127	18	1948	2586	2611	-25
4637407	1	223	127	19	1949	2582	2611	-29
4637407	1	223	127	20	1950	2574	2611	-37
4637407	1	223	127	21	1951	2569	2610	-41
4637407	1	223	127	22	1952	2552	2610	-58
4637407	1	223	127	23	1953	2534	2610	-76
4637407	1	223	127	24	1954	2518	2609	-91
4637407	1	223	127	25	1955	2513	2609	-96
4637407	1	223	127	26	1956	2517	2609	-92
4637407	1	223	127	27	1957	2517	2608	-91
4637601	1	222	138	19	1949	2554	2576	-22
4637601	1	222	138	20	1950	2557	2576	-19
4637601	1	222	138	22	1952	2554	2576	-22
4637601	1	222	138	23	1953	2552	2576	-24
4637601	1	222	138	24	1954	2549	2576	-27
4637601	1	222	138	25	1955	2551	2576	-25
4637601	1	222	138	26	1956	2555	2576	-21
4637601	1	222	138	27	1957	2554	2576	-22
4637601	1	222	138	28	1958	2554	2576	-22
4637601	1	222	138	29	1959	2553	2576	-23
4637601	1	222	138	31	1961	2556	2576	-20
4637601	1	222	138	32	1962	2554	2576	-22
4637602	1	224	141	9	1939	2550	2573	-23
4637602	1	224	141	10	1940	2549	2573	-24
4637602	1	224	141	16	1946	2548	2573	-25
4637602	1	224	141	17	1947	2547	2573	-26
4637602	1	224	141	18	1948	2547	2573	-26
4637602	1	224	141	19	1949	2547	2573	-26
4637602	1	224	141	20	1950	2547	2573	-26
4637901	1	230	137	9	1939	2548	2595	-47
4637901	1	230	137	10	1940	2547	2595	-48
4637901	1	230	137	11	1941	2547	2595	-48
4637901	1	230	137	19	1949	2546	2594	-48

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4637901	1	230	137	20	1950	2546	2594	-48
4637901	1	230	137	21	1951	2546	2594	-48
4637901	1	230	137	29	1959	2545	2592	-47
4638103	1	222	143	10	1940	2561	2589	-28
4638103	1	222	143	16	1946	2560	2589	-29
4638103	1	222	143	17	1947	2559	2588	-29
4638103	1	222	143	18	1948	2559	2588	-29
4638103	1	222	143	19	1949	2558	2588	-30
4638103	1	222	143	20	1950	2557	2588	-31
4638103	1	222	143	21	1951	2560	2588	-28
4638103	1	222	143	22	1952	2557	2588	-31
4638103	1	222	143	24	1954	2552	2588	-36
4638103	1	222	143	25	1955	2554	2588	-34
4638103	1	222	143	26	1956	2559	2588	-29
4638103	1	222	143	27	1957	2556	2588	-32
4638103	1	222	143	28	1958	2555	2588	-33
4638103	1	222	143	29	1959	2554	2588	-34
4638103	1	222	143	31	1961	2557	2588	-31
4638103	1	222	143	32	1962	2554	2588	-34
4638103	1	222	143	33	1963	2552	2588	-36
4638103	1	222	143	34	1964	2550	2588	-38
4638103	1	222	143	35	1965	2550	2588	-38
4638103	1	222	143	36	1966	2554	2588	-34
4638103	1	222	143	37	1967	2554	2588	-34
4638103	1	222	143	38	1968	2554	2588	-34
4638103	1	222	143	39	1969	2553	2588	-35
4638103	1	222	143	41	1971	2554	2587	-33
4638103	1	222	143	42	1972	2551	2587	-36
4638103	1	222	143	43	1973	2551	2587	-36
4638103	1	222	143	44	1974	2555	2587	-32
4638103	1	222	143	45	1975	2551	2587	-36
4638103	1	222	143	46	1976	2554	2587	-33
4638103	1	222	143	47	1977	2554	2587	-33
4638103	1	222	143	48	1978	2553	2587	-34

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4638103	1	222	143	50	1980	2553	2587	-34
4638103	1	222	143	51	1981	2553	2587	-34
4638103	1	222	143	53	1983	2551	2587	-36
4638103	1	222	143	54	1984	2549	2587	-38
4638103	1	222	143	56	1986	2551	2587	-36
4638103	1	222	143	57	1987	2551	2587	-36
4638103	1	222	143	58	1988	2554	2587	-33
4638103	1	222	143	59	1989	2555	2587	-32
4638103	1	222	143	60	1990	2556	2587	-31
4638103	1	222	143	61	1991	2555	2587	-32
4638103	1	222	143	62	1992	2554	2587	-33
4638103	1	222	143	63	1993	2554	2587	-33
4638103	1	222	143	64	1994	2556	2587	-31
4638103	1	222	143	65	1995	2556	2586	-30
4638103	1	222	143	66	1996	2557	2586	-29
4638103	1	222	143	67	1997	2555	2586	-31
4638103	1	222	143	68	1998	2556	2586	-30
4638103	1	222	143	69	1999	2553	2586	-33
4638103	1	222	143	70	2000	2552	2586	-34
4638103	1	222	143	71	2001	2552	2586	-34
4638103	1	222	143	72	2002	2551	2586	-35
4638103	1	222	143	73	2003	2551	2586	-35
4638103	1	222	143	74	2004	2548	2586	-38
4638103	1	222	143	75	2005	2549	2586	-37
4638104	1	222	143	10	1940	2555	2589	-34
4638104	1	222	143	16	1946	2554	2589	-35
4638104	1	222	143	17	1947	2553	2588	-35
4638104	1	222	143	18	1948	2552	2588	-36
4638104	1	222	143	19	1949	2552	2588	-36
4638104	1	222	143	20	1950	2551	2588	-37
4638104	1	222	143	21	1951	2553	2588	-35
4638104	1	222	143	22	1952	2550	2588	-38
4638104	1	222	143	24	1954	2545	2588	-43
4638104	1	222	143	25	1955	2547	2588	-41

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4638104	1	222	143	26	1956	2553	2588	-35
4638104	1	222	143	27	1957	2550	2588	-38
4638104	1	222	143	28	1958	2549	2588	-39
4638104	1	222	143	29	1959	2549	2588	-39
4638104	1	222	143	31	1961	2550	2588	-38
4638104	1	222	143	32	1962	2548	2588	-40
4638104	1	222	143	33	1963	2546	2588	-42
4638104	1	222	143	34	1964	2544	2588	-44
4638104	1	222	143	35	1965	2544	2588	-44
4638104	1	222	143	36	1966	2548	2588	-40
4638104	1	222	143	37	1967	2550	2588	-38
4638502	1	227	147	20	1950	2549	2603	-54
4638502	1	227	147	21	1951	2549	2602	-53
4638502	1	227	147	22	1952	2549	2602	-53
4638502	1	227	147	23	1953	2548	2602	-54
4638502	1	227	147	24	1954	2545	2602	-57
4638502	1	227	147	25	1955	2544	2602	-58
4638502	1	227	147	26	1956	2545	2601	-56
4638502	1	227	147	27	1957	2545	2602	-57
4638502	1	227	147	28	1958	2545	2601	-56
4638502	1	227	147	29	1959	2546	2601	-55
4638502	1	227	147	31	1961	2546	2601	-55
4638502	1	227	147	32	1962	2546	2601	-55
4638502	1	227	147	33	1963	2546	2600	-54
4638502	1	227	147	34	1964	2546	2600	-54
4638502	1	227	147	35	1965	2546	2600	-54
4638502	1	227	147	36	1966	2545	2600	-55
4638502	1	227	147	37	1967	2545	2600	-55
4638502	1	227	147	38	1968	2545	2599	-54
4638502	1	227	147	39	1969	2546	2599	-53
4638502	1	227	147	41	1971	2545	2599	-54
4638502	1	227	147	44	1974	2547	2598	-51
4638502	1	227	147	45	1975	2542	2598	-56
4639604	1	234	168	9	1939	2521	2583	-62

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4639604	1	234	168	37	1967	2522	2579	-57
4639604	1	234	168	44	1974	2522	2579	-57
4639604	1	234	168	45	1975	2522	2578	-56
4639604	1	234	168	46	1976	2522	2578	-56
4639604	1	234	168	47	1977	2522	2578	-56
4639604	1	234	168	48	1978	2515	2578	-63
4639604	1	234	168	50	1980	2516	2578	-62
4639604	1	234	168	52	1982	2517	2577	-60
4639604	1	234	168	54	1984	2522	2577	-55
4639604	1	234	168	56	1986	2518	2577	-59
4639604	1	234	168	57	1987	2517	2576	-59
4639604	1	234	168	58	1988	2522	2576	-54
4639604	1	234	168	59	1989	2522	2576	-54
4639604	1	234	168	60	1990	2522	2576	-54
4639604	1	234	168	61	1991	2522	2576	-54
4639604	1	234	168	62	1992	2522	2576	-54
4639604	1	234	168	64	1994	2522	2576	-54
4639604	1	234	168	65	1995	2522	2576	-54
4639604	1	234	168	66	1996	2524	2576	-52
4640205	1	230	179	37	1967	2523	2582	-59
4640205	1	230	179	41	1971	2522	2582	-60
4640205	1	230	179	42	1972	2521	2582	-61
4640205	1	230	179	43	1973	2520	2581	-61
4640205	1	230	179	44	1974	2519	2581	-62
4640205	1	230	179	45	1975	2518	2581	-63
4640205	1	230	179	46	1976	2518	2581	-63
4640205	1	230	179	47	1977	2517	2581	-64
4640205	1	230	179	48	1978	2516	2581	-65
4640205	1	230	179	50	1980	2520	2581	-61
4640205	1	230	179	52	1982	2514	2580	-66
4640206	1	233	180	42	1972	2511	2568	-57
4640206	1	233	180	43	1973	2507	2568	-61
4640206	1	233	180	44	1974	2497	2568	-71
4640206	1	233	180	45	1975	2489	2568	-79



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4640206	1	233	180	46	1976	2489	2568	-79
4640206	1	233	180	50	1980	2501	2567	-66
4640206	1	233	180	57	1987	2498	2566	-68
4640206	1	233	180	58	1988	2498	2566	-68
4640206	1	233	180	59	1989	2498	2566	-68
4640206	1	233	180	60	1990	2498	2566	-68
4640206	1	233	180	61	1991	2496	2566	-70
4640206	1	233	180	62	1992	2496	2566	-70
4640206	1	233	180	63	1993	2492	2566	-74
4640206	1	233	180	64	1994	2494	2566	-72
4640206	1	233	180	65	1995	2494	2566	-72
4640206	1	233	180	66	1996	2492	2566	-74
4640206	1	233	180	67	1997	2493	2566	-73
4640206	1	233	180	68	1998	2492	2565	-73
4640206	1	233	180	69	1999	2491	2565	-74
4640206	1	233	180	70	2000	2490	2565	-75
4640206	1	233	180	71	2001	2490	2565	-75
4640206	1	233	180	72	2002	2489	2565	-76
4640206	1	233	180	73	2003	2477	2565	-88
4640206	1	233	180	75	2005	2486	2565	-79
4640301	1	234	180	31	1961	2513	2565	-52
4640301	1	234	180	37	1967	2508	2564	-56
4640301	1	234	180	41	1971	2505	2564	-59
4640301	1	234	180	42	1972	2504	2564	-60
4640301	1	234	180	43	1973	2502	2564	-62
4640301	1	234	180	44	1974	2502	2563	-61
4640301	1	234	180	45	1975	2501	2563	-62
4640301	1	234	180	46	1976	2501	2563	-62
4640301	1	234	180	47	1977	2500	2563	-63
4640301	1	234	180	48	1978	2498	2563	-65
4640301	1	234	180	50	1980	2501	2563	-62
4640301	1	234	180	51	1981	2495	2563	-68
4640301	1	234	180	53	1983	2492	2562	-70
4640301	1	234	180	54	1984	2491	2562	-71

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4640301	1	234	180	56	1986	2491	2562	-71
4640301	1	234	180	57	1987	2494	2562	-68
4640301	1	234	180	58	1988	2493	2562	-69
4640301	1	234	180	59	1989	2492	2562	-70
4640301	1	234	180	60	1990	2491	2562	-71
4640301	1	234	180	61	1991	2485	2562	-77
4640301	1	234	180	62	1992	2490	2562	-72
4640301	1	234	180	63	1993	2482	2562	-80
4640301	1	234	180	64	1994	2488	2561	-73
4640301	1	234	180	65	1995	2485	2561	-76
4640301	1	234	180	67	1997	2487	2561	-74
4640307	1	232	181	32	1962	2518	2573	-55
4640307	1	232	181	37	1967	2509	2573	-64
4640307	1	232	181	58	1988	2489	2570	-81
4640307	1	232	181	60	1990	2493	2570	-77
4640307	1	232	181	62	1992	2496	2570	-74
4640308	1	234	181	33	1963	2496	2564	-68
4640308	1	234	181	34	1964	2502	2564	-62
4640308	1	234	181	35	1965	2502	2564	-62
4640308	1	234	181	36	1966	2501	2564	-63
4640308	1	234	181	37	1967	2500	2564	-64
4640308	1	234	181	38	1968	2500	2564	-64
4640308	1	234	181	39	1969	2501	2564	-63
4640308	1	234	181	40	1970	2496	2564	-68
4640308	1	234	181	41	1971	2497	2563	-66
4640308	1	234	181	42	1972	2494	2563	-69
4640308	1	234	181	43	1973	2494	2563	-69
4640308	1	234	181	44	1974	2487	2563	-76
4640308	1	234	181	45	1975	2491	2563	-72
4640308	1	234	181	46	1976	2478	2563	-85
4640308	1	234	181	57	1987	2491	2562	-71
4640308	1	234	181	58	1988	2491	2562	-71
4640308	1	234	181	59	1989	2490	2562	-72
4640308	1	234	181	60	1990	2511	2561	-50

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4640308	1	234	181	61	1991	2488	2561	-73
4640308	1	234	181	62	1992	2488	2561	-73
4640308	1	234	181	63	1993	2486	2561	-75
4640308	1	234	181	64	1994	2485	2561	-76
4640308	1	234	181	65	1995	2486	2561	-75
4640308	1	234	181	66	1996	2482	2561	-79
4640308	1	234	181	67	1997	2484	2561	-77
4640501	1	239	173	9	1939	2495	2547	-52
4640501	1	239	173	37	1967	2496	2545	-49
4640501	1	239	173	44	1974	2514	2544	-30
4640501	1	239	173	45	1975	2498	2544	-46
4640501	1	239	173	46	1976	2499	2544	-45
4640501	1	239	173	47	1977	2497	2544	-47
4640501	1	239	173	48	1978	2496	2544	-48
4640501	1	239	173	50	1980	2500	2544	-44
4642301	1	218	94	9	1939	2827	2763	64
4642301	1	218	94	10	1940	2830	2763	67
4642301	1	218	94	18	1948	2829	2761	68
4642301	1	218	94	19	1949	2830	2761	69
4642301	1	218	94	20	1950	2830	2760	70
4642301	1	218	94	21	1951	2830	2760	70
4642301	1	218	94	23	1953	2830	2759	71
4642301	1	218	94	24	1954	2830	2759	71
4642301	1	218	94	25	1955	2828	2758	70
4642301	1	218	94	40	1970	2829	2748	81
4642510	1	224	89	9	1939	2984	2826	158
4642510	1	224	89	10	1940	3007	2826	181
4642510	1	224	89	11	1941	2997	2826	171
4642510	1	224	89	17	1947	2958	2825	133
4642510	1	224	89	18	1948	2955	2825	130
4642510	1	224	89	19	1949	2995	2825	170
4642510	1	224	89	20	1950	2998	2824	174
4642601	1	226	90	18	1948	2898	2819	79
4642601	1	226	90	19	1949	2896	2819	77

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4642601	1	226	90	20	1950	2904	2819	85
4642601	1	226	90	21	1951	2904	2818	86
4642601	1	226	90	22	1952	2904	2818	86
4642601	1	226	90	23	1953	2905	2818	87
4642601	1	226	90	24	1954	2897	2817	80
4642601	1	226	90	25	1955	2895	2817	78
4642601	1	226	90	26	1956	2890	2816	74
4642601	1	226	90	27	1957	2902	2816	86
4642601	1	226	90	28	1958	2897	2815	82
4642601	1	226	90	29	1959	2895	2815	80
4642603	1	223	91	10	1940	2871	2811	60
4642603	1	223	91	18	1948	2870	2810	60
4642603	1	223	91	19	1949	2871	2809	62
4642603	1	223	91	20	1950	2871	2809	62
4642603	1	223	91	21	1951	2872	2809	63
4642603	1	223	91	29	1959	2867	2805	62
4642603	1	223	91	40	1970	2862	2797	65
4642810	1	229	87	29	1959	2858	2835	23
4642810	1	229	87	33	1963	2830	2832	-2
4642810	1	229	87	35	1965	2852	2831	21
4642810	1	229	87	37	1967	2806	2830	-24
4642810	1	229	87	38	1968	2808	2829	-21
4642810	1	229	87	39	1969	2834	2828	6
4642810	1	229	87	40	1970	2831	2828	3
4642810	1	229	87	41	1971	2797	2827	-30
4642810	1	229	87	42	1972	2751	2826	-75
4642810	1	229	87	43	1973	2743	2826	-83
4642810	1	229	87	45	1975	2733	2824	-91
4642810	1	229	87	49	1979	2769	2822	-53
4642810	1	229	87	50	1980	2823	2821	2
4642810	1	229	87	51	1981	2820	2821	-1
4642810	1	229	87	53	1983	2814	2820	-6
4642810	1	229	87	54	1984	2839	2819	20
4642810	1	229	87	57	1987	2865	2818	47

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4642810	1	229	87	58	1988	2879	2818	61
4642810	1	229	87	59	1989	2882	2817	65
4642810	1	229	87	60	1990	2879	2817	62
4642810	1	229	87	61	1991	2884	2816	68
4642810	1	229	87	62	1992	2886	2816	70
4642810	1	229	87	63	1993	2894	2816	78
4642810	1	229	87	65	1995	2894	2815	79
4642810	1	229	87	66	1996	2885	2815	70
4642810	1	229	87	68	1998	2900	2814	86
4642810	1	229	87	69	1999	2904	2814	90
4642810	1	229	87	70	2000	2912	2813	99
4642810	1	229	87	71	2001	2921	2813	108
4642810	1	229	87	72	2002	2925	2813	112
4642810	1	229	87	73	2003	2927	2813	114
4642810	1	229	87	74	2004	2932	2812	120
4642810	1	229	87	75	2005	2937	2812	125
4642901	1	231	90	33	1963	2830	2814	16
4642901	1	231	90	35	1965	2840	2812	28
4642901	1	231	90	36	1966	2832	2812	20
4642901	1	231	90	37	1967	2834	2811	23
4642901	1	231	90	38	1968	2834	2810	24
4642901	1	231	90	39	1969	2828	2809	19
4642901	1	231	90	40	1970	2834	2808	26
4642901	1	231	90	41	1971	2832	2807	25
4642901	1	231	90	42	1972	2828	2807	21
4642901	1	231	90	43	1973	2839	2806	33
4642901	1	231	90	45	1975	2829	2804	25
4642901	1	231	90	47	1977	2838	2803	35
4642901	1	231	90	48	1978	2829	2802	27
4642901	1	231	90	49	1979	2824	2801	23
4642901	1	231	90	52	1982	2824	2800	24
4642901	1	231	90	54	1984	2793	2799	-6
4642901	1	231	90	56	1986	2799	2798	1
4642901	1	231	90	57	1987	2852	2798	54

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4642901	1	231	90	58	1988	2864	2797	67
4642901	1	231	90	59	1989	2866	2797	69
4642901	1	231	90	60	1990	2863	2797	66
4642901	1	231	90	61	1991	2867	2796	71
4642901	1	231	90	62	1992	2870	2796	74
4642901	1	231	90	63	1993	2877	2796	81
4642901	1	231	90	64	1994	2877	2795	82
4642901	1	231	90	65	1995	2877	2795	82
4642901	1	231	90	66	1996	2875	2795	80
4642901	1	231	90	67	1997	2881	2795	86
4642901	1	231	90	68	1998	2883	2794	89
4642901	1	231	90	69	1999	2890	2794	96
4642901	1	231	90	70	2000	2896	2794	102
4642901	1	231	90	71	2001	2906	2794	112
4642901	1	231	90	73	2003	2910	2793	117
4642901	1	231	90	74	2004	2914	2793	121
4642901	1	231	90	75	2005	2916	2793	123
4642905	1	229	92	10	1940	2837	2812	25
4642905	1	229	92	17	1947	2851	2810	41
4642905	1	229	92	19	1949	2838	2809	29
4642905	1	229	92	20	1950	2839	2809	30
4642905	1	229	92	29	1959	2815	2803	12
4643201	1	224	103	28	1958	2504	2720	-216
4643201	1	224	103	30	1960	2462	2718	-256
4643201	1	224	103	31	1961	2452	2717	-265
4643201	1	224	103	32	1962	2403	2716	-313
4643201	1	224	103	33	1963	2394	2714	-320
4643202	1	223	103	18	1948	2640	2726	-86
4643202	1	223	103	19	1949	2639	2726	-87
4643202	1	223	103	20	1950	2629	2725	-96
4643202	1	223	103	22	1952	2600	2723	-123
4643202	1	223	103	23	1953	2582	2722	-140
4643202	1	223	103	24	1954	2568	2721	-153
4643202	1	223	103	25	1955	2561	2720	-159

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4643202	1	223	103	26	1956	2546	2719	-173
4643202	1	223	103	27	1957	2531	2718	-187
4643213	1	224	104	58	1988	2412	2697	-285
4643213	1	224	104	59	1989	2421	2697	-276
4643213	1	224	104	60	1990	2424	2697	-273
4643213	1	224	104	61	1991	2429	2698	-269
4643213	1	224	104	62	1992	2434	2698	-264
4643213	1	224	104	63	1993	2437	2698	-261
4643213	1	224	104	64	1994	2440	2698	-258
4643213	1	224	104	65	1995	2444	2697	-253
4643213	1	224	104	66	1996	2446	2697	-251
4643213	1	224	104	67	1997	2448	2697	-249
4643213	1	224	104	68	1998	2451	2697	-246
4643213	1	224	104	69	1999	2453	2697	-244
4643213	1	224	104	70	2000	2453	2697	-244
4643213	1	224	104	71	2001	2457	2696	-239
4643213	1	224	104	72	2002	2460	2696	-236
4643213	1	224	104	73	2003	2460	2696	-236
4643213	1	224	104	74	2004	2463	2696	-233
4643213	1	224	104	75	2005	2465	2696	-231
4643301	1	225	108	26	1956	2516	2702	-186
4643301	1	225	108	27	1957	2469	2701	-232
4643301	1	225	108	28	1958	2446	2699	-253
4643301	1	225	108	30	1960	2441	2697	-256
4643301	1	225	108	31	1961	2429	2695	-266
4643303	1	226	108	16	1946	2607	2716	-109
4643303	1	226	108	17	1947	2612	2715	-103
4643303	1	226	108	18	1948	2611	2714	-103
4643303	1	226	108	19	1949	2600	2713	-113
4643303	1	226	108	20	1950	2588	2712	-124
4643303	1	226	108	21	1951	2576	2711	-135
4643304	1	228	106	19	1949	2593	2728	-135
4643304	1	228	106	20	1950	2615	2726	-111
4643304	1	228	106	21	1951	2602	2725	-123

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4643304	1	228	106	28	1958	2424	2717	-293
4643304	1	228	106	29	1959	2417	2715	-298
4643304	1	228	106	30	1960	2414	2714	-300
4643305	1	226	106	17	1947	2629	2723	-94
4643305	1	226	106	19	1949	2611	2721	-110
4643305	1	226	106	20	1950	2608	2720	-112
4643305	1	226	106	23	1953	2563	2717	-154
4643305	1	226	106	28	1958	2457	2711	-254
4643306	1	223	109	19	1949	2609	2701	-92
4643306	1	223	109	20	1950	2601	2700	-99
4643306	1	223	109	21	1951	2586	2699	-113
4643306	1	223	109	22	1952	2560	2698	-138
4643306	1	223	109	23	1953	2539	2697	-158
4643306	1	223	109	24	1954	2516	2695	-179
4643306	1	223	109	25	1955	2498	2694	-196
4643306	1	223	109	26	1956	2483	2693	-210
4643306	1	223	109	27	1957	2469	2692	-223
4643306	1	223	109	28	1958	2457	2691	-234
4643306	1	223	109	29	1959	2449	2689	-240
4643306	1	223	109	30	1960	2443	2688	-245
4643501	1	228	102	29	1959	2503	2737	-234
4643501	1	228	102	30	1960	2490	2736	-246
4643501	1	228	102	31	1961	2478	2734	-256
4643501	1	228	102	32	1962	2479	2733	-254
4643501	1	228	102	33	1963	2460	2731	-271
4643501	1	228	102	34	1964	2448	2730	-282
4643501	1	228	102	37	1967	2398	2726	-328
4643501	1	228	102	38	1968	2401	2725	-324
4643501	1	228	102	39	1969	2392	2724	-332
4643501	1	228	102	40	1970	2397	2723	-326
4643501	1	228	102	44	1974	2391	2719	-328
4643501	1	228	102	45	1975	2387	2718	-331
4643501	1	228	102	46	1976	2388	2718	-330
4643501	1	228	102	47	1977	2361	2717	-356



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4643501	1	228	102	48	1978	2363	2717	-354
4643501	1	228	102	49	1979	2375	2716	-341
4643501	1	228	102	50	1980	2398	2716	-318
4643501	1	228	102	51	1981	2414	2716	-302
4643501	1	228	102	53	1983	2412	2716	-304
4643501	1	228	102	54	1984	2423	2716	-293
4643501	1	228	102	56	1986	2423	2716	-293
4643501	1	228	102	57	1987	2423	2716	-293
4643501	1	228	102	58	1988	2431	2716	-285
4643501	1	228	102	59	1989	2432	2716	-284
4643501	1	228	102	60	1990	2433	2716	-283
4643501	1	228	102	61	1991	2435	2717	-282
4643501	1	228	102	62	1992	2438	2717	-279
4643501	1	228	102	63	1993	2438	2717	-279
4643501	1	228	102	64	1994	2441	2717	-276
4643501	1	228	102	65	1995	2443	2716	-273
4643501	1	228	102	66	1996	2445	2716	-271
4643501	1	228	102	67	1997	2446	2716	-270
4643501	1	228	102	68	1998	2447	2716	-269
4643501	1	228	102	69	1999	2449	2716	-267
4643501	1	228	102	70	2000	2451	2716	-265
4643501	1	228	102	71	2001	2452	2715	-263
4643501	1	228	102	72	2002	2453	2715	-262
4643501	1	228	102	73	2003	2454	2715	-261
4643501	1	228	102	74	2004	2455	2715	-260
4643501	1	228	102	75	2005	2458	2715	-257
4643601	1	230	107	19	1949	2615	2730	-115
4643601	1	230	107	20	1950	2602	2729	-127
4643601	1	230	107	21	1951	2588	2727	-139
4643601	1	230	107	22	1952	2573	2726	-153
4643601	1	230	107	23	1953	2551	2725	-174
4643601	1	230	107	24	1954	2519	2724	-205
4643601	1	230	107	25	1955	2504	2722	-218
4643601	1	230	107	26	1956	2488	2721	-233

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4643601	1	230	107	29	1959	2429	2717	-288
4643601	1	230	107	30	1960	2414	2715	-301
4643601	1	230	107	31	1961	2402	2714	-312
4643601	1	230	107	32	1962	2363	2712	-349
4643601	1	230	107	34	1964	2378	2708	-330
4643601	1	230	107	35	1965	2343	2707	-364
4643601	1	230	107	36	1966	2345	2705	-360
4643601	1	230	107	37	1967	2348	2704	-356
4643601	1	230	107	38	1968	2350	2703	-353
4643601	1	230	107	39	1969	2349	2702	-353
4643601	1	230	107	40	1970	2349	2701	-352
4643601	1	230	107	41	1971	2335	2700	-365
4643601	1	230	107	42	1972	2349	2699	-350
4643602	1	230	106	16	1946	2628	2737	-109
4643602	1	230	106	18	1948	2628	2735	-107
4643602	1	230	106	19	1949	2616	2734	-118
4643602	1	230	106	20	1950	2605	2733	-128
4643602	1	230	106	23	1953	2546	2729	-183
4643602	1	230	106	24	1954	2514	2728	-214
4643602	1	230	106	26	1956	2477	2726	-249
4643602	1	230	106	29	1959	2426	2721	-295
4643602	1	230	106	30	1960	2411	2720	-309
4643803	1	235	101	29	1959	2515	2761	-246
4643803	1	235	101	30	1960	2476	2759	-283
4643803	1	235	101	31	1961	2458	2758	-300
4643803	1	235	101	32	1962	2434	2756	-322
4643803	1	235	101	33	1963	2427	2754	-327
4643902	1	235	105	29	1959	2480	2740	-260
4643902	1	235	105	30	1960	2499	2738	-239
4643902	1	235	105	31	1961	2502	2736	-234
4643902	1	235	105	32	1962	2628	2735	-107
4643902	1	235	105	33	1963	2625	2733	-108
4643902	1	235	105	34	1964	2644	2731	-87
4643902	1	235	105	35	1965	2642	2729	-87

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4643902	1	235	105	36	1966	2641	2728	-87
4643902	1	235	105	37	1967	2639	2726	-87
4643902	1	235	105	38	1968	2638	2725	-87
4643902	1	235	105	39	1969	2641	2724	-83
4643902	1	235	105	40	1970	2639	2723	-84
4643902	1	235	105	41	1971	2638	2721	-83
4643902	1	235	105	42	1972	2638	2720	-82
4643902	1	235	105	44	1974	2639	2718	-79
4643902	1	235	105	45	1975	2642	2717	-75
4643902	1	235	105	46	1976	2632	2717	-85
4643902	1	235	105	47	1977	2595	2716	-121
4643902	1	235	105	48	1978	2624	2716	-92
4643902	1	235	105	50	1980	2588	2716	-128
4643902	1	235	105	51	1981	2561	2716	-155
4643902	1	235	105	53	1983	2576	2717	-141
4643902	1	235	105	54	1984	2569	2717	-148
4643902	1	235	105	56	1986	2575	2717	-142
4643902	1	235	105	57	1987	2586	2718	-132
4643902	1	235	105	58	1988	2579	2718	-139
4643903	1	235	103	21	1951	2625	2761	-136
4643903	1	235	103	22	1952	2591	2760	-169
4643903	1	235	103	23	1953	2574	2759	-185
4643903	1	235	103	24	1954	2543	2757	-214
4643903	1	235	103	26	1956	2510	2754	-244
4643903	1	235	103	29	1959	2452	2750	-298
4643909	1	227	108	9	1939	2662	2724	-62
4643909	1	227	108	10	1940	2663	2723	-60
4643909	1	227	108	11	1941	2662	2723	-61
4643909	1	227	108	18	1948	2661	2717	-56
4643909	1	227	108	19	1949	2655	2716	-61
4643909	1	227	108	20	1950	2644	2715	-71
4644101	1	229	112	28	1958	2428	2695	-267
4644101	1	229	112	29	1959	2437	2693	-256
4644101	1	229	112	30	1960	2422	2692	-270

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644101	1	229	112	31	1961	2427	2690	-263
4644101	1	229	112	32	1962	2439	2688	-249
4644101	1	229	112	33	1963	2406	2687	-281
4644101	1	229	112	34	1964	2398	2685	-287
4644101	1	229	112	35	1965	2415	2684	-269
4644101	1	229	112	36	1966	2416	2682	-266
4644101	1	229	112	37	1967	2415	2681	-266
4644101	1	229	112	38	1968	2415	2680	-265
4644101	1	229	112	39	1969	2443	2679	-236
4644101	1	229	112	40	1970	2444	2678	-234
4644101	1	229	112	41	1971	2421	2677	-256
4644101	1	229	112	42	1972	2439	2676	-237
4644101	1	229	112	44	1974	2445	2675	-230
4644101	1	229	112	45	1975	2448	2674	-226
4644101	1	229	112	46	1976	2454	2674	-220
4644101	1	229	112	47	1977	2468	2674	-206
4644101	1	229	112	48	1978	2472	2674	-202
4644101	1	229	112	49	1979	2478	2674	-196
4644101	1	229	112	50	1980	2488	2674	-186
4644101	1	229	112	51	1981	2485	2674	-189
4644101	1	229	112	53	1983	2488	2675	-187
4644101	1	229	112	54	1984	2484	2675	-191
4644101	1	229	112	57	1987	2493	2677	-184
4644101	1	229	112	58	1988	2494	2677	-183
4644101	1	229	112	59	1989	2497	2677	-180
4644101	1	229	112	60	1990	2499	2678	-179
4644101	1	229	112	61	1991	2498	2678	-180
4644101	1	229	112	62	1992	2499	2679	-180
4644101	1	229	112	63	1993	2503	2678	-175
4644101	1	229	112	64	1994	2502	2678	-176
4644101	1	229	112	65	1995	2503	2678	-175
4644101	1	229	112	66	1996	2498	2678	-180
4644101	1	229	112	67	1997	2496	2678	-182
4644101	1	229	112	68	1998	2497	2678	-181

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644101	1	229	112	69	1999	2495	2677	-182
4644101	1	229	112	70	2000	2492	2677	-185
4644101	1	229	112	71	2001	2494	2677	-183
4644101	1	229	112	72	2002	2495	2677	-182
4644101	1	229	112	73	2003	2493	2677	-184
4644101	1	229	112	74	2004	2493	2677	-184
4644101	1	229	112	75	2005	2494	2677	-183
4644102	1	229	111	19	1949	2605	2711	-106
4644102	1	229	111	20	1950	2595	2709	-114
4644102	1	229	111	21	1951	2584	2708	-124
4644102	1	229	111	22	1952	2548	2707	-159
4644102	1	229	111	26	1956	2462	2702	-240
4644102	1	229	111	28	1958	2419	2699	-280
4644102	1	229	111	30	1960	2414	2696	-282
4644103	1	226	113	19	1949	2589	2693	-104
4644103	1	226	113	20	1950	2586	2692	-106
4644103	1	226	113	22	1952	2541	2689	-148
4644103	1	226	113	23	1953	2513	2688	-175
4644103	1	226	113	24	1954	2477	2687	-210
4644103	1	226	113	25	1955	2448	2686	-238
4644103	1	226	113	26	1956	2450	2684	-234
4644105	1	224	113	28	1958	2459	2677	-218
4644105	1	224	113	29	1959	2467	2675	-208
4644105	1	224	113	30	1960	2463	2674	-211
4644105	1	224	113	31	1961	2478	2673	-195
4644105	1	224	113	32	1962	2403	2671	-268
4644202	1	229	116	19	1949	2599	2689	-90
4644202	1	229	116	20	1950	2587	2688	-101
4644202	1	229	116	22	1952	2546	2686	-140
4644202	1	229	116	23	1953	2518	2685	-167
4644202	1	229	116	24	1954	2488	2684	-196
4644202	1	229	116	25	1955	2469	2682	-213
4644202	1	229	116	26	1956	2455	2681	-226
4644202	1	229	116	28	1958	2438	2678	-240

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644203	1	230	114	19	1949	2602	2702	-100
4644203	1	230	114	20	1950	2590	2700	-110
4644203	1	230	114	21	1951	2577	2699	-122
4644203	1	230	114	28	1958	2444	2690	-246
4644203	1	230	114	29	1959	2450	2688	-238
4644203	1	230	114	30	1960	2449	2687	-238
4644203	1	230	114	31	1961	2532	2685	-153
4644203	1	230	114	32	1962	2534	2684	-150
4644203	1	230	114	34	1964	2534	2680	-146
4644203	1	230	114	35	1965	2534	2679	-145
4644203	1	230	114	36	1966	2533	2677	-144
4644203	1	230	114	37	1967	2534	2676	-142
4644203	1	230	114	38	1968	2536	2675	-139
4644203	1	230	114	39	1969	2534	2674	-140
4644203	1	230	114	40	1970	2567	2673	-106
4644203	1	230	114	41	1971	2569	2672	-103
4644203	1	230	114	42	1972	2570	2672	-102
4644203	1	230	114	44	1974	2573	2670	-97
4644203	1	230	114	45	1975	2572	2669	-97
4644203	1	230	114	46	1976	2575	2669	-94
4644203	1	230	114	47	1977	2572	2669	-97
4644203	1	230	114	48	1978	2567	2669	-102
4644203	1	230	114	49	1979	2558	2669	-111
4644203	1	230	114	50	1980	2564	2670	-106
4644203	1	230	114	52	1982	2561	2670	-109
4644203	1	230	114	54	1984	2566	2671	-105
4644203	1	230	114	57	1987	2555	2672	-117
4644203	1	230	114	58	1988	2554	2673	-119
4644203	1	230	114	59	1989	2552	2673	-121
4644203	1	230	114	60	1990	2552	2673	-121
4644203	1	230	114	61	1991	2550	2674	-124
4644203	1	230	114	62	1992	2550	2674	-124
4644203	1	230	114	63	1993	2551	2674	-123
4644203	1	230	114	64	1994	2546	2674	-128

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644203	1	230	114	65	1995	2550	2673	-123
4644203	1	230	114	66	1996	2548	2673	-125
4644203	1	230	114	67	1997	2547	2673	-126
4644203	1	230	114	68	1998	2546	2673	-127
4644203	1	230	114	69	1999	2545	2673	-128
4644203	1	230	114	70	2000	2543	2673	-130
4644203	1	230	114	71	2001	2542	2673	-131
4644203	1	230	114	72	2002	2542	2673	-131
4644203	1	230	114	73	2003	2541	2672	-131
4644203	1	230	114	74	2004	2541	2672	-131
4644203	1	230	114	75	2005	2540	2672	-132
4644301	1	232	121	10	1940	2603	2684	-81
4644301	1	232	121	11	1941	2603	2683	-80
4644301	1	232	121	19	1949	2595	2678	-83
4644301	1	232	121	20	1950	2584	2678	-94
4644301	1	232	121	29	1959	2519	2669	-150
4644401	1	231	110	23	1953	2535	2716	-181
4644401	1	231	110	24	1954	2495	2715	-220
4644401	1	231	110	25	1955	2481	2713	-232
4644401	1	231	110	26	1956	2467	2712	-245
4644401	1	231	110	27	1957	2454	2710	-256
4644401	1	231	110	29	1959	2435	2707	-272
4644401	1	231	110	30	1960	2423	2706	-283
4644401	1	231	110	31	1961	2426	2704	-278
4644401	1	231	110	35	1965	2392	2697	-305
4644501	1	233	117	22	1952	2549	2697	-148
4644501	1	233	117	23	1953	2520	2696	-176
4644501	1	233	117	24	1954	2493	2695	-202
4644501	1	233	117	25	1955	2481	2694	-213
4644501	1	233	117	26	1956	2466	2692	-226
4644501	1	233	117	28	1958	2448	2690	-242
4644501	1	233	117	29	1959	2462	2688	-226
4644501	1	233	117	30	1960	2457	2687	-230
4644501	1	233	117	31	1961	2465	2685	-220

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644501	1	233	117	33	1963	2461	2682	-221
4644501	1	233	117	34	1964	2458	2680	-222
4644501	1	233	117	35	1965	2459	2679	-220
4644501	1	233	117	36	1966	2463	2678	-215
4644501	1	233	117	37	1967	2461	2676	-215
4644501	1	233	117	38	1968	2467	2675	-208
4644501	1	233	117	39	1969	2472	2674	-202
4644501	1	233	117	40	1970	2471	2673	-202
4644501	1	233	117	41	1971	2465	2672	-207
4644501	1	233	117	42	1972	2468	2671	-203
4644501	1	233	117	43	1973	2471	2670	-199
4644501	1	233	117	45	1975	2480	2669	-189
4644501	1	233	117	46	1976	2490	2668	-178
4644501	1	233	117	47	1977	2495	2668	-173
4644501	1	233	117	48	1978	2502	2668	-166
4644501	1	233	117	49	1979	2505	2668	-163
4644501	1	233	117	50	1980	2506	2668	-162
4644501	1	233	117	51	1981	2504	2668	-164
4644501	1	233	117	52	1982	2504	2669	-165
4644501	1	233	117	53	1983	2505	2669	-164
4644501	1	233	117	54	1984	2502	2669	-167
4644501	1	233	117	55	1985	2504	2669	-165
4644501	1	233	117	56	1986	2514	2670	-156
4644501	1	233	117	57	1987	2507	2670	-163
4644501	1	233	117	58	1988	2509	2670	-161
4644501	1	233	117	59	1989	2511	2671	-160
4644501	1	233	117	60	1990	2511	2671	-160
4644501	1	233	117	61	1991	2510	2671	-161
4644501	1	233	117	62	1992	2512	2672	-160
4644501	1	233	117	64	1994	2509	2671	-162
4644501	1	233	117	65	1995	2511	2671	-160
4644501	1	233	117	66	1996	2510	2671	-161
4644501	1	233	117	67	1997	2509	2671	-162
4644501	1	233	117	68	1998	2508	2671	-163



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644501	1	233	117	69	1999	2513	2671	-158
4644501	1	233	117	70	2000	2505	2671	-166
4644501	1	233	117	71	2001	2510	2671	-161
4644501	1	233	117	72	2002	2519	2671	-152
4644501	1	233	117	73	2003	2502	2671	-169
4644501	1	233	117	74	2004	2503	2671	-168
4644501	1	233	117	75	2005	2502	2670	-168
4644502	1	235	114	28	1958	2516	2709	-193
4644502	1	235	114	31	1961	2529	2704	-175
4644502	1	235	114	32	1962	2526	2703	-177
4644502	1	235	114	33	1963	2520	2701	-181
4644502	1	235	114	35	1965	2530	2697	-167
4644502	1	235	114	36	1966	2527	2696	-169
4644502	1	235	114	37	1967	2522	2694	-172
4644502	1	235	114	38	1968	2524	2693	-169
4644502	1	235	114	39	1969	2523	2692	-169
4644502	1	235	114	40	1970	2535	2691	-156
4644502	1	235	114	42	1972	2524	2689	-165
4644502	1	235	114	44	1974	2536	2687	-151
4644502	1	235	114	45	1975	2541	2686	-145
4644502	1	235	114	46	1976	2530	2685	-155
4644502	1	235	114	47	1977	2530	2685	-155
4644502	1	235	114	49	1979	2544	2685	-141
4644502	1	235	114	50	1980	2539	2685	-146
4644502	1	235	114	54	1984	2526	2686	-160
4644502	1	235	114	57	1987	2531	2687	-156
4644602	1	233	119	29	1959	2468	2680	-212
4644602	1	233	119	30	1960	2466	2679	-213
4644602	1	233	119	31	1961	2466	2678	-212
4644602	1	233	119	32	1962	2465	2676	-211
4644602	1	233	119	33	1963	2455	2675	-220
4644602	1	233	119	34	1964	2447	2673	-226
4644602	1	233	119	35	1965	2432	2672	-240
4644602	1	233	119	36	1966	2427	2670	-243

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644602	1	233	119	37	1967	2449	2669	-220
4644602	1	233	119	38	1968	2451	2668	-217
4644602	1	233	119	39	1969	2459	2667	-208
4644602	1	233	119	40	1970	2457	2666	-209
4644602	1	233	119	41	1971	2448	2665	-217
4644602	1	233	119	44	1974	2451	2663	-212
4644602	1	233	119	45	1975	2465	2662	-197
4644602	1	233	119	46	1976	2473	2662	-189
4644602	1	233	119	47	1977	2486	2661	-175
4644602	1	233	119	48	1978	2478	2661	-183
4644602	1	233	119	49	1979	2489	2661	-172
4644602	1	233	119	50	1980	2499	2661	-162
4644602	1	233	119	51	1981	2495	2661	-166
4644602	1	233	119	53	1983	2493	2662	-169
4644602	1	233	119	54	1984	2497	2662	-165
4644602	1	233	119	56	1986	2497	2662	-165
4644701	1	238	107	29	1959	2459	2742	-283
4644701	1	238	107	31	1961	2438	2738	-300
4644701	1	238	107	32	1962	2440	2736	-296
4644701	1	238	107	33	1963	2425	2734	-309
4644701	1	238	107	34	1964	2399	2732	-333
4644701	1	238	107	35	1965	2396	2730	-334
4644701	1	238	107	36	1966	2389	2728	-339
4644701	1	238	107	37	1967	2382	2727	-345
4644701	1	238	107	38	1968	2378	2725	-347
4644701	1	238	107	39	1969	2384	2724	-340
4644701	1	238	107	40	1970	2378	2723	-345
4644701	1	238	107	41	1971	2376	2721	-345
4644701	1	238	107	42	1972	2375	2720	-345
4644701	1	238	107	44	1974	2382	2718	-336
4644701	1	238	107	52	1982	2445	2716	-271
4644704	1	235	108	29	1959	2448	2728	-280
4644704	1	235	108	30	1960	2434	2726	-292
4644704	1	235	108	31	1961	2411	2724	-313

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644704	1	235	108	34	1964	2381	2718	-337
4644704	1	235	108	35	1965	2356	2717	-361
4644704	1	235	108	36	1966	2359	2715	-356
4644704	1	235	108	37	1967	2355	2714	-359
4644704	1	235	108	38	1968	2352	2712	-360
4644704	1	235	108	39	1969	2347	2711	-364

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644704	1	235	108	40	1970	2341	2710	-369
4644704	1	235	108	41	1971	2345	2709	-364
4644704	1	235	108	42	1972	2338	2708	-370
4644704	1	235	108	44	1974	2366	2706	-340
4644704	1	235	108	45	1975	2373	2705	-332
4644704	1	235	108	47	1977	2409	2704	-295
4644704	1	235	108	49	1979	2439	2704	-265
4644704	1	235	108	50	1980	2450	2704	-254
4644704	1	235	108	54	1984	2456	2705	-249
4644704	1	235	108	56	1986	2462	2706	-244
4644704	1	235	108	57	1987	2466	2706	-240
4644704	1	235	108	58	1988	2470	2707	-237
4644704	1	235	108	59	1989	2472	2707	-235
4644704	1	235	108	60	1990	2473	2707	-234
4644704	1	235	108	61	1991	2474	2708	-234
4644704	1	235	108	62	1992	2487	2708	-221
4644704	1	235	108	63	1993	2480	2708	-228
4644704	1	235	108	64	1994	2482	2708	-226
4644704	1	235	108	65	1995	2467	2707	-240
4644704	1	235	108	66	1996	2459	2707	-248
4644704	1	235	108	71	2001	2469	2706	-237
4644704	1	235	108	72	2002	2468	2706	-238

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644704	1	235	108	73	2003	2466	2706	-240
4644704	1	235	108	74	2004	2473	2706	-233
4644704	1	235	108	75	2005	2478	2706	-228
4644802	1	240	113	11	1941	2643	2754	-111
4644802	1	240	113	16	1946	2642	2750	-108
4644802	1	240	113	17	1947	2642	2749	-107
4644802	1	240	113	18	1948	2642	2748	-106
4644802	1	240	113	19	1949	2640	2747	-107
4644802	1	240	113	20	1950	2637	2745	-108
4644802	1	240	113	21	1951	2634	2744	-110
4644802	1	240	113	22	1952	2629	2743	-114
4644802	1	240	113	23	1953	2620	2741	-121
4644802	1	240	113	24	1954	2617	2740	-123
4644802	1	240	113	25	1955	2617	2738	-121
4644802	1	240	113	26	1956	2619	2737	-118
4644802	1	240	113	27	1957	2619	2735	-116
4644802	1	240	113	28	1958	2623	2734	-111
4644803	1	241	113	17	1947	2639	2752	-113
4644803	1	241	113	18	1948	2643	2751	-108
4644803	1	241	113	19	1949	2644	2750	-106
4644803	1	241	113	20	1950	2641	2749	-108
4644803	1	241	113	21	1951	2639	2747	-108
4644803	1	241	113	23	1953	2613	2745	-132
4644803	1	241	113	24	1954	2614	2743	-129
4644803	1	241	113	25	1955	2614	2742	-128
4644803	1	241	113	26	1956	2614	2740	-126
4644803	1	241	113	28	1958	2620	2737	-117
4644803	1	241	113	29	1959	2615	2735	-120
4644803	1	241	113	30	1960	2623	2733	-110
4644803	1	241	113	31	1961	2630	2731	-101
4644803	1	241	113	32	1962	2629	2729	-100
4644803	1	241	113	33	1963	2627	2727	-100
4644803	1	241	113	34	1964	2627	2725	-98
4644803	1	241	113	35	1965	2623	2723	-100

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644803	1	241	113	36	1966	2616	2721	-105
4644803	1	241	113	37	1967	2626	2720	-94
4644803	1	241	113	38	1968	2636	2718	-82
4644803	1	241	113	39	1969	2626	2717	-91
4644803	1	241	113	40	1970	2625	2715	-90
4644803	1	241	113	41	1971	2626	2714	-88
4644803	1	241	113	42	1972	2620	2713	-93
4644803	1	241	113	44	1974	2627	2710	-83
4644803	1	241	113	45	1975	2638	2709	-71
4644803	1	241	113	46	1976	2633	2709	-76
4644803	1	241	113	47	1977	2625	2708	-83
4644803	1	241	113	48	1978	2620	2708	-88
4644803	1	241	113	49	1979	2618	2708	-90
4644803	1	241	113	50	1980	2610	2708	-98
4644803	1	241	113	52	1982	2604	2707	-103
4644803	1	241	113	54	1984	2591	2708	-117
4644803	1	241	113	57	1987	2586	2709	-123
4644803	1	241	113	58	1988	2585	2709	-124
4644803	1	241	113	59	1989	2583	2709	-126
4644803	1	241	113	60	1990	2581	2710	-129
4644803	1	241	113	62	1992	2585	2711	-126
4644803	1	241	113	63	1993	2584	2710	-126
4644803	1	241	113	64	1994	2580	2710	-130
4644803	1	241	113	66	1996	2574	2710	-136
4644803	1	241	113	67	1997	2572	2710	-138
4644803	1	241	113	68	1998	2570	2710	-140
4644803	1	241	113	69	1999	2568	2710	-142
4644803	1	241	113	70	2000	2557	2710	-153
4644803	1	241	113	71	2001	2563	2710	-147
4644803	1	241	113	72	2002	2561	2710	-149
4644803	1	241	113	73	2003	2561	2710	-149
4644803	1	241	113	74	2004	2561	2710	-149
4644803	1	241	113	75	2005	2563	2709	-146
4644805	1	239	113	28	1958	2616	2730	-114

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4644805	1	239	113	58	1988	2576	2703	-127
4644805	1	239	113	59	1989	2579	2704	-125
4644805	1	239	113	60	1990	2578	2704	-126
4644805	1	239	113	61	1991	2579	2704	-125
4644805	1	239	113	65	1995	2565	2705	-140
4644901	1	242	117	3	1933	2628	2751	-123
4644901	1	242	117	10	1940	2630	2749	-119
4644901	1	242	117	11	1941	2632	2749	-117
4644901	1	242	117	12	1942	2634	2748	-114
4644901	1	242	117	18	1948	2630	2744	-114
4644901	1	242	117	19	1949	2629	2743	-114
4644901	1	242	117	20	1950	2627	2742	-115
4644901	1	242	117	21	1951	2624	2740	-116
4644901	1	242	117	22	1952	2619	2739	-120
4644901	1	242	117	23	1953	2614	2738	-124
4644901	1	242	117	24	1954	2606	2737	-131
4644901	1	242	117	25	1955	2607	2735	-128
4644901	1	242	117	26	1956	2591	2734	-143
4644901	1	242	117	27	1957	2591	2733	-142
4644901	1	242	117	30	1960	2603	2728	-125
4645401	1	239	124	10	1940	2583	2709	-126
4645401	1	239	124	11	1941	2584	2709	-125
4645401	1	239	124	12	1942	2582	2708	-126
4645401	1	239	124	19	1949	2577	2704	-127
4645401	1	239	124	20	1950	2575	2704	-129
4645401	1	239	124	21	1951	2571	2703	-132
4645401	1	239	124	22	1952	2560	2702	-142
4645401	1	239	124	24	1954	2539	2700	-161
4645401	1	239	124	25	1955	2533	2699	-166
4645401	1	239	124	26	1956	2531	2698	-167
4645401	1	239	124	29	1959	2525	2695	-170
4645701	1	245	122	10	1940	2609	2750	-141
4645701	1	245	122	18	1948	2606	2745	-139
4645701	1	245	122	20	1950	2604	2743	-139

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4645701	1	245	122	21	1951	2603	2742	-139
4645701	1	245	122	29	1959	2563	2732	-169
4645801	1	244	128	25	1955	2555	2715	-160
4645801	1	244	128	26	1956	2561	2714	-153
4645801	1	244	128	28	1958	2556	2711	-155
4645801	1	244	128	29	1959	2551	2710	-159
4645801	1	244	128	30	1960	2546	2708	-162
4645801	1	244	128	31	1961	2548	2707	-159
4645801	1	244	128	32	1962	2549	2705	-156
4645801	1	244	128	34	1964	2551	2703	-152
4645801	1	244	128	35	1965	2535	2702	-167
4645801	1	244	128	37	1967	2530	2699	-169
4645801	1	244	128	38	1968	2529	2698	-169
4645801	1	244	128	39	1969	2530	2696	-166
4645801	1	244	128	40	1970	2527	2695	-168
4645801	1	244	128	41	1971	2522	2694	-172
4645801	1	244	128	42	1972	2526	2694	-168
4645801	1	244	128	43	1973	2533	2693	-160
4645801	1	244	128	45	1975	2528	2691	-163
4645801	1	244	128	47	1977	2527	2690	-163
4645801	1	244	128	48	1978	2536	2689	-153
4645801	1	244	128	49	1979	2535	2689	-154
4645801	1	244	128	50	1980	2524	2689	-165
4645801	1	244	128	51	1981	2539	2689	-150
4645801	1	244	128	53	1983	2524	2688	-164
4645801	1	244	128	54	1984	2535	2688	-153
4645801	1	244	128	57	1987	2538	2688	-150
4645801	1	244	128	58	1988	2539	2688	-149
4645801	1	244	128	59	1989	2539	2688	-149
4645801	1	244	128	60	1990	2539	2689	-150
4645801	1	244	128	61	1991	2545	2689	-144
4645801	1	244	128	62	1992	2547	2689	-142
4645801	1	244	128	63	1993	2546	2688	-142
4645801	1	244	128	65	1995	2545	2688	-143

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4645801	1	244	128	69	1999	2541	2688	-147
4645803	1	245	128	10	1940	2584	2729	-145
4645803	1	245	128	17	1947	2586	2725	-139
4645803	1	245	128	20	1950	2582	2723	-141
4645803	1	245	128	22	1952	2577	2721	-144
4645803	1	245	128	23	1953	2573	2720	-147
4645803	1	245	128	24	1954	2565	2719	-154
4646101	1	235	141	28	1958	2530	2650	-120
4646101	1	235	141	29	1959	2528	2649	-121
4646101	1	235	141	30	1960	2532	2648	-116
4646101	1	235	141	31	1961	2535	2647	-112
4646101	1	235	141	32	1962	2534	2647	-113
4646101	1	235	141	33	1963	2528	2646	-118
4646101	1	235	141	34	1964	2532	2645	-113
4646101	1	235	141	35	1965	2528	2645	-117
4646101	1	235	141	36	1966	2534	2643	-109
4646101	1	235	141	37	1967	2533	2643	-110
4646101	1	235	141	38	1968	2534	2642	-108
4646101	1	235	141	39	1969	2533	2641	-108
4646101	1	235	141	40	1970	2534	2640	-106
4646101	1	235	141	41	1971	2533	2640	-107
4646101	1	235	141	42	1972	2530	2639	-109
4646101	1	235	141	43	1973	2534	2639	-105
4646101	1	235	141	45	1975	2540	2638	-98
4646101	1	235	141	46	1976	2534	2638	-104
4646101	1	235	141	48	1978	2535	2636	-101
4646101	1	235	141	49	1979	2536	2636	-100
4646101	1	235	141	50	1980	2535	2636	-101
4646101	1	235	141	51	1981	2527	2636	-109
4646101	1	235	141	53	1983	2534	2635	-101
4646101	1	235	141	54	1984	2533	2635	-102
4646101	1	235	141	58	1988	2534	2635	-101
4646101	1	235	141	59	1989	2533	2635	-102
4646101	1	235	141	60	1990	2532	2634	-102



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4646101	1	235	141	61	1991	2539	2634	-95
4646101	1	235	141	62	1992	2537	2634	-97
4646101	1	235	141	63	1993	2536	2634	-98
4646101	1	235	141	66	1996	2533	2634	-101
4646101	1	235	141	68	1998	2532	2634	-102
4646101	1	235	141	69	1999	2532	2634	-102
4646101	1	235	141	70	2000	2531	2634	-103
4646101	1	235	141	71	2001	2532	2634	-102
4646101	1	235	141	72	2002	2532	2634	-102
4646101	1	235	141	73	2003	2533	2634	-101
4646101	1	235	141	74	2004	2532	2634	-102
4647601	1	252	162	28	1958	2518	2588	-70
4647601	1	252	162	29	1959	2519	2587	-68
4647601	1	252	162	31	1961	2518	2585	-67
4647601	1	252	162	32	1962	2518	2585	-67
4647601	1	252	162	33	1963	2518	2584	-66
4647601	1	252	162	34	1964	2518	2583	-65
4647601	1	252	162	35	1965	2517	2583	-66
4647601	1	252	162	37	1967	2515	2582	-67
4647601	1	252	162	38	1968	2516	2581	-65
4647601	1	252	162	40	1970	2516	2581	-65
4648502	1	255	171	31	1961	2365	2538	-173
4648502	1	255	171	33	1963	2338	2537	-199
4648502	1	255	171	34	1964	2317	2536	-219
4648502	1	255	171	35	1965	2299	2536	-237
4648502	1	255	171	36	1966	2307	2535	-228
4648502	1	255	171	37	1967	2295	2535	-240
4648502	1	255	171	38	1968	2300	2536	-236
4648502	1	255	171	39	1969	2280	2536	-256
4648502	1	255	171	40	1970	2278	2536	-258
4648502	1	255	171	41	1971	2280	2536	-256
4648502	1	255	171	42	1972	2282	2536	-254
4648502	1	255	171	44	1974	2289	2536	-247
4648502	1	255	171	50	1980	2253	2536	-283

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648502	1	255	171	52	1982	2255	2536	-281
4648502	1	255	171	54	1984	2279	2536	-257
4648502	1	255	171	57	1987	2280	2537	-257
4648502	1	255	171	58	1988	2282	2537	-255
4648502	1	255	171	59	1989	2280	2537	-257
4648502	1	255	171	60	1990	2265	2537	-272
4648502	1	255	171	61	1991	2262	2537	-275
4648502	1	255	171	62	1992	2263	2537	-274
4648502	1	255	171	63	1993	2267	2537	-270
4648502	1	255	171	64	1994	2263	2537	-274
4648502	1	255	171	65	1995	2265	2536	-271
4648502	1	255	171	66	1996	2259	2536	-277
4648502	1	255	171	67	1997	2258	2536	-278
4648502	1	255	171	68	1998	2260	2536	-276
4648502	1	255	171	69	1999	2260	2536	-276
4648502	1	255	171	70	2000	2254	2535	-281
4648502	1	255	171	72	2002	2249	2535	-286
4648502	1	255	171	74	2004	2251	2536	-285
4648502	1	255	171	75	2005	2252	2536	-284
4648503	1	253	172	29	1959	2411	2525	-114
4648503	1	253	172	31	1961	2381	2524	-143
4648503	1	253	172	33	1963	2366	2523	-157
4648503	1	253	172	35	1965	2320	2522	-202
4648503	1	253	172	36	1966	2329	2522	-193
4648503	1	253	172	37	1967	2342	2522	-180
4648503	1	253	172	38	1968	2346	2522	-176
4648503	1	253	172	40	1970	2338	2523	-185
4648503	1	253	172	41	1971	2336	2523	-187
4648503	1	253	172	44	1974	2331	2522	-191
4648503	1	253	172	52	1982	2319	2523	-204
4648503	1	253	172	54	1984	2327	2523	-196
4648503	1	253	172	59	1989	2313	2523	-210
4648503	1	253	172	60	1990	2314	2523	-209
4648503	1	253	172	61	1991	2311	2523	-212

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648503	1	253	172	62	1992	2312	2523	-211
4648503	1	253	172	63	1993	2322	2523	-201
4648503	1	253	172	64	1994	2321	2523	-202
4648503	1	253	172	65	1995	2321	2523	-202
4648503	1	253	172	67	1997	2314	2523	-209
4648503	1	253	172	69	1999	2309	2522	-213
4648503	1	253	172	70	2000	2297	2522	-225
4648503	1	253	172	72	2002	2307	2522	-215
4648503	1	253	172	74	2004	2310	2523	-213
4648503	1	253	172	75	2005	2309	2523	-214
4648602	1	254	175	27	1957	2467	2513	-46
4648602	1	254	175	29	1959	2454	2512	-58
4648602	1	254	175	31	1961	2437	2511	-74
4648602	1	254	175	33	1963	2429	2510	-81
4648602	1	254	175	34	1964	2390	2509	-119
4648602	1	254	175	35	1965	2397	2509	-112
4648602	1	254	175	36	1966	2417	2509	-92
4648602	1	254	175	37	1967	2413	2509	-96
4648602	1	254	175	38	1968	2422	2510	-88
4648602	1	254	175	39	1969	2420	2510	-90
4648602	1	254	175	40	1970	2432	2510	-78
4648602	1	254	175	41	1971	2431	2510	-79
4648602	1	254	175	42	1972	2416	2510	-94
4648602	1	254	175	44	1974	2416	2510	-94
4648602	1	254	175	45	1975	2404	2510	-106
4648602	1	254	175	46	1976	2380	2510	-130
4648602	1	254	175	47	1977	2414	2510	-96
4648602	1	254	175	48	1978	2420	2510	-90
4648602	1	254	175	49	1979	2416	2511	-95
4648602	1	254	175	51	1981	2428	2510	-82
4648602	1	254	175	53	1983	2428	2510	-82
4648602	1	254	175	54	1984	2432	2510	-78
4648602	1	254	175	57	1987	2415	2511	-96
4648602	1	254	175	58	1988	2427	2511	-84

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648602	1	254	175	59	1989	2422	2511	-89
4648602	1	254	175	60	1990	2408	2511	-103
4648602	1	254	175	61	1991	2406	2511	-105
4648602	1	254	175	62	1992	2409	2511	-102
4648602	1	254	175	63	1993	2415	2511	-96
4648602	1	254	175	64	1994	2411	2511	-100
4648602	1	254	175	65	1995	2410	2511	-101
4648604	1	257	173	28	1958	2396	2538	-142
4648604	1	257	173	31	1961	2345	2536	-191
4648604	1	257	173	33	1963	2318	2535	-217
4648604	1	257	173	34	1964	2307	2534	-227
4648604	1	257	173	35	1965	2296	2534	-238
4648604	1	257	173	36	1966	2298	2534	-236
4648604	1	257	173	37	1967	2286	2534	-248
4648604	1	257	173	38	1968	2291	2534	-243
4648604	1	257	173	39	1969	2310	2534	-224
4648604	1	257	173	40	1970	2277	2534	-257
4648604	1	257	173	41	1971	2276	2534	-258
4648604	1	257	173	44	1974	2283	2534	-251
4648604	1	257	173	52	1982	2277	2534	-257
4648604	1	257	173	54	1984	2268	2534	-266
4648604	1	257	173	56	1986	2284	2535	-251
4648604	1	257	173	57	1987	2288	2535	-247
4648604	1	257	173	58	1988	2278	2535	-257
4648604	1	257	173	59	1989	2276	2535	-259
4648604	1	257	173	60	1990	2269	2535	-266
4648604	1	257	173	61	1991	2267	2535	-268
4648604	1	257	173	62	1992	2249	2535	-286
4648604	1	257	173	63	1993	2269	2535	-266
4648604	1	257	173	64	1994	2253	2535	-282
4648604	1	257	173	65	1995	2267	2535	-268
4648604	1	257	173	66	1996	2260	2534	-274
4648604	1	257	173	67	1997	2258	2534	-276
4648604	1	257	173	68	1998	2258	2534	-276

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648604	1	257	173	69	1999	2254	2534	-280
4648604	1	257	173	70	2000	2251	2534	-283
4648604	1	257	173	71	2001	2251	2534	-283
4648604	1	257	173	72	2002	2248	2534	-286
4648604	1	257	173	74	2004	2253	2534	-281
4648604	1	257	173	75	2005	2253	2534	-281
4648801	1	261	169	28	1958	2389	2575	-186
4648801	1	261	169	29	1959	2380	2574	-194
4648801	1	261	169	31	1961	2362	2572	-210
4648801	1	261	169	32	1962	2362	2571	-209
4648801	1	261	169	33	1963	2354	2570	-216
4648801	1	261	169	34	1964	2348	2569	-221
4648801	1	261	169	35	1965	2328	2568	-240
4648801	1	261	169	36	1966	2335	2568	-233
4648801	1	261	169	37	1967	2326	2568	-242
4648801	1	261	169	38	1968	2330	2569	-239
4648801	1	261	169	39	1969	2326	2569	-243
4648801	1	261	169	40	1970	2330	2569	-239
4648801	1	261	169	41	1971	2327	2569	-242
4648801	1	261	169	42	1972	2318	2569	-251
4648801	1	261	169	44	1974	2300	2569	-269
4648801	1	261	169	45	1975	2314	2569	-255
4648801	1	261	169	46	1976	2315	2569	-254
4648801	1	261	169	47	1977	2320	2569	-249
4648801	1	261	169	48	1978	2333	2569	-236
4648801	1	261	169	52	1982	2324	2569	-245
4648801	1	261	169	54	1984	2319	2569	-250
4648801	1	261	169	56	1986	2330	2570	-240
4648801	1	261	169	57	1987	2332	2570	-238
4648801	1	261	169	58	1988	2336	2570	-234
4648801	1	261	169	59	1989	2335	2570	-235
4648801	1	261	169	60	1990	2326	2570	-244
4648801	1	261	169	61	1991	2329	2570	-241
4648801	1	261	169	62	1992	2331	2570	-239

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648801	1	261	169	63	1993	2334	2570	-236
4648801	1	261	169	64	1994	2329	2570	-241
4648801	1	261	169	65	1995	2328	2569	-241
4648801	1	261	169	66	1996	2327	2569	-242
4648801	1	261	169	67	1997	2327	2569	-242
4648801	1	261	169	68	1998	2327	2569	-242
4648801	1	261	169	69	1999	2318	2568	-250
4648801	1	261	169	70	2000	2312	2568	-256
4648801	1	261	169	71	2001	2313	2568	-255
4648801	1	261	169	72	2002	2315	2568	-253
4648801	1	261	169	74	2004	2316	2569	-253
4648801	1	261	169	75	2005	2331	2569	-238
4648802	1	257	168	29	1959	2492	2564	-72
4648802	1	257	168	31	1961	2478	2563	-85
4648802	1	257	168	32	1962	2476	2562	-86
4648802	1	257	168	33	1963	2468	2561	-93
4648802	1	257	168	34	1964	2467	2560	-93
4648802	1	257	168	35	1965	2463	2560	-97
4648802	1	257	168	36	1966	2463	2559	-96
4648802	1	257	168	37	1967	2415	2559	-144
4648802	1	257	168	38	1968	2420	2559	-139
4648802	1	257	168	39	1969	2423	2559	-136
4648802	1	257	168	40	1970	2442	2560	-118
4648802	1	257	168	41	1971	2442	2560	-118
4648802	1	257	168	42	1972	2443	2560	-117
4648802	1	257	168	44	1974	2422	2559	-137
4648802	1	257	168	45	1975	2439	2559	-120
4648802	1	257	168	46	1976	2429	2559	-130
4648802	1	257	168	47	1977	2449	2559	-110
4648802	1	257	168	48	1978	2447	2559	-112
4648802	1	257	168	49	1979	2444	2559	-115
4648802	1	257	168	50	1980	2433	2559	-126
4648802	1	257	168	51	1981	2435	2559	-124
4648802	1	257	168	53	1983	2434	2559	-125

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648802	1	257	168	54	1984	2425	2559	-134
4648802	1	257	168	57	1987	2420	2560	-140
4648802	1	257	168	58	1988	2430	2560	-130
4648802	1	257	168	59	1989	2430	2560	-130
4648802	1	257	168	60	1990	2425	2560	-135
4648802	1	257	168	61	1991	2427	2560	-133
4648802	1	257	168	64	1994	2417	2560	-143
4648901	1	260	173	28	1958	2488	2553	-65
4648901	1	260	173	29	1959	2484	2552	-68
4648901	1	260	173	31	1961	2502	2550	-48
4648901	1	260	173	32	1962	2504	2549	-45
4648901	1	260	173	33	1963	2501	2549	-48
4648901	1	260	173	34	1964	2494	2548	-54
4648901	1	260	173	35	1965	2507	2547	-40
4648901	1	260	173	36	1966	2505	2547	-42
4648901	1	260	173	37	1967	2501	2547	-46
4648901	1	260	173	38	1968	2502	2547	-45
4648901	1	260	173	39	1969	2498	2547	-49
4648901	1	260	173	40	1970	2494	2548	-54
4648901	1	260	173	41	1971	2492	2548	-56
4648901	1	260	173	42	1972	2483	2548	-65
4648901	1	260	173	44	1974	2479	2547	-68
4648901	1	260	173	45	1975	2479	2547	-68
4648901	1	260	173	46	1976	2475	2547	-72
4648901	1	260	173	47	1977	2482	2547	-65
4648901	1	260	173	48	1978	2471	2548	-77
4648901	1	260	173	49	1979	2472	2548	-76
4648902	1	263	173	28	1958	2409	2567	-158
4648902	1	263	173	29	1959	2399	2565	-166
4648902	1	263	173	31	1961	2368	2563	-195
4648902	1	263	173	32	1962	2349	2562	-213
4648902	1	263	173	33	1963	2334	2562	-228
4648902	1	263	173	34	1964	2331	2561	-230
4648902	1	263	173	35	1965	2331	2560	-229

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4648902	1	263	173	36	1966	2331	2560	-229
4648902	1	263	173	38	1968	2325	2560	-235
4648902	1	263	173	39	1969	2322	2561	-239
4648902	1	263	173	40	1970	2312	2561	-249
4648902	1	263	173	44	1974	2226	2560	-334
4648902	1	263	173	45	1975	2256	2560	-304
4648902	1	263	173	46	1976	2271	2560	-289
4648902	1	263	173	47	1977	2284	2560	-276
4648902	1	263	173	48	1978	2282	2561	-279
4648902	1	263	173	49	1979	2279	2561	-282
4648902	1	263	173	50	1980	2327	2561	-234
4648902	1	263	173	51	1981	2329	2561	-232
4648902	1	263	173	53	1983	2337	2561	-224
4648902	1	263	173	54	1984	2329	2561	-232
4648902	1	263	173	56	1986	2333	2561	-228
4648902	1	263	173	57	1987	2339	2561	-222
4648902	1	263	173	58	1988	2342	2562	-220
4648902	1	263	173	59	1989	2336	2562	-226
4648902	1	263	173	60	1990	2283	2562	-279
4648902	1	263	173	62	1992	2320	2562	-242
4648902	1	263	173	63	1993	2324	2561	-237
4648902	1	263	173	65	1995	2319	2561	-242
4648902	1	263	173	67	1997	2326	2560	-234
4648902	1	263	173	68	1998	2326	2560	-234
4648902	1	263	173	72	2002	2328	2560	-232
4648902	1	263	173	75	2005	2339	2560	-221
4650402	1	240	73	40	1970	3202	2897	305
4650402	1	240	73	41	1971	3180	2896	284
4650402	1	240	73	42	1972	3123	2896	227
4650402	1	240	73	43	1973	3095	2896	199
4650402	1	240	73	45	1975	3119	2895	224
4650402	1	240	73	46	1976	3189	2894	295
4650402	1	240	73	47	1977	3185	2894	291
4650402	1	240	73	48	1978	3161	2894	267



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4650402	1	240	73	49	1979	3163	2893	270
4650402	1	240	73	50	1980	3150	2893	257
4650402	1	240	73	51	1981	3149	2892	257
4650402	1	240	73	52	1982	3196	2892	304
4650402	1	240	73	53	1983	3199	2891	308
4650402	1	240	73	54	1984	3200	2891	309
4650402	1	240	73	55	1985	3200	2891	309
4650402	1	240	73	56	1986	3201	2890	311
4650402	1	240	73	57	1987	3201	2890	311
4650402	1	240	73	58	1988	3201	2889	312
4650402	1	240	73	59	1989	3201	2889	312
4650402	1	240	73	60	1990	3202	2889	313
4650402	1	240	73	62	1992	3203	2888	315
4650402	1	240	73	63	1993	3205	2887	318
4650402	1	240	73	64	1994	3204	2887	317
4650402	1	240	73	65	1995	3203	2886	317
4650402	1	240	73	66	1996	3203	2886	317
4650402	1	240	73	67	1997	3203	2886	317
4650402	1	240	73	68	1998	3202	2885	317
4650402	1	240	73	69	1999	3202	2885	317
4650402	1	240	73	70	2000	3203	2885	318
4650402	1	240	73	71	2001	3203	2884	319
4650402	1	240	73	72	2002	3203	2884	319
4650402	1	240	73	73	2003	3203	2884	319
4650402	1	240	73	74	2004	3204	2883	321
4651101	1	242	93	18	1948	2717	2826	-109
4651101	1	242	93	19	1949	2716	2826	-110
4651101	1	242	93	20	1950	2713	2825	-112
4651101	1	242	93	21	1951	2708	2824	-116
4651101	1	242	93	22	1952	2690	2823	-133
4651101	1	242	93	23	1953	2667	2822	-155
4651202	1	242	96	29	1959	2530	2798	-268
4651202	1	242	96	30	1960	2528	2796	-268
4651202	1	242	96	31	1961	2498	2795	-297

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4651202	1	242	96	32	1962	2457	2793	-336
4651520	1	245	97	63	1993	2429	2770	-341
4651520	1	245	97	65	1995	2440	2770	-330
4651520	1	245	97	66	1996	2447	2769	-322
4651520	1	245	97	68	1998	2444	2769	-325
4651520	1	245	97	69	1999	2459	2769	-310
4651520	1	245	97	70	2000	2426	2769	-343
4651520	1	245	97	71	2001	2468	2769	-301
4651520	1	245	97	72	2002	2473	2769	-296
4651520	1	245	97	73	2003	2477	2768	-291
4651520	1	245	97	74	2004	2482	2768	-286
4651520	1	245	97	75	2005	2486	2768	-282
4651601	1	246	100	29	1959	2575	2781	-206
4651601	1	246	100	30	1960	2557	2779	-222
4651601	1	246	100	31	1961	2559	2776	-217
4651601	1	246	100	32	1962	2545	2774	-229
4651601	1	246	100	33	1963	2537	2772	-235
4651601	1	246	100	34	1964	2519	2769	-250
4651601	1	246	100	35	1965	2506	2767	-261
4651601	1	246	100	36	1966	2496	2765	-269
4651601	1	246	100	37	1967	2459	2763	-304
4651601	1	246	100	38	1968	2456	2762	-306
4651601	1	246	100	39	1969	2454	2760	-306
4651601	1	246	100	40	1970	2499	2759	-260
4651601	1	246	100	41	1971	2504	2758	-254
4651601	1	246	100	42	1972	2502	2756	-254
4651601	1	246	100	44	1974	2494	2754	-260
4651601	1	246	100	45	1975	2459	2753	-294
4651601	1	246	100	47	1977	2474	2752	-278
4651601	1	246	100	48	1978	2481	2752	-271
4651601	1	246	100	49	1979	2468	2752	-284
4651601	1	246	100	50	1980	2501	2752	-251
4651601	1	246	100	51	1981	2463	2752	-289
4651601	1	246	100	53	1983	2469	2753	-284

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4651601	1	246	100	54	1984	2499	2753	-254
4651601	1	246	100	57	1987	2457	2755	-298
4651602	1	246	100	19	1949	2725	2799	-74
4651602	1	246	100	20	1950	2711	2797	-86
4651602	1	246	100	21	1951	2700	2796	-96
4651602	1	246	100	22	1952	2681	2794	-113
4651602	1	246	100	24	1954	2626	2791	-165
4651602	1	246	100	26	1956	2597	2787	-190
4651602	1	246	100	27	1957	2579	2785	-206
4651602	1	246	100	28	1958	2578	2783	-205
4651701	1	248	89	18	1948	2748	2853	-105
4651701	1	248	89	20	1950	2745	2851	-106
4651701	1	248	89	21	1951	2741	2850	-109
4651701	1	248	89	23	1953	2710	2848	-138
4651701	1	248	89	24	1954	2682	2847	-165
4651701	1	248	89	29	1959	2586	2841	-255
4651901	1	252	100	18	1948	2757	2811	-54
4651901	1	252	100	19	1949	2755	2809	-54
4651901	1	252	100	20	1950	2750	2807	-57
4651901	1	252	100	21	1951	2752	2805	-53
4651901	1	252	100	74	2004	2591	2764	-173
4651902	1	253	98	10	1940	2771	2832	-61
4651902	1	253	98	18	1948	2771	2819	-48
4651902	1	253	98	19	1949	2770	2817	-47
4651902	1	253	98	20	1950	2768	2815	-47
4651902	1	253	98	21	1951	2768	2813	-45
4651902	1	253	98	22	1952	2764	2811	-47
4651903	1	251	96	31	1961	2636	2799	-163
4651903	1	251	96	32	1962	2622	2796	-174
4651903	1	251	96	33	1963	2610	2793	-183
4651903	1	251	96	34	1964	2598	2791	-193
4651903	1	251	96	35	1965	2585	2789	-204
4651903	1	251	96	36	1966	2578	2787	-209
4651903	1	251	96	37	1967	2558	2785	-227

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4651903	1	251	96	38	1968	2552	2783	-231
4651903	1	251	96	39	1969	2551	2782	-231
4651903	1	251	96	40	1970	2527	2780	-253
4651903	1	251	96	41	1971	2515	2779	-264
4651903	1	251	96	42	1972	2510	2778	-268
4651903	1	251	96	44	1974	2526	2775	-249
4651903	1	251	96	45	1975	2506	2774	-268
4651903	1	251	96	46	1976	2498	2774	-276
4651903	1	251	96	47	1977	2491	2773	-282
4651903	1	251	96	48	1978	2511	2774	-263
4651903	1	251	96	49	1979	2546	2774	-228
4651903	1	251	96	50	1980	2513	2774	-261
4651903	1	251	96	51	1981	2520	2775	-255
4651903	1	251	96	54	1984	2547	2776	-229
4651903	1	251	96	56	1986	2557	2778	-221
4651903	1	251	96	57	1987	2564	2778	-214
4651903	1	251	96	58	1988	2569	2779	-210
4651903	1	251	96	59	1989	2574	2779	-205
4651903	1	251	96	60	1990	2576	2780	-204
4651903	1	251	96	61	1991	2574	2781	-207
4651903	1	251	96	62	1992	2579	2782	-203
4651903	1	251	96	63	1993	2583	2782	-199
4651903	1	251	96	64	1994	2589	2781	-192
4651903	1	251	96	65	1995	2591	2781	-190
4651903	1	251	96	66	1996	2587	2781	-194
4651903	1	251	96	67	1997	2585	2781	-196
4651903	1	251	96	68	1998	2580	2780	-200
4651903	1	251	96	69	1999	2577	2780	-203
4651903	1	251	96	70	2000	2573	2780	-207
4651903	1	251	96	71	2001	2574	2780	-206
4651903	1	251	96	72	2002	2580	2780	-200
4651903	1	251	96	73	2003	2588	2780	-192
4651903	1	251	96	74	2004	2593	2780	-187
4651903	1	251	96	75	2005	2598	2779	-181

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4651907	1	254	99	58	1988	2588	2770	-182
4651907	1	254	99	59	1989	2594	2770	-176
4651907	1	254	99	60	1990	2594	2771	-177
4651907	1	254	99	61	1991	2594	2772	-178
4651907	1	254	99	62	1992	2598	2773	-175
4651907	1	254	99	63	1993	2594	2773	-179
4651907	1	254	99	64	1994	2596	2773	-177
4651907	1	254	99	65	1995	2591	2772	-181
4651907	1	254	99	66	1996	2584	2772	-188
4651907	1	254	99	67	1997	2603	2772	-169
4651907	1	254	99	68	1998	2608	2771	-163
4651907	1	254	99	69	1999	2590	2771	-181
4651907	1	254	99	70	2000	2588	2771	-183
4651907	1	254	99	71	2001	2599	2771	-172
4651907	1	254	99	72	2002	2592	2771	-179
4651907	1	254	99	73	2003	2607	2771	-164
4651907	1	254	99	74	2004	2610	2770	-160
4652101	1	242	105	29	1959	2560	2758	-198
4652101	1	242	105	30	1960	2566	2756	-190
4652101	1	242	105	31	1961	2573	2754	-181
4652101	1	242	105	32	1962	2570	2752	-182
4652101	1	242	105	33	1963	2581	2750	-169
4652101	1	242	105	34	1964	2586	2747	-161
4652101	1	242	105	35	1965	2593	2745	-152
4652101	1	242	105	36	1966	2600	2744	-144
4652101	1	242	105	37	1967	2600	2742	-142
4652101	1	242	105	38	1968	2601	2740	-139
4652101	1	242	105	39	1969	2599	2739	-140
4652101	1	242	105	40	1970	2602	2737	-135
4652101	1	242	105	41	1971	2601	2736	-135
4652101	1	242	105	42	1972	2590	2735	-145
4652101	1	242	105	44	1974	2584	2732	-148
4652101	1	242	105	45	1975	2590	2731	-141
4652101	1	242	105	46	1976	2592	2730	-138

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652101	1	242	105	47	1977	2593	2730	-137
4652101	1	242	105	48	1978	2583	2730	-147
4652101	1	242	105	51	1981	2572	2730	-158
4652101	1	242	105	53	1983	2568	2730	-162
4652102	1	242	106	22	1952	2646	2768	-122
4652102	1	242	106	23	1953	2641	2766	-125
4652102	1	242	106	24	1954	2638	2765	-127
4652102	1	242	106	25	1955	2644	2763	-119
4652102	1	242	106	26	1956	2650	2761	-111
4652102	1	242	106	27	1957	2656	2760	-104
4652102	1	242	106	28	1958	2659	2758	-99
4652102	1	242	106	29	1959	2664	2756	-92
4652102	1	242	106	30	1960	2670	2754	-84
4652102	1	242	106	31	1961	2671	2752	-81
4652102	1	242	106	32	1962	2672	2750	-78
4652102	1	242	106	33	1963	2676	2747	-71
4652102	1	242	106	34	1964	2670	2745	-75
4652102	1	242	106	35	1965	2670	2743	-73
4652102	1	242	106	36	1966	2671	2741	-70
4652102	1	242	106	37	1967	2674	2739	-65
4652102	1	242	106	38	1968	2674	2738	-64
4652102	1	242	106	39	1969	2679	2736	-57
4652102	1	242	106	40	1970	2679	2735	-56
4652102	1	242	106	41	1971	2682	2733	-51
4652102	1	242	106	42	1972	2680	2732	-52
4652102	1	242	106	44	1974	2678	2730	-52
4652102	1	242	106	45	1975	2683	2729	-46
4652102	1	242	106	46	1976	2680	2728	-48
4652102	1	242	106	47	1977	2671	2727	-56
4652102	1	242	106	48	1978	2663	2727	-64
4652102	1	242	106	49	1979	2658	2727	-69
4652102	1	242	106	50	1980	2654	2727	-73
4652102	1	242	106	52	1982	2645	2727	-82
4652103	1	242	106	22	1952	2631	2768	-137

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652103	1	242	106	23	1953	2609	2766	-157
4652103	1	242	106	25	1955	2573	2763	-190
4652103	1	242	106	26	1956	2556	2761	-205
4652103	1	242	106	29	1959	2520	2756	-236
4652103	1	242	106	30	1960	2507	2754	-247
4652104	1	244	103	19	1949	2707	2785	-78
4652104	1	244	103	20	1950	2693	2783	-90
4652104	1	244	103	21	1951	2676	2782	-106
4652104	1	244	103	22	1952	2657	2780	-123
4652104	1	244	103	23	1953	2631	2778	-147
4652104	1	244	103	24	1954	2594	2777	-183
4652104	1	244	103	25	1955	2589	2775	-186
4652104	1	244	103	29	1959	2538	2767	-229
4652104	1	244	103	30	1960	2533	2765	-232
4652104	1	244	103	31	1961	2543	2763	-220
4652104	1	244	103	34	1964	2557	2756	-199
4652104	1	244	103	35	1965	2561	2754	-193
4652104	1	244	103	36	1966	2559	2752	-193
4652104	1	244	103	41	1971	2555	2744	-189
4652104	1	244	103	42	1972	2553	2743	-190
4652104	1	244	103	44	1974	2557	2740	-183
4652104	1	244	103	45	1975	2557	2739	-182
4652104	1	244	103	46	1976	2551	2739	-188
4652104	1	244	103	47	1977	2561	2738	-177
4652104	1	244	103	49	1979	2554	2738	-184
4652104	1	244	103	50	1980	2560	2738	-178
4652104	1	244	103	54	1984	2544	2739	-195
4652104	1	244	103	56	1986	2559	2740	-181
4652104	1	244	103	58	1988	2568	2741	-173
4652104	1	244	103	59	1989	2547	2742	-195
4652104	1	244	103	60	1990	2566	2742	-176
4652104	1	244	103	62	1992	2558	2743	-185
4652104	1	244	103	63	1993	2557	2743	-186
4652104	1	244	103	64	1994	2553	2743	-190

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652104	1	244	103	65	1995	2557	2743	-186
4652104	1	244	103	66	1996	2553	2742	-189
4652104	1	244	103	67	1997	2557	2742	-185
4652104	1	244	103	68	1998	2556	2742	-186
4652104	1	244	103	69	1999	2553	2742	-189
4652104	1	244	103	70	2000	2553	2742	-189
4652104	1	244	103	71	2001	2553	2742	-189
4652104	1	244	103	72	2002	2555	2742	-187
4652104	1	244	103	73	2003	2554	2742	-188
4652104	1	244	103	74	2004	2553	2741	-188
4652104	1	244	103	75	2005	2553	2741	-188
4652105	1	243	104	21	1951	2673	2777	-104
4652105	1	243	104	22	1952	2651	2775	-124
4652105	1	243	104	23	1953	2626	2774	-148
4652105	1	243	104	24	1954	2589	2772	-183
4652105	1	243	104	26	1956	2587	2768	-181
4652105	1	243	104	29	1959	2553	2763	-210
4652105	1	243	104	30	1960	2552	2761	-209
4652108	1	241	108	19	1949	2648	2764	-116
4652108	1	241	108	20	1950	2644	2763	-119
4652108	1	241	108	21	1951	2643	2762	-119
4652108	1	241	108	22	1952	2641	2760	-119
4652108	1	241	108	23	1953	2636	2759	-123
4652108	1	241	108	25	1955	2639	2755	-116
4652108	1	241	108	26	1956	2644	2754	-110
4652108	1	241	108	27	1957	2650	2752	-102
4652111	1	242	107	58	1988	2464	2727	-263
4652111	1	242	107	59	1989	2474	2727	-253
4652111	1	242	107	60	1990	2475	2727	-252
4652111	1	242	107	61	1991	2480	2728	-248
4652111	1	242	107	62	1992	2476	2728	-252
4652111	1	242	107	63	1993	2480	2728	-248
4652111	1	242	107	64	1994	2481	2728	-247
4652111	1	242	107	65	1995	2484	2728	-244



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652111	1	242	107	66	1996	2482	2728	-246
4652111	1	242	107	67	1997	2480	2728	-248
4652111	1	242	107	68	1998	2479	2728	-249
4652111	1	242	107	69	1999	2481	2728	-247
4652111	1	242	107	70	2000	2483	2727	-244
4652111	1	242	107	71	2001	2489	2727	-238
4652111	1	242	107	72	2002	2490	2727	-237
4652111	1	242	107	73	2003	2493	2727	-234
4652111	1	242	107	74	2004	2495	2727	-232
4652111	1	242	107	75	2005	2501	2727	-226
4652201	1	246	110	28	1958	2582	2758	-176
4652201	1	246	110	30	1960	2592	2754	-162
4652201	1	246	110	31	1961	2606	2751	-145
4652201	1	246	110	32	1962	2608	2749	-141
4652201	1	246	110	33	1963	2606	2747	-141
4652201	1	246	110	34	1964	2602	2745	-143
4652201	1	246	110	35	1965	2598	2742	-144
4652201	1	246	110	36	1966	2599	2740	-141
4652201	1	246	110	37	1967	2600	2738	-138
4652201	1	246	110	38	1968	2608	2737	-129
4652201	1	246	110	39	1969	2604	2735	-131
4652201	1	246	110	40	1970	2606	2734	-128
4652201	1	246	110	41	1971	2601	2732	-131
4652201	1	246	110	42	1972	2613	2731	-118
4652201	1	246	110	44	1974	2611	2728	-117
4652201	1	246	110	45	1975	2627	2727	-100
4652201	1	246	110	46	1976	2611	2726	-115
4652201	1	246	110	47	1977	2615	2726	-111
4652201	1	246	110	48	1978	2597	2725	-128
4652201	1	246	110	49	1979	2601	2725	-124
4652201	1	246	110	52	1982	2587	2726	-139
4652201	1	246	110	54	1984	2568	2726	-158
4652201	1	246	110	56	1986	2574	2727	-153
4652201	1	246	110	57	1987	2573	2727	-154

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652201	1	246	110	58	1988	2571	2728	-157
4652201	1	246	110	59	1989	2573	2728	-155
4652201	1	246	110	60	1990	2575	2729	-154
4652201	1	246	110	61	1991	2581	2729	-148
4652201	1	246	110	62	1992	2585	2730	-145
4652201	1	246	110	63	1993	2584	2730	-146
4652201	1	246	110	64	1994	2582	2730	-148
4652201	1	246	110	66	1996	2577	2730	-153
4652201	1	246	110	67	1997	2576	2730	-154
4652201	1	246	110	68	1998	2575	2730	-155
4652201	1	246	110	69	1999	2573	2729	-156
4652201	1	246	110	70	2000	2572	2729	-157
4652201	1	246	110	71	2001	2573	2729	-156
4652201	1	246	110	72	2002	2572	2729	-157
4652201	1	246	110	73	2003	2571	2729	-158
4652201	1	246	110	74	2004	2571	2729	-158
4652201	1	246	110	75	2005	2574	2729	-155
4652203	1	243	111	1	1931	2657	2775	-118
4652203	1	243	111	2	1932	2656	2775	-119
4652203	1	243	111	10	1940	2657	2771	-114
4652203	1	243	111	16	1946	2655	2766	-111
4652203	1	243	111	17	1947	2656	2765	-109
4652203	1	243	111	18	1948	2654	2763	-109
4652203	1	243	111	19	1949	2652	2762	-110
4652203	1	243	111	20	1950	2649	2761	-112
4652203	1	243	111	21	1951	2647	2759	-112
4652203	1	243	111	22	1952	2638	2758	-120
4652203	1	243	111	23	1953	2627	2756	-129
4652203	1	243	111	24	1954	2623	2755	-132
4652203	1	243	111	25	1955	2622	2753	-131
4652203	1	243	111	26	1956	2625	2751	-126
4652203	1	243	111	27	1957	2627	2749	-122
4652203	1	243	111	28	1958	2632	2748	-116
4652203	1	243	111	29	1959	2633	2746	-113

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652203	1	243	111	30	1960	2636	2744	-108
4652203	1	243	111	31	1961	2642	2742	-100
4652204	1	242	110	10	1940	2651	2771	-120
4652204	1	242	110	11	1941	2657	2771	-114
4652204	1	242	110	16	1946	2655	2766	-111
4652204	1	242	110	18	1948	2655	2763	-108
4652204	1	242	110	19	1949	2651	2762	-111
4652204	1	242	110	20	1950	2649	2761	-112
4652204	1	242	110	21	1951	2646	2759	-113
4652204	1	242	110	22	1952	2639	2758	-119
4652204	1	242	110	23	1953	2630	2756	-126
4652204	1	242	110	24	1954	2622	2755	-133
4652204	1	242	110	25	1955	2622	2753	-131
4652204	1	242	110	26	1956	2623	2751	-128
4652204	1	242	110	27	1957	2626	2750	-124
4652204	1	242	110	28	1958	2633	2748	-115
4652204	1	242	110	30	1960	2641	2744	-103
4652204	1	242	110	31	1961	2646	2742	-96
4652204	1	242	110	32	1962	2648	2740	-92
4652204	1	242	110	33	1963	2647	2738	-91
4652204	1	242	110	34	1964	2647	2736	-89
4652204	1	242	110	35	1965	2647	2734	-87
4652204	1	242	110	36	1966	2646	2732	-86
4652204	1	242	110	37	1967	2645	2730	-85
4652204	1	242	110	38	1968	2645	2728	-83
4652204	1	242	110	39	1969	2644	2727	-83
4652204	1	242	110	40	1970	2643	2725	-82
4652204	1	242	110	41	1971	2643	2724	-81
4652204	1	242	110	42	1972	2642	2723	-81
4652204	1	242	110	44	1974	2645	2720	-75
4652204	1	242	110	45	1975	2655	2719	-64
4652204	1	242	110	46	1976	2649	2718	-69
4652204	1	242	110	47	1977	2641	2718	-77
4652204	1	242	110	49	1979	2631	2717	-86

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652204	1	242	110	50	1980	2620	2717	-97
4652204	1	242	110	53	1983	2616	2717	-101
4652204	1	242	110	54	1984	2609	2718	-109
4652204	1	242	110	57	1987	2602	2719	-117
4652301	1	249	113	3	1933	2681	2786	-105
4652301	1	249	113	10	1940	2678	2783	-105
4652301	1	249	113	11	1941	2679	2783	-104
4652301	1	249	113	18	1948	2678	2776	-98
4652301	1	249	113	19	1949	2676	2774	-98
4652301	1	249	113	20	1950	2675	2773	-98
4652301	1	249	113	22	1952	2663	2770	-107
4652301	1	249	113	26	1956	2622	2763	-141
4652301	1	249	113	27	1957	2616	2762	-146
4652302	1	246	113	10	1940	2661	2775	-114
4652302	1	246	113	11	1941	2662	2775	-113
4652302	1	246	113	16	1946	2660	2770	-110
4652302	1	246	113	18	1948	2654	2768	-114
4652302	1	246	113	19	1949	2657	2767	-110
4652302	1	246	113	20	1950	2653	2765	-112
4652302	1	246	113	21	1951	2650	2764	-114
4652302	1	246	113	29	1959	2580	2750	-170
4652403	1	246	103	19	1949	2716	2789	-73
4652403	1	246	103	20	1950	2703	2787	-84
4652403	1	246	103	21	1951	2690	2785	-95
4652403	1	246	103	22	1952	2673	2784	-111
4652403	1	246	103	23	1953	2649	2782	-133
4652403	1	246	103	24	1954	2621	2780	-159
4652403	1	246	103	25	1955	2614	2778	-164
4652403	1	246	103	27	1957	2588	2774	-186
4652404	1	249	106	29	1959	2619	2767	-148
4652404	1	249	106	35	1965	2607	2752	-145
4652404	1	249	106	36	1966	2620	2749	-129
4652404	1	249	106	37	1967	2602	2748	-146
4652404	1	249	106	38	1968	2610	2746	-136

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652404	1	249	106	39	1969	2603	2744	-141
4652404	1	249	106	40	1970	2618	2743	-125
4652404	1	249	106	41	1971	2608	2741	-133
4652404	1	249	106	42	1972	2615	2740	-125
4652404	1	249	106	43	1973	2615	2739	-124
4652404	1	249	106	45	1975	2651	2736	-85
4652404	1	249	106	46	1976	2628	2736	-108
4652404	1	249	106	47	1977	2632	2736	-104
4652404	1	249	106	48	1978	2617	2736	-119
4652404	1	249	106	49	1979	2619	2736	-117
4652404	1	249	106	50	1980	2610	2736	-126
4652404	1	249	106	52	1982	2595	2737	-142
4652404	1	249	106	54	1984	2603	2738	-135
4652404	1	249	106	56	1986	2606	2739	-133
4652404	1	249	106	57	1987	2597	2740	-143
4652404	1	249	106	58	1988	2595	2741	-146
4652404	1	249	106	59	1989	2593	2741	-148
4652404	1	249	106	60	1990	2594	2742	-148
4652404	1	249	106	61	1991	2598	2743	-145
4652404	1	249	106	62	1992	2597	2744	-147
4652404	1	249	106	63	1993	2598	2743	-145
4652404	1	249	106	64	1994	2598	2743	-145
4652404	1	249	106	65	1995	2597	2743	-146
4652404	1	249	106	66	1996	2596	2743	-147
4652404	1	249	106	68	1998	2594	2743	-149
4652404	1	249	106	69	1999	2592	2742	-150
4652404	1	249	106	70	2000	2590	2742	-152
4652404	1	249	106	71	2001	2590	2742	-152
4652404	1	249	106	72	2002	2590	2742	-152
4652404	1	249	106	73	2003	2587	2742	-155
4652404	1	249	106	74	2004	2588	2742	-154
4652404	1	249	106	75	2005	2591	2742	-151
4652501	1	250	108	28	1958	2622	2767	-145
4652501	1	250	108	29	1959	2624	2764	-140

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<b>Well Number</b>	<b>Layer</b>	<b>Row</b>	<b>Column</b>	<b>Stress Period</b>	<b>Year</b>	<b>Measured Water Level (feet AMSL)</b>	<b>Simulated Water Level (feet AMSL)</b>	<b>Residual (feet)</b>
4652501	1	250	108	30	1960	2631	2762	-131
4652501	1	250	108	32	1962	2639	2757	-118
4652501	1	250	108	33	1963	2636	2754	-118
4652501	1	250	108	34	1964	2637	2751	-114
4652501	1	250	108	35	1965	2628	2749	-121
4652501	1	250	108	36	1966	2630	2747	-117
4652501	1	250	108	38	1968	2633	2743	-110
4652501	1	250	108	39	1969	2632	2742	-110
4652501	1	250	108	40	1970	2662	2740	-78
4652501	1	250	108	41	1971	2662	2739	-77
4652501	1	250	108	42	1972	2658	2738	-80
4652501	1	250	108	43	1973	2662	2736	-74
4652501	1	250	108	45	1975	2665	2734	-69
4652501	1	250	108	47	1977	2630	2733	-103
4652501	1	250	108	48	1978	2660	2733	-73
4652501	1	250	108	49	1979	2663	2734	-71
4652501	1	250	108	51	1981	2662	2735	-73
4652501	1	250	108	53	1983	2662	2735	-73
4652501	1	250	108	54	1984	2662	2736	-74
4652501	1	250	108	56	1986	2664	2737	-73
4652501	1	250	108	57	1987	2660	2738	-78
4652501	1	250	108	58	1988	2662	2739	-77
4652501	1	250	108	59	1989	2662	2739	-77
4652501	1	250	108	60	1990	2592	2740	-148
4652501	1	250	108	61	1991	2587	2741	-154
4652501	1	250	108	62	1992	2582	2741	-159
4652501	1	250	108	63	1993	2577	2741	-164
4652501	1	250	108	64	1994	2594	2741	-147
4652501	1	250	108	65	1995	2585	2741	-156
4652501	1	250	108	66	1996	2585	2741	-156
4652501	1	250	108	67	1997	2587	2740	-153
4652501	1	250	108	68	1998	2589	2740	-151
4652501	1	250	108	69	1999	2584	2740	-156
4652501	1	250	108	70	2000	2567	2740	-173

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652501	1	250	108	71	2001	2586	2740	-154
4652501	1	250	108	72	2002	2585	2740	-155
4652501	1	250	108	73	2003	2585	2740	-155
4652501	1	250	108	74	2004	2584	2740	-156
4652501	1	250	108	75	2005	2587	2740	-153
4652502	1	250	108	10	1940	2693	2797	-104
4652502	1	250	108	11	1941	2694	2796	-102
4652502	1	250	108	16	1946	2690	2789	-99
4652502	1	250	108	17	1947	2692	2788	-96
4652502	1	250	108	18	1948	2691	2786	-95
4652502	1	250	108	19	1949	2689	2785	-96
4652502	1	250	108	20	1950	2689	2783	-94
4652502	1	250	108	21	1951	2686	2781	-95
4652502	1	250	108	22	1952	2678	2779	-101
4652502	1	250	108	23	1953	2665	2777	-112
4652502	1	250	108	24	1954	2646	2775	-129
4652502	1	250	108	26	1956	2650	2771	-121
4652502	1	250	108	27	1957	2623	2769	-146
4652502	1	250	108	28	1958	2624	2767	-143
4652601	1	253	112	16	1946	2699	2789	-90
4652601	1	253	112	18	1948	2687	2786	-99
4652601	1	253	112	19	1949	2689	2785	-96
4652601	1	253	112	20	1950	2688	2783	-95
4652601	1	253	112	21	1951	2687	2782	-95
4652601	1	253	112	22	1952	2674	2780	-106
4652601	1	253	112	23	1953	2661	2778	-117
4652601	1	253	112	24	1954	2644	2776	-132
4652601	1	253	112	25	1955	2616	2774	-158
4652601	1	253	112	26	1956	2612	2772	-160
4652601	1	253	112	27	1957	2607	2770	-163
4652601	1	253	112	28	1958	2608	2768	-160
4652601	1	253	112	29	1959	2606	2766	-160
4652601	1	253	112	30	1960	2609	2764	-155
4652601	1	253	112	31	1961	2610	2762	-152

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652601	1	253	112	32	1962	2587	2759	-172
4652607	1	255	114	29	1959	2554	2770	-216
4652607	1	255	114	30	1960	2545	2768	-223
4652607	1	255	114	58	1988	2612	2743	-131
4652607	1	255	114	59	1989	2613	2744	-131
4652607	1	255	114	60	1990	2602	2744	-142
4652607	1	255	114	61	1991	2596	2745	-149
4652607	1	255	114	62	1992	2626	2745	-119
4652607	1	255	114	63	1993	2604	2745	-141
4652607	1	255	114	64	1994	2607	2745	-138
4652607	1	255	114	65	1995	2601	2745	-144
4652607	1	255	114	66	1996	2601	2745	-144
4652607	1	255	114	67	1997	2606	2745	-139
4652607	1	255	114	68	1998	2609	2745	-136
4652607	1	255	114	69	1999	2610	2744	-134
4652607	1	255	114	70	2000	2609	2744	-135
4652607	1	255	114	71	2001	2616	2744	-128
4652607	1	255	114	72	2002	2618	2744	-126
4652607	1	255	114	73	2003	2620	2744	-124
4652607	1	255	114	74	2004	2620	2744	-124
4652607	1	255	114	75	2005	2622	2744	-122
4652701	1	255	100	23	1953	2744	2803	-59
4652701	1	255	100	24	1954	2716	2801	-85
4652701	1	255	100	25	1955	2688	2798	-110
4652701	1	255	100	26	1956	2674	2796	-122

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652701	1	255	100	27	1957	2665	2793	-128
4652701	1	255	100	28	1958	2657	2790	-133
4652701	1	255	100	29	1959	2646	2787	-141



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652701	1	255	100	30	1960	2651	2784	-133
4652701	1	255	100	31	1961	2626	2781	-155
4652701	1	255	100	32	1962	2617	2778	-161
4652701	1	255	100	33	1963	2607	2775	-168
4652702	1	256	102	1	1931	2775	2833	-58
4652702	1	256	102	2	1932	2775	2833	-58
4652702	1	256	102	11	1941	2779	2824	-45
4652702	1	256	102	12	1942	2781	2823	-42
4652702	1	256	102	19	1949	2764	2809	-45
4652702	1	256	102	20	1950	2760	2807	-47
4652703	1	251	102	29	1959	2633	2779	-146
4652703	1	251	102	30	1960	2633	2776	-143
4652703	1	251	102	31	1961	2641	2774	-133
4652703	1	251	102	32	1962	2650	2771	-121
4652703	1	251	102	34	1964	2645	2765	-120
4652703	1	251	102	35	1965	2641	2763	-122
4652703	1	251	102	36	1966	2640	2761	-121
4652703	1	251	102	37	1967	2647	2759	-112
4652703	1	251	102	38	1968	2650	2757	-107
4652703	1	251	102	39	1969	2649	2755	-106
4652703	1	251	102	40	1970	2653	2754	-101
4652703	1	251	102	41	1971	2655	2753	-98
4652703	1	251	102	42	1972	2646	2751	-105
4652703	1	251	102	44	1974	2652	2749	-97
4652703	1	251	102	45	1975	2675	2748	-73
4652703	1	251	102	46	1976	2657	2747	-90
4652703	1	251	102	47	1977	2646	2747	-101
4652703	1	251	102	48	1978	2637	2747	-110
4652703	1	251	102	49	1979	2610	2748	-138
4652703	1	251	102	50	1980	2623	2748	-125
4652703	1	251	102	52	1982	2624	2750	-126
4652703	1	251	102	54	1984	2598	2751	-153
4652703	1	251	102	56	1986	2609	2753	-144
4652703	1	251	102	57	1987	2590	2754	-164

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4652703	1	251	102	58	1988	2607	2754	-147
4652703	1	251	102	59	1989	2606	2755	-149
4652703	1	251	102	60	1990	2604	2756	-152
4652703	1	251	102	61	1991	2598	2757	-159
4652703	1	251	102	62	1992	2606	2758	-152
4652703	1	251	102	63	1993	2605	2757	-152
4652703	1	251	102	64	1994	2605	2757	-152
4652703	1	251	102	65	1995	2599	2757	-158
4652703	1	251	102	66	1996	2606	2757	-151
4652703	1	251	102	67	1997	2607	2757	-150
4652703	1	251	102	68	1998	2609	2756	-147
4652703	1	251	102	69	1999	2607	2756	-149
4652703	1	251	102	70	2000	2598	2756	-158
4652703	1	251	102	71	2001	2606	2756	-150
4652703	1	251	102	72	2002	2604	2756	-152
4652703	1	251	102	73	2003	2608	2756	-148
4652703	1	251	102	74	2004	2606	2755	-149
4652703	1	251	102	75	2005	2605	2755	-150
4653801	1	264	122	58	1988	2682	2755	-73
4653801	1	264	122	59	1989	2683	2754	-71
4653801	1	264	122	60	1990	2652	2755	-103
4653801	1	264	122	61	1991	2653	2756	-103
4653801	1	264	122	62	1992	2640	2756	-116
4653801	1	264	122	65	1995	2648	2754	-106
4653801	1	264	122	66	1996	2646	2754	-108
4653801	1	264	122	67	1997	2653	2754	-101
4653801	1	264	122	68	1998	2659	2753	-94
4653801	1	264	122	69	1999	2664	2753	-89
4653801	1	264	122	71	2001	2672	2753	-81
4653801	1	264	122	72	2002	2678	2753	-75
4653801	1	264	122	73	2003	2680	2753	-73
4653801	1	264	122	74	2004	2681	2752	-71
4653801	1	264	122	75	2005	2685	2752	-67
4654701	1	266	127	29	1959	2695	2771	-76

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4654701	1	266	127	30	1960	2669	2770	-101
4654701	1	266	127	31	1961	2668	2768	-100
4654701	1	266	127	32	1962	2667	2766	-99
4654701	1	266	127	33	1963	2664	2765	-101
4654701	1	266	127	34	1964	2667	2763	-96
4654701	1	266	127	35	1965	2657	2761	-104
4654701	1	266	127	36	1966	2663	2759	-96
4654701	1	266	127	37	1967	2656	2758	-102
4654701	1	266	127	38	1968	2648	2757	-109
4654701	1	266	127	39	1969	2645	2755	-110
4654701	1	266	127	40	1970	2648	2754	-106
4654701	1	266	127	41	1971	2645	2753	-108
4654701	1	266	127	42	1972	2664	2753	-89
4654701	1	266	127	43	1973	2645	2752	-107
4654701	1	266	127	45	1975	2645	2750	-105
4654701	1	266	127	46	1976	2644	2750	-106
4654701	1	266	127	47	1977	2650	2749	-99
4654701	1	266	127	48	1978	2647	2749	-102
4654701	1	266	127	49	1979	2647	2749	-102
4654701	1	266	127	50	1980	2656	2749	-93
4654701	1	266	127	51	1981	2647	2749	-102
4654701	1	266	127	53	1983	2647	2749	-102
4654701	1	266	127	54	1984	2657	2749	-92
4654701	1	266	127	56	1986	2661	2749	-88
4654701	1	266	127	57	1987	2657	2749	-92
4654701	1	266	127	58	1988	2658	2749	-91
4654701	1	266	127	59	1989	2657	2749	-92
4654701	1	266	127	63	1993	2629	2749	-120
4654701	1	266	127	64	1994	2638	2749	-111
4654701	1	266	127	65	1995	2628	2749	-121
4654701	1	266	127	66	1996	2624	2748	-124
4654701	1	266	127	67	1997	2614	2748	-134
4654701	1	266	127	69	1999	2612	2748	-136
4654701	1	266	127	71	2001	2621	2747	-126

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4654701	1	266	127	72	2002	2631	2747	-116
4654701	1	266	127	74	2004	2643	2747	-104
4654701	1	266	127	75	2005	2638	2747	-109
4655201	1	262	154	29	1959	2554	2656	-102
4655201	1	262	154	31	1961	2544	2653	-109
4655201	1	262	154	33	1963	2541	2651	-110
4655201	1	262	154	34	1964	2530	2649	-119
4655201	1	262	154	35	1965	2535	2648	-113
4655201	1	262	154	36	1966	2536	2647	-111
4655201	1	262	154	37	1967	2529	2646	-117
4655201	1	262	154	38	1968	2530	2646	-116
4655201	1	262	154	39	1969	2527	2645	-118
4655201	1	262	154	40	1970	2529	2645	-116
4655201	1	262	154	41	1971	2519	2644	-125
4655201	1	262	154	42	1972	2517	2644	-127
4655201	1	262	154	45	1975	2523	2643	-120
4655201	1	262	154	46	1976	2523	2643	-120
4655201	1	262	154	47	1977	2526	2642	-116
4655201	1	262	154	48	1978	2512	2642	-130
4655201	1	262	154	49	1979	2527	2642	-115
4655201	1	262	154	50	1980	2527	2642	-115
4655201	1	262	154	51	1981	2525	2642	-117
4655201	1	262	154	53	1983	2518	2642	-124
4655201	1	262	154	54	1984	2513	2642	-129
4655201	1	262	154	56	1986	2520	2642	-122
4655201	1	262	154	57	1987	2512	2642	-130
4655201	1	262	154	58	1988	2512	2642	-130
4655201	1	262	154	59	1989	2512	2642	-130
4655201	1	262	154	60	1990	2512	2642	-130
4655201	1	262	154	61	1991	2515	2642	-127
4655201	1	262	154	62	1992	2513	2642	-129
4655201	1	262	154	63	1993	2515	2642	-127
4655201	1	262	154	64	1994	2514	2642	-128
4655201	1	262	154	65	1995	2513	2642	-129

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4655201	1	262	154	68	1998	2511	2641	-130
4655201	1	262	154	69	1999	2510	2641	-131
4655201	1	262	154	70	2000	2502	2640	-138
4655201	1	262	154	71	2001	2509	2640	-131
4655201	1	262	154	72	2002	2509	2640	-131
4655201	1	262	154	73	2003	2508	2640	-132
4655201	1	262	154	74	2004	2507	2640	-133
4655201	1	262	154	75	2005	2507	2640	-133
4655602	1	265	155	28	1958	2553	2661	-108
4655602	1	265	155	29	1959	2548	2659	-111
4655602	1	265	155	31	1961	2536	2656	-120
4655602	1	265	155	32	1962	2531	2655	-124
4655602	1	265	155	33	1963	2533	2654	-121
4655602	1	265	155	34	1964	2526	2653	-127
4655602	1	265	155	35	1965	2529	2651	-122
4655602	1	265	155	36	1966	2530	2650	-120
4655602	1	265	155	37	1967	2519	2650	-131
4655602	1	265	155	38	1968	2513	2649	-136
4655602	1	265	155	39	1969	2519	2649	-130
4655602	1	265	155	40	1970	2530	2648	-118
4655602	1	265	155	41	1971	2521	2648	-127
4655602	1	265	155	42	1972	2521	2648	-127
4655602	1	265	155	44	1974	2521	2647	-126
4655602	1	265	155	45	1975	2518	2647	-129
4655602	1	265	155	46	1976	2504	2646	-142
4655602	1	265	155	47	1977	2511	2646	-135
4655602	1	265	155	48	1978	2506	2646	-140
4655602	1	265	155	49	1979	2516	2646	-130
4655602	1	265	155	50	1980	2525	2646	-121
4655602	1	265	155	52	1982	2522	2646	-124
4655602	1	265	155	54	1984	2523	2646	-123
4655602	1	265	155	56	1986	2515	2646	-131
4655602	1	265	155	57	1987	2524	2646	-122
4655602	1	265	155	58	1988	2508	2646	-138

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4655602	1	265	155	59	1989	2521	2646	-125
4655602	1	265	155	60	1990	2521	2646	-125
4655602	1	265	155	61	1991	2507	2646	-139
4655602	1	265	155	62	1992	2511	2646	-135
4655602	1	265	155	63	1993	2513	2646	-133
4655602	1	265	155	64	1994	2509	2646	-137
4655602	1	265	155	65	1995	2511	2646	-135
4655602	1	265	155	66	1996	2509	2645	-136
4655602	1	265	155	67	1997	2512	2645	-133
4655602	1	265	155	68	1998	2510	2645	-135
4655602	1	265	155	69	1999	2504	2644	-140
4655602	1	265	155	71	2001	2506	2644	-138
4655603	1	268	156	28	1958	2542	2665	-123
4655603	1	268	156	31	1961	2513	2660	-147
4655603	1	268	156	32	1962	2507	2658	-151
4655603	1	268	156	33	1963	2509	2657	-148
4655603	1	268	156	34	1964	2508	2656	-148
4655603	1	268	156	35	1965	2500	2655	-155
4655603	1	268	156	36	1966	2503	2654	-151
4655603	1	268	156	37	1967	2495	2653	-158
4655603	1	268	156	38	1968	2490	2653	-163
4655603	1	268	156	40	1970	2479	2652	-173
4655603	1	268	156	41	1971	2477	2652	-175
4655603	1	268	156	42	1972	2479	2652	-173
4655603	1	268	156	44	1974	2472	2651	-179
4655603	1	268	156	45	1975	2490	2651	-161
4655603	1	268	156	47	1977	2493	2650	-157
4655603	1	268	156	50	1980	2457	2650	-193
4655603	1	268	156	51	1981	2463	2650	-187
4655603	1	268	156	53	1983	2468	2650	-182
4655603	1	268	156	54	1984	2479	2650	-171
4655603	1	268	156	57	1987	2477	2650	-173
4655603	1	268	156	58	1988	2481	2650	-169
4655603	1	268	156	59	1989	2487	2651	-164

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4655603	1	268	156	60	1990	2486	2651	-165
4655603	1	268	156	61	1991	2485	2651	-166
4655603	1	268	156	62	1992	2488	2651	-163
4655603	1	268	156	63	1993	2494	2650	-156
4655603	1	268	156	64	1994	2493	2650	-157
4655603	1	268	156	65	1995	2490	2650	-160
4655603	1	268	156	66	1996	2487	2650	-163
4655603	1	268	156	67	1997	2485	2649	-164
4655603	1	268	156	68	1998	2484	2649	-165
4655603	1	268	156	69	1999	2482	2649	-167
4655603	1	268	156	70	2000	2481	2648	-167
4655603	1	268	156	71	2001	2482	2648	-166
4655603	1	268	156	72	2002	2481	2648	-167
4655603	1	268	156	74	2004	2481	2648	-167
4655603	1	268	156	75	2005	2482	2649	-167
4656102	1	264	163	28	1958	2519	2616	-97
4656102	1	264	163	31	1961	2413	2612	-199
4656102	1	264	163	33	1963	2369	2609	-240
4656102	1	264	163	34	1964	2349	2608	-259
4656102	1	264	163	35	1965	2338	2607	-269
4656102	1	264	163	36	1966	2348	2607	-259
4656102	1	264	163	37	1967	2328	2607	-279
4656102	1	264	163	38	1968	2321	2607	-286
4656201	1	265	166	28	1958	2410	2606	-196
4656201	1	265	166	29	1959	2390	2604	-214
4656201	1	265	166	31	1961	2369	2601	-232
4656201	1	265	166	32	1962	2370	2600	-230
4656201	1	265	166	33	1963	2347	2599	-252
4656201	1	265	166	34	1964	2341	2598	-257
4656201	1	265	166	35	1965	2312	2597	-285
4656201	1	265	166	36	1966	2296	2597	-301
4656201	1	265	166	38	1968	2291	2597	-306
4656201	1	265	166	39	1969	2302	2598	-296
4656201	1	265	166	40	1970	2302	2598	-296

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656201	1	265	166	41	1971	2299	2598	-299
4656201	1	265	166	42	1972	2274	2598	-324
4656201	1	265	166	44	1974	2270	2597	-327
4656201	1	265	166	45	1975	2293	2597	-304
4656201	1	265	166	46	1976	2248	2597	-349
4656201	1	265	166	53	1983	2254	2598	-344
4656201	1	265	166	54	1984	2293	2598	-305
4656201	1	265	166	56	1986	2261	2598	-337
4656201	1	265	166	57	1987	2256	2599	-343
4656201	1	265	166	59	1989	2323	2599	-276
4656201	1	265	166	60	1990	2307	2599	-292
4656201	1	265	166	61	1991	2319	2599	-280
4656201	1	265	166	62	1992	2324	2599	-275
4656201	1	265	166	63	1993	2329	2599	-270
4656201	1	265	166	64	1994	2322	2598	-276
4656201	1	265	166	65	1995	2318	2598	-280
4656201	1	265	166	66	1996	2240	2598	-358
4656201	1	265	166	67	1997	2308	2597	-289
4656201	1	265	166	69	1999	2303	2596	-293
4656201	1	265	166	70	2000	2293	2596	-303
4656201	1	265	166	71	2001	2295	2596	-301
4656201	1	265	166	72	2002	2306	2596	-290
4656201	1	265	166	74	2004	2291	2597	-306
4656201	1	265	166	75	2005	2289	2597	-308
4656301	1	268	169	31	1961	2374	2604	-230
4656301	1	268	169	32	1962	2364	2603	-239
4656301	1	268	169	33	1963	2346	2602	-256
4656301	1	268	169	34	1964	2323	2600	-277
4656301	1	268	169	35	1965	2296	2600	-304
4656301	1	268	169	36	1966	2312	2599	-287
4656301	1	268	169	37	1967	2295	2599	-304
4656301	1	268	169	38	1968	2289	2600	-311
4656301	1	268	169	40	1970	2289	2601	-312
4656301	1	268	169	41	1971	2271	2601	-330



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656301	1	268	169	44	1974	2290	2600	-310
4656301	1	268	169	45	1975	2307	2599	-292
4656301	1	268	169	46	1976	2286	2600	-314
4656301	1	268	169	49	1979	2290	2601	-311
4656301	1	268	169	54	1984	2316	2600	-284
4656301	1	268	169	57	1987	2301	2601	-300
4656301	1	268	169	58	1988	2333	2601	-268
4656301	1	268	169	59	1989	2329	2601	-272
4656301	1	268	169	60	1990	2324	2601	-277
4656301	1	268	169	61	1991	2311	2601	-290
4656301	1	268	169	62	1992	2329	2601	-272
4656301	1	268	169	63	1993	2339	2601	-262
4656301	1	268	169	64	1994	2313	2601	-288
4656301	1	268	169	65	1995	2311	2600	-289
4656301	1	268	169	66	1996	2324	2600	-276
4656301	1	268	169	67	1997	2316	2599	-283
4656301	1	268	169	68	1998	2332	2599	-267
4656301	1	268	169	69	1999	2317	2599	-282
4656301	1	268	169	70	2000	2327	2598	-271
4656301	1	268	169	71	2001	2329	2598	-269
4656301	1	268	169	72	2002	2332	2598	-266
4656301	1	268	169	74	2004	2337	2600	-263
4656301	1	268	169	75	2005	2338	2600	-262
4656306	1	267	173	28	1958	2461	2586	-125
4656306	1	267	173	46	1976	2337	2579	-242
4656306	1	267	173	47	1977	2361	2579	-218
4656306	1	267	173	52	1982	2363	2580	-217
4656306	1	267	173	54	1984	2360	2580	-220
4656306	1	267	173	56	1986	2367	2580	-213
4656306	1	267	173	58	1988	2367	2581	-214
4656306	1	267	173	59	1989	2356	2580	-224
4656306	1	267	173	61	1991	2298	2581	-283
4656306	1	267	173	62	1992	2355	2581	-226
4656306	1	267	173	63	1993	2346	2580	-234

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656306	1	267	173	64	1994	2340	2580	-240
4656306	1	267	173	66	1996	2323	2579	-256
4656306	1	267	173	68	1998	2352	2579	-227
4656306	1	267	173	69	1999	2324	2578	-254
4656306	1	267	173	70	2000	2328	2578	-250
4656306	1	267	173	71	2001	2327	2578	-251
4656306	1	267	173	72	2002	2357	2578	-221
4656306	1	267	173	74	2004	2366	2579	-213
4656306	1	267	173	75	2005	2369	2579	-210
4656401	1	268	158	28	1958	2516	2655	-139
4656401	1	268	158	31	1961	2470	2650	-180
4656401	1	268	158	32	1962	2469	2649	-180
4656401	1	268	158	33	1963	2473	2648	-175
4656401	1	268	158	34	1964	2459	2646	-187
4656401	1	268	158	35	1965	2448	2645	-197
4656401	1	268	158	36	1966	2438	2644	-206
4656401	1	268	158	37	1967	2443	2644	-201
4656401	1	268	158	38	1968	2441	2643	-202
4656401	1	268	158	39	1969	2434	2643	-209
4656401	1	268	158	40	1970	2442	2643	-201
4656401	1	268	158	41	1971	2436	2643	-207
4656401	1	268	158	42	1972	2437	2643	-206
4656401	1	268	158	44	1974	2441	2642	-201
4656401	1	268	158	45	1975	2443	2642	-199
4656401	1	268	158	46	1976	2443	2642	-199
4656401	1	268	158	47	1977	2444	2642	-198
4656401	1	268	158	48	1978	2450	2642	-192
4656401	1	268	158	49	1979	2454	2642	-188
4656401	1	268	158	50	1980	2454	2642	-188
4656401	1	268	158	54	1984	2445	2641	-196
4656401	1	268	158	58	1988	2468	2642	-174
4656401	1	268	158	59	1989	2468	2642	-174
4656401	1	268	158	60	1990	2475	2642	-167
4656401	1	268	158	61	1991	2480	2642	-162

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656401	1	268	158	62	1992	2484	2642	-158
4656401	1	268	158	63	1993	2486	2642	-156
4656401	1	268	158	64	1994	2486	2642	-156
4656401	1	268	158	65	1995	2485	2642	-157
4656401	1	268	158	66	1996	2481	2641	-160
4656401	1	268	158	67	1997	2477	2641	-164
4656401	1	268	158	68	1998	2471	2640	-169
4656401	1	268	158	69	1999	2477	2640	-163
4656401	1	268	158	70	2000	2480	2640	-160
4656401	1	268	158	71	2001	2479	2640	-161
4656401	1	268	158	72	2002	2484	2640	-156
4656401	1	268	158	74	2004	2485	2640	-155
4656401	1	268	158	75	2005	2485	2640	-155
4656403	1	271	161	28	1958	2435	2655	-220
4656403	1	271	161	29	1959	2410	2653	-243
4656403	1	271	161	31	1961	2396	2650	-254
4656403	1	271	161	32	1962	2389	2648	-259
4656403	1	271	161	33	1963	2364	2647	-283
4656403	1	271	161	34	1964	2356	2645	-289
4656403	1	271	161	35	1965	2327	2644	-317
4656403	1	271	161	36	1966	2329	2644	-315
4656403	1	271	161	37	1967	2306	2643	-337
4656403	1	271	161	38	1968	2302	2643	-341
4656404	1	267	162	28	1958	2420	2634	-214
4656404	1	267	162	33	1963	2352	2627	-275
4656404	1	267	162	34	1964	2317	2626	-309
4656404	1	267	162	38	1968	2305	2624	-319
4656404	1	267	162	40	1970	2310	2624	-314
4656404	1	267	162	41	1971	2312	2624	-312
4656404	1	267	162	44	1974	2285	2623	-338
4656404	1	267	162	45	1975	2277	2623	-346
4656404	1	267	162	46	1976	2266	2623	-357
4656404	1	267	162	50	1980	2258	2623	-365
4656404	1	267	162	53	1983	2273	2623	-350

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656404	1	267	162	54	1984	2284	2623	-339
4656404	1	267	162	57	1987	2293	2623	-330
4656404	1	267	162	58	1988	2290	2623	-333
4656404	1	267	162	59	1989	2301	2624	-323
4656404	1	267	162	60	1990	2297	2624	-327
4656404	1	267	162	61	1991	2282	2624	-342
4656404	1	267	162	62	1992	2309	2624	-315
4656404	1	267	162	63	1993	2300	2623	-323
4656404	1	267	162	64	1994	2310	2623	-313
4656404	1	267	162	65	1995	2309	2623	-314
4656404	1	267	162	66	1996	2304	2623	-319
4656404	1	267	162	67	1997	2295	2622	-327
4656404	1	267	162	68	1998	2290	2622	-332
4656404	1	267	162	69	1999	2300	2621	-321
4656404	1	267	162	70	2000	2298	2621	-323
4656404	1	267	162	71	2001	2299	2621	-322
4656501	1	269	163	27	1957	2426	2640	-214
4656501	1	269	163	28	1958	2420	2638	-218
4656501	1	269	163	29	1959	2386	2637	-251
4656501	1	269	163	31	1961	2376	2634	-258
4656501	1	269	163	32	1962	2319	2632	-313
4656502	1	270	165	28	1958	2442	2636	-194
4656502	1	270	165	31	1961	2404	2631	-227
4656502	1	270	165	32	1962	2398	2630	-232
4656502	1	270	165	33	1963	2364	2629	-265
4656502	1	270	165	34	1964	2359	2627	-268
4656502	1	270	165	37	1967	2356	2625	-269
4656502	1	270	165	38	1968	2353	2625	-272
4656502	1	270	165	44	1974	2336	2625	-289
4656502	1	270	165	45	1975	2337	2624	-287
4656502	1	270	165	46	1976	2326	2624	-298
4656502	1	270	165	54	1984	2338	2624	-286
4656503	1	268	165	28	1958	2431	2626	-195
4656503	1	268	165	29	1959	2444	2624	-180

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656503	1	268	165	33	1963	2358	2619	-261
4656503	1	268	165	34	1964	2345	2617	-272
4656503	1	268	165	35	1965	2323	2616	-293
4656503	1	268	165	36	1966	2253	2616	-363
4656702	1	275	160	28	1958	2496	2677	-181
4656702	1	275	160	31	1961	2453	2672	-219
4656702	1	275	160	32	1962	2416	2670	-254
4656702	1	275	160	33	1963	2412	2669	-257
4656702	1	275	160	35	1965	2411	2666	-255
4656702	1	275	160	36	1966	2398	2665	-267
4656702	1	275	160	37	1967	2394	2665	-271
4656702	1	275	160	38	1968	2388	2665	-277
4656702	1	275	160	39	1969	2386	2665	-279
4656702	1	275	160	40	1970	2385	2665	-280
4656703	1	272	158	28	1958	2517	2669	-152
4656703	1	272	158	29	1959	2499	2668	-169
4656703	1	272	158	33	1963	2463	2661	-198
4656703	1	272	158	34	1964	2431	2660	-229
4656703	1	272	158	35	1965	2454	2659	-205
4656703	1	272	158	36	1966	2447	2658	-211
4656703	1	272	158	37	1967	2420	2658	-238
4656703	1	272	158	38	1968	2411	2657	-246
4656703	1	272	158	39	1969	2423	2658	-235
4656703	1	272	158	40	1970	2426	2658	-232
4656703	1	272	158	41	1971	2399	2658	-259
4656703	1	272	158	44	1974	2368	2656	-288
4656704	1	276	157	28	1958	2536	2692	-156
4656704	1	276	157	29	1959	2531	2690	-159
4656704	1	276	157	31	1961	2511	2687	-176
4656704	1	276	157	32	1962	2500	2685	-185
4656704	1	276	157	33	1963	2496	2684	-188
4656704	1	276	157	34	1964	2469	2682	-213
4656802	1	274	163	28	1958	2482	2662	-180
4656802	1	274	163	29	1959	2465	2661	-196

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4656802	1	274	163	31	1961	2439	2658	-219
4656802	1	274	163	32	1962	2436	2656	-220
4656802	1	274	163	33	1963	2409	2655	-246
4656802	1	274	163	34	1964	2395	2653	-258
4656802	1	274	163	35	1965	2405	2652	-247
4656802	1	274	163	36	1966	2383	2651	-268
4656901	1	275	165	28	1958	2521	2662	-141
4656901	1	275	165	29	1959	2485	2661	-176
4656901	1	275	165	31	1961	2492	2658	-166
4656901	1	275	165	33	1963	2429	2655	-226
4656901	1	275	165	34	1964	2352	2654	-302
4656901	1	275	165	35	1965	2301	2652	-351
4658402	1	258	71	29	1959	3287	2928	359
4658402	1	258	71	39	1969	3247	2921	326
4658402	1	258	71	66	1996	3269	2907	362
4658402	1	258	71	67	1997	3271	2906	365
4658402	1	258	71	68	1998	3270	2906	364
4658402	1	258	71	69	1999	3270	2906	364
4658402	1	258	71	70	2000	3270	2906	364
4658402	1	258	71	71	2001	3270	2905	365
4658402	1	258	71	72	2002	3271	2905	366
4658402	1	258	71	73	2003	3272	2905	367
4658402	1	258	71	74	2004	3272	2905	367
4658402	1	258	71	75	2005	3275	2904	371
4658403	1	258	71	10	1940	3085	2933	152
4658403	1	258	71	29	1959	3287	2928	359
4658403	1	258	71	39	1969	3245	2921	324
4658403	1	258	71	40	1970	3225	2920	305
4658403	1	258	71	41	1971	3241	2920	321
4658403	1	258	71	42	1972	3188	2919	269
4658403	1	258	71	45	1975	3217	2917	300
4658403	1	258	71	47	1977	3235	2915	320
4658403	1	258	71	48	1978	3229	2914	315
4658403	1	258	71	49	1979	3230	2914	316

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4658403	1	258	71	50	1980	3215	2913	302
4658403	1	258	71	51	1981	3233	2913	320
4658403	1	258	71	53	1983	3249	2911	338
4658403	1	258	71	54	1984	3262	2911	351
4658403	1	258	71	58	1988	3267	2909	358
4658403	1	258	71	60	1990	3265	2908	357
4658403	1	258	71	61	1991	3274	2908	366
4658403	1	258	71	62	1992	3277	2908	369
4658403	1	258	71	63	1993	3267	2908	359
4658403	1	258	71	64	1994	3274	2907	367
4658403	1	258	71	65	1995	3268	2907	361
4659105	1	255	87	29	1959	2712	2856	-144
4659105	1	255	87	30	1960	2700	2854	-154
4659105	1	255	87	39	1969	2648	2838	-190
4659105	1	255	87	40	1970	2651	2837	-186
4659105	1	255	87	41	1971	2649	2835	-186
4659105	1	255	87	42	1972	2639	2834	-195
4659105	1	255	87	43	1973	2656	2833	-177
4659105	1	255	87	45	1975	2631	2831	-200
4659105	1	255	87	46	1976	2649	2830	-181
4659105	1	255	87	47	1977	2637	2829	-192
4659105	1	255	87	48	1978	2640	2829	-189
4659105	1	255	87	49	1979	2643	2829	-186
4659105	1	255	87	50	1980	2639	2829	-190
4659105	1	255	87	52	1982	2652	2829	-177
4659105	1	255	87	54	1984	2675	2829	-154
4659105	1	255	87	56	1986	2678	2830	-152
4659105	1	255	87	57	1987	2680	2830	-150
4659105	1	255	87	58	1988	2683	2830	-147
4659105	1	255	87	59	1989	2682	2831	-149
4659105	1	255	87	62	1992	2696	2832	-136
4659105	1	255	87	63	1993	2698	2832	-134
4659105	1	255	87	64	1994	2701	2832	-131
4659105	1	255	87	65	1995	2701	2832	-131

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4659105	1	255	87	66	1996	2704	2832	-128
4659105	1	255	87	67	1997	2704	2832	-128
4659105	1	255	87	68	1998	2705	2831	-126
4659105	1	255	87	69	1999	2704	2831	-127
4659105	1	255	87	70	2000	2702	2831	-129
4659105	1	255	87	71	2001	2704	2831	-127
4659105	1	255	87	72	2002	2704	2831	-127
4659105	1	255	87	73	2003	2703	2830	-127
4659105	1	255	87	74	2004	2705	2830	-125
4659105	1	255	87	75	2005	2704	2830	-126
4659201	1	256	91	31	1961	2651	2827	-176
4659201	1	256	91	32	1962	2637	2825	-188
4659201	1	256	91	33	1963	2625	2822	-197
4659201	1	256	91	34	1964	2613	2819	-206
4659201	1	256	91	35	1965	2600	2817	-217
4659201	1	256	91	36	1966	2593	2815	-222
4659201	1	256	91	37	1967	2584	2813	-229
4659201	1	256	91	38	1968	2580	2812	-232
4659201	1	256	91	50	1980	2543	2805	-262
4659201	1	256	91	51	1981	2549	2805	-256
4659201	1	256	91	53	1983	2538	2806	-268
4659201	1	256	91	54	1984	2572	2807	-235
4659201	1	256	91	57	1987	2566	2810	-244
4659201	1	256	91	58	1988	2593	2811	-218
4659201	1	256	91	59	1989	2597	2811	-214
4659201	1	256	91	60	1990	2599	2812	-213
4659201	1	256	91	61	1991	2600	2813	-213
4659201	1	256	91	62	1992	2601	2814	-213
4659201	1	256	91	63	1993	2612	2813	-201
4659201	1	256	91	64	1994	2607	2813	-206
4659201	1	256	91	65	1995	2604	2813	-209
4659201	1	256	91	66	1996	2596	2812	-216
4659201	1	256	91	67	1997	2595	2812	-217
4659201	1	256	91	68	1998	2595	2812	-217



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4659201	1	256	91	69	1999	2593	2812	-219
4659201	1	256	91	70	2000	2591	2812	-221
4659201	1	256	91	71	2001	2591	2811	-220
4659201	1	256	91	72	2002	2586	2811	-225
4659201	1	256	91	73	2003	2597	2811	-214
4659201	1	256	91	74	2004	2604	2811	-207
4659201	1	256	91	75	2005	2610	2811	-201
4659303	1	261	97	58	1988	2615	2794	-179
4659303	1	261	97	59	1989	2619	2795	-176
4659303	1	261	97	60	1990	2619	2797	-178
4659303	1	261	97	61	1991	2613	2798	-185
4659303	1	261	97	62	1992	2624	2800	-176
4659303	1	261	97	63	1993	2624	2799	-175
4659303	1	261	97	64	1994	2617	2798	-181
4659303	1	261	97	65	1995	2636	2797	-161
4659303	1	261	97	66	1996	2620	2797	-177
4659303	1	261	97	68	1998	2622	2796	-174
4659303	1	261	97	71	2001	2612	2795	-183
4659303	1	261	97	73	2003	2622	2795	-173
4659304	1	258	96	58	1988	2606	2789	-183
4659304	1	258	96	59	1989	2611	2790	-179
4659304	1	258	96	60	1990	2605	2791	-186
4659304	1	258	96	61	1991	2586	2793	-207
4659304	1	258	96	62	1992	2610	2794	-184
4659304	1	258	96	63	1993	2607	2793	-186
4659304	1	258	96	64	1994	2602	2793	-191
4659304	1	258	96	65	1995	2624	2792	-168
4659304	1	258	96	66	1996	2610	2792	-182
4659304	1	258	96	67	1997	2613	2791	-178
4659304	1	258	96	68	1998	2613	2791	-178
4659304	1	258	96	69	1999	2603	2791	-188
4659304	1	258	96	70	2000	2599	2790	-191
4659304	1	258	96	71	2001	2604	2790	-186
4659304	1	258	96	72	2002	2608	2790	-182

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4659304	1	258	96	73	2003	2611	2790	-179
4659304	1	258	96	74	2004	2622	2790	-168
4659304	1	258	96	75	2005	2629	2790	-161
4659508	1	263	87	29	1959	2715	2866	-151
4659508	1	263	87	30	1960	2710	2864	-154
4659508	1	263	87	58	1988	2708	2849	-141
4659508	1	263	87	59	1989	2708	2850	-142
4659508	1	263	87	60	1990	2709	2851	-142
4659508	1	263	87	61	1991	2714	2852	-138
4659508	1	263	87	62	1992	2724	2853	-129
4659508	1	263	87	63	1993	2729	2852	-123
4659508	1	263	87	64	1994	2729	2852	-123
4659508	1	263	87	65	1995	2722	2851	-129
4659508	1	263	87	66	1996	2721	2851	-130
4659508	1	263	87	67	1997	2718	2851	-133
4659508	1	263	87	68	1998	2717	2850	-133
4659508	1	263	87	69	1999	2711	2850	-139
4659508	1	263	87	71	2001	2704	2850	-146
4659508	1	263	87	72	2002	2702	2850	-148
4659508	1	263	87	73	2003	2706	2849	-143
4659508	1	263	87	74	2004	2707	2849	-142
4659508	1	263	87	75	2005	2715	2849	-134
4660101	1	258	102	23	1953	2753	2802	-49
4660101	1	258	102	24	1954	2722	2800	-78
4660101	1	258	102	25	1955	2720	2797	-77
4660101	1	258	102	26	1956	2677	2794	-117
4660101	1	258	102	29	1959	2650	2785	-135
4660101	1	258	102	30	1960	2617	2781	-164
4660101	1	258	102	58	1988	2594	2767	-173
4660101	1	258	102	59	1989	2610	2768	-158
4660101	1	258	102	60	1990	2624	2769	-145
4660101	1	258	102	61	1991	2630	2771	-141
4660101	1	258	102	62	1992	2632	2772	-140
4660101	1	258	102	63	1993	2627	2771	-144

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4660101	1	258	102	64	1994	2626	2771	-145
4660101	1	258	102	65	1995	2621	2770	-149
4660101	1	258	102	66	1996	2619	2770	-151
4660101	1	258	102	67	1997	2629	2770	-141
4660101	1	258	102	68	1998	2633	2769	-136
4660101	1	258	102	69	1999	2629	2769	-140
4660101	1	258	102	70	2000	2627	2769	-142
4660101	1	258	102	71	2001	2643	2769	-126
4660101	1	258	102	72	2002	2632	2769	-137
4660101	1	258	102	73	2003	2650	2768	-118
4660101	1	258	102	74	2004	2647	2768	-121
4660101	1	258	102	75	2005	2640	2768	-128
4660102	1	262	100	23	1953	2779	2818	-39
4660102	1	262	100	24	1954	2749	2815	-66
4660102	1	262	100	25	1955	2729	2812	-83
4660102	1	262	100	26	1956	2715	2809	-94
4660102	1	262	100	29	1959	2557	2799	-242
4660401	1	264	96	10	1940	2834	2874	-40
4660401	1	264	96	11	1941	2836	2872	-36
4660401	1	264	96	18	1948	2836	2855	-19
4660401	1	264	96	19	1949	2835	2852	-17
4660401	1	264	96	20	1950	2833	2849	-16
4660401	1	264	96	21	1951	2831	2846	-15
4660401	1	264	96	22	1952	2827	2843	-16
4660401	1	264	96	23	1953	2817	2840	-23
4660401	1	264	96	24	1954	2806	2837	-31
4660401	1	264	96	25	1955	2795	2834	-39
4660401	1	264	96	27	1957	2781	2827	-46
4660404	1	262	98	58	1988	2618	2794	-176
4660404	1	262	98	59	1989	2623	2795	-172
4660404	1	262	98	60	1990	2622	2796	-174
4660404	1	262	98	62	1992	2637	2800	-163
4660404	1	262	98	63	1993	2639	2799	-160
4660404	1	262	98	64	1994	2645	2798	-153

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4660404	1	262	98	65	1995	2638	2797	-159
4660404	1	262	98	68	1998	2618	2796	-178
4660404	1	262	98	71	2001	2614	2795	-181
4660404	1	262	98	72	2002	2619	2795	-176
4660701	1	268	99	31	1961	2699	2827	-128
4660701	1	268	99	32	1962	2728	2823	-95
4660701	1	268	99	34	1964	2634	2817	-183
4660701	1	268	99	35	1965	2610	2814	-204
4660701	1	268	99	36	1966	2614	2811	-197
4660701	1	268	99	37	1967	2609	2809	-200
4660701	1	268	99	38	1968	2605	2808	-203
4660701	1	268	99	39	1969	2626	2807	-181
4660701	1	268	99	40	1970	2634	2806	-172
4660701	1	268	99	41	1971	2618	2805	-187
4660701	1	268	99	42	1972	2636	2804	-168
4660701	1	268	99	43	1973	2636	2803	-167
4660701	1	268	99	45	1975	2645	2802	-157
4660701	1	268	99	47	1977	2638	2803	-165
4660701	1	268	99	49	1979	2644	2807	-163
4660701	1	268	99	54	1984	2643	2815	-172
4660701	1	268	99	57	1987	2642	2820	-178
4660701	1	268	99	58	1988	2646	2822	-176
4660701	1	268	99	59	1989	2651	2822	-171
4660701	1	268	99	61	1991	2655	2826	-171
4660701	1	268	99	62	1992	2667	2827	-160
4660701	1	268	99	63	1993	2670	2826	-156
4660701	1	268	99	64	1994	2671	2826	-155
4660701	1	268	99	66	1996	2676	2825	-149
4660701	1	268	99	71	2001	2641	2823	-182
4660701	1	268	99	72	2002	2641	2823	-182
4660701	1	268	99	73	2003	2640	2823	-183
4660701	1	268	99	74	2004	2643	2823	-180
4660701	1	268	99	75	2005	2640	2823	-183
4660801	1	270	101	10	1940	2838	2887	-49

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4660801	1	270	101	11	1941	2840	2886	-46
4660801	1	270	101	18	1948	2840	2873	-33
4660801	1	270	101	19	1949	2839	2871	-32
4660801	1	270	101	20	1950	2837	2869	-32
4660801	1	270	101	29	1959	2764	2846	-82
4660807	1	272	101	58	1988	2624	2843	-219
4660807	1	272	101	59	1989	2633	2844	-211
4660807	1	272	101	60	1990	2630	2845	-215
4660807	1	272	101	61	1991	2640	2846	-206
4660807	1	272	101	62	1992	2648	2847	-199
4660807	1	272	101	63	1993	2652	2846	-194
4660807	1	272	101	64	1994	2648	2846	-198
4660807	1	272	101	65	1995	2651	2846	-195
4660807	1	272	101	66	1996	2651	2846	-195
4660807	1	272	101	67	1997	2656	2845	-189
4660807	1	272	101	68	1998	2658	2845	-187
4660807	1	272	101	69	1999	2661	2845	-184
4660807	1	272	101	71	2001	2659	2844	-185
4660807	1	272	101	72	2002	2658	2844	-186
4660807	1	272	101	73	2003	2659	2844	-185
4660807	1	272	101	74	2004	2660	2844	-184
4661201	1	266	121	29	1959	2653	2785	-132
4661201	1	266	121	31	1961	2656	2781	-125
4661201	1	266	121	32	1962	2674	2779	-105
4661201	1	266	121	35	1965	2647	2773	-126
4661201	1	266	121	36	1966	2647	2772	-125
4661201	1	266	121	37	1967	2630	2771	-141
4661201	1	266	121	38	1968	2622	2769	-147
4661201	1	266	121	39	1969	2616	2768	-152
4661201	1	266	121	40	1970	2615	2767	-152
4661201	1	266	121	41	1971	2612	2766	-154
4661201	1	266	121	42	1972	2613	2765	-152
4661201	1	266	121	46	1976	2624	2762	-138
4661201	1	266	121	47	1977	2636	2762	-126

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4661201	1	266	121	48	1978	2642	2762	-120
4661201	1	266	121	49	1979	2651	2763	-112
4661201	1	266	121	51	1981	2654	2763	-109
4661201	1	266	121	54	1984	2666	2763	-97
4661201	1	266	121	57	1987	2668	2764	-96
4661201	1	266	121	58	1988	2669	2764	-95
4661201	1	266	121	59	1989	2662	2764	-102
4661201	1	266	121	60	1990	2642	2764	-122
4661201	1	266	121	61	1991	2635	2765	-130
4661201	1	266	121	62	1992	2624	2765	-141
4661201	1	266	121	64	1994	2615	2764	-149
4661201	1	266	121	65	1995	2619	2763	-144
4661201	1	266	121	66	1996	2617	2763	-146
4661201	1	266	121	67	1997	2611	2763	-152
4661201	1	266	121	68	1998	2616	2763	-147
4661201	1	266	121	69	1999	2611	2762	-151
4661201	1	266	121	71	2001	2609	2762	-153
4661201	1	266	121	72	2002	2605	2762	-157
4661201	1	266	121	73	2003	2604	2762	-158
4661201	1	266	121	74	2004	2611	2761	-150
4661201	1	266	121	75	2005	2641	2761	-120
4661701	1	277	109	18	1948	2824	2874	-50
4661701	1	277	109	19	1949	2824	2873	-49
4661701	1	277	109	20	1950	2822	2872	-50
4661701	1	277	109	21	1951	2821	2871	-50
4661701	1	277	109	22	1952	2819	2870	-51
4661701	1	277	109	23	1953	2816	2868	-52
4661701	1	277	109	24	1954	2807	2867	-60
4662301	1	273	140	27	1957	2695	2755	-60
4662301	1	273	140	28	1958	2694	2753	-59
4662301	1	273	140	31	1961	2691	2748	-57
4662301	1	273	140	32	1962	2691	2746	-55
4662301	1	273	140	33	1963	2691	2746	-55
4662301	1	273	140	34	1964	2684	2744	-60

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4662301	1	273	140	35	1965	2686	2742	-56
4662301	1	273	140	37	1967	2687	2739	-52
4662301	1	273	140	40	1970	2685	2736	-51
4662901	1	283	134	10	1940	2758	2827	-69
4662901	1	283	134	28	1958	2757	2807	-50
4662901	1	283	134	31	1961	2751	2802	-51
4662901	1	283	134	32	1962	2751	2800	-49
4662901	1	283	134	35	1965	2748	2796	-48
4662901	1	283	134	36	1966	2749	2795	-46
4662901	1	283	134	37	1967	2754	2794	-40
4662901	1	283	134	38	1968	2745	2792	-47
4662901	1	283	134	39	1969	2739	2792	-53
4662901	1	283	134	40	1970	2743	2791	-48
4663302	1	277	153	27	1957	2591	2713	-122
4663302	1	277	153	28	1958	2594	2712	-118
4663302	1	277	153	31	1961	2561	2706	-145
4663302	1	277	153	34	1964	2487	2702	-215
4663302	1	277	153	36	1966	2508	2700	-192
4663302	1	277	153	37	1967	2506	2699	-193
4663302	1	277	153	38	1968	2490	2698	-208
4663302	1	277	153	40	1970	2491	2698	-207
4663302	1	277	153	41	1971	2496	2697	-201
4663302	1	277	153	45	1975	2495	2695	-200
4663302	1	277	153	46	1976	2505	2695	-190
4663302	1	277	153	47	1977	2500	2695	-195
4663302	1	277	153	48	1978	2497	2695	-198
4663302	1	277	153	49	1979	2501	2695	-194
4663302	1	277	153	53	1983	2499	2694	-195
4663802	1	290	144	27	1957	2785	2797	-12
4663802	1	290	144	28	1958	2832	2795	37
4663802	1	290	144	29	1959	2767	2793	-26
4663802	1	290	144	31	1961	2711	2789	-78
4663802	1	290	144	32	1962	2758	2787	-29
4663802	1	290	144	33	1963	2708	2786	-78

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4663802	1	290	144	34	1964	2704	2784	-80
4663802	1	290	144	35	1965	2688	2783	-95
4663802	1	290	144	36	1966	2692	2782	-90
4663802	1	290	144	37	1967	2700	2781	-81
4663802	1	290	144	38	1968	2675	2780	-105
4663802	1	290	144	39	1969	2672	2780	-108
4663802	1	290	144	40	1970	2657	2780	-123
4663802	1	290	144	41	1971	2670	2779	-109
4663802	1	290	144	42	1972	2663	2779	-116
4663802	1	290	144	44	1974	2651	2777	-126
4663802	1	290	144	45	1975	2639	2776	-137
4663802	1	290	144	46	1976	2622	2776	-154
4663802	1	290	144	48	1978	2636	2776	-140
4663802	1	290	144	49	1979	2660	2776	-116
4663802	1	290	144	50	1980	2665	2775	-110
4663802	1	290	144	51	1981	2667	2775	-108
4663802	1	290	144	53	1983	2714	2774	-60
4663802	1	290	144	54	1984	2726	2774	-48
4663802	1	290	144	57	1987	2718	2774	-56
4663802	1	290	144	63	1993	2714	2774	-60
4663802	1	290	144	64	1994	2740	2773	-33
4663802	1	290	144	65	1995	2717	2773	-56
4663802	1	290	144	67	1997	2736	2772	-36
4663802	1	290	144	69	1999	2724	2771	-47
4663902	1	286	148	10	1940	2703	2794	-91
4663902	1	286	148	16	1946	2710	2789	-79
4663902	1	286	148	25	1955	2711	2777	-66
4663902	1	286	148	27	1957	2709	2774	-65
4663902	1	286	148	28	1958	2711	2772	-61
4663902	1	286	148	29	1959	2707	2771	-64
4663902	1	286	148	31	1961	2708	2767	-59
4663902	1	286	148	32	1962	2699	2765	-66
4663902	1	286	148	33	1963	2704	2764	-60
4663902	1	286	148	34	1964	2703	2762	-59



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4663902	1	286	148	35	1965	2699	2761	-62
4663902	1	286	148	36	1966	2700	2759	-59
4663902	1	286	148	37	1967	2698	2758	-60
4663902	1	286	148	38	1968	2691	2757	-66
4663902	1	286	148	39	1969	2701	2756	-55
4663902	1	286	148	40	1970	2699	2756	-57
4663902	1	286	148	41	1971	2698	2755	-57
4663902	1	286	148	42	1972	2699	2755	-56
4663902	1	286	148	44	1974	2698	2753	-55
4663902	1	286	148	45	1975	2698	2753	-55
4663902	1	286	148	46	1976	2695	2752	-57
4663902	1	286	148	54	1984	2696	2750	-54
4663902	1	286	148	57	1987	2692	2749	-57
4663902	1	286	148	58	1988	2695	2749	-54
4663902	1	286	148	59	1989	2698	2749	-51
4663902	1	286	148	60	1990	2698	2749	-51
4663902	1	286	148	61	1991	2699	2749	-50
4663902	1	286	148	62	1992	2700	2749	-49
4663902	1	286	148	63	1993	2697	2749	-52
4663902	1	286	148	64	1994	2702	2749	-47
4663902	1	286	148	65	1995	2703	2749	-46
4663902	1	286	148	66	1996	2697	2748	-51
4663902	1	286	148	67	1997	2703	2748	-45
4663902	1	286	148	68	1998	2700	2748	-48
4663902	1	286	148	69	1999	2702	2747	-45
4663902	1	286	148	71	2001	2703	2747	-44
4664201	1	280	163	27	1957	2564	2698	-134
4664201	1	280	163	28	1958	2604	2696	-92
4664201	1	280	163	29	1959	2592	2695	-103
4664201	1	280	163	31	1961	2579	2691	-112
4664201	1	280	163	32	1962	2576	2690	-114
4664201	1	280	163	33	1963	2563	2689	-126
4664201	1	280	163	34	1964	2550	2687	-137
4664201	1	280	163	35	1965	2554	2686	-132

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4664201	1	280	163	37	1967	2549	2684	-135
4664201	1	280	163	41	1971	2527	2682	-155
4664201	1	280	163	42	1972	2524	2682	-158
4664801	1	293	156	16	1946	2709	2796	-87
4664801	1	293	156	27	1957	2717	2782	-65
4664801	1	293	156	28	1958	2717	2781	-64
4664801	1	293	156	29	1959	2704	2779	-75
4664801	1	293	156	31	1961	2716	2776	-60
4664801	1	293	156	32	1962	2711	2774	-63
4664801	1	293	156	33	1963	2707	2773	-66
4664801	1	293	156	34	1964	2709	2771	-62
4664801	1	293	156	35	1965	2677	2769	-92
4664801	1	293	156	36	1966	2706	2768	-62
4664801	1	293	156	37	1967	2699	2766	-67
4664801	1	293	156	38	1968	2703	2765	-62
4664801	1	293	156	39	1969	2709	2764	-55
4664801	1	293	156	40	1970	2707	2763	-56
4664801	1	293	156	41	1971	2695	2763	-68
4664801	1	293	156	42	1972	2690	2762	-72
4664801	1	293	156	44	1974	2703	2761	-58
4664801	1	293	156	45	1975	2696	2760	-64
4664801	1	293	156	46	1976	2690	2760	-70
4664801	1	293	156	54	1984	2711	2756	-45
4764101	1	238	45	72	2002	3641	2994	647
5201302	1	263	62	67	1997	3380	2954	426
5201302	1	263	62	68	1998	3385	2953	432
5201302	1	263	62	69	1999	3393	2953	440
5201302	1	263	62	70	2000	3379	2952	427
5201302	1	263	62	71	2001	3380	2952	428
5201302	1	263	62	72	2002	3372	2952	420
5201302	1	263	62	73	2003	3374	2951	423
5202401	1	271	65	40	1970	3481	2970	511
5202401	1	271	65	65	1995	3475	2961	514
5202401	1	271	65	66	1996	3471	2961	510

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5202401	1	271	65	67	1997	3484	2961	523
5202401	1	271	65	68	1998	3479	2960	519
5202401	1	271	65	69	1999	3483	2960	523
5202401	1	271	65	70	2000	3482	2960	522
5202401	1	271	65	71	2001	3481	2959	522
5202401	1	271	65	72	2002	3481	2959	522
5202401	1	271	65	73	2003	3480	2959	521
5202401	1	271	65	74	2004	3484	2959	525
5202401	1	271	65	75	2005	3483	2958	525
5203207	1	270	86	18	1948	2896	2915	-19
5203207	1	270	86	19	1949	2897	2913	-16
5203207	1	270	86	20	1950	2897	2911	-14
5203207	1	270	86	21	1951	2898	2910	-12
5203207	1	270	86	22	1952	2897	2908	-11
5203207	1	270	86	23	1953	2897	2906	-9
5203207	1	270	86	24	1954	2898	2904	-6
5203207	1	270	86	25	1955	2897	2902	-5
5203207	1	270	86	26	1956	2897	2900	-3
5203207	1	270	86	27	1957	2896	2898	-2
5203207	1	270	86	28	1958	2896	2895	1
5203207	1	270	86	39	1969	2896	2874	22
5203302	1	277	90	28	1958	2775	2916	-141
5203302	1	277	90	30	1960	2764	2912	-148
5203302	1	277	90	31	1961	2753	2911	-158
5203302	1	277	90	39	1969	2714	2897	-183
5203302	1	277	90	40	1970	2714	2896	-182
5203302	1	277	90	41	1971	2708	2895	-187
5203302	1	277	90	54	1984	2701	2892	-191
5203302	1	277	90	58	1988	2707	2894	-187
5203302	1	277	90	59	1989	2708	2895	-187
5203302	1	277	90	61	1991	2708	2896	-188
5203302	1	277	90	68	1998	2733	2896	-163
5203302	1	277	90	69	1999	2729	2895	-166
5203302	1	277	90	70	2000	2724	2895	-171

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5203302	1	277	90	71	2001	2727	2895	-168
5203302	1	277	90	72	2002	2725	2895	-170
5203302	1	277	90	73	2003	2722	2895	-173
5203302	1	277	90	74	2004	2719	2895	-176
5204105	1	275	95	28	1958	2761	2888	-127
5204105	1	275	95	29	1959	2766	2885	-119
5204105	1	275	95	30	1960	2757	2883	-126
5204105	1	275	95	58	1988	2698	2868	-170
5204105	1	275	95	59	1989	2701	2869	-168
5204105	1	275	95	60	1990	2700	2870	-170
5204105	1	275	95	61	1991	2706	2871	-165
5204105	1	275	95	62	1992	2697	2872	-175
5204105	1	275	95	64	1994	2725	2871	-146
5204105	1	275	95	65	1995	2726	2871	-145
5204105	1	275	95	66	1996	2723	2870	-147
5204105	1	275	95	67	1997	2725	2870	-145
5204105	1	275	95	68	1998	2721	2870	-149
5204105	1	275	95	69	1999	2735	2870	-135
5204105	1	275	95	70	2000	2731	2869	-138
5204105	1	275	95	71	2001	2731	2869	-138
5204105	1	275	95	72	2002	2729	2869	-140
5204105	1	275	95	73	2003	2739	2869	-130
5204105	1	275	95	74	2004	2734	2869	-135
5204201	1	279	101	18	1948	2877	2905	-28
5204201	1	279	101	19	1949	2876	2904	-28
5204201	1	279	101	20	1950	2877	2902	-25
5204201	1	279	101	23	1953	2887	2897	-10
5204201	1	279	101	24	1954	2875	2896	-21
5204201	1	279	101	25	1955	2889	2894	-5
5204201	1	279	101	26	1956	2877	2892	-15
5204201	1	279	101	27	1957	2873	2890	-17
5204201	1	279	101	28	1958	2875	2888	-13
5204201	1	279	101	29	1959	2879	2886	-7
5204201	1	279	101	30	1960	2877	2885	-8

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5204201	1	279	101	31	1961	2882	2882	0
5204201	1	279	101	32	1962	2881	2880	1
5204201	1	279	101	33	1963	2887	2878	9
5204201	1	279	101	34	1964	2891	2876	15
5204201	1	279	101	35	1965	2881	2874	7
5204201	1	279	101	36	1966	2877	2873	4
5204201	1	279	101	37	1967	2888	2871	17
5204201	1	279	101	38	1968	2885	2870	15
5204201	1	279	101	39	1969	2875	2869	6
5206302	1	290	132	28	1958	2809	2837	-28
5206302	1	290	132	31	1961	2802	2832	-30
5206302	1	290	132	32	1962	2797	2830	-33
5206302	1	290	132	33	1963	2792	2829	-37
5206302	1	290	132	34	1964	2792	2827	-35
5206302	1	290	132	35	1965	2789	2826	-37
5206302	1	290	132	36	1966	2796	2825	-29
5206302	1	290	132	37	1967	2795	2824	-29
5206302	1	290	132	38	1968	2799	2823	-24
5206501	1	292	124	26	1956	2896	2878	18
5206501	1	292	124	32	1962	2896	2871	25
5206501	1	292	124	34	1964	2894	2869	25
5206501	1	292	124	36	1966	2893	2866	27
5206501	1	292	124	37	1967	2893	2865	28
5206501	1	292	124	38	1968	2894	2864	30
5206501	1	292	124	39	1969	2893	2863	30
5206501	1	292	124	40	1970	2892	2862	30
5206501	1	292	124	41	1971	2891	2861	30
5206501	1	292	124	42	1972	2890	2861	29
5206501	1	292	124	43	1973	2890	2860	30
5206501	1	292	124	45	1975	2889	2858	31
5206501	1	292	124	46	1976	2889	2858	31
5206501	1	292	124	47	1977	2888	2857	31
5206501	1	292	124	48	1978	2888	2856	32
5206501	1	292	124	50	1980	2884	2855	29

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5206501	1	292	124	51	1981	2884	2855	29
5206501	1	292	124	53	1983	2884	2854	30
5206501	1	292	124	54	1984	2884	2853	31
5206501	1	292	124	56	1986	2886	2852	34
5206501	1	292	124	57	1987	2885	2852	33
5206501	1	292	124	58	1988	2882	2852	30
5206501	1	292	124	59	1989	2881	2851	30
5206501	1	292	124	60	1990	2881	2851	30
5206501	1	292	124	61	1991	2880	2851	29
5206501	1	292	124	62	1992	2879	2851	28

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5206501	1	292	124	63	1993	2880	2851	29
5206501	1	292	124	64	1994	2879	2851	28
5206501	1	292	124	65	1995	2878	2850	28
5206501	1	292	124	66	1996	2877	2850	27
5206501	1	292	124	67	1997	2879	2850	29
5206501	1	292	124	68	1998	2878	2849	29
5206501	1	292	124	69	1999	2877	2849	28
5206501	1	292	124	70	2000	2877	2849	28
5206501	1	292	124	71	2001	2875	2848	27
5206501	1	292	124	72	2002	2876	2848	28
5206501	1	292	124	74	2004	2876	2848	28
5206501	1	292	124	75	2005	2875	2848	27
5206502	1	293	126	12	1942	2898	2885	13
5206502	1	293	126	25	1955	2902	2874	28
5206502	1	293	126	27	1957	2900	2872	28
5206502	1	293	126	28	1958	2896	2871	25
5206502	1	293	126	29	1959	2897	2870	27
5206502	1	293	126	31	1961	2893	2867	26

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5206601	1	295	130	63	1993	2779	2837	-58
5206601	1	295	130	64	1994	2775	2837	-62
5206601	1	295	130	65	1995	2778	2837	-59
5206601	1	295	130	66	1996	2765	2836	-71
5206601	1	295	130	67	1997	2790	2836	-46
5206601	1	295	130	68	1998	2770	2836	-66
5206601	1	295	130	69	1999	2780	2835	-55
5206601	1	295	130	70	2000	2785	2835	-50
5206604	1	295	129	57	1987	2811	2842	-31
5206604	1	295	129	68	1998	2786	2840	-54
5206604	1	295	129	69	1999	2786	2839	-53
5206604	1	295	129	70	2000	2785	2839	-54
5206604	1	295	129	71	2001	2783	2839	-56
5206605	1	295	131	63	1993	2745	2834	-89
5206605	1	295	131	64	1994	2731	2833	-102
5206605	1	295	131	65	1995	2757	2833	-76
5206605	1	295	131	66	1996	2750	2833	-83
5206605	1	295	131	67	1997	2765	2832	-67
5206605	1	295	131	68	1998	2720	2832	-112
5206605	1	295	131	69	1999	2720	2831	-111
5206605	1	295	131	70	2000	2735	2831	-96
5206605	1	295	131	71	2001	2751	2831	-80
5206606	1	295	131	63	1993	2747	2834	-87
5206606	1	295	131	64	1994	2730	2833	-103
5206606	1	295	131	65	1995	2758	2833	-75
5206606	1	295	131	66	1996	2750	2833	-83
5206606	1	295	131	67	1997	2765	2832	-67
5206606	1	295	131	68	1998	2720	2832	-112
5206606	1	295	131	69	1999	2720	2831	-111
5206606	1	295	131	70	2000	2734	2831	-97
5206606	1	295	131	71	2001	2736	2831	-95
5206607	1	296	131	67	1997	2783	2836	-53
5206607	1	296	131	68	1998	2733	2835	-102
5206607	1	296	131	69	1999	2754	2835	-81

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5206607	1	296	131	70	2000	2733	2835	-102
5206607	1	296	131	71	2001	2753	2834	-81
5206701	1	299	118	27	1957	2940	2929	11
5206701	1	299	118	57	1987	2914	2907	7
5206701	1	299	118	72	2002	2976	2902	74
5206701	1	299	118	74	2004	2969	2901	68
5206701	1	299	118	75	2005	2968	2901	67
5207302	1	294	146	28	1958	2827	2801	26
5207302	1	294	146	29	1959	2803	2799	4
5207302	1	294	146	32	1962	2670	2793	-123
5207302	1	294	146	33	1963	2724	2792	-68
5207302	1	294	146	34	1964	2688	2790	-102
5207302	1	294	146	35	1965	2670	2789	-119
5207302	1	294	146	36	1966	2688	2788	-100
5207302	1	294	146	37	1967	2676	2787	-111
5207302	1	294	146	38	1968	2673	2787	-114
5207302	1	294	146	40	1970	2676	2786	-110
5207302	1	294	146	41	1971	2668	2786	-118
5207302	1	294	146	42	1972	2677	2785	-108
5207302	1	294	146	43	1973	2674	2784	-110
5207302	1	294	146	47	1977	2647	2782	-135
5207302	1	294	146	48	1978	2637	2782	-145
5207302	1	294	146	54	1984	2736	2781	-45
5207302	1	294	146	56	1986	2659	2781	-122
5207302	1	294	146	60	1990	2764	2781	-17
5207302	1	294	146	61	1991	2775	2781	-6
5207302	1	294	146	62	1992	2795	2781	14
5207302	1	294	146	63	1993	2787	2781	6
5207302	1	294	146	64	1994	2787	2780	7
5207302	1	294	146	65	1995	2782	2780	2
5207302	1	294	146	66	1996	2760	2779	-19
5207302	1	294	146	67	1997	2759	2779	-20
5207302	1	294	146	68	1998	2767	2778	-11
5207302	1	294	146	69	1999	2752	2778	-26



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5207302	1	294	146	70	2000	2735	2777	-42
5207302	1	294	146	71	2001	2751	2777	-26
5207302	1	294	146	72	2002	2758	2777	-19
5207302	1	294	146	74	2004	2771	2778	-7
5207302	1	294	146	75	2005	2772	2778	-6
5207601	1	302	144	28	1958	2891	2830	61
5207601	1	302	144	29	1959	2886	2828	58
5207601	1	302	144	31	1961	2885	2824	61
5207601	1	302	144	32	1962	2845	2822	23
5207601	1	302	144	33	1963	2819	2820	-1
5207601	1	302	144	34	1964	2818	2818	0
5207601	1	302	144	36	1966	2820	2816	4
5207601	1	302	144	38	1968	2849	2817	32
5207601	1	302	144	41	1971	2795	2817	-22
5207701	1	305	133	27	1957	2964	2891	73
5207701	1	305	133	32	1962	2960	2884	76
5207701	1	305	133	33	1963	2962	2882	80
5207701	1	305	133	34	1964	2963	2881	82
5207701	1	305	133	35	1965	2955	2879	76
5207701	1	305	133	36	1966	2892	2878	14
5207701	1	305	133	37	1967	2886	2877	9
5207701	1	305	133	38	1968	2890	2876	14
5207701	1	305	133	39	1969	2949	2875	74
5207701	1	305	133	40	1970	2907	2875	32
5207701	1	305	133	41	1971	2886	2874	12
5207701	1	305	133	44	1974	2972	2872	100
5207701	1	305	133	46	1976	2980	2871	109
5207701	1	305	133	55	1985	2958	2867	91
5207901	1	306	142	28	1958	2937	2854	83
5207901	1	306	142	29	1959	2939	2851	88
5207901	1	306	142	31	1961	2932	2847	85
5207901	1	306	142	32	1962	2905	2845	60
5207901	1	306	142	33	1963	2897	2844	53
5207901	1	306	142	34	1964	2887	2842	45

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5207901	1	306	142	35	1965	2860	2840	20
5207901	1	306	142	36	1966	2892	2840	52
5207901	1	306	142	40	1970	2863	2840	23
5207901	1	306	142	41	1971	2875	2840	35
5207901	1	306	142	42	1972	2878	2839	39
5207901	1	306	142	44	1974	2885	2838	47
5207901	1	306	142	45	1975	2894	2837	57
5207901	1	306	142	47	1977	2887	2838	49
5207901	1	306	142	49	1979	2878	2838	40
5207901	1	306	142	50	1980	2887	2838	49
5207901	1	306	142	55	1985	2912	2837	75
5207901	1	306	142	59	1989	2927	2838	89
5207901	1	306	142	60	1990	2921	2838	83
5207901	1	306	142	61	1991	2929	2838	91
5207901	1	306	142	62	1992	2932	2838	94
5207901	1	306	142	63	1993	2937	2838	99
5207901	1	306	142	64	1994	2932	2837	95
5207901	1	306	142	65	1995	2925	2837	88
5207901	1	306	142	66	1996	2916	2836	80
5207901	1	306	142	67	1997	2914	2836	78
5207901	1	306	142	68	1998	2924	2835	89
5207901	1	306	142	69	1999	2919	2834	85
5207901	1	306	142	70	2000	2922	2834	88
5207901	1	306	142	71	2001	2916	2834	82
5207901	1	306	142	72	2002	2918	2834	84
5207901	1	306	142	74	2004	2925	2835	90
5207901	1	306	142	75	2005	2937	2835	102
5208301	1	302	160	16	1946	2915	2834	81
5208301	1	302	160	22	1952	2907	2826	81
5208301	1	302	160	24	1954	2905	2823	82
5208301	1	302	160	25	1955	2908	2822	86
5208301	1	302	160	26	1956	2897	2820	77
5208301	1	302	160	27	1957	2900	2818	82
5208301	1	302	160	28	1958	2892	2817	75

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5208301	1	302	160	29	1959	2887	2815	72
5208301	1	302	160	31	1961	2883	2812	71
5208402	1	300	146	26	1956	2940	2824	116
5208402	1	300	146	28	1958	2864	2819	45
5208402	1	300	146	29	1959	2839	2817	22
5208402	1	300	146	31	1961	2823	2813	10
5208402	1	300	146	32	1962	2813	2811	2
5208402	1	300	146	33	1963	2792	2810	-18
5208701	1	306	145	28	1958	2950	2846	104
5208701	1	306	145	33	1963	2879	2836	43
5208701	1	306	145	34	1964	2882	2834	48
5208701	1	306	145	35	1965	2893	2832	61
5208701	1	306	145	36	1966	2898	2832	66
5208801	1	310	149	17	1947	3001	2885	116
5208801	1	310	149	24	1954	2985	2871	114
5208801	1	310	149	25	1955	2985	2869	116
5208801	1	310	149	26	1956	2984	2866	118
5208801	1	310	149	27	1957	2967	2864	103
5208801	1	310	149	28	1958	2964	2862	102
5208801	1	310	149	29	1959	2968	2859	109
5208801	1	310	149	31	1961	2999	2855	144
5208801	1	310	149	32	1962	2975	2853	122
5208801	1	310	149	33	1963	2974	2851	123
5208801	1	310	149	34	1964	2965	2849	116
5208801	1	310	149	35	1965	2963	2847	116
5208801	1	310	149	36	1966	2964	2845	119
5208801	1	310	149	37	1967	2965	2844	121
5208801	1	310	149	38	1968	2963	2844	119
5208801	1	310	149	39	1969	3000	2844	156
5208801	1	310	149	40	1970	2999	2844	155
5208801	1	310	149	41	1971	2998	2844	154
5208801	1	310	149	42	1972	2999	2843	156
5208801	1	310	149	45	1975	2995	2842	153
5208801	1	310	149	46	1976	2981	2842	139

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5208801	1	310	149	47	1977	2972	2842	130
5208801	1	310	149	52	1982	2925	2842	83
5208801	1	310	149	54	1984	2941	2842	99
5208801	1	310	149	56	1986	2918	2843	75
5208801	1	310	149	57	1987	2946	2843	103
5208801	1	310	149	58	1988	2945	2843	102
5208801	1	310	149	59	1989	2945	2843	102
5208801	1	310	149	60	1990	2945	2844	101
5208801	1	310	149	61	1991	2944	2844	100
5208801	1	310	149	62	1992	2914	2844	70
5208801	1	310	149	63	1993	2947	2844	103
5208801	1	310	149	64	1994	2950	2843	107
5208801	1	310	149	65	1995	2952	2843	109
5208801	1	310	149	66	1996	2949	2842	107
5208801	1	310	149	67	1997	2957	2842	115
5208801	1	310	149	68	1998	2901	2841	60
5208801	1	310	149	69	1999	2884	2841	43
5208801	1	310	149	70	2000	2962	2840	122
5208801	1	310	149	71	2001	2961	2840	121
5208801	1	310	149	72	2002	2957	2840	117
5208801	1	310	149	74	2004	2964	2841	123
5208801	1	310	149	75	2005	2954	2841	113
5208901	1	310	154	23	1953	2987	2865	122
5208901	1	310	154	24	1954	2986	2863	123
5208901	1	310	154	25	1955	2993	2861	132
5208901	1	310	154	26	1956	2978	2858	120
5208901	1	310	154	27	1957	2978	2856	122
5208901	1	310	154	28	1958	2978	2854	124
5208901	1	310	154	29	1959	2971	2852	119
5208901	1	310	154	31	1961	2975	2847	128
5208902	1	311	155	26	1956	2986	2860	126
5208902	1	311	155	27	1957	2988	2858	130
5208902	1	311	155	28	1958	2984	2856	128
5208902	1	311	155	29	1959	2981	2854	127

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5208902	1	311	155	31	1961	2982	2849	133
5208902	1	311	155	32	1962	2954	2847	107
5208902	1	311	155	33	1963	2955	2844	111
5208902	1	311	155	34	1964	2944	2842	102
5208902	1	311	155	35	1965	2940	2840	100
5208902	1	311	155	36	1966	2941	2839	102
5208902	1	311	155	37	1967	2929	2837	92
5208902	1	311	155	38	1968	2933	2837	96
5208902	1	311	155	39	1969	2935	2837	98
5208902	1	311	155	40	1970	2939	2837	102
5208902	1	311	155	41	1971	2929	2836	93
5208902	1	311	155	42	1972	2925	2836	89
5208902	1	311	155	43	1973	2915	2836	79
5208902	1	311	155	44	1974	2925	2835	90
5208902	1	311	155	45	1975	2945	2835	110
5208902	1	311	155	46	1976	2914	2835	79
5208902	1	311	155	47	1977	2923	2835	88
5208902	1	311	155	48	1978	2918	2835	83
5208905	1	311	154	28	1958	2982	2857	125
5208905	1	311	154	32	1962	2917	2847	70
5208905	1	311	154	33	1963	2952	2845	107
5208905	1	311	154	35	1965	2943	2841	102
5208905	1	311	154	36	1966	2941	2839	102
5208905	1	311	154	42	1972	2921	2837	84
5208905	1	311	154	43	1973	2923	2837	86
5208905	1	311	154	45	1975	2940	2836	104
5208905	1	311	154	58	1988	2942	2839	103
5208907	1	310	154	22	1952	2991	2867	124
5208907	1	310	154	24	1954	2985	2863	122
5208907	1	310	154	25	1955	2991	2861	130
5208907	1	310	154	26	1956	2976	2858	118
5208907	1	310	154	27	1957	2970	2856	114
5208908	1	310	154	32	1962	2874	2845	29
5208908	1	310	154	33	1963	2944	2843	101

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5208908	1	310	154	34	1964	2937	2841	96
5208908	1	310	154	35	1965	2940	2839	101
5208908	1	310	154	36	1966	2941	2837	104
5208908	1	310	154	37	1967	2921	2836	85
5208908	1	310	154	40	1970	2926	2835	91
5208908	1	310	154	42	1972	2920	2834	86
5208908	1	310	154	45	1975	2939	2833	106
5216101	1	312	145	17	1947	2994	2902	92
5216101	1	312	145	20	1950	2991	2897	94
5216101	1	312	145	24	1954	2989	2888	101
5216101	1	312	145	26	1956	2987	2884	103
5216101	1	312	145	27	1957	2981	2882	99
5216101	1	312	145	28	1958	2981	2880	101
5216101	1	312	145	29	1959	2965	2877	88
5216101	1	312	145	31	1961	2967	2873	94
5216101	1	312	145	32	1962	2938	2871	67
5216101	1	312	145	33	1963	2968	2870	98
5216101	1	312	145	35	1965	2926	2866	60
5216101	1	312	145	36	1966	2926	2864	62
5216101	1	312	145	37	1967	2920	2863	57
5216101	1	312	145	38	1968	2919	2863	56
5216101	1	312	145	39	1969	2951	2863	88
5216101	1	312	145	40	1970	2931	2862	69
5216101	1	312	145	41	1971	2927	2862	65
5216101	1	312	145	43	1973	2903	2861	42
5216101	1	312	145	45	1975	2927	2860	67
5216201	1	315	151	28	1958	2998	2871	127
5216201	1	315	151	31	1961	2996	2864	132
5216201	1	315	151	32	1962	2980	2861	119
5216201	1	315	151	33	1963	2981	2859	122
5216201	1	315	151	35	1965	2966	2855	111
5216201	1	315	151	36	1966	2962	2854	108
5216201	1	315	151	37	1967	2950	2854	96
5216201	1	315	151	39	1969	2961	2855	106

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216201	1	315	151	40	1970	2961	2855	106
5216201	1	315	151	41	1971	2964	2855	109
5216201	1	315	151	43	1973	2971	2854	117
5216201	1	315	151	45	1975	2973	2854	119
5216201	1	315	151	46	1976	2979	2854	125
5216201	1	315	151	48	1978	2964	2856	108
5216201	1	315	151	49	1979	2980	2857	123
5216201	1	315	151	50	1980	2992	2857	135
5216201	1	315	151	57	1987	2999	2859	140
5216302	1	315	153	26	1956	3060	2872	188
5216302	1	315	153	28	1958	2996	2867	129
5216302	1	315	153	29	1959	2983	2864	119
5216302	1	315	153	31	1961	2994	2859	135
5216302	1	315	153	34	1964	2984	2852	132
5216302	1	315	153	35	1965	2979	2850	129
5216302	1	315	153	36	1966	2973	2849	124
5216302	1	315	153	37	1967	2959	2849	110
5216302	1	315	153	38	1968	2950	2849	101
5216302	1	315	153	40	1970	2950	2851	99
5216302	1	315	153	41	1971	2941	2851	90
5216302	1	315	153	46	1976	2931	2850	81
5216302	1	315	153	47	1977	2939	2850	89
5216302	1	315	153	48	1978	2923	2851	72
5216302	1	315	153	50	1980	2961	2853	108
5216302	1	315	153	56	1986	2973	2854	119
5216302	1	315	153	61	1991	2976	2856	120
5216302	1	315	153	62	1992	2975	2857	118
5216302	1	315	153	63	1993	2975	2856	119
5216302	1	315	153	64	1994	2984	2855	129
5216302	1	315	153	65	1995	2991	2854	137
5216302	1	315	153	66	1996	2983	2854	129
5216302	1	315	153	67	1997	2991	2853	138
5216302	1	315	153	69	1999	2983	2852	131
5216302	1	315	153	70	2000	2981	2850	131

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216302	1	315	153	71	2001	2979	2851	128
5216302	1	315	153	72	2002	2973	2851	122
5216302	1	315	153	74	2004	2992	2853	139
5216302	1	315	153	75	2005	3002	2854	148
5216303	1	317	154	27	1957	2984	2875	109
5216303	1	317	154	28	1958	2996	2872	124
5216303	1	317	154	31	1961	2994	2865	129
5216303	1	317	154	32	1962	2972	2862	110
5216303	1	317	154	33	1963	2969	2859	110
5216303	1	317	154	34	1964	2987	2857	130
5216303	1	317	154	35	1965	3000	2855	145
5216303	1	317	154	36	1966	3002	2855	147
5216303	1	317	154	37	1967	2976	2855	121
5216303	1	317	154	39	1969	3017	2857	160
5216303	1	317	154	41	1971	3030	2858	172
5216303	1	317	154	42	1972	3025	2857	168
5216303	1	317	154	43	1973	3008	2856	152
5216303	1	317	154	45	1975	3006	2856	150
5216303	1	317	154	46	1976	2968	2856	112
5216303	1	317	154	47	1977	2962	2857	105
5216303	1	317	154	48	1978	2957	2858	99
5216303	1	317	154	49	1979	2952	2860	92
5216303	1	317	154	50	1980	2951	2859	92
5216303	1	317	154	51	1981	2958	2859	99
5216303	1	317	154	53	1983	2953	2859	94
5216303	1	317	154	55	1985	2852	2860	-8
5216303	1	317	154	57	1987	2961	2862	99
5216303	1	317	154	58	1988	3050	2863	187
5216303	1	317	154	59	1989	2969	2863	106
5216501	1	320	149	29	1959	3028	2894	134
5216501	1	320	149	31	1961	3026	2889	137
5216501	1	320	149	32	1962	3010	2886	124
5216501	1	320	149	33	1963	3009	2884	125
5216501	1	320	149	34	1964	2994	2881	113



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216501	1	320	149	36	1966	2991	2879	112
5216501	1	320	149	40	1970	2982	2881	101
5216503	1	322	148	28	1958	3029	2909	120
5216503	1	322	148	29	1959	3024	2906	118
5216503	1	322	148	31	1961	3024	2902	122
5216503	1	322	148	32	1962	3011	2899	112
5216503	1	322	148	33	1963	3007	2897	110
5216503	1	322	148	34	1964	2995	2895	100
5216503	1	322	148	35	1965	2988	2893	95
5216503	1	322	148	36	1966	2986	2892	94
5216503	1	322	148	37	1967	2982	2892	90
5216503	1	322	148	38	1968	2973	2893	80
5216503	1	322	148	39	1969	2971	2893	78
5216503	1	322	148	40	1970	2972	2894	78
5216503	1	322	148	45	1975	3033	2892	141
5216503	1	322	148	49	1979	2993	2895	98
5216602	1	322	152	25	1955	3045	2905	140
5216602	1	322	152	26	1956	3032	2902	130
5216602	1	322	152	28	1958	3024	2897	127
5216602	1	322	152	29	1959	3028	2895	133
5216602	1	322	152	30	1960	2974	2892	82
5216602	1	322	152	31	1961	3030	2890	140
5216602	1	322	152	32	1962	3013	2887	126
5216602	1	322	152	33	1963	3006	2884	122
5216602	1	322	152	34	1964	2995	2882	113
5216602	1	322	152	35	1965	2986	2880	106
5216602	1	322	152	36	1966	2986	2880	106
5216602	1	322	152	37	1967	2981	2880	101
5216602	1	322	152	38	1968	2972	2880	92
5216602	1	322	152	39	1969	2974	2882	92
5216602	1	322	152	40	1970	2971	2882	89
5216602	1	322	152	41	1971	2968	2882	86
5216602	1	322	152	42	1972	2968	2882	86
5216602	1	322	152	43	1973	2968	2881	87

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216602	1	322	152	44	1974	2967	2880	87
5216602	1	322	152	45	1975	2968	2881	87
5216602	1	322	152	46	1976	2969	2882	87
5216602	1	322	152	47	1977	2969	2882	87
5216602	1	322	152	48	1978	2969	2884	85
5216602	1	322	152	49	1979	2968	2885	83
5216602	1	322	152	50	1980	2969	2885	84
5216602	1	322	152	52	1982	2968	2885	83
5216602	1	322	152	58	1988	3007	2889	118
5216602	1	322	152	59	1989	3001	2889	112
5216603	1	318	152	28	1958	3011	2879	132
5216603	1	318	152	32	1962	2964	2868	96
5216603	1	318	152	33	1963	2997	2866	131
5216603	1	318	152	35	1965	2980	2862	118
5216603	1	318	152	40	1970	2964	2864	100
5216603	1	318	152	41	1971	2952	2864	88
5216603	1	318	152	46	1976	2974	2863	111
5216603	1	318	152	52	1982	3045	2866	179
5216603	1	318	152	56	1986	3043	2868	175
5216603	1	318	152	57	1987	3047	2869	178
5216603	1	318	152	58	1988	2964	2870	94
5216603	1	318	152	64	1994	3057	2869	188
5216603	1	318	152	67	1997	3056	2867	189
5216603	1	318	152	68	1998	3010	2866	144
5216603	1	318	152	69	1999	3003	2865	138
5216603	1	318	152	70	2000	3002	2864	138
5216603	1	318	152	72	2002	2987	2865	122
5216603	1	318	152	74	2004	3009	2868	141
5216603	1	318	152	75	2005	3050	2868	182
5216607	1	321	153	28	1958	3015	2890	125
5216607	1	321	153	33	1963	3005	2877	128
5216607	1	321	153	35	1965	2958	2873	85
5216607	1	321	153	36	1966	2955	2873	82
5216607	1	321	153	37	1967	2975	2873	102

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216801	1	326	144	28	1958	3119	2951	168
5216801	1	326	144	31	1961	3110	2946	164
5216801	1	326	144	32	1962	3101	2944	157
5216801	1	326	144	33	1963	2984	2942	42
5216801	1	326	144	35	1965	2985	2939	46
5216801	1	326	144	37	1967	3001	2936	65
5216801	1	326	144	38	1968	2998	2936	62
5216801	1	326	144	39	1969	3006	2935	71
5216801	1	326	144	40	1970	3086	2935	151
5216801	1	326	144	45	1975	3061	2933	128
5216801	1	326	144	58	1988	3083	2932	151
5216802	1	323	148	46	1976	2955	2898	57
5216802	1	323	148	47	1977	2965	2899	66
5216802	1	323	148	48	1978	2986	2899	87
5216802	1	323	148	49	1979	2995	2900	95
5216802	1	323	148	50	1980	2997	2900	97
5216802	1	323	148	51	1981	2994	2900	94
5216802	1	323	148	52	1982	3000	2900	100
5216802	1	323	148	53	1983	2996	2900	96
5216802	1	323	148	54	1984	2994	2900	94
5216802	1	323	148	55	1985	3003	2901	102
5216802	1	323	148	56	1986	3008	2901	107
5216802	1	323	148	57	1987	3014	2902	112
5216802	1	323	148	58	1988	3011	2903	108
5216802	1	323	148	59	1989	3005	2903	102
5216802	1	323	148	60	1990	3000	2903	97
5216802	1	323	148	61	1991	3013	2903	110
5216802	1	323	148	62	1992	3020	2904	116
5216802	1	323	148	63	1993	3020	2903	117
5216802	1	323	148	64	1994	3022	2902	120
5216802	1	323	148	65	1995	3018	2901	117
5216802	1	323	148	66	1996	3020	2901	119
5216802	1	323	148	67	1997	3027	2900	127
5216802	1	323	148	68	1998	3026	2899	127

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216802	1	323	148	69	1999	3020	2899	121
5216802	1	323	148	70	2000	3016	2898	118
5216802	1	323	148	71	2001	2998	2898	100
5216802	1	323	148	72	2002	3009	2898	111
5216802	1	323	148	73	2003	3008	2899	109
5216802	1	323	148	74	2004	3031	2900	131
5216802	1	323	148	75	2005	3034	2900	134
5216902	1	326	149	26	1956	3039	2934	105
5216902	1	326	149	28	1958	3031	2929	102
5216902	1	326	149	31	1961	3045	2923	122
5216902	1	326	149	32	1962	3030	2921	109
5216902	1	326	149	33	1963	2993	2918	75
5216902	1	326	149	34	1964	3060	2916	144
5216902	1	326	149	35	1965	2995	2915	80
5216902	1	326	149	36	1966	2987	2914	73
5216902	1	326	149	37	1967	2983	2914	69
5216902	1	326	149	38	1968	2980	2914	66
5216902	1	326	149	39	1969	2974	2915	59
5216902	1	326	149	40	1970	2977	2915	62
5216902	1	326	149	57	1987	3004	2916	88
5216905	1	325	153	28	1958	3024	2918	106
5216905	1	325	153	29	1959	3017	2916	101
5216905	1	325	153	31	1961	3019	2911	108
5216905	1	325	153	32	1962	3000	2909	91
5216905	1	325	153	33	1963	2999	2907	92
5216905	1	325	153	34	1964	2989	2904	85
5216905	1	325	153	35	1965	2982	2903	79
5216905	1	325	153	36	1966	2981	2902	79
5216905	1	325	153	37	1967	2972	2901	71
5216905	1	325	153	38	1968	2967	2902	65
5216905	1	325	153	39	1969	3020	2902	118
5216905	1	325	153	41	1971	3003	2903	100
5216905	1	325	153	42	1972	3018	2902	116
5216905	1	325	153	43	1973	3039	2901	138

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216905	1	325	153	45	1975	3051	2901	150
5216905	1	325	153	46	1976	3049	2901	148
5216905	1	325	153	48	1978	3033	2902	131
5216905	1	325	153	49	1979	3043	2903	140
5216905	1	325	153	58	1988	3019	2905	114
5221301	1	316	105	17	1947	3194	3030	164
5221301	1	316	105	28	1958	3188	3029	159
5221301	1	316	105	72	2002	3163	3017	146
5221301	1	316	105	74	2004	3166	3016	150
5221301	1	316	105	75	2005	3180	3016	164
5222801	1	329	110	25	1955	3163	3034	129
5222801	1	329	110	32	1962	3108	3033	75
5222801	1	329	110	34	1964	3130	3032	98
5222801	1	329	110	35	1965	3116	3032	84
5222801	1	329	110	36	1966	3114	3032	82
5222801	1	329	110	37	1967	3116	3032	84
5224301	1	331	147	28	1958	3064	2970	94
5224301	1	331	147	29	1959	3059	2968	91
5224301	1	331	147	31	1961	3054	2965	89
5224301	1	331	147	32	1962	3050	2964	86
5224301	1	331	147	33	1963	3040	2962	78
5224301	1	331	147	34	1964	3011	2960	51
5224301	1	331	147	35	1965	3027	2959	68
5224301	1	331	147	36	1966	3012	2958	54
5230105	1	333	104	26	1956	3364	3040	324
5230105	1	333	104	28	1958	3361	3041	320
5230105	1	333	104	31	1961	3358	3040	318
5230105	1	333	104	32	1962	3356	3040	316
5230105	1	333	104	33	1963	3353	3039	314
5230105	1	333	104	34	1964	3351	3039	312
5230105	1	333	104	35	1965	3347	3039	308
5230105	1	333	104	36	1966	3342	3039	303
5230105	1	333	104	37	1967	3338	3038	300
5230105	1	333	104	38	1968	3337	3038	299

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5230105	1	333	104	39	1969	3335	3038	297
5230105	1	333	104	40	1970	3333	3038	295
5230105	1	333	104	41	1971	3328	3037	291
5230105	1	333	104	42	1972	3325	3037	288
5230105	1	333	104	43	1973	3325	3037	288
5230105	1	333	104	45	1975	3325	3036	289
5230105	1	333	104	46	1976	3324	3036	288
5230105	1	333	104	47	1977	3323	3036	287
5230105	1	333	104	48	1978	3331	3035	296
5230105	1	333	104	49	1979	3323	3035	288
5230105	1	333	104	54	1984	3323	3034	289
5230105	1	333	104	57	1987	3317	3033	284
5230105	1	333	104	58	1988	3318	3033	285
5230105	1	333	104	60	1990	3317	3032	285
5230105	1	333	104	61	1991	3318	3032	286
5230105	1	333	104	62	1992	3318	3032	286
5301401	1	306	161	20	1950	2921	2844	77
5301401	1	306	161	28	1958	2892	2830	62
5301401	1	306	161	31	1961	2892	2825	67
5301401	1	306	161	33	1963	2890	2821	69
5301401	1	306	161	34	1964	2890	2819	71
5301401	1	306	161	35	1965	2889	2817	72
5301401	1	306	161	36	1966	2890	2816	74
5301401	1	306	161	37	1967	2890	2814	76
5301401	1	306	161	38	1968	2888	2813	75
5301401	1	306	161	40	1970	2892	2812	80
5301401	1	306	161	41	1971	2891	2812	79
5301401	1	306	161	43	1973	2890	2810	80
5301402	1	307	164	17	1947	2906	2849	57
5301402	1	307	164	18	1948	2904	2848	56
5301402	1	307	164	21	1951	2904	2844	60
5301402	1	307	164	22	1952	2903	2842	61
5301402	1	307	164	23	1953	2900	2840	60
5301402	1	307	164	24	1954	2901	2839	62

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301402	1	307	164	25	1955	2907	2837	70
5301402	1	307	164	27	1957	2899	2833	66
5301402	1	307	164	28	1958	2896	2832	64
5301402	1	307	164	29	1959	2887	2830	57
5301402	1	307	164	31	1961	2886	2827	59
5301402	1	307	164	32	1962	2870	2825	45
5301402	1	307	164	33	1963	2859	2823	36
5301402	1	307	164	34	1964	2858	2821	37
5301402	1	307	164	35	1965	2869	2819	50
5301402	1	307	164	36	1966	2866	2818	48
5301402	1	307	164	37	1967	2869	2816	53
5301402	1	307	164	39	1969	2876	2815	61
5301402	1	307	164	40	1970	2870	2814	56
5301402	1	307	164	41	1971	2862	2814	48
5301402	1	307	164	44	1974	2867	2812	55
5301402	1	307	164	45	1975	2875	2811	64
5301402	1	307	164	46	1976	2867	2811	56
5301402	1	307	164	47	1977	2867	2810	57
5301402	1	307	164	48	1978	2861	2810	51
5301402	1	307	164	49	1979	2875	2810	65
5301402	1	307	164	50	1980	2866	2810	56
5301402	1	307	164	53	1983	2867	2809	58
5301402	1	307	164	54	1984	2865	2809	56
5301402	1	307	164	57	1987	2890	2809	81
5301402	1	307	164	58	1988	2886	2809	77
5301402	1	307	164	59	1989	2883	2808	75
5301402	1	307	164	60	1990	2878	2809	69
5301402	1	307	164	61	1991	2889	2809	80
5301402	1	307	164	62	1992	2890	2809	81
5301402	1	307	164	63	1993	2889	2809	80
5301402	1	307	164	64	1994	2883	2808	75
5301402	1	307	164	65	1995	2882	2808	74
5301402	1	307	164	66	1996	2883	2808	75
5301402	1	307	164	67	1997	2884	2807	77

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301402	1	307	164	68	1998	2886	2807	79
5301402	1	307	164	69	1999	2878	2806	72
5301402	1	307	164	70	2000	2880	2806	74
5301402	1	307	164	71	2001	2884	2805	79
5301402	1	307	164	72	2002	2880	2805	75
5301403	1	307	164	16	1946	2910	2851	59
5301403	1	307	164	18	1948	2902	2848	54
5301403	1	307	164	20	1950	2903	2845	58
5301403	1	307	164	22	1952	2902	2842	60
5301403	1	307	164	23	1953	2899	2840	59
5301403	1	307	164	24	1954	2900	2839	61
5301403	1	307	164	25	1955	2906	2837	69
5301403	1	307	164	27	1957	2895	2833	62
5301403	1	307	164	28	1958	2896	2832	64
5301502	1	305	166	16	1946	2839	2838	1
5301502	1	305	166	18	1948	2833	2836	-3
5301502	1	305	166	28	1958	2849	2821	28
5301502	1	305	166	31	1961	2850	2816	34
5301502	1	305	166	32	1962	2847	2814	33
5301502	1	305	166	33	1963	2839	2813	26
5301502	1	305	166	34	1964	2836	2811	25
5301502	1	305	166	35	1965	2835	2809	26
5301502	1	305	166	36	1966	2834	2808	26
5301502	1	305	166	37	1967	2826	2806	20
5301502	1	305	166	38	1968	2823	2805	18
5301502	1	305	166	41	1971	2828	2803	25
5301502	1	305	166	44	1974	2827	2801	26
5301502	1	305	166	46	1976	2830	2800	30
5301502	1	305	166	47	1977	2829	2800	29
5301502	1	305	166	49	1979	2836	2799	37
5301502	1	305	166	50	1980	2831	2799	32
5301502	1	305	166	53	1983	2829	2798	31
5301502	1	305	166	54	1984	2825	2797	28
5301502	1	305	166	57	1987	2848	2797	51



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301502	1	305	166	58	1988	2840	2797	43
5301502	1	305	166	59	1989	2839	2797	42
5301502	1	305	166	60	1990	2835	2797	38
5301502	1	305	166	61	1991	2839	2797	42
5301502	1	305	166	62	1992	2838	2797	41
5301502	1	305	166	63	1993	2839	2797	42
5301502	1	305	166	64	1994	2833	2796	37
5301502	1	305	166	65	1995	2828	2796	32
5301502	1	305	166	66	1996	2826	2796	30
5301502	1	305	166	67	1997	2831	2795	36
5301502	1	305	166	68	1998	2835	2795	40
5301502	1	305	166	69	1999	2830	2795	35
5301502	1	305	166	70	2000	2830	2794	36
5301502	1	305	166	71	2001	2832	2794	38
5301502	1	305	166	72	2002	2823	2793	30
5301502	1	305	166	74	2004	2832	2794	38
5301502	1	305	166	75	2005	2842	2794	48
5301601	1	307	171	27	1957	2824	2824	0
5301601	1	307	171	28	1958	2827	2822	5
5301601	1	307	171	29	1959	2824	2821	3
5301601	1	307	171	31	1961	2809	2818	-9
5301601	1	307	171	32	1962	2793	2816	-23
5301601	1	307	171	33	1963	2764	2814	-50
5301601	1	307	171	34	1964	2762	2813	-51
5301601	1	307	171	35	1965	2765	2811	-46
5301601	1	307	171	36	1966	2762	2810	-48
5301601	1	307	171	37	1967	2759	2809	-50
5301601	1	307	171	38	1968	2761	2808	-47
5301601	1	307	171	39	1969	2764	2808	-44
5301601	1	307	171	41	1971	2758	2806	-48
5301701	1	310	160	21	1951	2953	2862	91
5301701	1	310	160	22	1952	2937	2860	77
5301701	1	310	160	24	1954	2916	2856	60
5301701	1	310	160	25	1955	2953	2853	100

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301701	1	310	160	27	1957	2943	2849	94
5301701	1	310	160	28	1958	2943	2847	96
5301701	1	310	160	29	1959	2942	2845	97
5301701	1	310	160	31	1961	2949	2841	108
5301701	1	310	160	32	1962	2956	2839	117
5301701	1	310	160	33	1963	2948	2837	111
5301701	1	310	160	34	1964	2947	2835	112
5301701	1	310	160	35	1965	2934	2833	101
5301701	1	310	160	36	1966	2935	2831	104
5301701	1	310	160	37	1967	2950	2830	120
5301701	1	310	160	38	1968	2947	2830	117
5301701	1	310	160	39	1969	2939	2829	110
5301701	1	310	160	40	1970	2939	2829	110
5301701	1	310	160	41	1971	2948	2829	119
5301703	1	314	160	27	1957	2969	2865	104
5301703	1	314	160	28	1958	2974	2863	111
5301703	1	314	160	29	1959	2975	2861	114
5301703	1	314	160	31	1961	2984	2856	128
5301703	1	314	160	32	1962	2984	2854	130
5301703	1	314	160	33	1963	2981	2852	129
5301703	1	314	160	34	1964	2977	2850	127
5301703	1	314	160	35	1965	2983	2848	135
5301703	1	314	160	36	1966	2980	2846	134
5301703	1	314	160	37	1967	2985	2846	139
5301703	1	314	160	40	1970	2988	2845	143
5301901	1	313	168	19	1949	2932	2868	64
5301901	1	313	168	20	1950	2932	2866	66
5301901	1	313	168	21	1951	2930	2864	66
5301901	1	313	168	22	1952	2932	2862	70
5301901	1	313	168	23	1953	2931	2861	70
5301901	1	313	168	24	1954	2931	2859	72
5301901	1	313	168	25	1955	2932	2857	75
5301901	1	313	168	26	1956	2928	2855	73
5301901	1	313	168	27	1957	2929	2853	76

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301901	1	313	168	28	1958	2929	2851	78
5301901	1	313	168	29	1959	2927	2849	78
5301901	1	313	168	31	1961	2923	2846	77
5301902	1	316	171	16	1946	2929	2880	49
5301902	1	316	171	29	1959	2876	2857	19
5301902	1	316	171	31	1961	2925	2854	71
5301902	1	316	171	32	1962	2816	2852	-36
5301902	1	316	171	33	1963	2811	2850	-39
5301902	1	316	171	34	1964	2891	2848	43
5301902	1	316	171	35	1965	2871	2847	24
5301902	1	316	171	36	1966	2873	2846	27
5301902	1	316	171	39	1969	2901	2845	56
5301902	1	316	171	40	1970	2881	2845	36
5301902	1	316	171	41	1971	2883	2845	38
5301902	1	316	171	42	1972	2878	2845	33
5301902	1	316	171	44	1974	2867	2844	23
5301902	1	316	171	45	1975	2883	2843	40
5301902	1	316	171	46	1976	2899	2843	56
5301902	1	316	171	47	1977	2905	2843	62
5301902	1	316	171	48	1978	2866	2843	23
5301902	1	316	171	49	1979	2883	2843	40
5301902	1	316	171	50	1980	2901	2843	58
5301902	1	316	171	54	1984	2846	2842	4
5301902	1	316	171	57	1987	2923	2842	81
5301902	1	316	171	58	1988	2922	2843	79
5301902	1	316	171	59	1989	2907	2842	65
5301902	1	316	171	60	1990	2893	2842	51
5301902	1	316	171	61	1991	2923	2843	80
5301902	1	316	171	62	1992	2924	2843	81
5301902	1	316	171	63	1993	2923	2842	81
5301902	1	316	171	64	1994	2923	2842	81
5301902	1	316	171	65	1995	2922	2841	81
5301902	1	316	171	66	1996	2921	2841	80
5301902	1	316	171	67	1997	2923	2840	83

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301902	1	316	171	68	1998	2923	2839	84
5301902	1	316	171	69	1999	2902	2839	63
5301902	1	316	171	70	2000	2923	2838	85
5301902	1	316	171	71	2001	2907	2838	69
5301902	1	316	171	72	2002	2911	2838	73
5301902	1	316	171	74	2004	2923	2839	84
5301902	1	316	171	75	2005	2926	2839	87
5301903	1	314	172	20	1950	2910	2863	47
5301903	1	314	172	21	1951	2895	2861	34
5301903	1	314	172	22	1952	2898	2859	39
5301903	1	314	172	23	1953	2895	2858	37
5301903	1	314	172	24	1954	2896	2856	40
5301903	1	314	172	25	1955	2896	2854	42
5301903	1	314	172	27	1957	2888	2850	38
5301903	1	314	172	28	1958	2891	2848	43
5301903	1	314	172	29	1959	2884	2847	37
5301903	1	314	172	31	1961	2880	2843	37
5301903	1	314	172	32	1962	2833	2841	-8
5301903	1	314	172	33	1963	2781	2839	-58
5301903	1	314	172	34	1964	2813	2838	-25
5301903	1	314	172	35	1965	2862	2836	26
5301903	1	314	172	36	1966	2860	2835	25
5301903	1	314	172	37	1967	2870	2835	35
5301903	1	314	172	38	1968	2861	2835	26
5301903	1	314	172	41	1971	2855	2835	20
5301903	1	314	172	44	1974	2860	2833	27
5301903	1	314	172	45	1975	2863	2833	30
5301907	1	313	168	26	1956	2819	2855	-36
5301907	1	313	168	34	1964	2802	2840	-38
5301907	1	313	168	36	1966	2841	2837	4
5301907	1	313	168	41	1971	2851	2835	16
5301907	1	313	168	45	1975	2883	2833	50
5301907	1	313	168	46	1976	2847	2833	14
5301907	1	313	168	47	1977	2830	2832	-2

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5301907	1	313	168	51	1981	2883	2832	51
5302101	1	307	176	19	1949	2856	2827	29
5302101	1	307	176	20	1950	2859	2826	33
5302101	1	307	176	27	1957	2825	2817	8
5302101	1	307	176	28	1958	2822	2815	7
5302101	1	307	176	31	1961	2781	2811	-30
5302102	1	306	177	17	1947	2820	2823	-3
5302102	1	306	177	20	1950	2818	2820	-2
5302102	1	306	177	22	1952	2807	2818	-11
5302102	1	306	177	23	1953	2796	2817	-21
5302102	1	306	177	24	1954	2801	2815	-14
5302102	1	306	177	25	1955	2795	2814	-19
5302102	1	306	177	27	1957	2786	2812	-26
5302102	1	306	177	28	1958	2784	2811	-27
5302102	1	306	177	29	1959	2777	2809	-32
5302102	1	306	177	31	1961	2784	2807	-23
5302102	1	306	177	32	1962	2788	2805	-17
5302102	1	306	177	33	1963	2784	2804	-20
5302102	1	306	177	34	1964	2779	2802	-23
5302102	1	306	177	35	1965	2777	2801	-24
5302102	1	306	177	36	1966	2782	2800	-18
5302102	1	306	177	38	1968	2786	2798	-12
5302102	1	306	177	39	1969	2773	2798	-25
5302102	1	306	177	40	1970	2783	2797	-14
5302102	1	306	177	42	1972	2781	2796	-15
5302102	1	306	177	44	1974	2784	2795	-11
5302102	1	306	177	45	1975	2782	2794	-12
5302102	1	306	177	46	1976	2770	2794	-24
5302102	1	306	177	47	1977	2754	2793	-39
5302102	1	306	177	48	1978	2778	2793	-15
5302102	1	306	177	52	1982	2762	2791	-29
5302102	1	306	177	54	1984	2743	2790	-47
5302102	1	306	177	56	1986	2755	2790	-35
5302102	1	306	177	57	1987	2767	2790	-23

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302102	1	306	177	58	1988	2774	2790	-16
5302102	1	306	177	59	1989	2771	2789	-18
5302102	1	306	177	60	1990	2768	2789	-21
5302102	1	306	177	61	1991	2770	2789	-19
5302102	1	306	177	64	1994	2770	2788	-18
5302102	1	306	177	66	1996	2771	2788	-17
5302102	1	306	177	67	1997	2772	2787	-15
5302403	1	312	177	32	1962	2802	2828	-26
5302403	1	312	177	33	1963	2786	2827	-41
5302403	1	312	177	34	1964	2794	2825	-31
5302403	1	312	177	35	1965	2772	2824	-52
5302403	1	312	177	36	1966	2778	2823	-45
5302403	1	312	177	37	1967	2793	2823	-30
5302403	1	312	177	38	1968	2787	2823	-36
5302403	1	312	177	39	1969	2791	2823	-32
5302403	1	312	177	40	1970	2790	2823	-33
5302403	1	312	177	41	1971	2795	2823	-28
5302403	1	312	177	42	1972	2769	2822	-53
5302403	1	312	177	44	1974	2784	2821	-37
5302403	1	312	177	45	1975	2798	2820	-22
5302403	1	312	177	46	1976	2797	2820	-23
5302403	1	312	177	47	1977	2803	2820	-17
5302403	1	312	177	48	1978	2797	2820	-23
5302403	1	312	177	49	1979	2792	2820	-28
5302403	1	312	177	53	1983	2789	2819	-30
5302403	1	312	177	56	1986	2796	2818	-22
5302403	1	312	177	57	1987	2803	2819	-16
5302404	1	309	177	18	1948	2835	2836	-1
5302404	1	309	177	26	1956	2810	2825	-15
5302404	1	309	177	32	1962	2756	2816	-60
5302404	1	309	177	33	1963	2759	2815	-56
5302404	1	309	177	34	1964	2753	2813	-60
5302404	1	309	177	35	1965	2744	2812	-68
5302404	1	309	177	36	1966	2737	2811	-74

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302404	1	309	177	37	1967	2752	2810	-58
5302404	1	309	177	39	1969	2752	2810	-58
5302404	1	309	177	40	1970	2756	2810	-54
5302502	1	314	178	19	1949	2875	2856	19
5302502	1	314	178	26	1956	2848	2845	3
5302502	1	314	178	33	1963	2817	2835	-18
5302502	1	314	178	34	1964	2813	2833	-20
5302502	1	314	178	35	1965	2812	2832	-20
5302502	1	314	178	36	1966	2803	2832	-29
5302701	1	314	175	21	1951	2858	2855	3
5302701	1	314	175	22	1952	2870	2853	17
5302701	1	314	175	23	1953	2854	2851	3
5302701	1	314	175	25	1955	2868	2848	20
5302701	1	314	175	27	1957	2866	2844	22
5302701	1	314	175	28	1958	2854	2842	12
5302701	1	314	175	29	1959	2839	2841	-2
5302701	1	314	175	31	1961	2845	2837	8
5302703	1	317	175	22	1952	2881	2869	12
5302703	1	317	175	27	1957	2876	2860	16
5302703	1	317	175	28	1958	2875	2858	17
5302703	1	317	175	29	1959	2875	2857	18
5302703	1	317	175	31	1961	2877	2854	23
5302703	1	317	175	33	1963	2872	2850	22
5302703	1	317	175	34	1964	2874	2848	26
5302703	1	317	175	35	1965	2871	2847	24
5302703	1	317	175	36	1966	2876	2847	29
5302703	1	317	175	37	1967	2877	2846	31
5302703	1	317	175	38	1968	2877	2847	30
5302703	1	317	175	40	1970	2867	2847	20
5302703	1	317	175	41	1971	2863	2847	16
5302703	1	317	175	42	1972	2855	2847	8
5302703	1	317	175	44	1974	2858	2845	13
5302703	1	317	175	45	1975	2860	2845	15
5302703	1	317	175	46	1976	2862	2845	17

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302703	1	317	175	47	1977	2867	2845	22
5302703	1	317	175	48	1978	2852	2845	7
5302703	1	317	175	49	1979	2867	2845	22
5302705	1	316	173	19	1949	2895	2871	24
5302705	1	316	173	20	1950	2901	2870	31
5302705	1	316	173	21	1951	2882	2868	14
5302705	1	316	173	22	1952	2884	2867	17
5302705	1	316	173	23	1953	2873	2865	8
5302705	1	316	173	24	1954	2883	2863	20
5302705	1	316	173	25	1955	2895	2861	34
5302705	1	316	173	27	1957	2884	2857	27
5302705	1	316	173	28	1958	2886	2856	30
5302705	1	316	173	31	1961	2863	2851	12
5302705	1	316	173	32	1962	2835	2849	-14
5302705	1	316	173	33	1963	2820	2847	-27
5302705	1	316	173	34	1964	2821	2845	-24
5302705	1	316	173	35	1965	2852	2844	8
5302705	1	316	173	36	1966	2850	2843	7
5302705	1	316	173	37	1967	2858	2843	15
5302705	1	316	173	38	1968	2853	2843	10
5302705	1	316	173	39	1969	2866	2843	23
5302705	1	316	173	40	1970	2858	2843	15
5302705	1	316	173	41	1971	2846	2843	3
5302705	1	316	173	42	1972	2851	2843	8
5302705	1	316	173	44	1974	2867	2842	25
5302705	1	316	173	45	1975	2874	2841	33
5302705	1	316	173	46	1976	2871	2841	30
5302705	1	316	173	47	1977	2852	2841	11
5302705	1	316	173	53	1983	2848	2840	8
5302705	1	316	173	54	1984	2849	2840	9
5302705	1	316	173	57	1987	2893	2841	52
5302705	1	316	173	58	1988	2886	2841	45
5302705	1	316	173	59	1989	2870	2840	30
5302705	1	316	173	60	1990	2866	2840	26



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302705	1	316	173	61	1991	2886	2841	45
5302705	1	316	173	62	1992	2889	2841	48
5302705	1	316	173	63	1993	2886	2840	46
5302705	1	316	173	64	1994	2870	2839	31
5302705	1	316	173	65	1995	2874	2839	35
5302705	1	316	173	66	1996	2873	2838	35
5302705	1	316	173	67	1997	2878	2838	40
5302705	1	316	173	68	1998	2874	2837	37
5302705	1	316	173	69	1999	2864	2836	28
5302705	1	316	173	71	2001	2865	2835	30
5302705	1	316	173	72	2002	2878	2835	43
5302705	1	316	173	74	2004	2879	2837	42
5302705	1	316	173	75	2005	2898	2837	61
5302706	1	317	175	19	1949	2891	2873	18
5302706	1	317	175	21	1951	2879	2870	9
5302706	1	317	175	22	1952	2880	2869	11
5302706	1	317	175	23	1953	2880	2867	13
5302706	1	317	175	24	1954	2880	2865	15
5302706	1	317	175	25	1955	2881	2863	18
5302706	1	317	175	27	1957	2879	2860	19
5302706	1	317	175	28	1958	2880	2858	22
5302708	1	319	174	20	1950	2909	2885	24
5302708	1	319	174	21	1951	2898	2883	15
5302708	1	319	174	22	1952	2903	2882	21
5302708	1	319	174	23	1953	2897	2880	17
5302708	1	319	174	24	1954	2900	2879	21
5302708	1	319	174	25	1955	2898	2877	21
5302708	1	319	174	27	1957	2888	2874	14
5302708	1	319	174	28	1958	2887	2872	15
5302708	1	319	174	31	1961	2853	2868	-15
5302708	1	319	174	32	1962	2855	2866	-11
5302708	1	319	174	33	1963	2850	2864	-14
5302708	1	319	174	34	1964	2846	2863	-17
5302708	1	319	174	35	1965	2857	2862	-5

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302708	1	319	174	36	1966	2861	2861	0
5302708	1	319	174	37	1967	2859	2860	-1
5302708	1	319	174	38	1968	2861	2860	1
5302708	1	319	174	39	1969	2870	2860	10
5302708	1	319	174	40	1970	2862	2860	2
5302708	1	319	174	41	1971	2851	2860	-9
5302708	1	319	174	42	1972	2855	2859	-4
5302708	1	319	174	44	1974	2852	2858	-6
5302708	1	319	174	45	1975	2865	2858	7
5302708	1	319	174	46	1976	2850	2857	-7
5302708	1	319	174	47	1977	2857	2857	0
5302708	1	319	174	48	1978	2851	2857	-6
5302708	1	319	174	49	1979	2857	2857	0
5302708	1	319	174	50	1980	2856	2857	-1
5302708	1	319	174	53	1983	2861	2856	5
5302708	1	319	174	54	1984	2857	2856	1
5302708	1	319	174	57	1987	2880	2856	24
5302708	1	319	174	58	1988	2875	2856	19
5302708	1	319	174	59	1989	2869	2856	13
5302708	1	319	174	60	1990	2847	2856	-9
5302708	1	319	174	61	1991	2876	2856	20
5302708	1	319	174	62	1992	2881	2856	25
5302708	1	319	174	63	1993	2882	2855	27
5302708	1	319	174	64	1994	2871	2855	16
5302708	1	319	174	65	1995	2868	2854	14
5302708	1	319	174	66	1996	2842	2854	-12
5302708	1	319	174	67	1997	2868	2853	15
5302708	1	319	174	68	1998	2870	2853	17
5302708	1	319	174	69	1999	2861	2852	9
5302708	1	319	174	70	2000	2833	2851	-18
5302708	1	319	174	71	2001	2853	2851	2
5302708	1	319	174	72	2002	2882	2851	31
5302708	1	319	174	74	2004	2877	2852	25
5302708	1	319	174	75	2005	2888	2852	36

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302802	1	317	179	27	1957	2840	2857	-17
5302802	1	317	179	28	1958	2838	2855	-17
5302802	1	317	179	32	1962	2755	2850	-95
5302802	1	317	179	33	1963	2785	2848	-63
5302802	1	317	179	34	1964	2814	2847	-33
5302802	1	317	179	35	1965	2816	2846	-30
5302802	1	317	179	36	1966	2813	2846	-33
5302802	1	317	179	37	1967	2819	2845	-26
5302802	1	317	179	38	1968	2821	2845	-24
5302802	1	317	179	39	1969	2824	2846	-22
5302802	1	317	179	40	1970	2825	2846	-21
5302802	1	317	179	41	1971	2822	2846	-24
5302802	1	317	179	42	1972	2824	2845	-21
5302802	1	317	179	44	1974	2825	2844	-19
5302802	1	317	179	45	1975	2832	2843	-11
5302802	1	317	179	46	1976	2830	2843	-13
5302802	1	317	179	47	1977	2836	2843	-7
5302802	1	317	179	48	1978	2824	2843	-19
5302802	1	317	179	49	1979	2833	2844	-11
5302802	1	317	179	54	1984	2840	2841	-1
5302802	1	317	179	56	1986	2836	2842	-6
5302802	1	317	179	57	1987	2840	2842	-2
5302802	1	317	179	58	1988	2846	2842	4
5302802	1	317	179	59	1989	2841	2841	0
5302802	1	317	179	60	1990	2841	2841	0
5302802	1	317	179	62	1992	2845	2841	4
5302802	1	317	179	63	1993	2841	2840	1
5302802	1	317	179	65	1995	2830	2839	-9
5302901	1	320	182	20	1950	2848	2881	-33

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5302901	1	320	182	22	1952	2841	2879	-38
5302901	1	320	182	23	1953	2836	2878	-42
5302901	1	320	182	24	1954	2839	2877	-38
5302901	1	320	182	25	1955	2836	2876	-40
5302901	1	320	182	27	1957	2829	2874	-45
5302901	1	320	182	28	1958	2827	2873	-46
5302901	1	320	182	29	1959	2817	2872	-55
5302901	1	320	182	31	1961	2817	2870	-53
5302901	1	320	182	32	1962	2810	2869	-59
5302901	1	320	182	33	1963	2808	2868	-60
5302901	1	320	182	34	1964	2804	2867	-63
5302901	1	320	182	35	1965	2803	2866	-63
5302901	1	320	182	36	1966	2809	2865	-56
5302901	1	320	182	37	1967	2807	2864	-57
5302901	1	320	182	38	1968	2806	2864	-58
5302901	1	320	182	39	1969	2808	2863	-55
5302901	1	320	182	40	1970	2812	2863	-51
5302901	1	320	182	41	1971	2810	2862	-52
5302901	1	320	182	42	1972	2805	2862	-57
5303901	1	327	196	22	1952	2746	2877	-131
5303901	1	327	196	23	1953	2740	2876	-136
5303901	1	327	196	24	1954	2741	2876	-135
5303901	1	327	196	25	1955	2745	2875	-130
5303901	1	327	196	26	1956	2728	2875	-147
5303901	1	327	196	27	1957	2742	2874	-132
5303901	1	327	196	28	1958	2742	2874	-132
5303901	1	327	196	29	1959	2729	2874	-145
5303901	1	327	196	31	1961	2742	2873	-131
5303901	1	327	196	32	1962	2691	2872	-181
5303901	1	327	196	33	1963	2737	2872	-135
5303901	1	327	196	36	1966	2734	2870	-136
5303901	1	327	196	40	1970	2728	2868	-140
5303901	1	327	196	41	1971	2726	2868	-142
5303901	1	327	196	42	1972	2742	2867	-125

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5303901	1	327	196	45	1975	2735	2866	-131
5303901	1	327	196	46	1976	2726	2866	-140
5303901	1	327	196	47	1977	2718	2865	-147
5303901	1	327	196	48	1978	2723	2865	-142
5303901	1	327	196	49	1979	2721	2865	-144
5303901	1	327	196	53	1983	2722	2863	-141
5303901	1	327	196	54	1984	2721	2862	-141
5303901	1	327	196	57	1987	2729	2862	-133
5303901	1	327	196	59	1989	2728	2861	-133
5303901	1	327	196	60	1990	2724	2860	-136
5303901	1	327	196	62	1992	2717	2860	-143
5303901	1	327	196	64	1994	2725	2859	-134
5303901	1	327	196	65	1995	2727	2859	-132
5303901	1	327	196	66	1996	2720	2858	-138
5303901	1	327	196	67	1997	2728	2858	-130
5303901	1	327	196	68	1998	2714	2858	-144
5303901	1	327	196	69	1999	2727	2857	-130
5303901	1	327	196	70	2000	2727	2857	-130
5303901	1	327	196	71	2001	2724	2857	-133
5303901	1	327	196	72	2002	2732	2856	-124
5303901	1	327	196	74	2004	2734	2856	-122
5303901	1	327	196	75	2005	2736	2856	-120
5304301	1	317	218	27	1957	2385	2687	-302
5304301	1	317	218	28	1958	2384	2687	-303
5304301	1	317	218	31	1961	2384	2684	-300
5304301	1	317	218	32	1962	2384	2683	-299
5304301	1	317	218	33	1963	2383	2682	-299
5304301	1	317	218	34	1964	2380	2681	-301
5304301	1	317	218	35	1965	2379	2681	-302
5304301	1	317	218	36	1966	2374	2680	-306
5306301	1	328	246	20	1950	2241	2292	-51
5306301	1	328	246	22	1952	2220	2288	-68
5306301	1	328	246	23	1953	2218	2287	-69
5306301	1	328	246	24	1954	2214	2285	-71

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5306301	1	328	246	25	1955	2217	2284	-67
5306301	1	328	246	26	1956	2215	2282	-67
5306301	1	328	246	29	1959	2230	2278	-48
5306302	1	327	244	20	1950	2254	2312	-58
5306302	1	327	244	21	1951	2254	2310	-56
5306302	1	327	244	24	1954	2228	2306	-78
5306302	1	327	244	25	1955	2230	2304	-74
5306302	1	327	244	27	1957	2218	2301	-83
5306304	1	326	244	20	1950	2259	2307	-48
5306304	1	326	244	21	1951	2252	2306	-54
5306304	1	326	244	22	1952	2243	2304	-61
5306304	1	326	244	23	1953	2227	2303	-76
5306304	1	326	244	24	1954	2224	2301	-77
5306304	1	326	244	25	1955	2226	2300	-74
5306304	1	326	244	26	1956	2225	2298	-73
5306501	1	331	237	18	1948	2337	2468	-131
5306501	1	331	237	23	1953	2326	2464	-138
5306501	1	331	237	24	1954	2326	2464	-138
5306501	1	331	237	25	1955	2329	2463	-134
5306501	1	331	237	26	1956	2324	2462	-138
5306501	1	331	237	27	1957	2331	2461	-130
5306501	1	331	237	28	1958	2331	2461	-130
5306501	1	331	237	31	1961	2321	2458	-137
5306501	1	331	237	32	1962	2310	2458	-148
5306501	1	331	237	33	1963	2319	2457	-138
5306501	1	331	237	34	1964	2319	2456	-137
5306501	1	331	237	35	1965	2318	2456	-138
5306501	1	331	237	37	1967	2320	2454	-134
5306501	1	331	237	38	1968	2315	2454	-139
5306501	1	331	237	39	1969	2318	2454	-136
5306501	1	331	237	40	1970	2317	2454	-137
5306501	1	331	237	41	1971	2315	2454	-139
5306501	1	331	237	45	1975	2325	2455	-130
5306501	1	331	237	46	1976	2321	2455	-134

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5306501	1	331	237	47	1977	2325	2455	-130
5306501	1	331	237	48	1978	2328	2455	-127
5306501	1	331	237	49	1979	2320	2455	-135
5306501	1	331	237	50	1980	2319	2456	-137
5306501	1	331	237	51	1981	2313	2456	-143
5306501	1	331	237	53	1983	2306	2456	-150
5306501	1	331	237	54	1984	2316	2456	-140
5306501	1	331	237	56	1986	2307	2457	-150
5306501	1	331	237	57	1987	2320	2457	-137
5306501	1	331	237	58	1988	2314	2457	-143
5306501	1	331	237	59	1989	2318	2457	-139
5306501	1	331	237	60	1990	2317	2458	-141
5306501	1	331	237	61	1991	2318	2458	-140
5306501	1	331	237	62	1992	2317	2458	-141
5306501	1	331	237	63	1993	2318	2458	-140
5306501	1	331	237	64	1994	2317	2458	-141
5306501	1	331	237	65	1995	2315	2458	-143
5306501	1	331	237	66	1996	2317	2458	-141
5306501	1	331	237	67	1997	2316	2458	-142
5306501	1	331	237	68	1998	2316	2458	-142
5306501	1	331	237	69	1999	2315	2458	-143
5306501	1	331	237	70	2000	2314	2458	-144
5306501	1	331	237	71	2001	2313	2458	-145
5306501	1	331	237	72	2002	2314	2458	-144
5306501	1	331	237	74	2004	2315	2458	-143
5306501	1	331	237	75	2005	2316	2458	-142
5306702	1	333	230	24	1954	2432	2618	-186
5306702	1	333	230	25	1955	2433	2617	-184
5306702	1	333	230	27	1957	2428	2615	-187
5306702	1	333	230	28	1958	2440	2614	-174
5306702	1	333	230	29	1959	2416	2613	-197
5307102	1	327	248	17	1947	2256	2278	-22
5307102	1	327	248	18	1948	2255	2277	-22
5307102	1	327	248	20	1950	2246	2275	-29

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5307102	1	327	248	21	1951	2239	2273	-34
5307102	1	327	248	22	1952	2232	2272	-40
5307102	1	327	248	23	1953	2219	2271	-52
5307102	1	327	248	24	1954	2216	2269	-53
5307102	1	327	248	25	1955	2216	2268	-52
5307102	1	327	248	26	1956	2215	2267	-52
5307102	1	327	248	28	1958	2223	2264	-41
5309102	1	315	158	22	1952	2993	2880	113
5309102	1	315	158	23	1953	2990	2878	112
5309102	1	315	158	24	1954	2990	2875	115
5309102	1	315	158	25	1955	2993	2873	120
5309102	1	315	158	27	1957	2982	2868	114
5309102	1	315	158	28	1958	2980	2866	114
5309102	1	315	158	31	1961	2976	2859	117
5309102	1	315	158	32	1962	2944	2856	88
5309102	1	315	158	58	1988	2943	2851	92
5309105	1	317	156	27	1957	2981	2874	107
5309105	1	317	156	28	1958	2977	2872	105
5309105	1	317	156	32	1962	2888	2862	26
5309105	1	317	156	33	1963	2951	2859	92
5309105	1	317	156	34	1964	2936	2857	79
5309105	1	317	156	35	1965	2935	2855	80
5309105	1	317	156	36	1966	2938	2855	83
5309105	1	317	156	37	1967	2922	2855	67
5309105	1	317	156	39	1969	2923	2856	67
5309105	1	317	156	40	1970	2927	2857	70
5309105	1	317	156	41	1971	2916	2857	59
5309105	1	317	156	42	1972	2919	2856	63
5309105	1	317	156	43	1973	2894	2856	38
5309105	1	317	156	45	1975	2942	2855	87
5309105	1	317	156	46	1976	2912	2855	57
5309105	1	317	156	47	1977	2917	2856	61
5309105	1	317	156	48	1978	2918	2857	61
5309105	1	317	156	49	1979	2942	2858	84



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5309105	1	317	156	50	1980	2947	2858	89
5309105	1	317	156	52	1982	2956	2858	98
5309105	1	317	156	56	1986	2944	2860	84
5309105	1	317	156	57	1987	2954	2860	94
5309105	1	317	156	58	1988	2966	2861	105
5309105	1	317	156	59	1989	2966	2861	105
5309105	1	317	156	60	1990	2954	2861	93
5309105	1	317	156	63	1993	2971	2861	110
5309105	1	317	156	64	1994	2973	2861	112
5309105	1	317	156	65	1995	2967	2860	107
5309105	1	317	156	67	1997	2975	2858	117
5309105	1	317	156	68	1998	2976	2858	118
5309105	1	317	156	69	1999	2966	2857	109
5309105	1	317	156	70	2000	2968	2856	112
5309105	1	317	156	71	2001	2965	2856	109
5309105	1	317	156	72	2002	2964	2856	108
5309105	1	317	156	74	2004	2974	2859	115
5309105	1	317	156	75	2005	2983	2859	124
5309301	1	320	168	26	1956	2948	2885	63
5309301	1	320	168	28	1958	2934	2881	53
5309301	1	320	168	29	1959	2931	2880	51
5309301	1	320	168	31	1961	2921	2876	45
5309301	1	320	168	32	1962	2904	2874	30
5309301	1	320	168	33	1963	2930	2872	58
5309301	1	320	168	34	1964	2908	2870	38
5309301	1	320	168	35	1965	2911	2869	42
5309301	1	320	168	36	1966	2918	2868	50
5309301	1	320	168	37	1967	2913	2867	46
5309301	1	320	168	38	1968	2920	2867	53
5309301	1	320	168	39	1969	2916	2867	49
5309301	1	320	168	40	1970	2907	2867	40
5309301	1	320	168	41	1971	2902	2867	35
5309301	1	320	168	42	1972	2902	2867	35
5309301	1	320	168	44	1974	2899	2866	33

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5309301	1	320	168	45	1975	2905	2865	40
5309301	1	320	168	46	1976	2898	2865	33
5309301	1	320	168	47	1977	2896	2865	31
5309301	1	320	168	48	1978	2894	2865	29
5309301	1	320	168	49	1979	2886	2865	21
5309301	1	320	168	50	1980	2888	2865	23
5309301	1	320	168	51	1981	2893	2865	28
5309301	1	320	168	53	1983	2893	2864	29
5309301	1	320	168	54	1984	2891	2864	27
5309301	1	320	168	57	1987	2903	2865	38
5309301	1	320	168	58	1988	2917	2865	52
5309301	1	320	168	59	1989	2911	2865	46
5309301	1	320	168	60	1990	2906	2865	41
5309301	1	320	168	61	1991	2920	2865	55
5309301	1	320	168	62	1992	2922	2865	57
5309301	1	320	168	64	1994	2918	2864	54
5309301	1	320	168	65	1995	2917	2864	53
5309301	1	320	168	66	1996	2916	2863	53
5309301	1	320	168	67	1997	2918	2863	55
5309301	1	320	168	68	1998	2919	2862	57
5309301	1	320	168	69	1999	2907	2861	46
5309301	1	320	168	70	2000	2909	2861	48
5309301	1	320	168	71	2001	2908	2860	48
5309301	1	320	168	72	2002	2915	2860	55
5309301	1	320	168	74	2004	2921	2861	60
5309301	1	320	168	75	2005	2936	2861	75
5309302	1	319	169	19	1949	2941	2891	50
5309302	1	319	169	21	1951	2940	2888	52
5309302	1	319	169	22	1952	2939	2886	53
5309302	1	319	169	23	1953	2937	2884	53
5309302	1	319	169	24	1954	2937	2882	55
5309302	1	319	169	25	1955	2941	2880	61
5309302	1	319	169	27	1957	2929	2876	53
5309302	1	319	169	28	1958	2932	2875	57

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5309302	1	319	169	29	1959	2924	2873	51
5309302	1	319	169	31	1961	2909	2869	40
5309302	1	319	169	32	1962	2886	2867	19
5309302	1	319	169	33	1963	2882	2865	17
5309302	1	319	169	35	1965	2889	2862	27
5309303	1	320	166	16	1946	2954	2907	47
5309303	1	320	166	20	1950	2962	2900	62
5309303	1	320	166	21	1951	2960	2898	62
5309303	1	320	166	22	1952	2963	2897	66
5309303	1	320	166	23	1953	2959	2895	64
5309303	1	320	166	25	1955	2965	2891	74
5309303	1	320	166	27	1957	2951	2887	64
5309303	1	320	166	29	1959	2970	2883	87
5309304	1	317	167	16	1946	2944	2890	54
5309304	1	317	167	19	1949	2944	2885	59
5309304	1	317	167	21	1951	2940	2881	59
5309304	1	317	167	22	1952	2943	2879	64
5309304	1	317	167	27	1957	2936	2869	67
5309304	1	317	167	28	1958	2932	2867	65
5309305	1	318	170	17	1947	2941	2889	52
5309305	1	318	170	20	1950	2936	2884	52
5309305	1	318	170	21	1951	2935	2882	53
5309305	1	318	170	22	1952	2937	2880	57
5309305	1	318	170	23	1953	2935	2879	56
5309305	1	318	170	24	1954	2933	2877	56
5309305	1	318	170	25	1955	2938	2875	63
5309305	1	318	170	27	1957	2947	2871	76
5309305	1	318	170	28	1958	2950	2869	81
5309305	1	318	170	29	1959	2927	2868	59
5309402	1	323	154	25	1955	3033	2910	123
5309402	1	323	154	28	1958	3019	2903	116
5309402	1	323	154	29	1959	3014	2900	114
5309402	1	323	154	31	1961	3016	2895	121
5309402	1	323	154	32	1962	2992	2893	99

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5309402	1	323	154	33	1963	2996	2890	106
5309402	1	323	154	34	1964	2973	2888	85
5309402	1	323	154	35	1965	2959	2886	73
5309402	1	323	154	36	1966	2957	2886	71
5309402	1	323	154	37	1967	2970	2886	84
5309402	1	323	154	38	1968	2965	2886	79
5309402	1	323	154	41	1971	2936	2888	48
5309402	1	323	154	48	1978	2944	2888	56
5309402	1	323	154	58	1988	2968	2892	76
5309403	1	320	159	16	1946	2990	2915	75
5309403	1	320	159	18	1948	2988	2911	77
5309403	1	320	159	19	1949	2995	2909	86
5309403	1	320	159	21	1951	2992	2905	87
5309403	1	320	159	22	1952	2989	2903	86
5309403	1	320	159	23	1953	2982	2900	82
5309403	1	320	159	24	1954	2985	2898	87
5309403	1	320	159	27	1957	2982	2891	91
5309406	1	320	156	12	1942	2991	2923	68
5309406	1	320	156	16	1946	2993	2915	78
5309406	1	320	156	18	1948	2986	2910	76
5309406	1	320	156	19	1949	2990	2908	82
5309406	1	320	156	25	1955	2985	2892	93
5309406	1	320	156	26	1956	2941	2890	51
5312201	1	333	205	23	1953	2726	2851	-125
5312201	1	333	205	24	1954	2730	2851	-121
5312201	1	333	205	25	1955	2733	2850	-117
5312201	1	333	205	26	1956	2732	2850	-118
5312201	1	333	205	27	1957	2733	2850	-117
5312203	1	334	205	23	1953	2729	2852	-123
5312203	1	334	205	31	1961	2739	2849	-110
5312203	1	334	205	32	1962	2736	2849	-113
5312203	1	334	205	34	1964	2736	2848	-112
5312203	1	334	205	35	1965	2736	2847	-111
5312203	1	334	205	36	1966	2733	2847	-114

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5312203	1	334	205	38	1968	2730	2847	-117
5312203	1	334	205	39	1969	2729	2847	-118
5312203	1	334	205	40	1970	2728	2847	-119
5312203	1	334	205	41	1971	2727	2847	-120
5312203	1	334	205	45	1975	2735	2846	-111
5312203	1	334	205	48	1978	2725	2846	-121
5312203	1	334	205	50	1980	2726	2845	-119
5312203	1	334	205	57	1987	2735	2844	-109
5312203	1	334	205	60	1990	2727	2843	-116

**Table B.1.2. Water-level targets, simulated values, and residuals in Layer 2—the Dockum Aquifer and Dewey Lake Formation. AMSL – Above mean sea level.**

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4525401	2	225	189	16	1946	2525	2601	-76
4525401	2	225	189	37	1967	2533	2600	-67
4525713	2	227	189	40	1970	2526	2592	-66
4525713	2	227	189	41	1971	2524	2592	-68
4525713	2	227	189	42	1972	2522	2592	-70
4525713	2	227	189	43	1973	2521	2592	-71
4525713	2	227	189	44	1974	2517	2592	-75
4525713	2	227	189	45	1975	2516	2592	-76
4525713	2	227	189	46	1976	2513	2592	-79
4525713	2	227	189	47	1977	2510	2592	-82
4525713	2	227	189	48	1978	2508	2592	-84
4525713	2	227	189	50	1980	2504	2592	-88
4525713	2	227	189	51	1981	2502	2592	-90
4525713	2	227	189	53	1983	2501	2591	-90
4525713	2	227	189	54	1984	2497	2591	-94
4525713	2	227	189	56	1986	2489	2591	-102

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4525713	2	227	189	57	1987	2494	2591	-97
4525713	2	227	189	58	1988	2495	2591	-96
4525713	2	227	189	59	1989	2495	2591	-96
4525713	2	227	189	60	1990	2493	2590	-97
4525713	2	227	189	61	1991	2492	2590	-98
4525713	2	227	189	62	1992	2492	2590	-98
4525713	2	227	189	63	1993	2491	2590	-99
4525713	2	227	189	64	1994	2492	2590	-98
4525713	2	227	189	65	1995	2490	2590	-100
4525713	2	227	189	66	1996	2492	2590	-98
4525713	2	227	189	67	1997	2490	2590	-100
4525713	2	227	189	68	1998	2490	2590	-100
4525713	2	227	189	69	1999	2488	2589	-101
4525713	2	227	189	70	2000	2487	2589	-102
4525713	2	227	189	71	2001	2487	2589	-102
4525713	2	227	189	72	2002	2486	2589	-103
4525713	2	227	189	74	2004	2485	2589	-104
4525713	2	227	189	75	2005	2485	2589	-104
4604401	2	149	138	10	1940	2879	2782	97
4605402	2	155	154	31	1961	3034	2764	270
4605404	2	155	154	49	1979	3032	2764	268
4606202	2	159	173	26	1956	2743	2758	-15
4606302	2	158	179	35	1965	2758	2761	-3
4606801	2	168	172	26	1956	2730	2744	-14
4606801	2	168	172	27	1957	2730	2744	-14
4606801	2	168	172	45	1975	2730	2744	-14
4607301	2	162	192	27	1957	2789	2759	30
4607302	2	163	193	26	1956	2798	2758	40
4608402	2	169	195	26	1956	2794	2750	44
4608402	2	169	195	27	1957	2822	2750	72
4608402	2	169	195	31	1961	2749	2751	-2
4608402	2	169	195	32	1962	2789	2750	39
4608402	2	169	195	33	1963	2781	2750	31
4608402	2	169	195	35	1965	2799	2750	49

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4608402	2	169	195	37	1967	2786	2750	36
4608402	2	169	195	39	1969	2824	2750	74
4608402	2	169	195	41	1971	2803	2750	53
4608402	2	169	195	43	1973	2708	2750	-42
4608402	2	169	195	44	1974	2830	2750	80
4608402	2	169	195	45	1975	2806	2750	56
4608402	2	169	195	47	1977	2752	2750	2
4608402	2	169	195	48	1978	2752	2750	2
4608402	2	169	195	50	1980	2751	2750	1
4608402	2	169	195	52	1982	2750	2750	0
4608403	2	173	192	38	1968	2761	2742	19
4608413	2	171	194	27	1957	2819	2747	72
4608413	2	171	194	52	1982	2834	2747	87
4608414	2	171	194	52	1982	2800	2747	53
4608416	2	172	196	52	1982	2747	2746	1
4608417	2	169	194	52	1982	2794	2750	44
4608417	2	169	194	65	1995	2755	2750	5
4608418	2	171	194	52	1982	2735	2747	-12
4608805	2	178	197	26	1956	2810	2735	75
4608805	2	178	197	27	1957	2807	2735	72
4608805	2	178	197	38	1968	2804	2735	69
4608805	2	178	197	39	1969	2811	2735	76
4608806	2	178	197	39	1969	2839	2735	104
4608807	2	177	197	26	1956	2798	2737	61
4608809	2	180	197	39	1969	2760	2731	29
4612301	2	163	145	44	1974	2799	2754	45
4612301	2	163	145	45	1975	2792	2754	38
4612301	2	163	145	46	1976	2804	2754	50
4612301	2	163	145	47	1977	2802	2754	48
4612302	2	168	146	44	1974	2744	2742	2
4612302	2	168	146	45	1975	2744	2742	2
4612302	2	168	146	46	1976	2739	2742	-3
4612302	2	168	146	47	1977	2743	2742	1
4612302	2	168	146	48	1978	2738	2742	-4

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4612502	2	171	140	44	1974	2695	2736	-41
4612502	2	171	140	45	1975	2690	2736	-46
4612502	2	171	140	46	1976	2688	2736	-48
4612502	2	171	140	47	1977	2694	2736	-42
4612502	2	171	140	48	1978	2685	2736	-51
4612502	2	171	140	50	1980	2684	2736	-52
4612502	2	171	140	52	1982	2689	2736	-47
4612502	2	171	140	54	1984	2695	2736	-41
4612502	2	171	140	56	1986	2694	2736	-42
4612502	2	171	140	57	1987	2684	2736	-52
4612502	2	171	140	58	1988	2684	2736	-52
4612502	2	171	140	59	1989	2693	2736	-43
4612502	2	171	140	60	1990	2669	2736	-67
4612502	2	171	140	62	1992	2671	2736	-65
4612502	2	171	140	63	1993	2669	2736	-67
4612502	2	171	140	65	1995	2666	2736	-70
4612802	2	174	135	44	1974	2636	2727	-91
4612802	2	174	135	45	1975	2661	2727	-66
4612802	2	174	135	46	1976	2664	2727	-63
4612802	2	174	135	47	1977	2661	2727	-66
4612802	2	174	135	48	1978	2661	2727	-66
4612802	2	174	135	50	1980	2657	2727	-70
4612802	2	174	135	51	1981	2649	2727	-78
4612802	2	174	135	53	1983	2644	2727	-83
4612802	2	174	135	54	1984	2652	2727	-75
4612802	2	174	135	56	1986	2645	2727	-82
4612802	2	174	135	57	1987	2659	2727	-68
4612802	2	174	135	59	1989	2658	2727	-69
4612802	2	174	135	60	1990	2641	2727	-86
4612802	2	174	135	62	1992	2640	2727	-87
4612802	2	174	135	63	1993	2657	2727	-70
4612802	2	174	135	65	1995	2644	2727	-83
4612802	2	174	135	66	1996	2657	2727	-70
4612802	2	174	135	67	1997	2658	2727	-69



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4612802	2	174	135	68	1998	2659	2727	-68
4612802	2	174	135	69	1999	2651	2727	-76
4612802	2	174	135	70	2000	2649	2727	-78
4612802	2	174	135	71	2001	2664	2727	-63
4612802	2	174	135	72	2002	2663	2727	-64
4612802	2	174	135	74	2004	2662	2727	-65
4612802	2	174	135	75	2005	2670	2727	-57
4612803	2	172	136	9	1939	2690	2734	-44
4612803	2	172	136	10	1940	2688	2734	-46
4613102	2	169	147	31	1961	2768	2740	28
4613103	2	170	150	44	1974	2919	2737	182
4613103	2	170	150	45	1975	2914	2737	177
4613401	2	175	149	44	1974	2846	2725	121
4613403	2	171	148	60	1990	2761	2735	26
4613901	2	179	154	60	1990	2787	2715	72
4613901	2	179	154	61	1991	2779	2715	64
4613901	2	179	154	62	1992	2788	2715	73
4613901	2	179	154	63	1993	2789	2715	74
4613901	2	179	154	65	1995	2788	2715	73
4613901	2	179	154	66	1996	2785	2715	70
4613901	2	179	154	67	1997	2778	2715	63
4613901	2	179	154	68	1998	2783	2715	68
4613901	2	179	154	69	1999	2772	2715	57
4613901	2	179	154	70	2000	2770	2715	55
4613901	2	179	154	71	2001	2789	2715	74
4613901	2	179	154	72	2002	2779	2715	64
4613901	2	179	154	73	2003	2776	2715	61
4613901	2	179	154	74	2004	2788	2715	73
4613901	2	179	154	75	2005	2782	2715	67
4614402	2	179	161	31	1961	2741	2719	22
4614601	2	182	169	26	1956	2699	2716	-17
4614601	2	182	169	38	1968	2699	2716	-17
4614601	2	182	169	45	1975	2701	2715	-14
4614602	2	179	169	39	1969	2685	2722	-37

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4614603	2	179	169	41	1971	2692	2722	-30
4615329	2	183	188	39	1969	2798	2721	77
4616101	2	183	191	27	1957	2754	2723	31
4616101	2	183	191	28	1958	2773	2723	50
4616101	2	183	191	30	1960	2768	2723	45
4616101	2	183	191	31	1961	2771	2723	48
4616101	2	183	191	32	1962	2767	2723	44
4616101	2	183	191	33	1963	2762	2723	39
4616101	2	183	191	34	1964	2757	2722	35
4616101	2	183	191	35	1965	2750	2722	28
4616101	2	183	191	36	1966	2757	2722	35
4616101	2	183	191	37	1967	2755	2722	33
4616101	2	183	191	38	1968	2762	2722	40
4616101	2	183	191	39	1969	2762	2722	40
4616101	2	183	191	41	1971	2759	2722	37
4616101	2	183	191	42	1972	2762	2722	40
4616101	2	183	191	43	1973	2757	2722	35
4616101	2	183	191	44	1974	2759	2722	37
4616101	2	183	191	45	1975	2749	2722	27
4616101	2	183	191	46	1976	2751	2722	29
4616101	2	183	191	47	1977	2747	2722	25
4616101	2	183	191	48	1978	2742	2722	20
4616101	2	183	191	50	1980	2758	2722	36
4616101	2	183	191	51	1981	2757	2722	35
4616101	2	183	191	53	1983	2753	2722	31
4616101	2	183	191	54	1984	2754	2722	32
4616101	2	183	191	56	1986	2743	2722	21
4616101	2	183	191	57	1987	2765	2722	43
4616101	2	183	191	58	1988	2731	2722	9
4616101	2	183	191	60	1990	2723	2722	1
4616101	2	183	191	63	1993	2747	2722	25
4616101	2	183	191	64	1994	2732	2722	10
4616101	2	183	191	67	1997	2732	2721	11
4616101	2	183	191	68	1998	2712	2721	-9

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4616101	2	183	191	70	2000	2741	2721	20
4616101	2	183	191	71	2001	2711	2721	-10
4616101	2	183	191	72	2002	2747	2721	26
4616101	2	183	191	73	2003	2726	2721	5
4616101	2	183	191	74	2004	2730	2721	9
4616101	2	183	191	75	2005	2725	2721	4
4616104	2	183	192	27	1957	2748	2723	25
4616104	2	183	192	28	1958	2757	2723	34
4616104	2	183	192	30	1960	2751	2723	28
4616104	2	183	192	31	1961	2760	2723	37
4616104	2	183	192	32	1962	2753	2723	30
4616104	2	183	192	33	1963	2747	2723	24
4616104	2	183	192	34	1964	2766	2723	43
4616104	2	183	192	35	1965	2740	2723	17
4616104	2	183	192	36	1966	2727	2723	4
4616104	2	183	192	37	1967	2733	2723	10
4616104	2	183	192	38	1968	2738	2723	15
4616104	2	183	192	39	1969	2736	2723	13
4616104	2	183	192	41	1971	2733	2723	10
4616104	2	183	192	42	1972	2738	2723	15
4616104	2	183	192	43	1973	2728	2723	5
4616104	2	183	192	44	1974	2732	2723	9
4616104	2	183	192	45	1975	2719	2723	-4
4616104	2	183	192	47	1977	2715	2723	-8
4616104	2	183	192	48	1978	2736	2723	13
4616104	2	183	192	50	1980	2727	2723	4
4616104	2	183	192	52	1982	2731	2722	9
4616104	2	183	192	54	1984	2724	2722	2
4616104	2	183	192	56	1986	2719	2722	-3
4616104	2	183	192	58	1988	2740	2722	18
4616104	2	183	192	59	1989	2745	2722	23
4616104	2	183	192	61	1991	2753	2722	31
4616104	2	183	192	62	1992	2732	2722	10
4616104	2	183	192	63	1993	2750	2722	28

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4616104	2	183	192	64	1994	2717	2722	-5
4616104	2	183	192	66	1996	2737	2722	15
4616104	2	183	192	67	1997	2744	2722	22
4616104	2	183	192	68	1998	2746	2722	24
4616104	2	183	192	69	1999	2741	2721	20
4616104	2	183	192	70	2000	2739	2721	18
4616104	2	183	192	71	2001	2748	2721	27
4616104	2	183	192	73	2003	2745	2721	24
4616104	2	183	192	74	2004	2731	2721	10
4616104	2	183	192	75	2005	2738	2721	17
4616105	2	183	190	28	1958	2789	2722	67
4616105	2	183	190	39	1969	2783	2722	61
4616105	2	183	190	41	1971	2782	2722	60
4616107	2	179	191	39	1969	2794	2731	63
4616110	2	180	191	26	1956	2798	2729	69
4616114	2	181	192	39	1969	2780	2727	53
4616120	2	183	191	9	1939	2788	2724	64
4616120	2	183	191	39	1969	2727	2722	5
4616128	2	183	192	18	1948	2787	2724	63
4616128	2	183	192	26	1956	2764	2723	41
4616128	2	183	192	39	1969	2720	2723	-3
4616129	2	182	192	31	1961	2696	2725	-29
4616129	2	182	192	39	1969	2708	2725	-17
4616201	2	183	194	27	1957	2734	2724	10
4616201	2	183	194	28	1958	2758	2724	34
4616201	2	183	194	30	1960	2754	2724	30
4616201	2	183	194	31	1961	2761	2724	37
4616201	2	183	194	32	1962	2755	2724	31
4616201	2	183	194	33	1963	2745	2724	21
4616201	2	183	194	34	1964	2757	2724	33
4616201	2	183	194	35	1965	2736	2724	12
4616201	2	183	194	36	1966	2726	2724	2
4616201	2	183	194	37	1967	2735	2723	12
4616201	2	183	194	38	1968	2738	2724	14

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4616201	2	183	194	39	1969	2742	2724	18
4616201	2	183	194	41	1971	2727	2724	3
4616201	2	183	194	42	1972	2742	2724	18
4616201	2	183	194	43	1973	2732	2723	9
4616201	2	183	194	44	1974	2733	2724	9
4616201	2	183	194	45	1975	2722	2724	-2
4616201	2	183	194	46	1976	2715	2724	-9
4616201	2	183	194	47	1977	2714	2723	-9
4616201	2	183	194	48	1978	2734	2723	11
4616201	2	183	194	50	1980	2729	2723	6
4616201	2	183	194	52	1982	2726	2723	3
4616201	2	183	194	54	1984	2735	2723	12
4616201	2	183	194	56	1986	2736	2723	13
4616201	2	183	194	58	1988	2744	2723	21
4616201	2	183	194	59	1989	2745	2723	22
4616201	2	183	194	60	1990	2726	2723	3
4616201	2	183	194	61	1991	2760	2723	37
4616201	2	183	194	62	1992	2743	2723	20
4616201	2	183	194	63	1993	2750	2723	27
4616201	2	183	194	64	1994	2723	2723	0
4616201	2	183	194	67	1997	2751	2723	28
4616201	2	183	194	68	1998	2753	2722	31
4616201	2	183	194	69	1999	2758	2722	36
4616201	2	183	194	70	2000	2746	2722	24
4616201	2	183	194	71	2001	2733	2722	11
4616201	2	183	194	72	2002	2736	2722	14
4616201	2	183	194	74	2004	2739	2722	17
4616201	2	183	194	75	2005	2760	2722	38
4616213	2	183	194	23	1953	2801	2724	77
4616213	2	183	194	36	1966	2700	2724	-24
4616218	2	183	193	27	1957	2767	2723	44
4616504	2	188	192	38	1968	2741	2711	30
4616509	2	186	192	39	1969	2734	2716	18
4620601	2	187	138	10	1940	2626	2681	-55

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4620602	2	187	138	42	1972	2624	2681	-57
4622201	2	190	162	26	1956	2663	2693	-30
4622201	2	190	162	27	1957	2663	2693	-30
4622401	2	193	154	44	1974	2695	2680	15
4622401	2	193	154	46	1976	2700	2680	20
4622401	2	193	154	47	1977	2698	2679	19
4622401	2	193	154	48	1978	2700	2679	21
4622401	2	193	154	51	1981	2695	2679	16
4622401	2	193	154	54	1984	2695	2679	16
4622401	2	193	154	56	1986	2698	2679	19
4622401	2	193	154	57	1987	2693	2679	14
4622401	2	193	154	58	1988	2704	2679	25
4622401	2	193	154	59	1989	2704	2679	25
4622401	2	193	154	60	1990	2703	2678	25
4622401	2	193	154	61	1991	2703	2678	25
4622401	2	193	154	62	1992	2707	2678	29
4622401	2	193	154	63	1993	2705	2678	27
4622401	2	193	154	65	1995	2701	2678	23
4622401	2	193	154	66	1996	2702	2678	24
4622401	2	193	154	67	1997	2702	2678	24
4622401	2	193	154	68	1998	2701	2678	23
4622401	2	193	154	69	1999	2699	2678	21
4622401	2	193	154	70	2000	2697	2678	19
4622401	2	193	154	71	2001	2696	2678	18
4622401	2	193	154	72	2002	2692	2678	14
4622401	2	193	154	73	2003	2694	2678	16
4622401	2	193	154	74	2004	2690	2678	12
4622401	2	193	154	75	2005	2695	2678	17
4622601	2	195	164	10	1940	2659	2683	-24
4622601	2	195	164	26	1956	2658	2683	-25
4622601	2	195	164	45	1975	2662	2682	-20
4622601	2	195	164	46	1976	2657	2682	-25
4622601	2	195	164	47	1977	2662	2682	-20
4622601	2	195	164	48	1978	2662	2682	-20

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4622601	2	195	164	50	1980	2661	2681	-20
4622601	2	195	164	51	1981	2662	2681	-19
4622601	2	195	164	53	1983	2662	2681	-19
4622601	2	195	164	54	1984	2663	2681	-18
4622601	2	195	164	56	1986	2663	2680	-17
4622601	2	195	164	58	1988	2661	2680	-19
4622801	2	199	159	10	1940	2672	2670	2
4622801	2	199	159	26	1956	2673	2669	4
4622801	2	199	159	27	1957	2673	2669	4
4622801	2	199	159	37	1967	2674	2669	5
4623701	2	202	167	20	1950	2654	2668	-14
4623701	2	202	167	27	1957	2652	2667	-15
4623701	2	202	167	37	1967	2652	2666	-14
4623701	2	202	167	45	1975	2660	2666	-6
4623701	2	202	167	46	1976	2653	2666	-13
4623701	2	202	167	47	1977	2653	2665	-12
4623701	2	202	167	48	1978	2646	2665	-19
4623701	2	202	167	50	1980	2648	2665	-17
4623701	2	202	167	51	1981	2650	2664	-14
4623701	2	202	167	53	1983	2648	2664	-16
4623701	2	202	167	54	1984	2647	2664	-17
4623701	2	202	167	56	1986	2649	2663	-14
4623701	2	202	167	57	1987	2642	2663	-21
4623701	2	202	167	58	1988	2644	2663	-19
4623701	2	202	167	59	1989	2636	2663	-27
4623701	2	202	167	60	1990	2644	2663	-19
4623701	2	202	167	61	1991	2643	2663	-20
4623701	2	202	167	63	1993	2641	2663	-22
4623701	2	202	167	64	1994	2641	2662	-21
4623701	2	202	167	66	1996	2642	2662	-20
4623701	2	202	167	67	1997	2640	2662	-22
4623701	2	202	167	68	1998	2640	2662	-22
4623701	2	202	167	69	1999	2637	2662	-25
4623701	2	202	167	70	2000	2638	2662	-24

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4623701	2	202	167	72	2002	2637	2661	-24
4623701	2	202	167	75	2005	2642	2661	-19
4629301	2	204	148	9	1939	2569	2650	-81
4629301	2	204	148	20	1950	2572	2650	-78
4629301	2	204	148	37	1967	2569	2649	-80
4629302	2	200	147	11	1941	2612	2657	-45
4629302	2	200	147	20	1950	2612	2656	-44
4629302	2	200	147	37	1967	2610	2656	-46
4630101	2	207	151	19	1949	2561	2648	-87
4630101	2	207	151	20	1950	2558	2648	-90
4630101	2	207	151	37	1967	2559	2646	-87
4630201	2	204	157	37	1967	2736	2656	80
4630301	2	208	163	10	1940	2675	2652	23
4630301	2	208	163	31	1961	2675	2651	24
4630301	2	208	163	37	1967	2674	2650	24
4630302	2	208	163	10	1940	2672	2652	20
4630302	2	208	163	37	1967	2672	2650	22
4630303	2	209	161	37	1967	2660	2647	13
4630303	2	209	161	59	1989	2663	2644	19
4630402	2	211	151	37	1967	2573	2640	-67
4630501	2	212	152	37	1967	2571	2638	-67
4630501	2	212	152	44	1974	2568	2638	-70
4630501	2	212	152	45	1975	2566	2638	-72
4630501	2	212	152	46	1976	2570	2638	-68
4630501	2	212	152	47	1977	2574	2637	-63
4630501	2	212	152	48	1978	2572	2637	-65
4630501	2	212	152	50	1980	2574	2637	-63
4630501	2	212	152	51	1981	2573	2637	-64
4630501	2	212	152	53	1983	2564	2637	-73
4630501	2	212	152	54	1984	2569	2637	-68
4630501	2	212	152	56	1986	2568	2636	-68
4630501	2	212	152	57	1987	2572	2636	-64
4630501	2	212	152	58	1988	2566	2636	-70
4630501	2	212	152	59	1989	2573	2636	-63



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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4630501	2	212	152	60	1990	2570	2636	-66
4630501	2	212	152	61	1991	2572	2636	-64
4630501	2	212	152	62	1992	2572	2636	-64
4630501	2	212	152	63	1993	2563	2636	-73
4630501	2	212	152	64	1994	2562	2636	-74
4630501	2	212	152	65	1995	2559	2635	-76
4630501	2	212	152	66	1996	2584	2635	-51
4630501	2	212	152	67	1997	2571	2635	-64
4630501	2	212	152	68	1998	2563	2635	-72
4630501	2	212	152	69	1999	2571	2635	-64
4630501	2	212	152	70	2000	2568	2635	-67
4630501	2	212	152	71	2001	2567	2635	-68
4630501	2	212	152	72	2002	2566	2635	-69
4630501	2	212	152	73	2003	2569	2635	-66
4630501	2	212	152	74	2004	2570	2635	-65
4630501	2	212	152	75	2005	2571	2635	-64
4630801	2	220	153	10	1940	2647	2629	18
4630801	2	220	153	37	1967	2645	2626	19
4630802	2	216	152	9	1939	2567	2634	-67
4630802	2	216	152	10	1940	2566	2634	-68
4630802	2	216	152	37	1967	2549	2632	-83
4630901	2	218	157	37	1967	2686	2629	57
4631402	2	217	163	37	1967	2566	2629	-63
4631402	2	217	163	69	1999	2567	2624	-57
4631501	2	218	169	37	1967	2566	2626	-60
4631501	2	218	169	59	1989	2565	2621	-56
4631701	2	222	160	9	1939	2579	2623	-44
4631701	2	222	160	10	1940	2578	2623	-45
4631701	2	222	160	11	1941	2584	2623	-39
4631701	2	222	160	12	1942	2579	2623	-44
4631701	2	222	160	37	1967	2576	2620	-44
4631702	2	222	160	9	1939	2562	2623	-61
4631702	2	222	160	10	1940	2560	2623	-63
4631702	2	222	160	37	1967	2554	2620	-66

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4631702	2	222	160	44	1974	2571	2618	-47
4631702	2	222	160	45	1975	2563	2618	-55
4631702	2	222	160	46	1976	2558	2618	-60
4631702	2	222	160	47	1977	2557	2618	-61
4631702	2	222	160	48	1978	2567	2618	-51
4631702	2	222	160	50	1980	2569	2617	-48
4631702	2	222	160	51	1981	2569	2617	-48
4631702	2	222	160	53	1983	2563	2617	-54
4631702	2	222	160	54	1984	2559	2617	-58
4631702	2	222	160	56	1986	2567	2616	-49
4631702	2	222	160	57	1987	2559	2616	-57
4631702	2	222	160	58	1988	2559	2616	-57
4631702	2	222	160	59	1989	2558	2616	-58
4631702	2	222	160	60	1990	2556	2616	-60
4631702	2	222	160	61	1991	2558	2616	-58
4631702	2	222	160	62	1992	2557	2616	-59
4631702	2	222	160	63	1993	2549	2615	-66
4631702	2	222	160	64	1994	2556	2615	-59
4631702	2	222	160	65	1995	2552	2615	-63
4631702	2	222	160	66	1996	2555	2615	-60
4631702	2	222	160	67	1997	2555	2615	-60
4631702	2	222	160	69	1999	2557	2615	-58
4631702	2	222	160	70	2000	2556	2615	-59
4631702	2	222	160	71	2001	2555	2615	-60
4631702	2	222	160	72	2002	2554	2614	-60
4631702	2	222	160	73	2003	2564	2614	-50
4631702	2	222	160	74	2004	2558	2614	-56
4631702	2	222	160	75	2005	2565	2614	-49
4631703	2	222	160	10	1940	2559	2623	-64
4631703	2	222	160	37	1967	2553	2620	-67
4631704	2	218	160	37	1967	2562	2628	-66
4632630	2	223	187	51	1981	2500	2606	-106
4638102	2	222	147	9	1939	2559	2622	-63
4638102	2	222	147	19	1949	2557	2622	-65

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4638102	2	222	147	20	1950	2557	2621	-64
4638102	2	222	147	21	1951	2557	2621	-64
4638102	2	222	147	22	1952	2556	2621	-65
4638102	2	222	147	23	1953	2555	2621	-66
4638102	2	222	147	24	1954	2554	2621	-67
4638102	2	222	147	25	1955	2553	2621	-68
4638102	2	222	147	26	1956	2553	2620	-67
4638102	2	222	147	27	1957	2553	2620	-67
4638102	2	222	147	28	1958	2553	2620	-67
4638102	2	222	147	29	1959	2553	2620	-67
4638102	2	222	147	37	1967	2553	2619	-66
4638105	2	222	147	9	1939	2557	2622	-65
4638105	2	222	147	10	1940	2557	2622	-65
4638105	2	222	147	11	1941	2559	2622	-63
4638105	2	222	147	12	1942	2559	2622	-63
4638105	2	222	147	37	1967	2551	2619	-68
4638201	2	222	149	10	1940	2561	2624	-63
4638201	2	222	149	16	1946	2560	2624	-64
4638201	2	222	149	37	1967	2555	2621	-66
4638203	2	221	150	10	1940	2574	2626	-52
4638203	2	221	150	37	1967	2573	2623	-50
4639102	2	225	158	29	1959	2554	2618	-64
4639102	2	225	158	37	1967	2547	2616	-69
4639103	2	223	161	37	1967	2555	2617	-62
4639104	2	223	161	37	1967	2555	2617	-62
4639105	2	223	161	29	1959	2557	2618	-61
4639105	2	223	161	37	1967	2554	2617	-63
4639606	2	236	166	37	1967	2515	2578	-63
4639801	2	236	162	37	1967	2500	2590	-90
4639802	2	236	162	37	1967	2495	2590	-95
4645802	2	245	128	10	1940	2584	2729	-145
4645802	2	245	128	17	1947	2585	2725	-140
4645802	2	245	128	19	1949	2584	2724	-140
4645802	2	245	128	20	1950	2582	2723	-141

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4645802	2	245	128	22	1952	2578	2721	-143
4645802	2	245	128	23	1953	2574	2720	-146
4645802	2	245	128	24	1954	2565	2719	-154
4645802	2	245	128	25	1955	2556	2718	-162
4645802	2	245	128	26	1956	2561	2717	-156
4645802	2	245	128	28	1958	2556	2714	-158
4645802	2	245	128	30	1960	2549	2711	-162
4645802	2	245	128	31	1961	2549	2709	-160
4645802	2	245	128	32	1962	2571	2708	-137
4645802	2	245	128	33	1963	2551	2707	-156
4645802	2	245	128	34	1964	2478	2705	-227
4646102	2	240	141	10	1940	2584	2672	-88
4646102	2	240	141	19	1949	2587	2670	-83
4646102	2	240	141	20	1950	2585	2669	-84
4646102	2	240	141	21	1951	2585	2669	-84
4646102	2	240	141	22	1952	2584	2668	-84
4646102	2	240	141	23	1953	2582	2667	-85
4646102	2	240	141	24	1954	2579	2667	-88
4646102	2	240	141	25	1955	2577	2666	-89
4646102	2	240	141	28	1958	2568	2663	-95
4646103	2	238	142	3	1933	2562	2665	-103
4646103	2	238	142	10	1940	2547	2664	-117
4646103	2	238	142	11	1941	2519	2664	-145
4646103	2	238	142	21	1951	2501	2661	-160
4646103	2	238	142	29	1959	2515	2656	-141
4646201	2	238	142	5	1935	2515	2665	-150
4646201	2	238	142	9	1939	2525	2665	-140
4646201	2	238	142	21	1951	2520	2661	-141
4646201	2	238	142	27	1957	2518	2658	-140
4646201	2	238	142	29	1959	2518	2656	-138
4646201	2	238	142	57	1987	2519	2640	-121
4646201	2	238	142	58	1988	2523	2640	-117
4646201	2	238	142	59	1989	2510	2640	-130
4646201	2	238	142	60	1990	2524	2640	-116

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4646201	2	238	142	62	1992	2496	2640	-144
4646201	2	238	142	63	1993	2506	2640	-134
4646201	2	238	142	64	1994	2509	2640	-131
4646201	2	238	142	68	1998	2502	2640	-138
4646201	2	238	142	69	1999	2511	2640	-129
4646201	2	238	142	70	2000	2509	2640	-131
4646202	2	237	142	12	1942	2517	2662	-145
4646202	2	237	142	20	1950	2513	2659	-146
4646202	2	237	142	29	1959	2519	2654	-135
4646202	2	237	142	54	1984	2510	2639	-129
4646202	2	237	142	58	1988	2525	2638	-113
4646203	2	237	142	12	1942	2525	2662	-137
4646203	2	237	142	20	1950	2541	2659	-118
4646203	2	237	142	22	1952	2517	2658	-141
4646203	2	237	142	29	1959	2517	2654	-137
4646203	2	237	142	30	1960	2515	2652	-137
4646203	2	237	142	31	1961	2522	2652	-130
4646203	2	237	142	36	1966	2536	2648	-112
4646204	2	238	143	20	1950	2536	2659	-123
4646204	2	238	143	22	1952	2524	2658	-134
4646204	2	238	143	23	1953	2495	2657	-162
4646204	2	238	143	27	1957	2522	2655	-133
4646204	2	238	143	29	1959	2525	2653	-128
4646204	2	238	143	35	1965	2541	2648	-107
4646204	2	238	143	58	1988	2527	2638	-111
4646204	2	238	143	59	1989	2519	2638	-119
4646204	2	238	143	60	1990	2529	2638	-109
4646204	2	238	143	62	1992	2505	2638	-133
4646205	2	238	144	21	1951	2534	2656	-122
4646205	2	238	144	29	1959	2521	2651	-130
4646205	2	238	144	40	1970	2531	2642	-111
4646206	2	237	143	22	1952	2512	2656	-144
4646206	2	237	143	23	1953	2508	2655	-147
4646206	2	237	143	29	1959	2510	2651	-141

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4646206	2	237	143	40	1970	2535	2642	-107
4646206	2	237	143	58	1988	2520	2636	-116
4646206	2	237	143	59	1989	2511	2636	-125
4646206	2	237	143	60	1990	2522	2636	-114
4646206	2	237	143	62	1992	2462	2636	-174
4646207	2	238	143	5	1935	2515	2662	-147
4646207	2	238	143	11	1941	2488	2662	-174
4646207	2	238	143	22	1952	2548	2658	-110
4646208	2	240	145	23	1953	2590	2656	-66
4646208	2	240	145	25	1955	2549	2655	-106
4646208	2	240	145	26	1956	2547	2654	-107
4646208	2	240	145	27	1957	2554	2653	-99
4646208	2	240	145	28	1958	2553	2652	-99
4646208	2	240	145	29	1959	2553	2651	-98
4646208	2	240	145	32	1962	2539	2649	-110
4646208	2	240	145	46	1976	2529	2639	-110
4646209	2	240	145	23	1953	2584	2656	-72
4646209	2	240	145	27	1957	2560	2653	-93
4646209	2	240	145	28	1958	2553	2652	-99
4646209	2	240	145	40	1970	2550	2642	-92
4646210	2	240	146	29	1959	2549	2648	-99
4646210	2	240	146	46	1976	2528	2637	-109
4646210	2	240	146	53	1983	2533	2635	-102
4646211	2	240	146	24	1954	2551	2652	-101
4646211	2	240	146	27	1957	2541	2650	-109
4646211	2	240	146	28	1958	2552	2649	-97
4646211	2	240	146	52	1982	2538	2635	-97
4646211	2	240	146	53	1983	2532	2635	-103
4646211	2	240	146	54	1984	2529	2635	-106
4646211	2	240	146	55	1985	2533	2634	-101
4646211	2	240	146	56	1986	2531	2634	-103
4646211	2	240	146	57	1987	2530	2634	-104
4646211	2	240	146	58	1988	2525	2634	-109
4646211	2	240	146	59	1989	2517	2634	-117

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4646211	2	240	146	60	1990	2528	2634	-106
4646211	2	240	146	61	1991	2512	2634	-122
4646211	2	240	146	62	1992	2512	2634	-122
4646211	2	240	146	63	1993	2513	2634	-121
4646211	2	240	146	64	1994	2527	2634	-107
4646211	2	240	146	65	1995	2514	2634	-120
4646211	2	240	146	66	1996	2518	2634	-116
4646211	2	240	146	67	1997	2513	2633	-120
4646211	2	240	146	68	1998	2519	2633	-114
4646211	2	240	146	69	1999	2518	2633	-115
4646211	2	240	146	70	2000	2514	2633	-119
4646211	2	240	146	71	2001	2521	2633	-112
4646211	2	240	146	72	2002	2521	2633	-112
4646211	2	240	146	73	2003	2513	2633	-120
4646211	2	240	146	74	2004	2512	2633	-121
4646211	2	240	146	75	2005	2536	2633	-97
4646212	2	240	145	22	1952	2578	2656	-78
4646212	2	240	145	23	1953	2563	2656	-93
4646212	2	240	145	27	1957	2556	2653	-97
4646213	2	240	145	22	1952	2592	2656	-64
4646213	2	240	145	27	1957	2568	2653	-85
4646214	2	241	144	26	1956	2542	2659	-117
4646214	2	241	144	27	1957	2553	2658	-105
4646214	2	241	144	29	1959	2549	2656	-107
4646215	2	241	145	26	1956	2554	2656	-102
4646215	2	241	145	27	1957	2555	2655	-100
4646215	2	241	145	29	1959	2546	2653	-107
4646215	2	241	145	57	1987	2530	2638	-108
4646215	2	241	145	58	1988	2525	2638	-113
4646215	2	241	145	59	1989	2517	2638	-121
4646215	2	241	145	60	1990	2528	2638	-110
4646215	2	241	145	61	1991	2516	2638	-122
4646215	2	241	145	62	1992	2514	2638	-124
4646215	2	241	145	63	1993	2518	2638	-120

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4646215	2	241	145	64	1994	2526	2638	-112
4646215	2	241	145	65	1995	2519	2638	-119
4646215	2	241	145	66	1996	2520	2638	-118
4646215	2	241	145	67	1997	2512	2637	-125
4646215	2	241	145	68	1998	2518	2637	-119
4646215	2	241	145	69	1999	2518	2637	-119
4646215	2	241	145	70	2000	2517	2637	-120
4646216	2	241	146	24	1954	2554	2654	-100
4646216	2	241	146	27	1957	2555	2652	-97
4646216	2	241	146	28	1958	2557	2651	-94
4646217	2	241	146	26	1956	2556	2652	-96
4646217	2	241	146	27	1957	2559	2652	-93
4646217	2	241	146	28	1958	2552	2651	-99
4646217	2	241	146	29	1959	2545	2650	-105
4646218	2	241	145	71	2001	2520	2637	-117
4646218	2	241	145	72	2002	2521	2637	-116
4646218	2	241	145	73	2003	2460	2637	-177
4646218	2	241	145	74	2004	2507	2637	-130
4646218	2	241	145	75	2005	2537	2637	-100
4646301	2	242	147	29	1959	2549	2648	-99
4646301	2	242	147	46	1976	2541	2636	-95
4646301	2	242	147	58	1988	2526	2633	-107
4646301	2	242	147	59	1989	2521	2633	-112
4646301	2	242	147	60	1990	2528	2633	-105
4646301	2	242	147	62	1992	2518	2633	-115
4646302	2	241	147	23	1953	2550	2651	-101
4646302	2	241	147	27	1957	2550	2649	-99
4646302	2	241	147	29	1959	2547	2647	-100
4646601	2	242	146	28	1958	2560	2652	-92
4646601	2	242	146	29	1959	2555	2651	-96
4646602	2	244	147	31	1961	2568	2649	-81
4646602	2	244	147	46	1976	2552	2638	-86
4646602	2	244	147	51	1981	2557	2637	-80
4646602	2	244	147	58	1988	2549	2636	-87



Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4646602	2	244	147	60	1990	2552	2636	-84
4648701	2	259	166	34	1964	2431	2577	-146
4654101	2	253	132	10	1940	2628	2739	-111
4654101	2	253	132	11	1941	2629	2738	-109
4654101	2	253	132	12	1942	2628	2738	-110
4654101	2	253	132	19	1949	2628	2733	-105
4654101	2	253	132	20	1950	2628	2733	-105
4654101	2	253	132	22	1952	2628	2730	-102
4654101	2	253	132	23	1953	2627	2729	-102
4654101	2	253	132	24	1954	2628	2728	-100
4654101	2	253	132	25	1955	2628	2727	-99
4654101	2	253	132	26	1956	2628	2726	-98
4654101	2	253	132	27	1957	2627	2725	-98
4654101	2	253	132	28	1958	2626	2723	-97
4654101	2	253	132	29	1959	2626	2722	-96
4654101	2	253	132	31	1961	2625	2718	-93
4654601	2	261	144	29	1959	2629	2699	-70
4654601	2	261	144	31	1961	2627	2695	-68

**Table B.1.3. Water-level targets, simulated values, and residuals in Layer 3—the Rustler Aquifer. AMSL – Above mean sea level.**

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4517802	3	216	202	37	1967	2499	2635	-136
4533906	3	247	193	37	1967	2427	2508	-81
4533910	3	249	192	37	1967	2450	2496	-46
4533912	3	249	191	28	1958	2324	2495	-171
4533912	3	249	191	37	1967	2394	2494	-100
4534703	3	253	197	27	1957	2370	2484	-114
4542603	3	267	201	10	1940	2411	2406	5

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4542603	3	267	201	37	1967	2411	2405	6
4542703	3	270	190	33	1963	2334	2510	-176
4542802	3	268	196	37	1967	2370	2409	-39
4613402	3	172	149	51	1981	2582	2733	-151
4630601	3	213	159	37	1967	2522	2638	-116
4640705	3	241	170	37	1967	2524	2541	-17
4653903	3	265	125	58	1988	2662	2751	-89
4654802	3	266	136	58	1988	2613	2722	-109
4654802	3	266	136	59	1989	2623	2722	-99
4654901	3	268	137	58	1988	2611	2725	-114
4654901	3	268	137	59	1989	2627	2724	-97
4655604	3	268	157	26	1956	2589	2663	-74
4655604	3	268	157	28	1958	2521	2660	-139
4660902	3	275	105	35	1965	2685	2849	-164
4660902	3	275	105	36	1966	2677	2848	-171
4660902	3	275	105	37	1967	2680	2846	-166
4660902	3	275	105	38	1968	2677	2845	-168
4660902	3	275	105	39	1969	2671	2844	-173
4660902	3	275	105	40	1970	2700	2842	-142
4660902	3	275	105	41	1971	2699	2841	-142
4660902	3	275	105	42	1972	2698	2841	-143
4660902	3	275	105	43	1973	2698	2839	-141
4660902	3	275	105	45	1975	2698	2837	-139
4660902	3	275	105	46	1976	2691	2837	-146
4660902	3	275	105	47	1977	2694	2837	-143
4660902	3	275	105	48	1978	2686	2836	-150
4660902	3	275	105	49	1979	2646	2836	-190
4660902	3	275	105	50	1980	2698	2836	-138
4660902	3	275	105	51	1981	2667	2836	-169
4660902	3	275	105	54	1984	2693	2836	-143
4660902	3	275	105	56	1986	2697	2837	-140
4660902	3	275	105	57	1987	2697	2837	-140
4660902	3	275	105	58	1988	2699	2837	-138
4660902	3	275	105	59	1989	2699	2837	-138

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4660902	3	275	105	60	1990	2698	2838	-140
4660902	3	275	105	61	1991	2695	2838	-143
4660902	3	275	105	62	1992	2697	2838	-141
4660902	3	275	105	63	1993	2698	2838	-140
4660902	3	275	105	64	1994	2697	2838	-141
4660902	3	275	105	65	1995	2697	2838	-141
4660902	3	275	105	66	1996	2695	2837	-142
4660902	3	275	105	67	1997	2695	2837	-142
4660902	3	275	105	68	1998	2693	2837	-144
4660902	3	275	105	69	1999	2694	2837	-143
4660902	3	275	105	70	2000	2693	2836	-143
4660902	3	275	105	71	2001	2695	2836	-141
4660902	3	275	105	72	2002	2695	2836	-141
4660902	3	275	105	73	2003	2695	2836	-141
4660902	3	275	105	74	2004	2695	2836	-141
4660903	3	274	106	29	1959	2671	2854	-183
5204302	3	279	103	28	1958	2688	2882	-194
5204302	3	279	103	29	1959	2733	2881	-148
5204302	3	279	103	30	1960	2709	2879	-170
5215502	3	315	135	27	1957	2993	2919	74
5215502	3	315	135	57	1987	2960	2896	64
5216608	3	322	153	34	1964	3054	2882	172
5216608	3	322	153	35	1965	3055	2881	174
5216608	3	322	153	36	1966	3044	2880	164
5216608	3	322	153	37	1967	3045	2879	166
5216608	3	322	153	38	1968	3019	2880	139
5216608	3	322	153	39	1969	3022	2881	141
5216608	3	322	153	40	1970	3018	2881	137
5216608	3	322	153	41	1971	2997	2881	116
5216608	3	322	153	42	1972	2996	2880	116
5216608	3	322	153	43	1973	2993	2880	113
5216608	3	322	153	46	1976	2974	2881	93
5216608	3	322	153	47	1977	2992	2882	110
5216608	3	322	153	48	1978	2986	2883	103

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216608	3	322	153	49	1979	3014	2885	129
5216608	3	322	153	51	1981	3027	2885	142
5216608	3	322	153	53	1983	3032	2885	147
5216608	3	322	153	55	1985	3039	2885	154
5216608	3	322	153	56	1986	3043	2886	157
5216608	3	322	153	57	1987	3049	2888	161
5216608	3	322	153	58	1988	3054	2888	166
5216608	3	322	153	59	1989	3046	2888	158
5216608	3	322	153	61	1991	3056	2889	167
5216608	3	322	153	62	1992	3061	2889	172
5216608	3	322	153	65	1995	3072	2887	185
5216608	3	322	153	69	1999	3073	2884	189
5216608	3	322	153	72	2002	3075	2883	192
5216609	3	322	151	34	1964	3053	2885	168
5216609	3	322	151	35	1965	3054	2884	170
5216609	3	322	151	36	1966	3049	2883	166
5216609	3	322	151	37	1967	3015	2882	133
5216609	3	322	151	38	1968	2992	2883	109
5216609	3	322	151	39	1969	3022	2884	138
5216609	3	322	151	40	1970	3014	2884	130
5216609	3	322	151	41	1971	3011	2884	127
5216609	3	322	151	42	1972	2978	2883	95
5216609	3	322	151	43	1973	2992	2882	110
5216609	3	322	151	45	1975	2994	2883	111
5216609	3	322	151	46	1976	2991	2884	107
5216609	3	322	151	47	1977	2998	2885	113
5216609	3	322	151	48	1978	3003	2886	117
5216609	3	322	151	49	1979	3000	2888	112
5216609	3	322	151	50	1980	3006	2888	118
5216609	3	322	151	51	1981	3007	2888	119
5216609	3	322	151	53	1983	2997	2888	109
5216609	3	322	151	55	1985	3038	2888	150
5216609	3	322	151	56	1986	2994	2890	104
5216609	3	322	151	57	1987	3001	2891	110

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
5216609	3	322	151	58	1988	3058	2891	167
5216609	3	322	151	59	1989	3062	2891	171
5216609	3	322	151	60	1990	3047	2892	155
5216609	3	322	151	61	1991	3063	2892	171
5216609	3	322	151	62	1992	3027	2892	135
5216609	3	322	151	63	1993	3060	2892	168
5216609	3	322	151	64	1994	3070	2891	179
5216609	3	322	151	65	1995	3077	2890	187
5216609	3	322	151	66	1996	3074	2889	185
5216609	3	322	151	67	1997	3084	2889	195
5216609	3	322	151	68	1998	3084	2888	196
5216609	3	322	151	69	1999	3077	2887	190
5216609	3	322	151	72	2002	3086	2887	199
5216609	3	322	151	74	2004	3088	2889	199
5216609	3	322	151	75	2005	3092	2890	202

**Table B.1.4. Water-level targets, simulated values, and residuals in Layer 5—the Capitan Reef Complex Aquifer. AMSL – Above mean sea level.**

Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4541101	5	251	182	38	1968	2692	2720	-28
4549203	5	269	182	75	2005	2958	2763	195
4549205	5	268	183	75	2005	2950	2759	191
4624807	5	214	187	37	1967	2637	2712	-75
4624809	5	213	187	37	1967	2648	2713	-65
4624812	5	212	187	37	1967	2654	2713	-59
4624813	5	211	187	37	1967	2650	2714	-64
4632208	5	216	186	37	1967	2669	2710	-41
4632304	5	215	187	37	1967	2574	2711	-137
4632305	5	218	188	23	1953	2915	2708	207

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632305	5	218	188	27	1957	2851	2708	143
4632305	5	218	188	37	1967	2662	2708	-46
4632306	5	219	186	27	1957	2858	2708	150
4632306	5	219	186	37	1967	2663	2708	-45
4632307	5	218	187	27	1957	2840	2709	131
4632308	5	219	187	27	1957	2849	2708	141
4632309	5	217	187	37	1967	2655	2709	-54
4632309	5	217	187	40	1970	2590	2709	-119
4632309	5	217	187	41	1971	2589	2709	-120
4632309	5	217	187	42	1972	2554	2709	-155
4632309	5	217	187	44	1974	2552	2709	-157
4632309	5	217	187	45	1975	2567	2709	-142
4632309	5	217	187	46	1976	2563	2709	-146
4632309	5	217	187	47	1977	2582	2709	-127
4632309	5	217	187	48	1978	2602	2709	-107
4632309	5	217	187	50	1980	2628	2709	-81
4632309	5	217	187	53	1983	2684	2709	-25
4632309	5	217	187	57	1987	2681	2709	-28
4632310	5	216	187	27	1957	2882	2710	172
4632311	5	218	186	37	1967	2650	2709	-59
4632609	5	224	184	12	1942	2991	2707	284
4632609	5	224	184	15	1945	3014	2707	307
4632609	5	224	184	17	1947	2991	2707	284
4632609	5	224	184	18	1948	2981	2707	274
4632610	5	223	185	27	1957	2862	2707	155
4632610	5	223	185	37	1967	2691	2707	-16
4632611	5	221	187	27	1957	2844	2707	137
4632611	5	221	187	37	1967	2644	2707	-63
4632613	5	222	186	37	1967	2647	2707	-60
4632615	5	223	186	37	1967	2674	2706	-32
4632620	5	220	186	37	1967	2676	2708	-32
4632620	5	220	186	41	1971	2577	2708	-131
4632620	5	220	186	43	1973	2555	2708	-153
4632901	5	228	187	32	1962	2805	2705	100

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Well Number	Layer	Row	Column	Stress Period	Year	Measured Water Level (feet AMSL)	Simulated Water Level (feet AMSL)	Residual (feet)
4632901	5	228	187	37	1967	2689	2705	-16
5239601	5	366	122	65	1995	4008	4158	-150
322712104074501	5	63	106	33	1963	3090	3049	41
322712104074501	5	63	106	34	1964	3090	3049	41
322712104074501	5	63	106	35	1965	3090	3049	41
322712104074501	5	63	106	36	1966	3091	3049	42
322712104074501	5	63	106	37	1967	3091	3049	42
322712104074501	5	63	106	38	1968	3090	3049	41
322712104074501	5	63	106	39	1969	3090	3049	41
322712104074501	5	63	106	40	1970	3091	3049	42
322712104074501	5	63	106	41	1971	3088	3049	39
322712104074501	5	63	106	42	1972	3088	3049	39
322712104074501	5	63	106	43	1973	3091	3049	42
322712104074501	5	63	106	44	1974	3092	3049	43
322712104074501	5	63	106	45	1975	3092	3049	43
322712104074501	5	63	106	46	1976	3088	3049	39
322712104074501	5	63	106	47	1977	3087	3049	38
322712104074501	5	63	106	48	1978	3089	3049	40
322712104074501	5	63	106	49	1979	3090	3049	41
322712104074501	5	63	106	50	1980	3089	3049	40
322712104074501	5	63	106	51	1981	3089	3049	40
322712104074501	5	63	106	52	1982	3088	3049	39
322712104074501	5	63	106	53	1983	3087	3049	38
322712104074501	5	63	106	54	1984	3089	3049	40
322712104074501	5	63	106	55	1985	3089	3049	40
322712104074501	5	63	106	56	1986	3090	3049	41
322712104074501	5	63	106	57	1987	3093	3049	44
322712104074501	5	63	106	58	1988	3093	3049	44
322712104074501	5	63	106	59	1989	3090	3049	41
322712104074501	5	63	106	60	1990	3089	3049	40
322712104074501	5	63	106	61	1991	3090	3049	41
322712104074501	5	63	106	62	1992	3092	3049	43
322712104074501	5	63	106	63	1993	3089	3049	40
322712104074501	5	63	106	64	1994	3089	3049	40

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<b>Well Number</b>	<b>Layer</b>	<b>Row</b>	<b>Column</b>	<b>Stress Period</b>	<b>Year</b>	<b>Measured Water Level (feet AMSL)</b>	<b>Simulated Water Level (feet AMSL)</b>	<b>Residual (feet)</b>
322712104074501	5	63	106	65	1995	3088	3049	39
322712104074501	5	63	106	66	1996	3089	3049	40
322712104074501	5	63	106	67	1997	3090	3049	41
322712104074501	5	63	106	68	1998	3089	3049	40
322712104074501	5	63	106	69	1999	3089	3049	40
322712104074501	5	63	106	70	2000	3089	3049	40
322712104074501	5	63	106	71	2001	3089	3049	40
322712104074501	5	63	106	72	2002	3089	3049	40
322712104074501	5	63	106	73	2003	3090	3049	41
322712104074501	5	63	106	74	2004	3093	3049	44
322712104074501	5	63	106	75	2005	3093	3049	44



## APPENDIX C PUMPING

### C.1 Total Annual Pumping from Each County in the Model

**Table C.1.1. Total pumping (in acre-feet) of the modeled area by county per stress period for each layer.**

Year	Brewster			Crane		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	2	6	21	30	0	0
1932	2	6	21	36	0	0
1933	2	6	21	47	0	0
1934	2	6	21	59	0	0
1935	2	6	21	70	0	0
1936	2	6	21	82	0	0
1937	2	6	21	94	0	0
1938	2	6	21	111	0	0
1939	2	6	21	123	0	0
1940	2	6	21	135	0	0
1941	2	6	21	147	0	0
1942	2	6	21	159	0	0
1943	2	6	21	171	0	0
1944	2	6	21	183	0	0
1945	2	6	21	196	0	0
1946	2	6	21	208	0	0
1947	2	6	21	220	0	0
1948	2	6	21	232	0	0
1949	2	6	21	244	0	0
1950	2	6	21	257	0	0
1951	2	6	22	268	0	0
1952	2	6	22	286	0	0
1953	2	6	22	298	0	0
1954	2	6	22	310	0	0
1955	2	6	22	321	0	0
1956	2	6	22	333	0	0
1957	3	6	20	345	0	0
1958	3	6	20	357	0	0
1959	3	6	22	368	0	0
1960	3	6	23	386	0	0
1961	3	6	24	396	0	0
1962	3	6	24	412	0	0

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Year	Brewster			Crane		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1963	3	6	25	423	0	0
1964	3	6	26	433	0	0
1965	3	6	25	449	0	0
1966	3	6	26	459	0	0
1967	3	6	27	475	0	0
1968	3	6	28	486	0	0
1969	3	6	29	502	0	0
1970	3	6	31	512	0	0
1971	3	6	32	523	0	0
1972	3	6	32	535	0	0
1973	3	6	36	552	0	0
1974	3	6	38	563	0	0
1975	4	6	39	575	0	0
1976	4	6	46	586	0	0
1977	4	6	37	598	0	0
1978	4	6	30	614	0	0
1979	4	6	33	626	0	0
1980	4	6	42	637	0	0
1981	4	6	38	626	0	0
1982	4	6	34	665	0	0
1983	4	6	30	632	0	0
1984	5	6	26	616	0	0
1985	7	6	23	412	0	0
1986	7	6	29	423	0	0
1987	8	6	34	363	0	0
1988	8	6	37	456	0	0
1989	5	6	37	445	0	0
1990	5	6	36	418	0	0
1991	5	6	37	363	0	0
1992	6	6	28	219	0	0
1993	6	6	28	246	0	0
1994	6	6	40	290	0	0
1995	6	6	36	278	0	0
1996	6	6	31	273	0	0
1997	6	6	32	240	0	0
1998	6	6	32	277	0	0
1999	6	6	36	200	0	0

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Year	Brewster			Crane		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
2000	6	6	34	568	0	0
2001	6	6	32	436	0	0
2002	5	6	26	436	0	0
2003	5	6	26	435	0	0
2004	5	6	25	424	0	0
2005	8	6	31	594	0	0

Year	Crockett			Culberson		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	4	0	0	4	221	0
1932	4	0	0	4	222	0
1933	4	0	0	4	223	0
1934	4	0	0	4	224	0
1935	4	0	0	4	226	0
1936	4	0	0	4	227	0
1937	4	0	0	4	228	0
1938	3	0	0	4	229	0
1939	4	0	0	5	230	0
1940	4	0	0	5	231	0
1941	4	0	0	5	232	0
1942	4	0	0	5	233	0
1943	4	0	0	5	234	0
1944	4	0	0	5	235	0
1945	4	0	0	5	236	0
1946	5	0	0	5	237	0
1947	5	0	0	5	238	0
1948	5	0	0	5	239	0
1949	5	0	0	5	240	0
1950	5	0	0	5	241	0
1951	5	0	0	6	242	0
1952	5	0	0	6	243	0
1953	6	0	0	6	244	0
1954	6	0	0	6	245	0
1955	6	0	0	7	246	0
1956	6	0	0	7	247	0
1957	6	0	0	7	248	0
1958	6	0	0	8	249	0

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Year	Crockett			Culberson		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1959	6	0	0	8	249	0
1960	7	0	0	8	249	0
1961	7	0	0	8	250	0
1962	7	0	0	9	250	0
1963	7	0	0	9	250	0
1964	7	0	0	9	250	0
1965	7	0	0	9	251	0
1966	7	0	0	9	251	0
1967	7	0	0	9	251	0
1968	7	0	0	10	251	0
1969	7	0	0	10	252	0
1970	7	0	0	10	252	0
1971	6	0	0	10	252	0
1972	6	0	0	10	252	0
1973	6	0	0	10	253	0
1974	6	0	0	10	253	0
1975	6	0	0	10	253	0
1976	6	0	0	10	253	0
1977	6	0	0	10	254	0
1978	7	0	0	10	254	0
1979	7	0	0	10	254	0
1980	7	0	0	9	253	0
1981	7	0	0	10	251	0
1982	7	0	0	10	248	0
1983	7	0	0	10	245	0
1984	7	0	0	10	242	0
1985	6	0	0	10	245	0
1986	6	0	0	10	238	0
1987	6	0	0	10	255	0
1988	6	0	0	10	258	0
1989	7	0	0	10	257	0
1990	6	0	0	10	258	0
1991	6	0	0	10	259	0
1992	6	0	0	10	243	0
1993	6	0	0	10	242	0
1994	6	0	0	10	234	0
1995	6	0	0	9	234	0

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Year	Crockett			Culberson		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1996	6	0	0	9	236	0
1997	6	0	0	9	237	0
1998	7	0	0	9	247	0
1999	6	0	0	9	250	0
2000	7	0	0	9	245	0
2001	7	0	0	9	237	0
2002	7	0	0	9	254	0
2003	7	0	0	9	233	0
2004	6	0	0	9	237	0
2005	7	0	0	9	233	0

Year	Ector			Eddy, New Mexico		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	1	0	0	0	0	0
1932	1	0	0	0	0	0
1933	2	0	0	0	0	0
1934	2	0	0	0	0	0
1935	2	0	0	0	0	0
1936	3	0	0	0	0	0
1937	3	0	0	0	0	0
1938	3	0	0	0	0	0
1939	4	0	0	0	0	0
1940	4	0	0	0	0	0
1941	5	0	0	0	0	0
1942	5	0	0	0	0	0
1943	6	0	0	0	0	0
1944	6	0	0	0	0	0
1945	7	0	0	0	0	5
1946	7	0	0	0	0	0
1947	8	0	0	0	0	0
1948	8	0	0	0	0	0
1949	9	0	0	0	0	0
1950	10	0	0	0	0	0
1951	11	0	0	0	0	0
1952	12	0	0	0	0	0
1953	13	0	0	0	0	0
1954	14	0	0	0	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

Year	Ector			Eddy, New Mexico		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1955	15	0	0	0	0	0
1956	16	0	0	0	0	0
1957	16	0	0	0	0	0
1958	17	0	0	0	0	0
1959	18	0	0	0	0	0
1960	19	0	0	0	0	5
1961	19	0	0	0	0	5
1962	20	0	0	0	0	0
1963	20	0	0	0	0	0
1964	20	0	0	0	0	5
1965	20	0	0	0	0	5
1966	20	0	0	0	0	0
1967	20	0	0	0	0	0
1968	20	0	0	0	0	0
1969	20	0	0	0	0	5
1970	21	0	0	0	0	0
1971	21	0	0	0	0	0
1972	22	0	0	0	0	5
1973	22	0	0	0	0	5
1974	23	0	0	0	0	15
1975	23	0	0	0	0	5
1976	24	0	0	0	0	0
1977	24	0	0	0	0	0
1978	25	0	0	0	0	0
1979	25	0	0	0	0	0
1980	26	0	0	0	0	10
1981	26	0	0	0	0	5
1982	25	0	0	0	0	0
1983	25	0	0	0	0	10
1984	25	0	0	0	0	20
1985	25	0	0	0	0	5
1986	25	0	0	0	0	5
1987	25	0	0	0	0	0
1988	25	0	0	0	0	5
1989	25	0	0	0	0	10
1990	25	0	0	0	0	25
1991	25	0	0	0	0	20

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

Year	Ector			Eddy, New Mexico		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1992	25	0	0	0	0	15
1993	26	0	0	0	0	61
1994	24	0	0	0	0	189
1995	24	0	0	0	0	92
1996	24	0	0	0	0	46
1997	24	0	0	0	0	92
1998	23	0	0	0	0	71
1999	23	0	0	0	0	87
2000	24	0	0	0	0	112
2001	23	0	0	0	0	148
2002	24	0	0	0	0	97
2003	24	0	0	0	0	240
2004	24	0	0	0	0	214
2005	24	0	0	0	0	173

Year	Jeff Davis			Lea, New Mexico		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	21	257	0	0	0	5
1932	26	257	0	0	0	0
1933	39	257	0	0	0	5
1934	52	257	0	0	0	15
1935	66	257	0	0	0	31
1936	79	257	0	0	0	20
1937	92	257	0	0	0	20
1938	106	257	0	0	0	31
1939	119	257	0	0	0	10
1940	132	257	0	0	0	25
1941	146	257	0	0	0	31
1942	159	257	0	0	0	0
1943	173	257	0	0	0	10
1944	186	257	0	0	0	29
1945	199	257	0	0	0	10
1946	214	257	0	0	0	15
1947	227	257	0	0	0	10
1948	240	257	0	0	0	15
1949	254	257	0	0	0	31
1950	267	257	0	0	0	51

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

Year	Jeff Davis			Lea, New Mexico		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1951	280	257	0	0	0	56
1952	294	257	0	0	0	36
1953	307	257	0	0	0	46
1954	321	257	0	0	0	56
1955	335	257	0	0	0	10
1956	348	257	0	0	0	51
1957	361	257	0	0	0	102
1958	375	257	0	0	0	82
1959	388	257	0	0	0	76
1960	400	257	0	0	0	87
1961	413	257	0	0	0	25
1962	425	257	0	0	0	51
1963	437	257	0	0	0	41
1964	450	257	0	0	0	51
1965	429	257	0	0	0	46
1966	409	257	0	0	0	15
1967	389	257	0	0	0	5
1968	368	257	0	0	0	15
1969	347	257	0	0	0	20
1970	342	257	0	0	0	20
1971	337	257	0	0	0	20
1972	333	257	0	0	0	31
1973	329	257	0	0	0	56
1974	325	257	0	0	0	15
1975	285	257	0	0	0	61
1976	245	257	0	0	0	46
1977	204	257	0	0	0	41
1978	164	257	0	0	0	117
1979	123	257	0	0	0	107
1980	81	257	0	0	0	117
1981	75	257	0	0	0	102
1982	70	257	0	0	0	107
1983	66	257	0	0	0	82
1984	61	257	0	0	0	20
1985	54	257	0	0	0	31
1986	46	257	0	0	0	41
1987	34	257	0	0	0	61



Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

Year	Jeff Davis			Lea, New Mexico		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1988	40	257	0	0	0	61
1989	61	257	0	0	0	69
1990	46	257	0	0	0	76
1991	45	257	0	0	0	97
1992	45	257	0	0	0	92
1993	75	257	0	0	0	138
1994	73	257	0	0	0	158
1995	71	257	0	0	0	143
1996	68	257	0	0	0	214
1997	68	257	0	0	0	127
1998	76	257	0	0	0	71
1999	78	257	0	0	0	112
2000	74	257	0	0	0	153
2001	114	257	0	0	0	250
2002	110	257	0	0	0	66
2003	80	257	0	0	0	194
2004	91	257	0	0	0	183
2005	77	257	0	0	0	189

Year	Loving			Pecos		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	94	0	0	6,032	2,759	18
1932	98	0	0	12,530	2,759	18
1933	102	0	0	18,663	2,759	18
1934	107	0	0	24,796	2,759	18
1935	110	0	0	31,300	2,759	18
1936	115	0	0	37,432	2,759	18
1937	119	0	0	43,565	2,760	18
1938	123	0	0	50,064	2,760	22
1939	127	0	0	56,197	2,760	18
1940	131	0	0	62,335	2,760	18
1941	129	0	0	68,839	2,760	18
1942	126	0	0	74,977	2,760	18
1943	123	0	0	81,122	2,760	18
1944	121	0	0	87,619	2,761	18
1945	118	0	0	93,758	2,761	26
1946	115	0	0	99,903	2,761	18

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

Year	Loving			Pecos		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1947	113	0	0	106,400	2,762	18
1948	111	0	0	112,539	2,762	18
1949	108	0	0	118,683	2,762	26
1950	106	0	0	125,181	2,763	22
1951	106	0	0	131,319	2,763	31
1952	106	0	0	137,470	2,773	40
1953	105	0	0	143,608	2,774	52
1954	105	0	0	150,106	2,775	35
1955	105	0	0	156,251	2,776	27
1956	105	0	0	162,388	2,777	31
1957	105	0	0	168,892	2,778	46
1958	105	0	0	175,037	2,779	38
1959	105	0	0	177,582	2,779	22
1960	105	0	0	179,770	2,779	36
1961	102	0	0	182,316	3,005	28
1962	100	0	0	184,501	3,425	39
1963	97	0	0	187,048	3,836	34
1964	94	0	0	189,233	4,236	55
1965	91	0	0	172,310	4,626	59
1966	89	0	0	155,398	5,012	72
1967	85	0	0	138,475	5,393	79
1968	82	0	0	121,550	5,762	74
1969	80	0	0	104,634	6,130	58
1970	77	0	0	102,829	6,494	102
1971	73	0	0	101,020	6,993	169
1972	70	0	0	117,552	6,781	65
1973	67	0	0	118,270	6,570	68
1974	63	0	0	118,994	6,148	91
1975	60	0	0	110,290	5,514	79
1976	56	0	0	100,871	4,786	108
1977	53	0	0	91,089	4,445	102
1978	50	0	0	80,953	4,111	113
1979	47	0	0	70,086	3,794	139
1980	43	0	0	90,587	3,716	252
1981	44	0	0	89,131	3,646	228
1982	45	0	0	88,394	3,577	163
1983	45	0	0	87,303	3,512	131

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
 August 3, 2016

Year	Loving			Pecos		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1984	46	0	0	85,847	3,442	221
1985	47	0	0	77,174	3,378	269
1986	47	0	0	65,671	3,306	113
1987	48	0	0	60,950	3,243	79
1988	49	0	0	60,976	3,177	69
1989	49	0	0	68,949	3,115	40
1990	50	0	0	67,057	3,051	58
1991	49	0	0	64,895	2,989	54
1992	48	0	0	64,900	2,929	53
1993	48	0	0	81,290	2,872	44
1994	47	0	0	78,774	2,984	84
1995	46	0	0	91,720	2,970	53
1996	45	0	0	86,317	2,944	55
1997	44	0	0	89,921	2,938	88
1998	43	0	0	93,507	2,941	46
1999	42	0	0	93,513	2,939	54
2000	41	0	0	101,056	2,927	80
2001	40	0	0	80,938	2,909	39
2002	39	0	0	78,063	2,901	41
2003	39	0	0	51,126	2,848	51
2004	38	0	0	56,149	2,926	53
2005	37	0	0	61,902	2,923	64

Year	Reeves			Upton		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	5,850	5	0	6	0	0
1932	13,030	5	0	6	0	0
1933	18,774	5	0	5	0	0
1934	24,521	5	0	5	0	0
1935	31,701	5	0	5	0	0
1936	37,445	5	0	5	0	0
1937	43,191	11	0	5	0	0
1938	50,372	18	0	5	0	0
1939	56,116	25	0	4	0	0
1940	61,862	32	0	4	0	0
1941	69,045	36	0	4	0	0
1942	74,794	40	0	4	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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Year	Reeves			Upton		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1943	81,977	44	0	5	0	0
1944	87,724	48	0	5	0	0
1945	93,474	52	0	5	0	0
1946	100,658	56	0	5	0	0
1947	106,407	61	0	5	0	0
1948	112,155	135	0	5	0	0
1949	119,340	177	0	5	0	0
1950	125,087	259	0	5	0	0
1951	130,840	477	0	5	0	0
1952	138,026	611	0	5	0	0
1953	143,779	745	0	6	0	0
1954	149,530	578	0	6	0	0
1955	156,719	523	0	6	0	0
1956	162,469	520	0	6	0	0
1957	168,224	542	0	6	0	0
1958	175,410	513	0	6	0	0
1959	181,163	532	0	6	0	0
1960	186,914	547	0	6	0	0
1961	192,653	559	0	6	0	0
1962	198,395	574	0	6	0	0
1963	204,135	587	0	6	0	0
1964	209,876	601	0	6	0	0
1965	199,825	580	0	5	0	0
1966	191,208	561	0	5	0	0
1967	181,157	542	0	5	0	0
1968	171,107	523	0	5	0	0
1969	162,494	502	0	5	0	0
1970	159,621	496	0	5	0	0
1971	156,748	491	0	5	0	0
1972	156,748	484	0	5	0	0
1973	156,744	478	0	5	0	0
1974	156,744	471	0	5	0	0
1975	138,081	420	0	5	0	0
1976	119,416	369	0	5	0	0
1977	100,754	320	0	5	0	0
1978	82,090	269	0	5	0	0
1979	61,992	218	0	5	0	0

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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Year	Reeves			Upton		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1980	66,295	229	0	5	0	0
1981	61,989	229	0	5	0	0
1982	57,682	229	0	5	0	0
1983	54,811	230	0	5	0	0
1984	50,504	230	0	5	0	0
1985	39,020	194	0	4	0	0
1986	37,588	189	0	4	0	0
1987	26,103	157	0	4	0	0
1988	31,846	110	0	4	0	0
1989	47,637	140	5	4	0	0
1990	26,103	106	0	4	0	0
1991	23,229	101	0	4	0	0
1992	23,227	131	0	4	0	0
1993	73,469	545	0	4	0	0
1994	72,032	96	0	4	0	0
1995	74,900	84	0	4	0	0
1996	70,590	106	0	4	0	0
1997	72,024	107	0	4	0	0
1998	70,585	39	0	4	0	0
1999	70,582	45	0	4	0	0
2000	69,145	45	0	4	0	0
2001	69,144	42	0	4	0	0
2002	67,705	41	0	4	0	0
2003	67,702	31	0	4	0	0
2004	66,265	2,052	0	4	0	0
2005	66,263	1,094	0	4	0	0

Year	Ward			Winkler		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1931	29	0	2	100	0	0
1932	67	0	4	100	0	0
1933	105	0	4	119	0	0
1934	112	0	8	134	0	0
1935	151	0	8	148	0	10
1936	188	0	13	163	0	26
1937	225	0	13	182	0	26
1938	235	0	6	196	0	13

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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Year	Ward			Winkler		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1939	271	0	2	212	0	13
1940	309	0	0	227	0	6
1941	317	0	2	246	0	3
1942	354	0	2	267	0	0
1943	392	0	0	287	0	3
1944	429	0	2	307	0	6
1945	436	0	2	328	0	6
1946	475	0	2	343	0	6
1947	511	0	0	363	0	0
1948	547	0	0	384	0	19
1949	557	0	0	404	0	6
1950	593	0	17	424	0	6
1951	629	0	10	444	0	16
1952	666	0	8	464	0	3
1953	673	0	4	479	0	35
1954	708	0	27	499	0	19
1955	746	0	40	519	0	6
1956	781	0	25	539	0	22
1957	788	0	15	559	0	51
1958	825	0	28	579	0	120
1959	890	0	111	599	0	195
1960	955	0	38	614	0	169
1961	989	0	90	630	0	224
1962	1,052	0	57	645	0	138
1963	1,116	0	145	656	0	138
1964	1,179	0	73	671	0	141
1965	1,169	0	36	680	0	96
1966	1,130	0	31	696	0	61
1967	1,121	0	23	711	0	32
1968	1,110	0	63	722	0	156
1969	1,101	0	94	737	0	22
1970	1,068	0	44	747	0	125
1971	2,792	0	57	768	0	29
1972	1,739	0	40	784	0	22
1973	1,769	0	23	800	0	13
1974	3,174	0	27	815	0	61
1975	2,718	0	48	831	0	48

Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer  
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Year	Ward			Winkler		
	Layer 1	Layer 3	Layer 5	Layer 1	Layer 3	Layer 5
1976	3,169	0	40	847	0	58
1977	3,356	0	57	867	0	115
1978	4,041	0	29	884	0	102
1979	4,080	0	36	899	0	74
1980	8,502	0	63	915	0	122
1981	7,357	0	118	888	0	93
1982	7,499	0	210	840	0	79
1983	7,525	0	284	813	0	162
1984	6,759	0	235	724	0	216
1985	6,627	0	147	722	0	217
1986	5,660	0	57	721	0	128
1987	5,150	0	80	745	0	163
1988	5,186	0	183	712	0	176
1989	6,459	0	120	711	0	185
1990	4,945	0	107	729	0	128
1991	4,444	0	76	739	0	86
1992	4,499	0	63	748	0	29
1993	5,630	0	36	757	0	99
1994	5,717	0	15	782	0	61
1995	5,309	0	61	781	0	54
1996	6,006	0	107	831	0	109
1997	5,685	0	191	861	0	168
1998	6,795	0	109	859	0	83
1999	5,155	0	19	833	0	29
2000	6,652	0	25	791	0	83
2001	7,293	0	2	765	0	70
2002	9,368	0	10	764	0	19
2003	6,676	0	29	763	0	16
2004	4,217	0	36	731	0	16
2005	2,815	0	120	756	0	280

## **APPENDIX D MODEL REPORT COMMENTS AND RESPONSES**

### **General Comments**

I have attended each stakeholder meeting since the first one in October 2012 and have studied several peer-reviewed publications conducted on the Capitan Aquifer and its associated hydrogeological framework as well as conduct some studies of my own in Ward and Winkler counties. I appreciate the opportunity to review and comment on the Capitan Reef Complex Aquifer Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer of Texas (CRCX GAM). It doesn't take long to realize why the CRCX is one of the latter aquifers to be modeled and that is due in large part to lack of data and the extreme difficulty to quantitatively unlock its complexity which everyone acknowledges. However, it has been subject to increasing consideration as a beneficial resource by potential water users which gives a sense of urgency to develop a valid groundwater model.

***This model is a regional-scale model intended to determine how groundwater availability is affected on a regional scale by water resource development. This model is not intended for use to predict water-level changes at a particular well or spring. The model may be applicable at the scale of a large wellfield, depending on the data support that was available in that area of the model.***

My main concern is that the model does not appear to be reliable enough for use by groundwater conservations districts (GCDs) to adequately manage the CRCX as a resource. The model may be useful in a qualitative interpretive sense but is not reliable to confidently predict future aquifer conditions for reasons explained below:

The four overlying layers (1-4) that were input from their respective GAMs still have some error and uncertainty. Adding the individual GAMs for these layers cumulatively adds a wider margin of error and uncertainty into the CRCX GAM. Making estimates from estimates from estimates cumulatively introduces more uncertainty to a point of incalculable error to be used successfully as a predictive tool.

***The overlying layers are intended to act solely as boundary conditions facilitating groundwater inflow and outflow relative to the Capitan Reef Complex Aquifer. More accuracy may be obtained from the respective groundwater availability models.***

The 5th layer (CRCX) has yet the most uncertainty, in most part because of the lack of target points (~79 out of 8200), lack of wells for water-level calibration (16), and even more lack of historical stresses on the aquifer, to confidently and accurately calibrate the model that covers a large region (approx. 1,350 square miles). Substantial uncertainty also exists because of estimation of critical parameters, particularly hydraulic conductivity, storativity, and recharge, versus direct calculated measurements.



***The Capitan Reef Complex Aquifer Groundwater Availability Model is calibrated for the number of targets available to the Texas Water Development Board at the time of calibration. The relatively low number of target wells is partially a reflection of the small footprint of the Capitan Reef Complex Aquifer relative to the much larger the footprints of overlying aquifers. Note: the calibration statistics for the Capitan Reef Complex Aquifer in this model are slightly better than for the overall model.***

Use of uniform values, such as was done for horizontal and vertical hydraulic conductivity, for a complex fractured, faulted, hypogene karst limestone and dolomite aquifer such as the CRCX is not a valid concept for modeling because faults and fractures occur in a highly irregular pattern and act as conduits or barriers to flow in the vertical, horizontal, or both directions. Also, it is stated in the CRCX GAM that there is a large component of vertical inter-aquifer groundwater flow as groundwater flows upwards eventually discharging to the Pecos River. That statement suggests that there is a variable value for hydraulic conductivity that is not accounted for in the model.

***The Capitan Reef Complex Aquifer is highly heterogeneous at local scale resolution, however it is impossible to develop a regional scale groundwater flow model with local scale properties of a complex fractured, faulted, hypogene karst aquifer when such data does not exist at a regional scale. At a regional scale resolution, aquifers such as the Capitan Reef Complex Aquifer are relatively homogenous as the model cells reflect hydraulic properties averaged over increasing volumes of the aquifer. Additionally, it difficult to justify heterogeneous properties due to relatively few and widely scattered data points.***

***The report states that in layer 2 through 4, vertical flow is large relative to horizontal components of groundwater flow. This is not indicative of variability of hydraulic conductivity values within the respective model layers.***

There is a lack of uncertainty analysis in verifying the accuracy of this model including the use of available aquifer tests that have been conducted on the CRCX including a monitor well drilled south of Fort Stockton in 2013, four wells drilled in 2005 by Enstor in northern Pecos County, numerous wells drilled by Gulf in northern Ward County and Shell in northern Winkler County in the 1950's through the 1970's. Efforts to conduct aquifer tests from these active wells should be performed to enhance CRCX GAM development. Use of measured hydrologic parameters from aquifer tests can be used as pilot points in the model to allow for greater flexibility in the spatial assignment of aquifer properties.

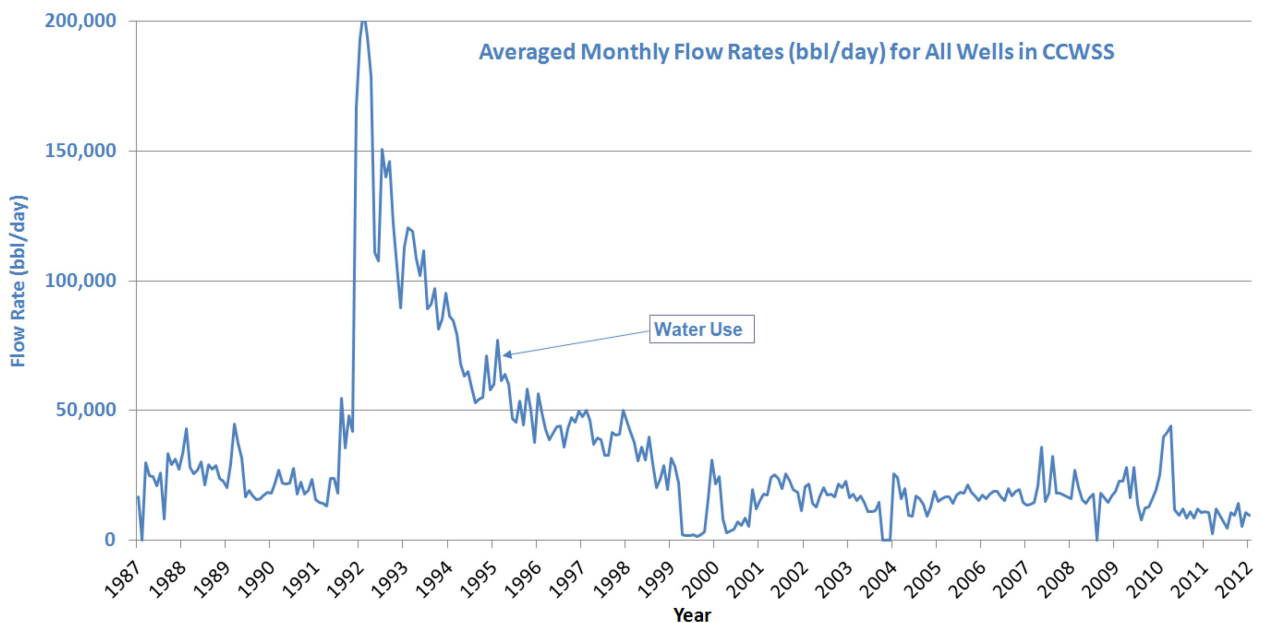
***Uncertainty analysis is a process not common in groundwater modelling outside of an academic setting. Although uncertainty analyses was not conducted for the spatial assignment of aquifer properties, we did conduct parameter sensitivity analyses which provide greater flexibility as to which model parameters may improve the model with a spatially variable***

***distribution. Measured hydrologic parameters are indeed very useful in groundwater model development and the Texas Water Development Board did request that any available data from public and private sources, including aquifer tests, be provided to the Texas Water Development Board prior to the start of the modeling study. As already stated in the report, we will evaluate the use of variable hydraulic properties in future model updates.***

Water level data reported for Enstor's Capitan wells (45-49-203 and 45-49-205) have static (no flow) positive pressure heads equivalent to 2958 and 2948 ft AMSL, respectively, in the TWDB database. These measurements were obtained in 2005 immediately prior to aquifer testing and should be considered reliable for the purposes of comparing simulated water levels and measured water levels. Data for Capitan wells operated by Centurion in northern Winkler County and the Capitan well completed for the City of Fort Stockton at Belding should also be considered for this purpose if they haven't already.

***The Enstor wells were used as calibration targets. Any water-level data from the City of Fort Stockton well would fall outside of the 1931-2005 calibration period and therefore would not have been used. We do not have water-level data from the Winkler County well.***

The annual pumping for Layer 5 (Capitan) in Appendix C appears to have some discrepancy with historical pumping. I would expect significantly larger pumping between the late 1950's through the 1970's and beyond when water flooding oilfields for secondary oil recovery was prevalent as reported in well schedules in the TWDB database. Below is an example of Chevron's water use (1987-2012) in Ward County that varies from about 500 af/y to 10,000 af/y when water use was less prevalent.



***The graph provided with the above comment represents data from a single wellfield in Ward County and was not available to TWDB during the conceptual model or model construction periods of this project. As previously noted, the Texas Water Development Board did request that any available data from public and private sources, including historical pumping, be provided to the Texas Water Development Board prior to the start of the modeling study. The method for estimating oilfield pumping in this model was based on oil and gas well drilling records reflected in databases from the Texas Railroad Commission and it's New Mexico equivalent, the New Mexico Energy, Minerals and Natural Resources Department.***

The model does not consider what is likely to be a very significant amount of cross-formational flow from the San Andres Formation. Currently there are at least 14 artesian San Andres wells south of Imperial that continue to flow uncontrollably since the 1940's and 1950's. At least 36 wells completed in the San Andres Formation are documented in TWBE Bulletin 6106 up to the year 1961. All of the wells flowed when drilled, but many no longer flow because they either have been plugged, have caved in, the casing has collapsed, or the pressure head has declined. According to B6106, the total withdrawal of water from the San Andres Formation in 1957 is estimated to have been 10,000 acre-feet. This amount of flow is very significant as it is likely in direct hydraulic contact with the CRCX which lies about two to six miles west. Outflow from the CRCX into the San Andres Formation coupled with any reduction of recharge into the CRCX will have a huge effect on the groundwater availability estimates. I am disappointed that cross-formational flow to and/or from the San Andres Formation was not considered in this model despite the attention given in the first stakeholder meeting, but understand that effort brings even more uncertainty to the model results. Figure 6.0.1 in the CRCX GAM depicts presence of the San Andres Formation only near the Ward-Winkler area. It should be also depicted in the Imperial area as approximated below.

***Model results indicate groundwater flow from the Capitan Reef Complex Aquifer to the basin and shelf sediments which include the San Andres Formation. Note: the San Andres Formation is not defined as an aquifer by the Texas Water Development Board and thus was not the focus of this model.***

The draft CRCX GAM shows outflow of the CRCX upward towards the Pecos River from both the north and south which is a different concept from other previous reports and publications, including the Draft Conceptual Model Report (April 2014) and presentation at the second stakeholder meeting (May 2014), which depict flow in the Capitan beneath the Pecos River as continuing its northerly flow towards the Ward-Winkler county line. This significant change in flow path should be further explained and justified in the CRCX GAM.

***The concept of vertical hydraulic gradients and vertical discharge from the Capitan Reef Complex Aquifer was discussed in the conceptual model report and at the associated***

***stakeholder advisory forum. Note the conceptual model report includes maps by Hiss (1975) that suggest groundwater convergence occurring in Winkler County.***

The Draft Conceptual Model Report (April 2014) includes interpretations of isotope data that should be included in the CRCX GAM to validate conclusions of groundwater flow paths and recharge. More isotopic studies, specifically within the CRCX, need to be conducted to better substantiate groundwater flow paths and recharge patterns modeled in the CRCX GAM. There should be a sense of urgency to this method because some of the isotopes have a relatively short half-life making them less useful over time.

***We will include some of that information in the Summary and Conclusions section of the report.***

Most of the eastern arm of the CRCX contains saline groundwater, typically ranging between 3,000 mg/L to 10,000 mg/L, and much higher in some cases. Future model versions should take into account the effects of higher density associated with saline groundwater.

***Brackish groundwater will be taken into consideration in future updates of this model.***

Most of the above limitations and deficiencies were acknowledged in the CRCX GAM report, particularly in sections 5 and 6. These limitations and deficiencies must be considered a major issue such that additional studies, aquifer tests, corresponding geophysical log analysis, are performed to better refine and improve the model for effective predictive use.

***Additional studies, aquifer tests, geophysical logs and all other relevant groundwater data will always be accepted for consideration by the Texas Water Development Board for future updates of this model.***

Due to an accumulation of unforeseen delays the draft CRCX GAM is almost 2 years behind the original schedule resulting in little time to sufficiently revised it for use in establishing modeled available groundwater (MAGs) and desired future conditions (DFCs) by May 1st. The proposed CRCX GAM should not be adopted without properly addressing the concerns cited above and those of other commenter's. The model should only be considered for aquifer-wide evaluation of conceptual flow dynamics and not as a predictive tool for groundwater management until the GAM can be confidently considered for adoption and used as a predictive tool for groundwater management use. Establishing the DFC, without the use of the CRCX GAM or MAG may be the better option until model uncertainties can be resolved.

***The model report points out that this is a regional-scale model intended to address regional-scale issues such as desired future conditions and modeled available groundwater and should only be used in accordance with Texas state laws.***

This draft model is proposed as a management tool for use by groundwater conservation districts as stated:

This model will provide a groundwater management tool that can be used by the districts; Groundwater Management Areas 3, 4, and 7; and the Far West Texas and Region F regional water planning groups, among other stakeholders.

The currently proposed CRCX GAM should not be used as a management tool for use in managing the groundwater resources of the Capitan Reef aquifer, due to the following: (1) Available data is insufficient to adequately describe the Capitan Reef Complex Aquifer; (2) The conceptual and modelled recharge is invalid: known structural control in the Glass Mountains prevent significant areas of the outcrop from providing direct recharge into the down-gradient, confined portions of the aquifer; (3) The conceptual and modelled discharge is inadequate: cross-formational flow from the Capitan Reef Complex Aquifer into the San Andres Formation, which the San Andres has been documented to discharge from flowing wells in the Imperial area of Pecos County since the 1920's, is not included in the proposed model; (4) The estimated aquifer parameters are invalid: known production from wellfields in Ward and Winkler Counties during model calibration is not included, use of data from a compromised well in the Leon-Belding area is included. of Pecos, County is included, data from recent Capitan Reef Complex aquifer well evaluations are not included.

***The available data used to construct both the conceptual and groundwater availability models is adequate enough to describe the aquifer at the regional scale covered by the eastern arm of the Capitan Reef Complex Aquifer. This model is not intended to address issues at local scale resolution.***

***Groundwater geochemical and isotopic data for the eastern arm of the Capitan Reef Complex Aquifer indicate that at the regional scale, groundwater recharges in the aquifer outcrop and flows down-dip. At the local scale, faults may act as barriers hindering groundwater down-gradient flow. That is not an indication that groundwater does not eventually flow across or around these faults.***

***The calibrated model indicates that groundwater flows from the Capitan Reef Complex Aquifer into the shelf sediments that include the San Andres Formation in southern Pecos County. Also note that the San Andres Formation is not defined as an aquifer by the Texas Water Development Board and is simulated only as a boundary condition in this model.***

***Pumping data for oil and gas related wellfields in Ward and Winkler counties were not made available to the Texas Water Development Board. However, pumping from that part of the aquifer was estimated using well drilling data and associated pumping rates.***

***Use of a single compromised well as a target will not invalidate this model, especially considering that there is a high density of wells in the Leon-Belding area.***

***The hydraulic property data from the recently drilled Capitan Reef Complex Aquifer well fall within the range of hydraulic properties the rest of the aquifer. At regional scale, calibrated hydraulic properties typically represent average values for the model cell, not individual measurements at a specific location. The water-level measurement for this well lies outside of the calibration period for this model and therefore was not used.***

While there are several concerns with the currently proposed CRCX GAM, the potential impact of failing to address just one of those concerns, may prove catastrophic. For example, Diamond Y Spring, home to several aquatic endangered species, located between the Capitan Reef Complex Aquifer and the Imperial area. This area is known to have flowing San Andres Formation wells. When considering the issuance of permits, groundwater conservation districts are tasked to follow the Texas Water Code for Groundwater Management, specifically, the following:

Sec. 36.1084. MODELED AVAILABLE GROUNDWATER. (a) The Texas Water Development Board shall require the districts in a management area to submit to the executive administrator not later than the 60th day after the date on which the districts adopted desired future conditions under Section 36.108(d-3):

- (1) the desired future conditions adopted under Section 36.108;
  - (2) proof that notice was posted for the joint planning meeting; and
  - (3) the desired future conditions explanatory report.
- (b) The executive administrator shall provide each district and regional water planning group located wholly or partly in the management area with the modeled available groundwater in the management area based upon the desired future conditions adopted by the districts.

Added by Acts 2011, 82nd Leg., R.S., Ch. 1233 (S.B. 660), Sec. 17, eff. September 1, 2011. and,

Sec. 36.1132. PERMITS BASED ON MODELED AVAILABLE GROUNDWATER. (a) A district, to the extent possible, shall issue permits up to the point that the total volume of exempt and permitted groundwater production will achieve an applicable desired future condition under Section 36.108.

- (b) In issuing permits, the district shall manage total groundwater production on a long-term basis to achieve an applicable desired future condition and consider:
- (1) the modeled available groundwater determined by the executive administrator;

- (2) the executive administrator's estimate of the current and projected amount of groundwater produced under exemptions granted by district rules and Section 36.117;
  - (3) the amount of groundwater authorized under permits previously issued by the district;
  - (4) a reasonable estimate of the amount of groundwater that is actually produced under permits issued by the district; and
  - (5) yearly precipitation and production patterns.
- (c) In developing the estimate of exempt use under Subsection (b)(2), the executive administrator shall solicit information from each applicable district.

Added by Acts 2005, 79th Leg., Ch. 970 (H.B. 1763), Sec. 11, eff. September 1, 2005.

Amended by:

Acts 2011, 82nd Leg., R.S., Ch. 18 (S.B. 737), Sec. 4, eff. September 1, 2011.

If the Middle Pecos Groundwater Conservation District issues permits based on the Modeled Available Groundwater generated by the proposed CRCX GAM, which does not include cross-formational flow from the Capitan Reef into the San Andres Formation, the permitted pumping may reduce the source water supplying Diamond Y Spring. Such a reduction in source water into Diamond Y Spring may reduce or eliminate spring flow, thus resulting in the killing of aquatic endangered species and creating an endangered species taking. At such time, it is likely liability for taking will become an issue. Who will be the responsible party? Will it be the Middle Pecos Groundwater Conservation District for issuing the permits, Groundwater Management Area No. 7 for adopting the Desired Future Condition, or the Texas Water Development Board for providing the Modeled Available Groundwater?

***This is a regional-scale model focused on the eastern arm of the Capitan Reef Complex Aquifer. It is not intended to address the effects of individual projects nor is it intended to simulate groundwater flow through non-aquifer geologic units such as the San Andres Formation. Evaluating the effects of individual projects would require a local-scale model calibrated with local scale data.***

I appreciate the work and effort that has been employed to attempt to characterize this complex deep karst aquifer system. However, the current proposed version is inadequate to accurately simulate the reality of the Capitan Reef Complex Aquifer for groundwater management purposes. Please remove the currently proposed *Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer of Texas* (CRCX GAM) from consideration for adoption as a Texas Water Development Board approved Groundwater Availability Model.

*This groundwater availability models are intended for use to address large-scale, regional issues which differ from local-scale issues. It must always be noted that regional groundwater flow models will not respond in the exact same way as local-scale models. Evaluation of any model results—regional or other—must always take into consideration the limitations of that model.*

*Groundwater availability models were an immediate outgrowth of the regional water planning process created by Senate Bill 1, 75th Legislative Session. The Texas Water Development Board developed the models in response to groundwater conservation district and planning group needs for better scientific tools to assist them in their management and planning efforts. Subsequent legislation has required the use of these models, when available. This project falls under Section 16.012, Subsection (l) of the Texas Water Code that states that the executive administrator of the Texas Water Development Board shall obtain or develop groundwater availability models for all of the major and minor aquifers in Texas.*

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[stakeholder names] and I discussed the GAM presentation after the Stakeholder Forum and we consider the suggestion that groundwater flow from all model layers converges on the Pecos River (Jones, 2016) to be erroneous. Seepage into the Pecos River is questionable since there is little to no water in the river where the model indicates that water discharges. I believe the error in this assumption to be twofold; there is not as much recharge that the model suggests and secondly, the flow paths for the modeled aquifer systems does not converge on the Pecos River (Jones 2016).

*According to U.S. Geological Survey streamflow gages 08437710 and 08438100 that overly the Capitan Reef Complex Aquifer, the Pecos River is perennial in the model area which is indicative of groundwater discharge contributing baseflow to the river. The river discharge as indicated by the model would reflect both groundwater discharge to the river and discharge through evapotranspiration by phreatic vegetation along the river banks.*

At the GAM Stakeholder Advisory Meeting, Dr. Ian Jones stated that “recharge estimated by Steve Finch 2.5 inches per year” (Jones 2016). However, I do not believe Finch’s estimate to be accurate. The USGS Simulation of Groundwater Flow in the Edwards-Trinity and Related Aquifers in the Pecos County Region, Texas Scientific Investigations Report 2013–5228 Version 1.1, August 2014 simulated net recharge in the Pecos County region model area, **accounts for a net recharge between 0.51 inches but no higher than 2.00 inches for the Glass Mountains.** The assumption for the recharge rates is explained,

Because precipitation is generally relatively low and evapotranspiration is relatively high (Anaya and Jones, 2009), net recharge was expected to be low to nonexistent over much of the model area. Therefore, net areal recharge in the



model primarily occurs in front of the Barilla, Davis, and Glass Mountains along the western edge of the model domain (fig. 3) (Anaya and Jones, 2009). This mountain-front recharge was simulated using the MODFLOW-2005 Recharge Package in an assumed width of approximately 5 miles along the base of the mountains at an initial rate of 2.0 inches per year (in/yr) based on higher estimates of recharge for the Edwards-Trinity aquifer (Long, 1958; Rees and Buckner, 1980) (Clark, Bumgarner, Houston, Foster, 2014).

While the recharge rate is smaller, the USGS assumption nevertheless came from “higher” recharge estimates of from the another aquifer altogether (Clark, Bumgarner, Houston, Foster, 2014). The USGS report was prepared in cooperation with the Middle Pecos Groundwater Conservation District, Pecos County, City of Fort Stockton, Brewster County, and Pecos County Water Control and Improvement District No. 1.

As a land owner in the Glass Mountains who maintains a strong relationship with my foreman who closely monitors precipitation, I can certainly provide anecdotal evidence that the Glass Mountains do not have the precipitation events to account for that high recharge rate presented in the GAM and provided by Finch.

***The model by the USGS does not include the Capitan Reef Complex Aquifer and therefore their recharge estimates reflect recharge to the Edwards-Trinity (Plateau) Aquifer which is much lower than estimated recharge rates to the Capitan Reef Complex Aquifer. Instinctively one would think that the Capitan Reef Complex Aquifer recharge estimate is high. However, considering the annual distribution of precipitation in the area and Steve Finch’s assumption that only the largest rainfall events produce recharge, his estimate is believable. Recharge rates to karst aquifers are typically very high, even in arid climates where most precipitation occurs in a few large events. Recharge to the Capitan Reef Complex Aquifer in the model accounts for 10-15 percent of all recharge to the model area.***

The GAM model allows for tailored results in which the water recharge and discharge can be balanced with a large or small amounts as long as you have the same head. The USGS modeler present at the meeting noted that, “you can scale recharge and water level up together when pushing more water through the area.” Dr. Jones responded, “You can't raise recharge above precipitation so there are limits.” In the case of this GAM, however, how much data was considered to set those limits? More data on precipitation and infiltration rates in the Glass Mountains need to be analyzed and incorporated into this oversimplified report.

***The U.S. Geological Survey modeler’s comment was that you can calibrate any combination of recharge and hydraulic conductivity values to achieve the same simulated water level. The model parameter limits for this model are based on the range of measured parameters. In the case of the hydraulic conductivity, we based our estimates of hydraulic conductivity for the Capitan Reef Complex Aquifer on the results of 54 pump tests that include some mentioned by***

***stakeholders. The recharge estimate is based on daily precipitation data from four weather stations with periods of records of 50 to 85 years, sufficient to give insight into hydrologic processes.***

[consultant name] is conducting infiltration studies in the Glass Mountains that will fill out the recharge data. [consultant name] also takes issue with the categorization of the aquifer. He told me that, “the use of the anisotropic homogeneous aquifer concept as being potentially invalid for the recharge area. The idea of a 10 to 12 ft/day horizontal conductivity and a vertical hydraulic conductivity of 1 ft/day with an anisotropic ratio of 1:10 is not valid for this setting” (Personal communication, 2016). More research needs to be considered for this aspect of the report as well.

***The need for more research on recharge and hydraulic properties in the Glass Mountains to improve the model of the Capitan Reef Complex Aquifer is referred to in the Future Improvements section of the model report.***

Straub also presents an alternative to the direction of groundwater flow despite the statement on page 88 of the GAM, “(1) the occurrence of upward hydraulic gradients throughout the model area, and (2) the occurrence of artesian or historically artesian wells in the underlying aquifers in this flow system” (Jones, 2016). He refers to PB King's 1930 BEG Bulletin and suggests water flows off the mountains toward the NW into the mountain front recharge area and not NE down the Reef due to subsurface structure, faulting, bed angles and igneous intrusions” (Personal communication, 2016).

***The need for more research in the Glass Mountains area is referred to in the Future Improvements section of the model report. At a local scale, faulting may divert groundwater flow towards the northwest, perpendicular to hydraulic gradients. However, this is not likely to be the case at the regional scale, where regional groundwater flow eventually bypasses the fault barriers and generally flows in the direction of the regional hydraulic gradient, the driving force for groundwater flow.***

It is dangerous to produce a model lacking data and showing the Glass Mountains as a source of such high amounts of recharge. The GAM report states, “the eastern arm of the Capitan Reef Complex Aquifer groundwater availability model will thus serve as a critical tool for groundwater planning in the state” (Jones 2016). With increasing interest from municipalities and water marketers, the oversimplified model puts the Glass Mountains on the map and directs attention toward the Capitan Reef as a target source for groundwater extraction. The lack of data incorporated into the formation of the GAM presents Groundwater Conservation Districts with the risk of not fighting landowners in court who use will use high estimates to claim that they can sell water to municipalities, more than is realistically available.

***Note: that the groundwater fluxes for the Capitan Reef Complex Aquifer indicated in this model are relatively small compared to those in overlying major aquifers. This regional model***

***for the Capitan Reef Complex Aquifer is not intended for use evaluating individual groundwater projects.***

I respectfully request that you find more conclusive data before publishing the Capitán Reef Complex Aquifer Groundwater Availability Model. Such an inadequate amount of information in the GAM does not fulfill “the purpose for the Groundwater Availability Modeling Program... to provide tools that can be used to develop reliable and timely information on groundwater availability for the citizens of Texas, and to ensure adequate supplies or recognize inadequate supplies over a 50-year planning period.” Recharge rates and hydrogeological data need to be reevaluated for this GAM to be an accurate and useful tool.

***This groundwater availability models are intended for use to address large-scale, regional issues which differ from local-scale issues. It must always be noted that regional groundwater flow models will not respond in the exact same way as local-scale models. Evaluation of any model results—regional or other—must always take into consideration the limitations of that model.***

***Groundwater availability models were an immediate outgrowth of the regional water planning process created by Senate Bill 1, 75th Legislative Session. The Texas Water Development Board developed the models in response to groundwater conservation district and planning group needs for better scientific tools to assist them in their management and planning efforts. Subsequent legislation has required the use of these models, when available. This project falls under Section 16.012, Subsection (l) of the Texas Water Code that states that the executive administrator of the Texas Water Development Board shall obtain or develop groundwater availability models for all of the major and minor aquifers in Texas.***

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As you know, [company name] has shared the following documents with the TWDB in an effort to help improve the representation of the CRCX GAM to the most current data and analysis outside of the work prepared by the TWDB.

Finch, S. T., 2014, technical memorandum regarding review of TWDB Draft Capitan Reef Complex Conceptual Model Report, May 26, 2014, 10 p.

Finch, S. T., 2014, technical memorandum regarding Calculated recharge to the Capitan Reef Complex aquifer, Glass Mountain area in Brewster and Pecos Counties, Texas July 2, 2014, 11 p.

Finch, S. T., 2014, technical memorandum regarding regional water-level elevations and response to pumping for the Capitan Reef Complex Aquifer, in West Texas, September 3, 2014, 4 p.

Finch, S. T., 2015, Geologic Model for La Escalera Ranch, Pecos County, Texas: Consultant's report prepared by John Shomaker & Associates, Inc. for La Escalera Ranch Limited Partnership, May, 2015, 15 p., illustrations, and appendices.

Excluding the recharge analysis, it does not appear the documents referenced above and supporting electronic files were used to modify the TWDB CRCX conceptual model, or used to develop the groundwater flow model. Based on our review of the draft CRCX GAM report, there are still several improvements that could be made to the eastern arm CRCX conceptual model and resulting GAM:

1. Consider the Tessey Limestone as part of the CRCX aquifer in Pecos County. The TWDB already has the geologic model prepared by JSAI to perform this task.
2. Consider simplifying the model by combining the upper four model layers into one layer.
3. The current model discharges groundwater from all model layers to the Pecos River. Previous work by Hiss (1976) and JSAI (2015) are in conflict with this assumption in the Conceptual Model. Consider changing the conceptual model so that groundwater from the CRCX aquifer discharges to the shelf margin aquifer east of the CRCX instead of all of the water discharging by vertical flow to the Pecos River.
4. Perform historical calibration with available industrial pumping and water level data from the O'Brian Well Field in Ward and Winkler Counties. The current model does not calibrate to these data. Correcting for item 3 above will lend to a reasonable model calibration.

***We are grateful for the data provided. However, much of that data arrived too late for use in the construction of this version of the Groundwater Availability Model for the Capitan Reef Complex Aquifer without severely setting back the project schedule. Items 1 and 2 above will be seriously considered in future updates to the model. The present version of the model indicates groundwater flow from the Capitan Reef Complex Aquifer into the surrounding basin and shelf sediments in Pecos County and also in Eddy County in New Mexico. The coincidence of the Monument Draw Trough collapse feature and the Capitan Reef Complex—provide significant evidence for the upward cross-formational flow. In Hiss (1975): (1) he focused on the portion of the Capitan Reef Complex in New Mexico, (2) he had very little data in Texas, and (3) his map showing groundwater convergence in Winkler County is based on an assumption, not on actual data.***

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I have spent the last several years working on the southern Capitan Reef Complex Aquifer (CRCX) problem. To say the system is complex would be a gross underestimation. I have

followed the works of Dr. Phillip Burke King of the USGS, Bill Hiss of the USGS, Dr. Carol Ann Hill of the University of New Mexico, Dr. David Rohr and Dr. Elizabeth Measures of Sul Ross State University, and recently Steve T. Finch of John Shomaker and Associates among others all whom have worked diligently to unravel this complicated system. Not to say that I have solved the problem, but I have faithfully and conscientiously pursued the mysteries of the system in an attempt to better understand its structure and flow paths.

At the beginning of my endeavors in the Glass Mountain region, I read Dr. P.B. King's seminal work, *The University of Texas Bulletin No. 3038, The Geology of the Glass Mountains, Texas*. After reading his manuscript and conversing with the esteemed geoscience faculty of Sul Ross State University, I became painfully aware of the extremely difficult nature of the project that I had undertaken. It was a valuable quote from R. Allan Freeze, and John A. Cherry's book, *Groundwater* that helped propel me forward on this journey;

"In terrain that has been deformed by folding and faulting, aquifers can be difficult to discern because of the geologic complexity. In these situations the main ingredient in groundwater investigations is often large-scale structural analysis of the geologic setting."

Qualifying and quantifying freshwater resources and reserves is a vital and important mission for the sustained growth, security, and prosperity of the citizens of Texas. As stated in the CRCX GAM report;

"The eastern arm of the Capitan Reef Complex Aquifer groundwater availability model will thus serve as a critical tool for the groundwater planning in the state." In addition to a planning tool, "This model will provide a groundwater management tool that can be used by the districts; Groundwater Management Areas 3,4, and 7; and the Far West Texas and Region F regional water planning groups, among other stakeholders."

The southern Capitan Reef Complex Aquifer southern boundary based on information from the *Groundwater Availability Model: Eastern Arm of the Capitan Reef Complex Aquifer of Texas* (CRCX GAM) report and the geologic and recharge model from Steve T. Finch of John Shomaker and Associates performed on behalf of La Escalera Ranch in southern Pecos County is shown to extend from southern Pecos County into northern Brewster County down to US Highway 90. I understand based on the information provided in the draft version of the CRCX GAM, the estimated recharge package utilized for layer 5 is derived predominately from Mr. Finch's work. On several occasions, Mr. Finch has also verbally stated his method includes the full extent of the CRCX outcrop including the Tessey Formation and also the inclusion of the Word Formation with a 100 percent utilization of all precipitation on the outcrop.

In his assessment of calculated CRCX recharge, Mr. Finch estimates recharge to be 18 percent or 2.56 inches/year of the annual precipitation, which he equates the total precipitation to be 14.46

inches per year. Mr. Finch in his assumptions makes use and assigns 100 percent value to the surface area of all of the Tessey, Gilliam, Capitan and Word Formations in the Glass Mountain area to derive an estimate of a cumulative recharge value of 36,200 acre-feet/year to the CRCX. The CRCX GAM in layer 5 makes full utilization of all the CRCX outcrop area as outlined in the State contracted Daniel B. Stephens Report on the Capitan Reef Complex Aquifer from 2009. It includes all of Mr. Finch's recharge value plus an additional 300 acre/feet for a total of 36,500 acre/feet per year. However, it does not include the Word Formation in the modeled area and makes no allowance for inflow into the model from below the 5th layer. By contrast, Mr. Finch equates 3,200 acre-feet/year for recharge from the Word Formation. If as stated in the executive summary, the CRCX GAM model is highly sensitive to recharge, the utilization of 36,500 acre-feet/year is an overestimation of available recharge by roughly 10 percent per/year.

***This comment refers to the steady-state water budget that appears in Table 3.3.1. Despite basing recharge estimates on the recharge rate—2.5 inches per year—from Finch (2014), actual annual recharge estimates for the Capitan Reef Complex Aquifer will differ from Finches calculation because outcrop areas differ and annual recharge rates are varied based on inter-annual fluctuations of precipitation. Any similarity in annual recharge from the model and Finch's total recharge calculation are coincidental.***

In geologic settings that have been altered by faulting, the faults create hydraulic controls. As explained by Freeze and Cherry;

“Faults are structural features that may be present on rock slopes, and hydrologically, they play many roles. Faults that have developed thick zones of sheared and broken rock with little fault gouge may be highly permeable, while those that possess a thin (but continuous) layer of gouge may form almost impermeable barriers.”

The Glass Mountain area, as described by King and others, has many faulted features. These parallel faults tend to transect the mountains somewhat perpendicular to the axis. Many of the faults appear normal in orientation; however some appear reversed creating horst and graben or trough like features. These hydrologic features are well defined by surface topography and drainage. Gilliland Canyon, Burnt House Canyon, and Hess Canyon are such locations that represent areas containing normal and reverse faulting.

As stated in the executive summary of the Draft CRCX GAM, the second most significant sensitive element is hydraulic conductivity. Based on the graphics for model layer 5, precipitation recharge and groundwater is moved by gravity from cell to cell from northern Brewster County near Highway 90 northeast through the CRCX formation matrix into Pecos County and on to the counties further north. Additionally, the CRCX GAM has a set uniform value for horizontal hydraulic conductivity of 10 feet per day with a vertical hydraulic

conductivity value of 1 foot per day or an anisotropic ratio of 1:10 for the entire layer 5, which is more representative of a stratified sand alluvium than a dolomitic limestone.

Numerous published scientific works of the northern Brewster County region, specifically the Glass Mountain area, outline multiple faulted areas expressing northwestern dipping beds and northwestern trending normal and reverse fault. Other areas, such as Old Blue Mountain, exhibit the effects of anticlinal properties with fault scarps having throws of 500 feet or more. Mixing all the aforementioned heterogeneity together and adding numerous igneous intrusive bodies scattered throughout the Glass Mountains, induces a significant margin of error into the model and renders the use of a homogeneous, anisotropic layer concept invalid for both recharge and hydraulic conductivity for this section of the model.

***The value of hydraulic conductivity used in the model falls within the range of measured hydraulic conductivities based on pump tests conducted in the Capitan Reef Complex Aquifer. This is a regional model and consequently will not exactly replicate local-scale flow directions and hydraulic properties but does indicate the overall behavior of the aquifer as we understand it. Using a ratio of vertical to horizontal hydraulic conductivity of 10 is a general rule-of-thumb in the groundwater modeling profession, especially in the absence of actual measurements.***

Models are useful tools and in the right hands, they can further understanding and help facilitate the management and protection of our valuable groundwater resources. However, models can only be used to the degree of scale for which they are accurate. As expressed in the CRCX GAM presentation in Fort Stockton on March 22, 2016, this is the first iteration of the model and there is more work to be done. At this time, the model is potentially only valid for regional or macroscale use with a full understanding of the model's limitations and should not be utilized for the purpose of mesoscale or microscale applications where property rights might be impinged.

***We are in complete agreement with this statement.***