GAM Run 07-36

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EXECUTIVE SUMMARY:

We ran the groundwater availability model for the central part of the Gulf Coast Aquifer using a specified pumpage annually for a 60-year predictive simulation along with average recharge rates, evapotranspiration rates, and initial streamflows. The results of this model run indicated that using the specified pumpage in the model results in large areas of water level declines over the 60-year model run. These areas of water level declines occur in the Chicot, Evangeline, and the Jasper aquifers and are caused by increased pumpage throughout most of the model area.

REQUESTOR:

Mr. Scotty Bledsoe from the Live Oak Underground Water Conservation District (on behalf of Groundwater Management Area 16).

DESCRIPTION OF REQUEST:

Mr. Bledsoe asked for a baseline model run using the groundwater availability model for the central part of the Gulf Coast Aquifer. This model run would be a 60-year simulation using initial water levels from the end of the historic calibration simulation and average recharge conditions. Each year of the model run would use a pumpage approved by members of Groundwater Management Area 16.

METHODS:

Recharge and evapotranspiration rates and initial streamflows were averaged for the historic calibration-verification runs, representing 1981 to 1999. These averages were then used for each year of the 60-year predictive simulation along with the baseline pumpage. Resulting water levels and drawdowns were then evaluated and are described in the "Results" section below.

PARAMETERS AND ASSUMPTIONS:

The groundwater availability model for the central part of the Gulf Coast Aquifer was used for this model run. The parameters and assumptions for this model are described below:

- We used Version 1.01 of the groundwater availability model for the central part of the Gulf Coast Aquifer. This model assumes partial penetrating wells in the

Evangeline Aquifer due to a lack of data for aquifer properties in the lower portion of the aquifer.

- See Chowdhury and others (2004), and Waterstone and others (2003) for assumptions and limitations of the groundwater availability model for the central part of the Gulf Coast Aquifer.

- The mean absolute error (a measure of the difference between simulated and actual water levels during model calibration) in the entire model for 1999 is 26 feet, which is 4.6 percent of the hydraulic head drop across the model area (Chowdhury and others, 2004).

- The model includes four layers representing: the Chicot Aquifer (Layer 1), the Evangeline Aquifer (Layer 2), the Burkeville Confining Unit (Layer 3), and the Jasper Aquifer (Layer 4).

- Recharge rates, evapotranspiration rates, and initial streamflows are averages from the 1981 to 1999 calibration and verification time period.

- Pumpage used for each year of the 60-year predictive simulation was specified by members of Groundwater Management Areas 15 and 16. Details on this pumpage are given below.

Specified Pumpage

The pumpage specified by the members of Groundwater Management Area 16 was based on the baseline pumpage constructed for GAM Run 07-12 and GAM Run 07-14 (Donnelly, 2007a and 2007b). The assumptions used to create the baseline pumpage are detailed in the GAM Run 07-12 and 07-14 reports and will not be repeated in this report. The following modifications were made to the baseline pumpage to create the specified pumpage used in this simulation.

The baseline pumpage totals were increased in most counties in the model area. The total amount of pumpage used in each county in this simulation is shown in Table 1. Also included in Table 1 is the amount of pumpage assigned to each of the three aquifers (Chicot, Evangeline, and Jasper) within the Gulf Coast Aquifer System. The amount assigned to each aquifer was determined based on the percentages pumped from each aquifer in the baseline pumpage data set, unless the pumpage to each aquifer was specified by members of the Groundwater Management Area 16.

In addition to the total county pumpage, members of Groundwater Management Area 16 also had the option of specifying where the new pumpage would be allocated. The following specifications were made on where and how pumpage should be allocated.

- Bee County—ninety percent (90%) of the total pumpage was placed in the shaded area in the southern half of Bee County, as shown in Figure 1. Pumpage was allocated to the three aquifers within the Gulf Coast Aquifer System based on the percentage in the baseline pumpage data set.

Table 1. Pumpage used in this model simulation. Pumpage is reported in acre-feet per year.

County	GAM Run 07-12 baseline pumpage	GAM Run 07-36 total pumpage	Additional pumpage	Additional Chicot pumpage	Additional Evangeline pumpage	Additional Jasper pumpage
Aransas	1,827	1,827	0	0	0	0
Bee	4,694	30,654	25,960	11,682	13,759	519
Brooks	4,040	4,040	0	0	0	0
Calhoun	1,517	2,940	1,423	1,387	36	0
Colorado	33,236	47,857	14,621	7,448	6,898	275
Dewitt	4,587	15,866	11,279	3,384	6,767	1,128
Duval	7,749	14,063	6,314	338	3,585	2,390
Fayette	2,197	8,697	6,500	0	715	5,785
Goliad	6,143	12,810	6,667	706	5,961	0
Jackson	53,615	87,876	34,261	24,979	9,282	0
Jim Hogg	981	981	0	0	0	0
Jim Wells	4,774	25,013	20,239	5,060	15,179	0
Karnes	2,897	15,200	12,303	0	1,107	11,196
Kenedy	104	104	0	0	0	0
Kleberg	8,634	25,000	16,366	1,637	14,729	0
Lavaca	11,376	38,171	26,795	4,060	16,583	6,152
Live Oak	8,680	21,987	13,307	0	4,258	9,049
Matagorda	35,000	49,221	14,221	11,254	2,967	0
McMullen	29	450	421	0	4	417
Nueces	3,097	56,000	52,903	13,226	39,677	0
Refugio	1,068	32,325	31,257	6,257	25,000	0
San Patricio	3,748	21,290	17,542	8,771	8,771	0
Victoria	13,872	41,129	27,257	15,091	12,166	0
Webb	143	2,000	1,857	0	1,765	92
Wharton	180,000	182,793	2,793	1,734	1,059	0

- Jim Wells County—seventy-five percent (75%) of the total pumpage was allocated to the Evangeline Aquifer in the shaded area shown in Figure 2.

- Kleberg County—ninety percent (90%) of the total pumpage was allocated to the Evangeline Aquifer in the shaded area shown in Figure 2.

- Live Oak County—eighty percent (80%) of the total pumpage was placed in the shaded area in the southern half of Live Oak County, as shown in Figure 1. Pumpage was allocated to the three aquifers within the Gulf Coast Aquifer System based on the percentage in the baseline pumpage data set.

- Refugio County—25,000 acre-feet per year of pumpage was allocated to the Evangeline Aquifer and placed in two areas, shown in green in Figure 3. The remainder of the pumpage for the county, approximately 6,257 acre-feet per year, was allocated to the Chicot Aquifer and placed in the three red areas shown in Figure 3.

- San Patricio County- 20,000 acre-feet of pumpage was allocated to the area west of Highway 77, as shown in Figure 4.

If locations for pumpage were not specified by members of Groundwater Management Area 16, the additional pumpage was distributed evenly across the entire active portion of each aquifer within each county.

RESULTS:

Included in Appendix A are estimates of the water budgets after running the model for 60 years. The components of the water budget are described below.

- Wells—water produced from wells in each aquifer. This component is always shown as "Outflow" from the water budget, because all wells included in the model produce (rather than inject) water. Wells are modeled using the MODFLOW Well package.

- Springs and wetlands—water that drains from an aquifer if water levels are above the elevation of the spring or wetland. This component is always shown as "Outflow", or discharge, from the water budget. Springs and wetlands are modeled using the MODFLOW Drain package.

- Recharge—simulates areally distributed recharge due to precipitation falling on the outcrop areas of aquifers. Recharge is always shown as "Inflow" into the water budget.

- Vertical Leakage (Upward or Downward)—describes the vertical flow, or leakage, between two aquifers. This flow is controlled by the water levels in each aquifer and aquifer properties of each aquifer that define the amount of leakage that can occur. "Inflow" to an aquifer from an overlying or underlying aquifer will always equal the "Outflow" from the other aquifer.

- Storage—water stored in the aquifer. The storage component that is included in "Inflow" is water that is removed from storage in the aquifer (that is, water levels decline). The storage component that is included in "Outflow" is water that is added back into storage in the aquifer (that is, water levels increase). This component of the budget is often seen as water both going into and out of the aquifer because this is a regional budget, and water levels will decline in some areas (water is being removed from storage) and will rise in others (water is being added to storage).

- Lateral flow—describes lateral flow within an aquifer between a county and adjacent counties.

- Evapotranspiration—water that flows out of an aquifer due to direct evaporation and plant transpiration. This component of the budget will always be shown as "Outflow". Evapotranspiration is modeled using the MODFLOW Evapotranspiration package.

- Rivers and Streams—water that flows between streams and rivers and an aquifer. The direction and amount of flow depends on the water level in the stream or river and the aquifer. In areas where water levels in the stream or river are above the water level in the aquifer, water flows into the aquifer and is shown as "Inflow" in the budget. In areas where water levels in the aquifer are above the water level in the stream or river, water flows out of the aquifer and into the stream and is shown as "Outflow" in the budget. Rivers and streams are modeled using the MODFLOW Stream package.

- General-Head Boundary—the model uses general-head boundaries to simulate the movement of water out of the Chicot Aquifer at the coast.

The results of the model run are described for the three aquifers in the model area; the Chicot (layer 1 in the model), the Evangeline (layer 2), and the Jasper (layer 4) aquifers. Results for the Burkeville Confining Unit (layer 3) are not discussed because this is a confining unit.

Initial water levels (end of 1999) for the Chicot, Evangeline, and Jasper aquifers are shown in Figures 5, 6, and 7, respectively. These figures show the starting water levels for this 60-year predictive model run. These figures all show that water levels are the highest in the outcrop portions of the aquifers, located farthest from the coast, and that water levels decrease as groundwater flows downdip towards the coast. A cone of depression (an area of decreased water levels around an area of heavy pumpage) can be observed in the Evangeline Aquifer in south-central Wharton County, as well as around the cities of Victoria and Kingsville in Victoria and Kleberg counties, respectively (Figure 6). Small cones of depression can also be observed in the Jasper Aquifer in southern Duval County, central Live Oak County, central DeWitt County, and central Lavaca County.

Water levels at the end of the 60-year predictive simulation for the Chicot, Evangeline, and Jasper aquifers are shown in Figures 8, 9, and 10, respectively. These figures show the impact of the increased pumpage in many parts of the model area. Some areas of drawdown are evident in the water level map for the Chicot Aquifer (Figure 8); in particular an area of drawdown in Jackson and Wharton counties that was present in the initial water level map (Figure 5) has expanded because of the additional pumpage in Jackson County.

Water levels in the Evangeline Aquifer (Figure 9) also show the impact of the additional pumpage in some areas of the model. Significant areas of depression in the water levels can be seen in Figure 9 in Kleberg County. The impact of the additional pumpage in Refugio County in one of the two designated areas of the Evangeline can also be seen in Figure 9.

In the Jasper Aquifer, differences between initial water levels (Figure 7) and water levels after 60 years (Figure 10) are harder to discern because less pumpage was added to this aquifer than either the Chicot or Evangeline Aquifers.

In addition to water level maps, maps of water level changes for each aquifer were made. A water level change map shows the difference between the initial water levels and the

water levels at the end of the 60-year run. These figures will help evaluate the impact of pumpage on the water levels over the length of the model run. Water level changes over the 60-year predictive simulation for the Chicot, Evangeline, and Jasper aquifers are shown in Figures 11, 12, and 13, respectively. Average water level changes for each aquifer in each county of the model are provided in Table 2.

Table 2. Average water level changes by county and aquifer. Negative values indicate a lowering of water levels between 1999 and 2060 while positive values indicate a recovery of water levels since 1999. A dashed line indicates the aquifer does not exist or was not modeled for a particular county.

County	Average Water Level Change (feet)		
	Chicot Aquifer (Layer 1)	Evangeline Aquifer (Layer 2)	Jasper Aquifer (Layer 4)
Aransas	0.0	-15.5	--
Austin	3.5	-2.6	-11.1
Bee	-26.1	-30.6	-18.7
Brazoria	0.5	-11.5	-15.1
Brooks	27.0	9.3	3.2
Calhoun	0.7	-8.3	--
Colorado	-7.3	-11.5	-25.1
De Witt	-7.7	-6.2	-17.4
Duval	-3.6	-13.6	-34.9
Fayette	--	-13.8	-45.4
Fort Bend	2.2	-3.3	-12.8
Goliad	0.0	-6.0	-14.3
Gonzales	--	--	-14.7
Jackson	-19.6	-24.7	-26.6
Jim Hogg	54.7	20.3	7.1
Jim Wells	-4.0	-48.1	-16.2
Karnes	--	-28.1	-52.8
Kenedy	5.9	-41.3	--
Kleberg	-2.5	-171.5	-16.2
Lavaca	-13.1	-12.9	-63.0
Live Oak	-24.0	-29.6	-54.3
McMullen	--	--	-16.2
Matagorda	-3.8	-23.1	--
Nueces	-8.9	-87.7	-13.5
Refugio	-1.2	-33.2	--
San Patricio	-15.6	-39.3	-29.1
Victoria	7.1	0.3	-5.8
Washington	--	--	-37.4
Webb	--	-57.9	-59.2
Wharton	-15.4	-10.4	-23.1

Water levels in the Chicot Aquifer (Figure 11) show a decline (drawdown) throughout much of the model area, including areas in Jackson and Wharton counties where the declines are in excess of 50 feet. Declines can also be observed in Bee, Colorado, Jim Wells, Matagorda, and Nueces counties where pumpage in the Chicot Aquifer was increased. Declines are greater than 50 feet around the Bee-San Patricio County line

(Figure 11). Although pumpage in Victoria County was also increased in this model run, water levels show an increase across the county. This is due to the response of the aquifer to decreased pumping from the City of Victoria included in the baseline pumpage. Recovery in water levels can also be observed at the southern edge of the model in Brooks, Jim Hogg, and Kenedy counties. However, this is an unavoidable artifact of the way the model was constructed and should be ignored for management decisions.

In the Evangeline Aquifer (Figure 12) water level declines are observed across most of the model area. Extremely high drawdowns are observed in Kleberg County where a large amount of pumpage from the Evangeline Aquifer was placed over a small area. Other areas of higher water level declines occur in Refugio and Nueces counties where pumpage was added to the Evangeline Aquifer. Throughout the remainder of the model area water level declines in the Evangeline Aquifer are less than 25 feet. Water levels are predicted to recover in Victoria County due to decreased pumping from the Evangeline Aquifer for the City of Victoria. Similar to Figure 11, water level recovers at the southern edge of the model are a result of the model construction and may not be accurate.

In the Jasper Aquifer (Figure 13) significant declines in water levels occur throughout the model area. Several areas of significant decline occur in Fayette, Karnes, Lavaca, and Live Oak counties (Figure 13), which is caused by additional pumping assigned to the Jasper Aquifer. Water-level declines of up to 30 feet can be observed over most of the model area (Figure 13). An area of higher water level decline observed in southern Duval County was also observed in the baseline model run (GAM Run 07-12) and is not caused by additional pumpage used in this model run. A localized area of water level recovery occur in Bee County was also present in the baseline model run and is not due to pumpage used in this simulation. As with Figures 11 and 12, water level increases at the southern edge of the model are a result of the model construction and are not considered to be accurate.

Because some of the desired future conditions for the groundwater management area may be based on discharge to springs or baseflow to rivers and streams, we also pulled the water budgets for each of these components for each county in the model area. These budgets are provided in Appendix A. The components of the water budget are divided up into “In” and “Out”, representing water that is coming into and leaving from the aquifer. As might be expected, water from wells is only in the “Out” column, representing water that is pulled out of the budget or aquifer system from wells. Likewise, recharge is only found in the “In” column. Streams and rivers, however, have values in both the “In” and “Out” columns. This is because some streams lose water to the aquifer, and some gain water from the aquifer depending on the water levels in the aquifer. Also included in these budgets are values for vertical leakage to overlying and underlying formations as well as lateral inflow from adjacent counties. Future model runs can be compared to these budgets to determine the impact of additional pumpage compared to this run.

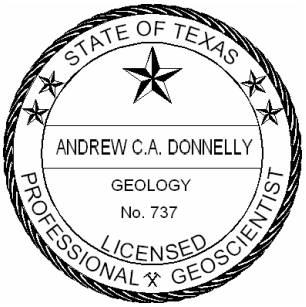
REFERENCES:

Chowdhury, A.H., Wade, S., Mace, R.E., and Ridgeway, C., 2004, Groundwater Availability Model of the Central Gulf Coast Aquifer System: Numerical Simulations through 1999- Model Report, 114 p.

Donnelly, A.C.A., 2007a, GAM Run 07-12, Texas Water Development Board GAM Run Report, 39 p.

Donnelly, A.C.A., 2007b, GAM Run 07-14, Texas Water Development Board GAM Run Report, 26 p.

Waterstone Engineering, Inc., and Parsons, Inc., 2003, Groundwater Availability of the Central Gulf Coast Aquifer: Numerical Simulations to 2050 Central Gulf Coast, Texas- Final Report: contract report to the Texas Water Development Board, 158 p.



The seal appearing on this document was authorized by Andrew C.A. Donnelly, P.G. 737, on January 10, 2008.

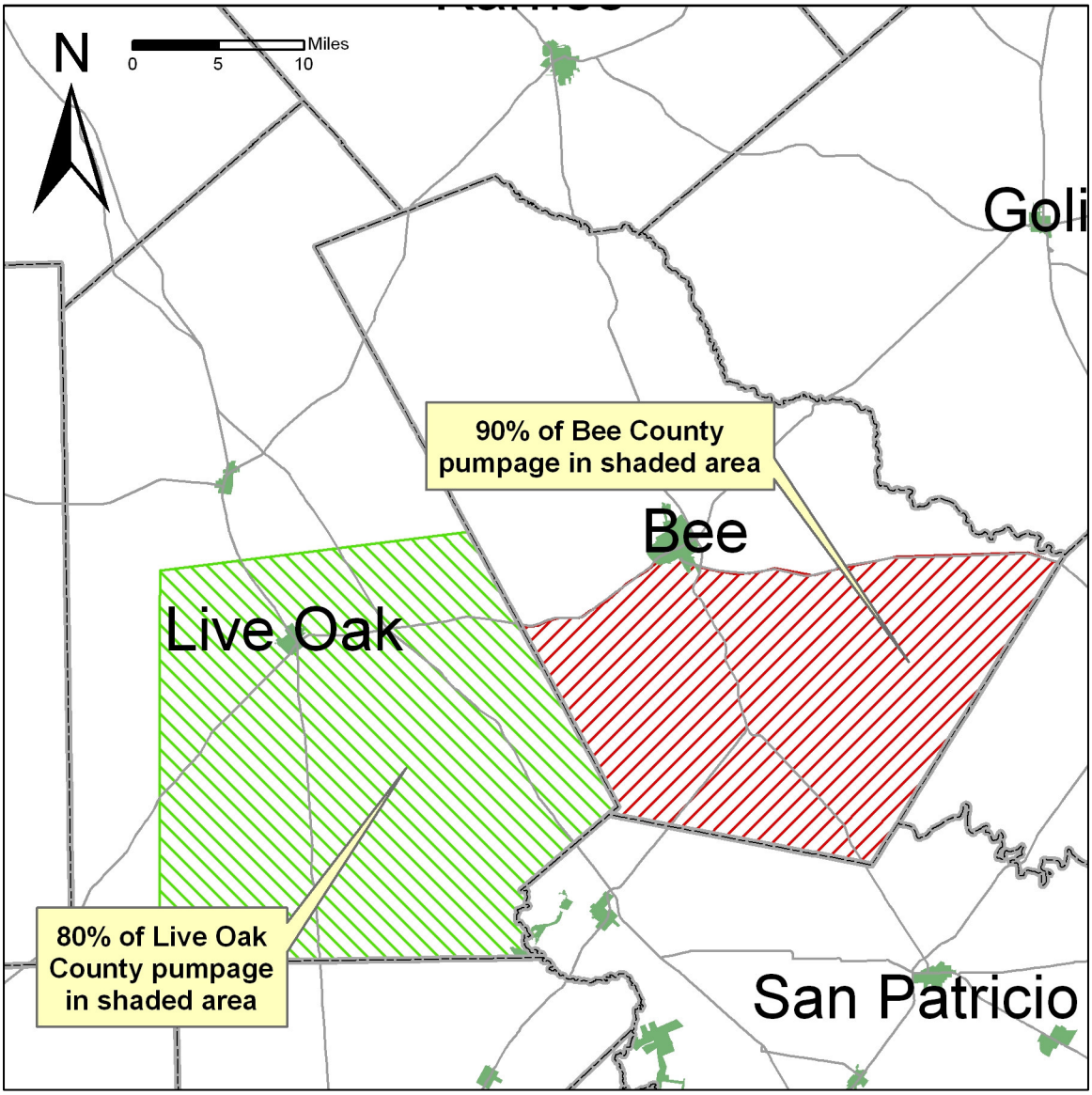


Figure 1. Location of additional pumpage in Bee and Live Oak counties. Pumpage in each county is concentrated in the shaded areas.

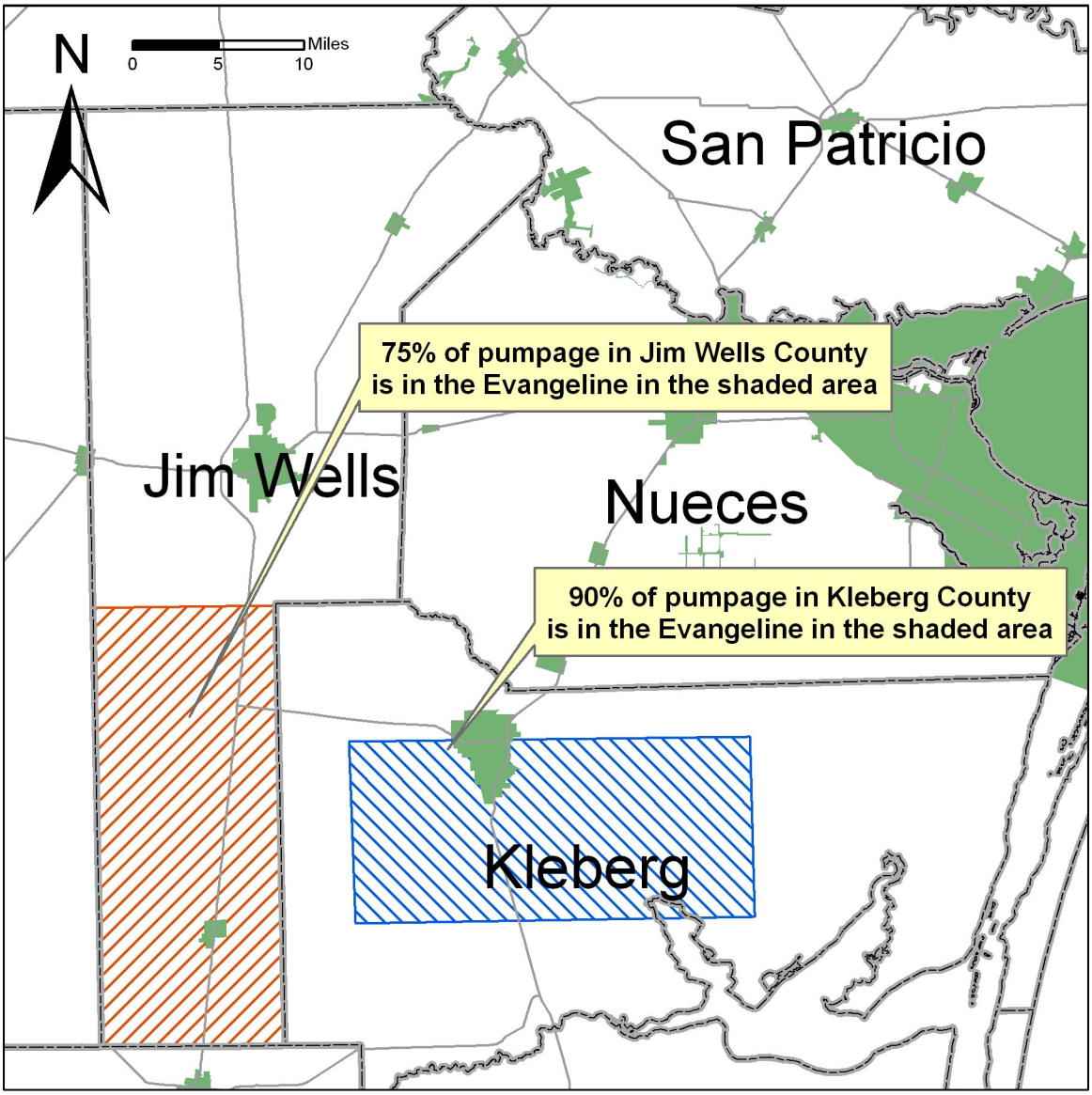


Figure 2. Location of additional pumpage in Jim Wells and Kleberg counties. Pumpage in each county is concentrated in the Evangeline Aquifer in the shaded areas.

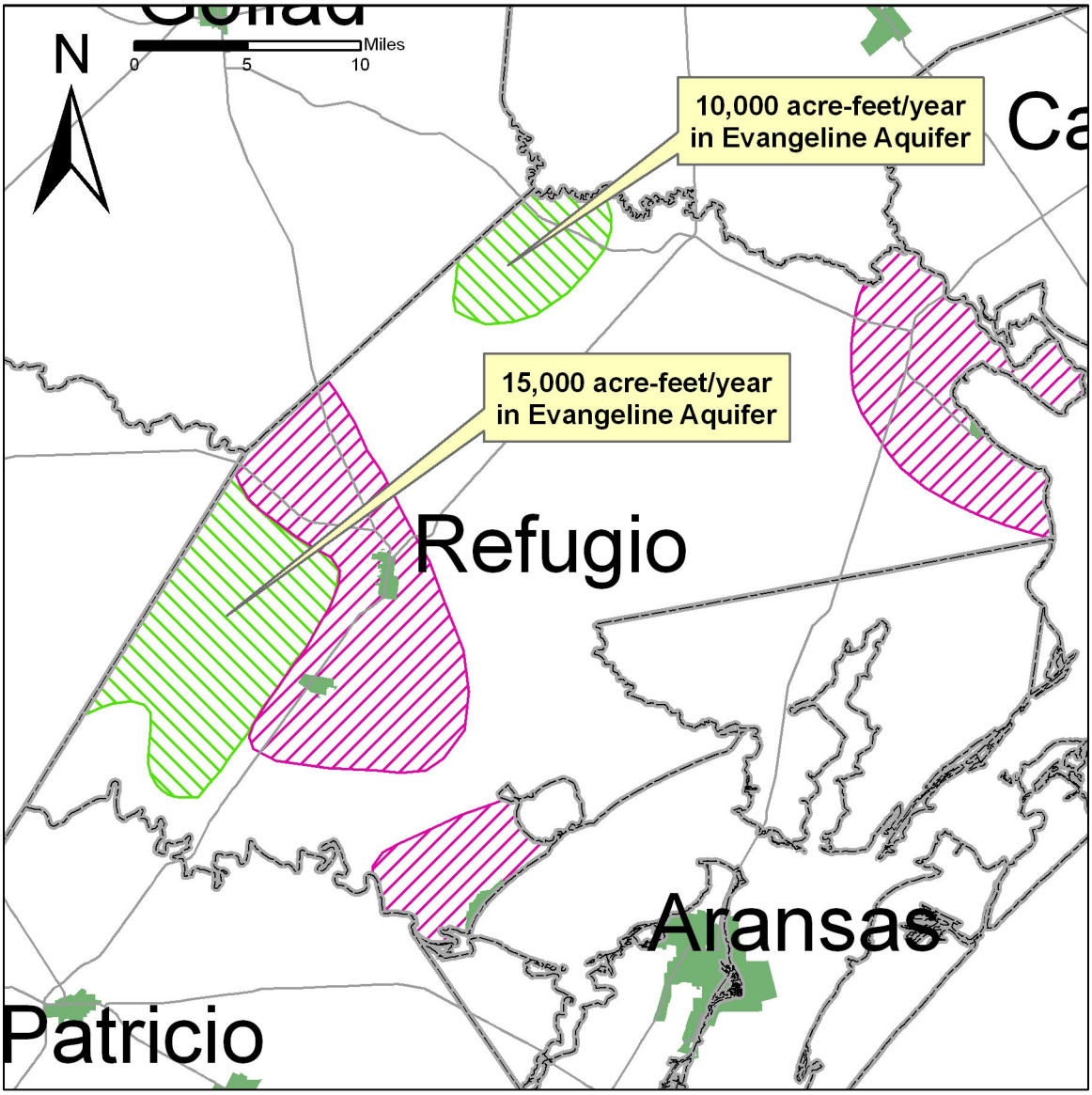


Figure 3. Location of additional pumpage in Refugio County. Pumpage in the Evangeline Aquifer is shown in the green areas, and pumpage in the Chicot Aquifer is shown in the red areas.

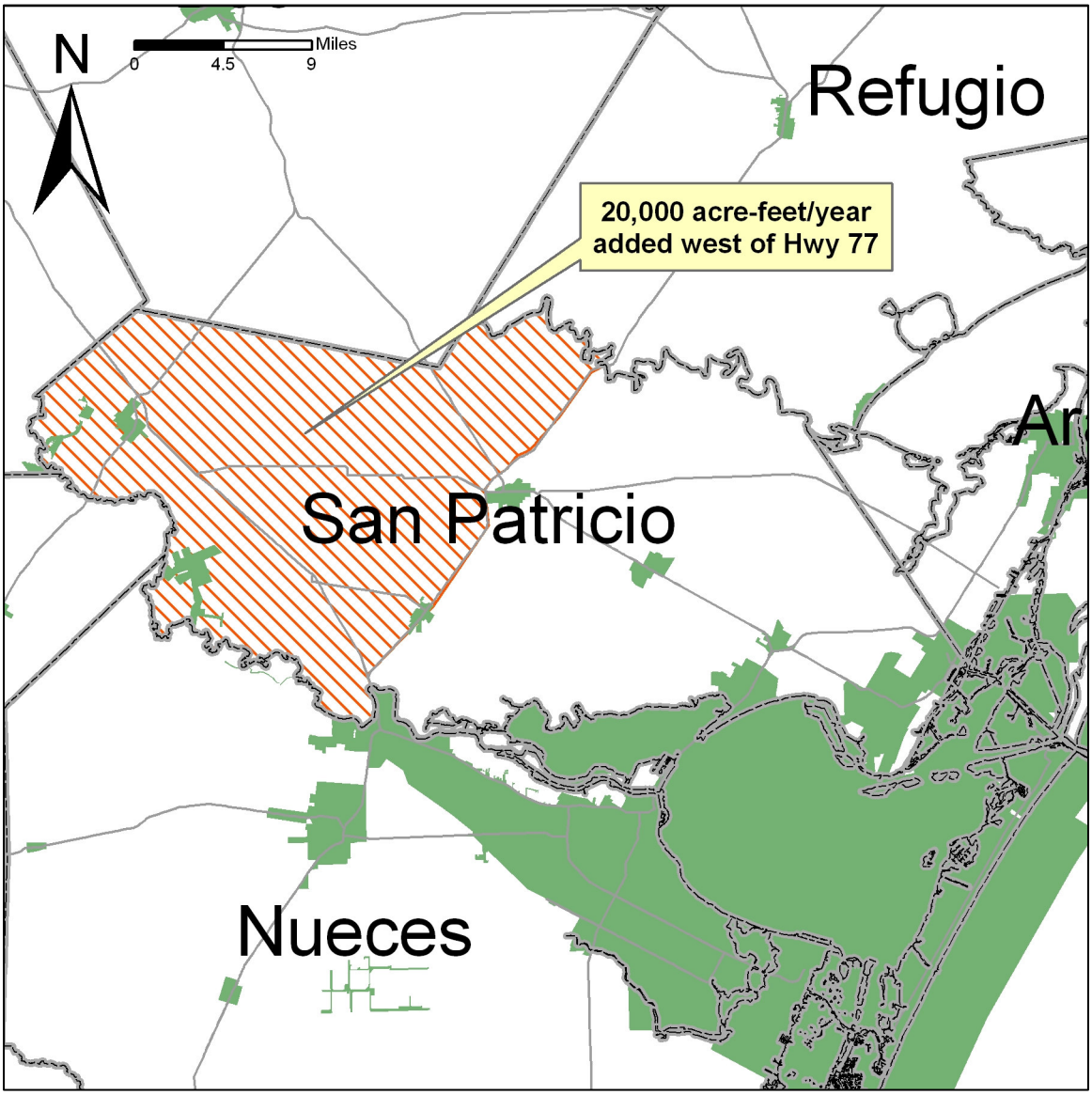


Figure 4. Location of additional pumpage in San Patricio County.

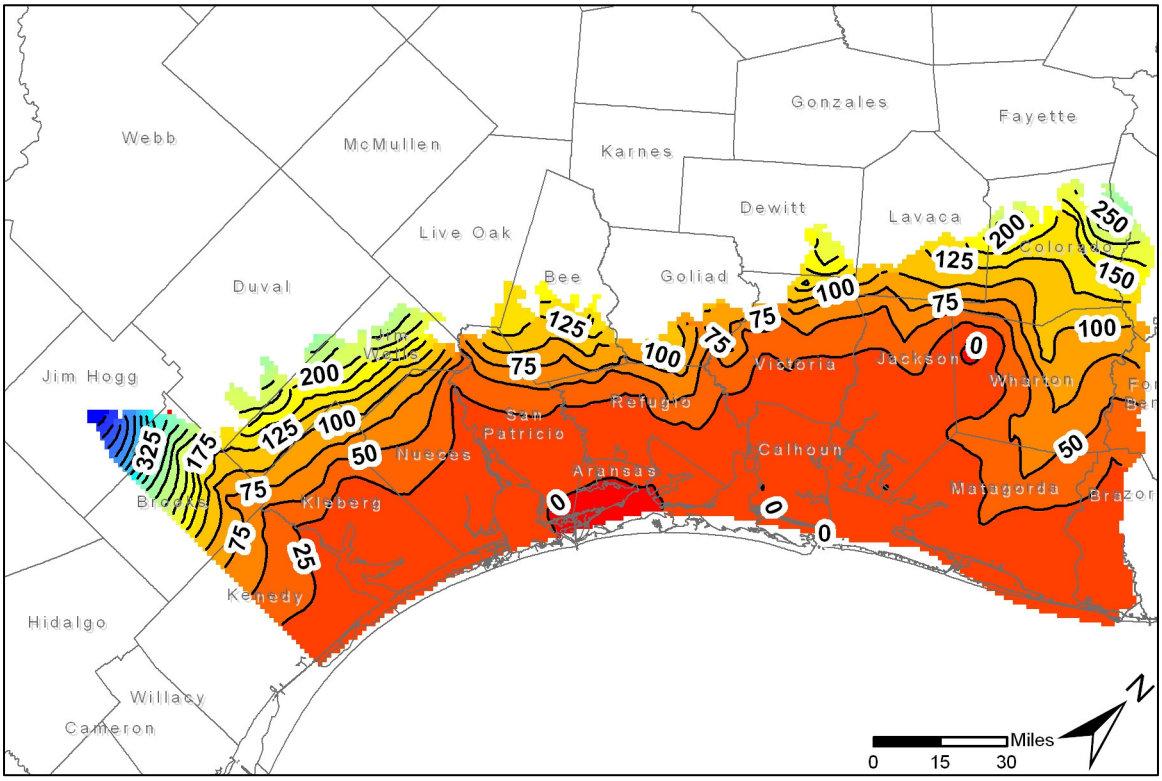


Figure 5. Initial water level elevations for the predictive model run in the Chicot Aquifer from the groundwater availability model for the central part of the Gulf Coast Aquifer. Water level elevations are in feet above mean sea level. Contour interval is 25 feet.

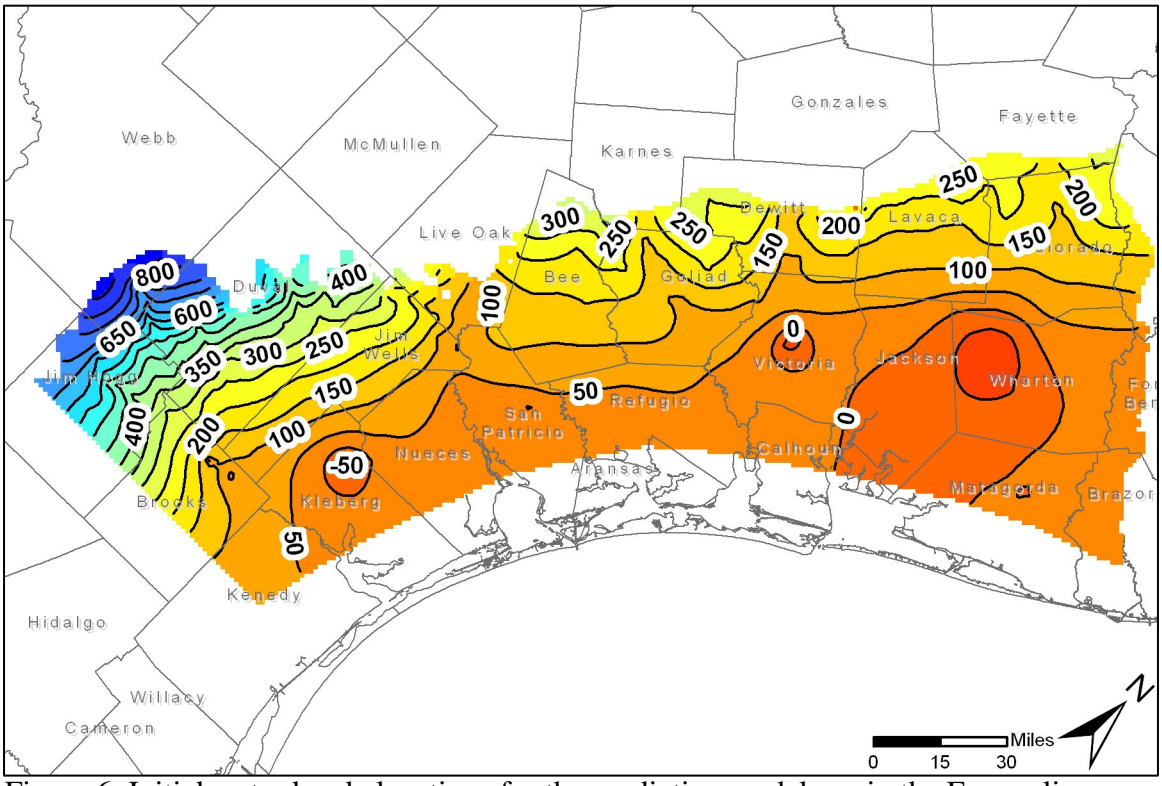


Figure 6. Initial water level elevations for the predictive model run in the Evangeline Aquifer from the groundwater availability model for the central part of the Gulf Coast Aquifer. Water level elevations are in feet above mean sea level. Contour interval is 50 feet.

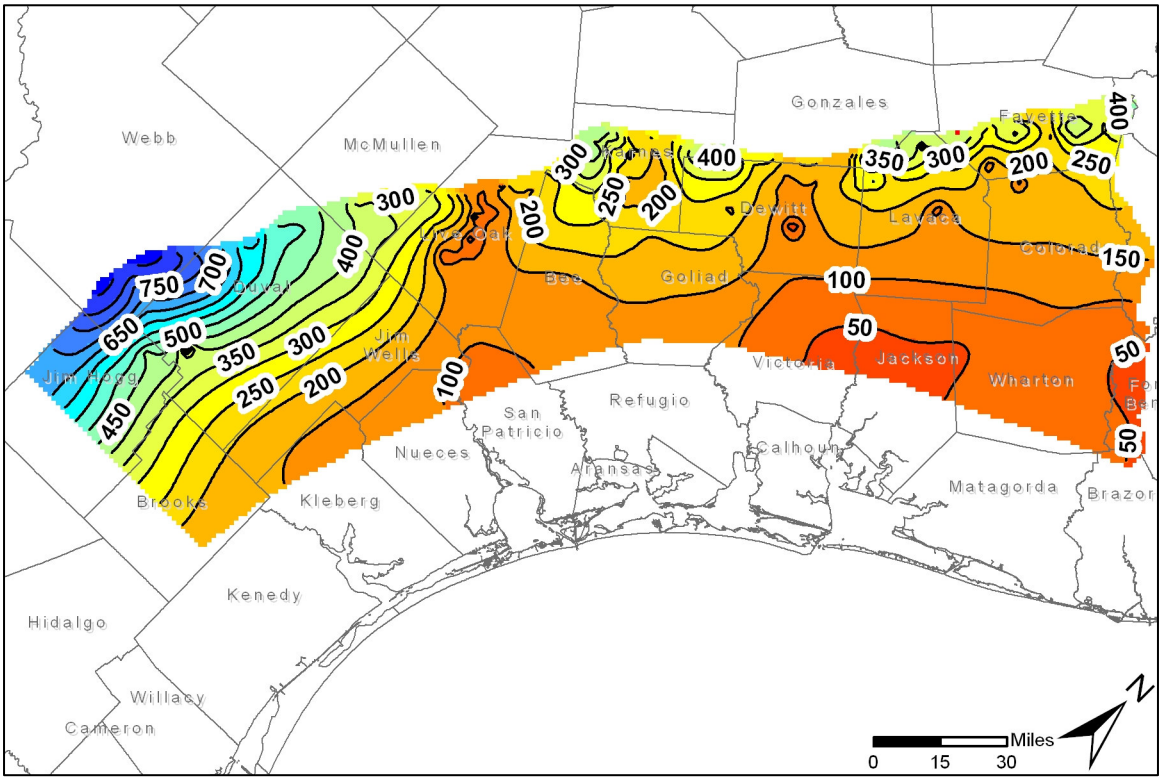


Figure 7. Initial water level elevations for the predictive model run in the Jasper Aquifer from the groundwater availability model for the central part of the Gulf Coast Aquifer. Water level elevations are in feet above mean sea level. Contour interval is 50 feet.

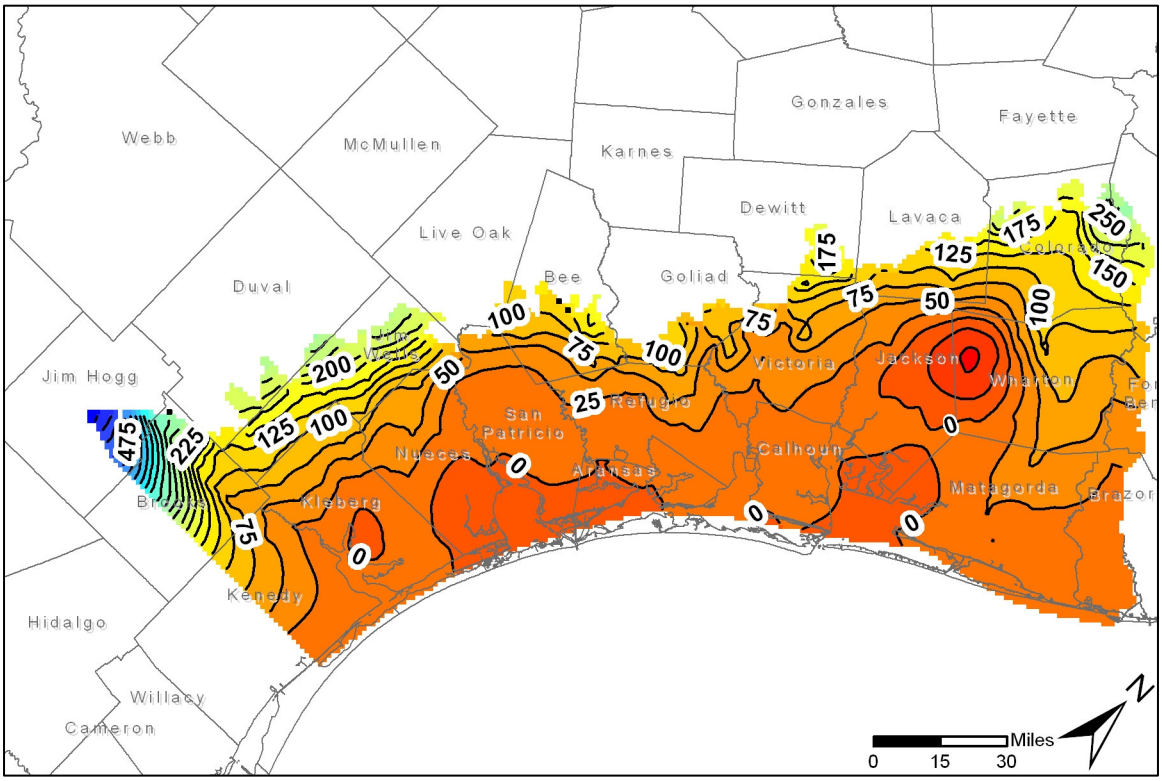


Figure 8. Water level elevations after 60 years using the specified pumpage in the Chicot Aquifer. Water level elevations are in feet above mean sea level. Contour interval is 25 feet.

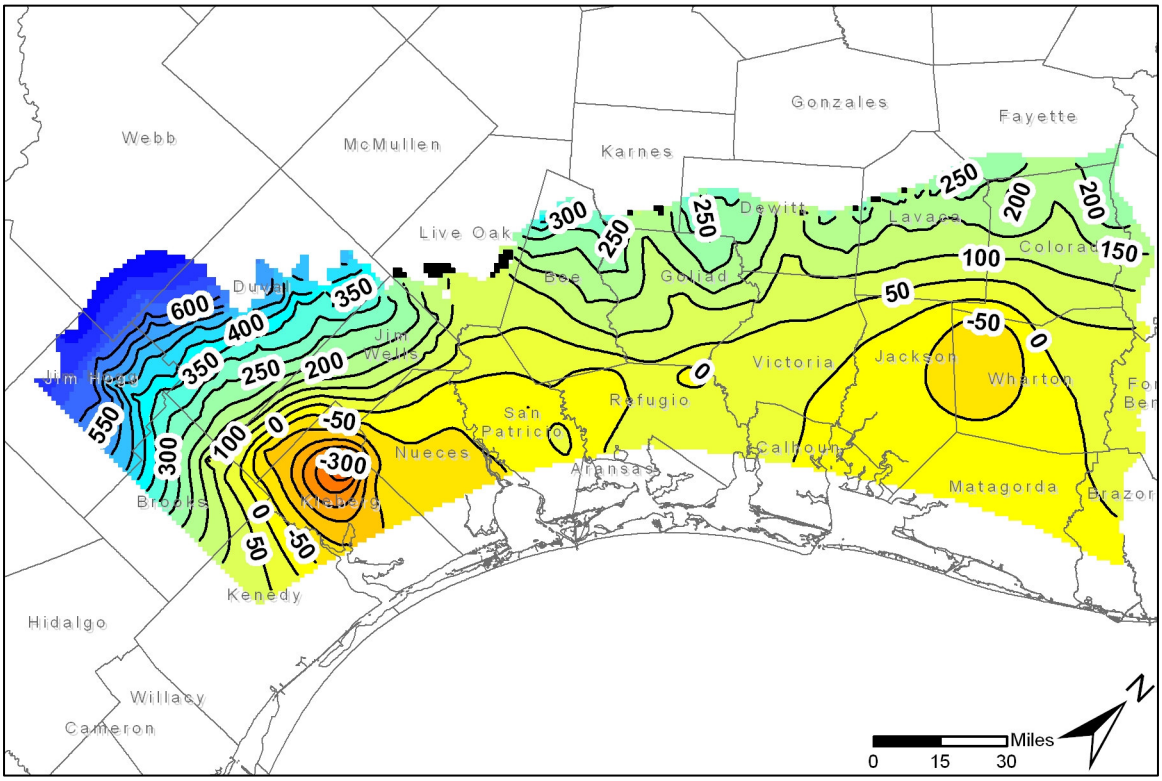


Figure 9. Water level elevations after 60 years using the specified pumpage in the Evangeline Aquifer. Water level elevations are in feet above mean sea level. Contour interval is 50 feet.

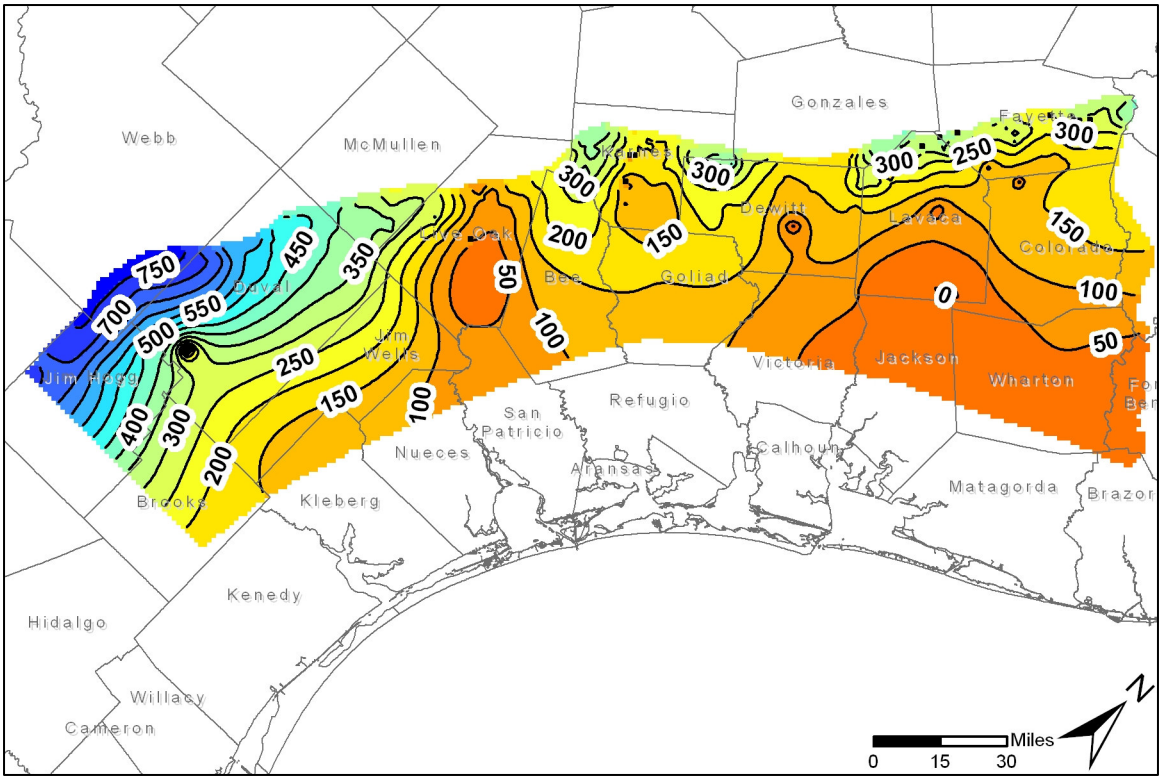


Figure 10. Water level elevations after 60 years using the specified pumpage in the Jasper Aquifer. Water level elevations are in feet above mean sea level. Contour interval is 50 feet.

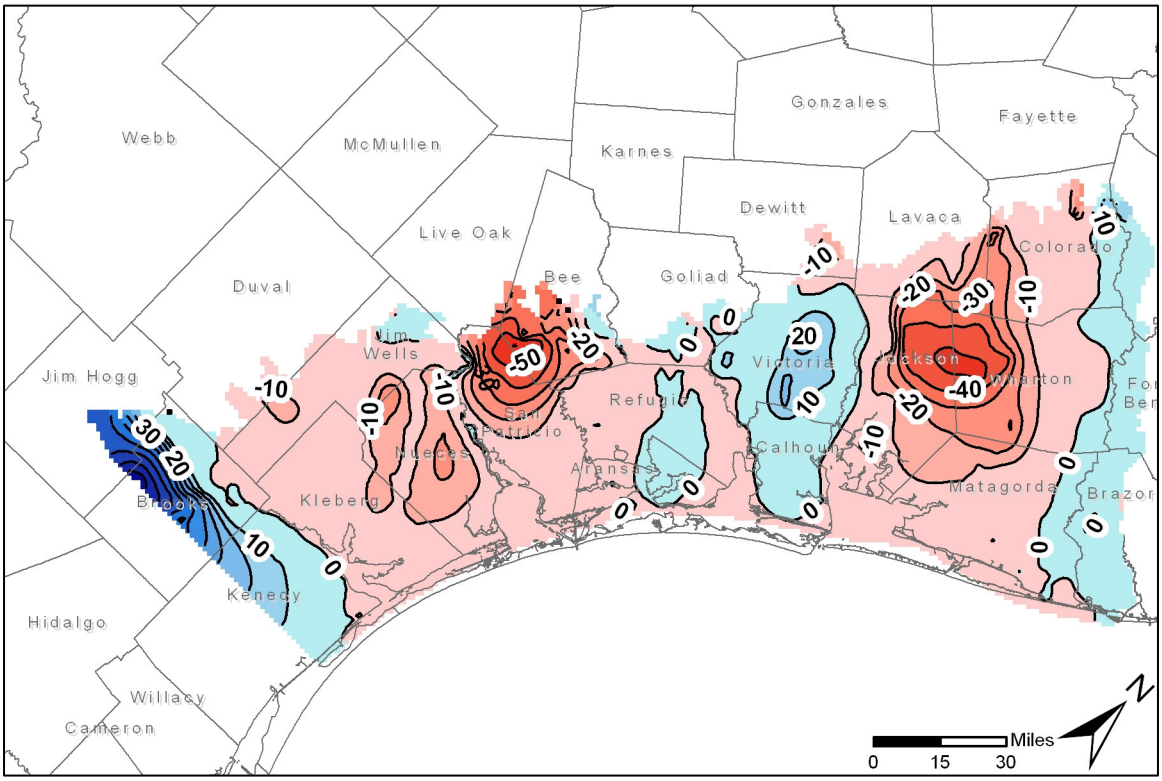


Figure 11. Changes in water levels after 60 years using the specified pumpage in the Chicot Aquifer. Drawdowns are in feet. Contour interval is 10 feet. Decreases in water levels (drawdowns) are shown in red. Increases in water levels are shown in blue.

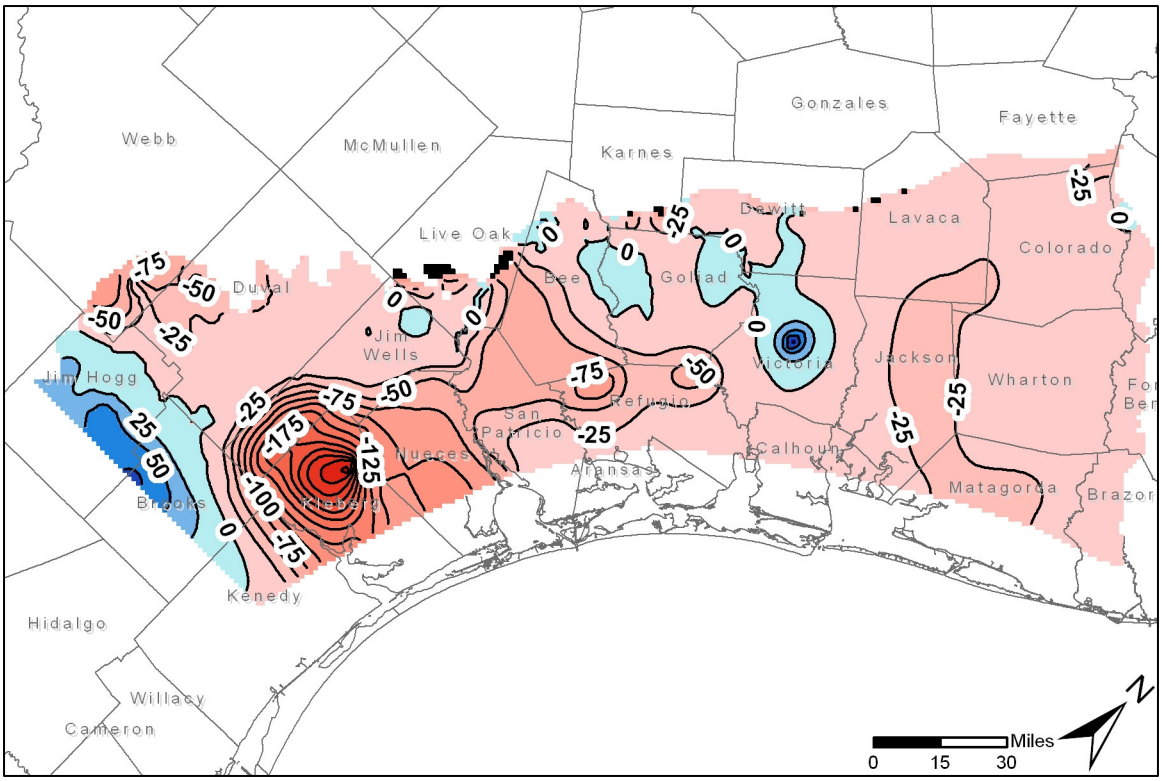


Figure 12. Changes in water levels after 60 years using the specified pumpage in the Evangeline Aquifer. Drawdowns are in feet. Contour interval is 25 feet. Decreases in water levels (drawdowns) are shown in red. Increases in water levels are shown in blue.

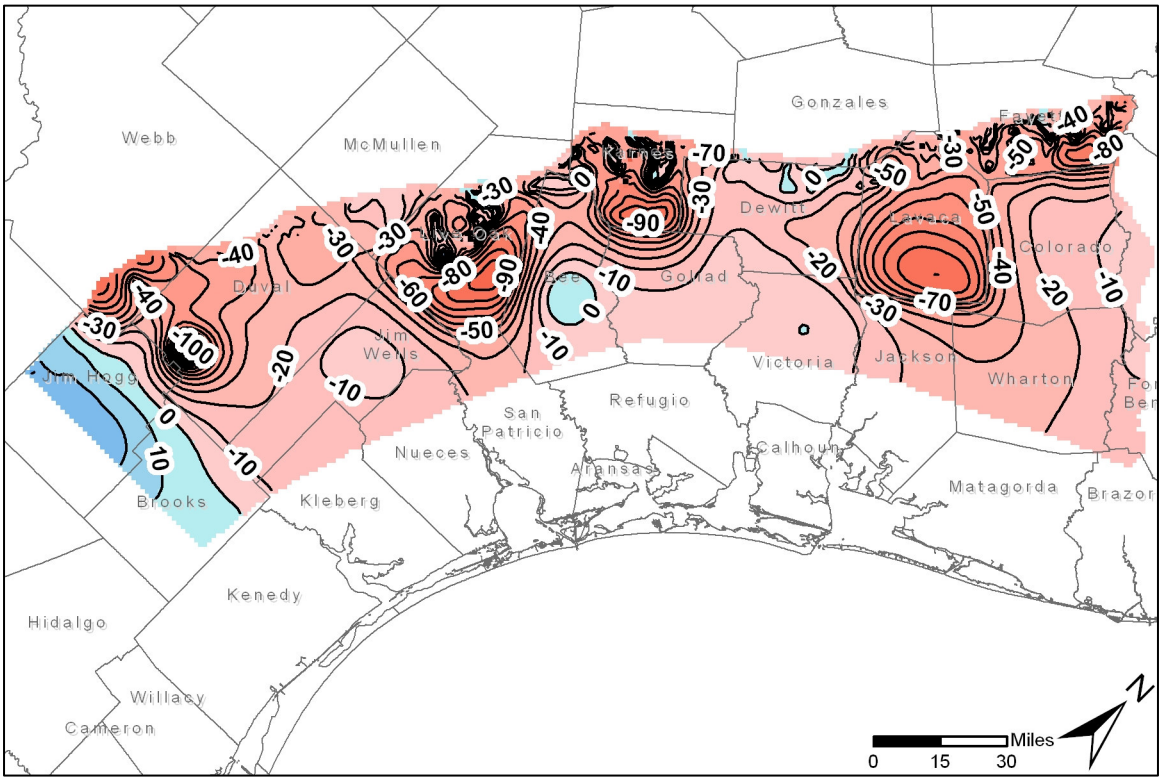


Figure 13. Changes in water levels after 60 years using the specified pumpage in the Jasper Aquifer. Drawdowns are in feet. Contour interval is 10 feet. Decreases in water levels (drawdowns) are shown in red. Increases in water levels are shown in blue.

Appendix A

Summary of Water Budgets
After 60 Years

Table A-1. Annual water budgets for each county at the end of the 60-year predictive model run using the specified pumpage in the groundwater availability model for the central part of the Gulf Coast Aquifer (in acre-feet per year). Water budgets for Jim Hogg, Brooks, Kenedy, Brazoria, Fort Bend, and Austin counties represent only the portions of those counties located in the active portion of the model.

Aransas						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	0	1	0	1	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	11	0	11	0	11
General Head Boundaries	1,104	3,497	1,417	3,111	1,391	3,119
Wells	0	1,827	0	1,827	0	1,827
Streams and Rivers	2,351	669	2,456	646	2,441	650
Recharge	164	0	164	0	164	0
Evapotranspiration	0	741	0	729	0	729
Lateral Inflow	4,229	1,161	3,670	1,355	3,676	1,326
Vertical Leakage Downward	58	0	0	30	0	11
Evangeline						
Storage	0	0	0	0	0	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	58	30	0	11	0
Lateral Inflow	105	47	136	166	98	109
Vertical Leakage Downward	--	--	--	--	--	--
Jasper						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--

Table A-1. (continued)

Austin						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	2	0	8	0	8	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	3,118	0	3,118	0	3,118
Streams and Rivers	6,108	1,333	6,782	1,164	6,753	1,175
Recharge	6,758	0	6,758	0	6,758	0
Evapotranspiration	0	17	0	17	0	17
Lateral Inflow	2,481	4,051	2,300	4,190	2,303	4,186
Vertical Leakage Downward	0	6,830	0	7,359	0	7,325
Evangeline						
Storage	2	0	9	0	9	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	3,931	0	3,931	0	3,931
Streams and Rivers	0	0	0	0	0	0
Recharge	90	0	90	0	90	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	6,830	0	7,359	0	7,325	0
Lateral Inflow	1,409	4,341	1,263	4,707	1,260	4,681
Vertical Leakage Downward	42	102	35	118	46	118
Jasper						
Storage	16	0	48	0	44	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	23	0	23	0	23
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	97	40	121	27	121	39
Lateral Inflow	103	153	83	203	90	193

Table A-1. (continued)

Bee						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	15	1,424	0	2,886	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	1,383	0	9,620	0	12,305
Streams and Rivers	4,811	10,996	7,027	975	6,382	917
Recharge	18,921	0	18,825	0	18,825	0
Evapotranspiration	0	219	0	45	0	31
Lateral Inflow	775	8,671	972	5,568	772	5,121
Vertical Leakage Downward	937	4,160	0	12,041	0	10,492
Evangeline						
Storage	0	41	173	0	808	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,973	0	13,553	0	16,730
Streams and Rivers	4,008	3,783	6,758	2,190	7,163	1,871
Recharge	4,993	0	5,089	0	5,089	0
Evapotranspiration	0	2	0	0	0	0
Vertical Leakage Upward	4,160	937	12,041	0	10,492	0
Lateral Inflow	2,354	6,841	5,104	13,006	4,695	9,463
Vertical Leakage Downward	96	1,031	612	1,023	854	1,032
Jasper						
Storage	39	187	594	0	908	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	260	0	658	0	781
Streams and Rivers	94	96	159	58	176	45
Recharge	23	0	24	0	24	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	884	148	1,152	270	1,257	296
Lateral Inflow	492	844	453	1,395	478	1,720

Table A-1. (continued)

Brazoria						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	2	0	7	0	6	0
Reservoirs (River package)	338	0	341	0	341	0
Springs (Drain package)	0	72	0	63	0	64
General Head Boundaries	0	1,200	0	1,138	0	1,143
Wells	0	8,727	0	8,727	0	8,727
Streams and Rivers	9,469	19,328	9,872	18,989	9,850	19,003
Recharge	15,152	0	15,152	0	15,152	0
Evapotranspiration	0	1,338	0	1,320	0	1,322
Lateral Inflow	12,042	4,985	11,885	5,069	11,891	5,074
Vertical Leakage Downward	0	1,353	0	1,950	0	1,909
Evangeline						
Storage	2	0	10	0	10	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	284	0	284	0	284
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	1,353	0	1,950	0	1,909	0
Lateral Inflow	480	1,662	543	2,347	582	2,346
Vertical Leakage Downward	102	0	126	0	127	0
Jasper						
Storage	31	0	44	0	35	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	33	0	33	0	37
Lateral Inflow	8	5	0	11	8	6

Table A-1. (continued)

Brooks						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	3	98	0	32	1
Reservoirs (River package)	3,431	0	3,431	0	3,431	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	359	0	359	0	359
Streams and Rivers	1,073	23,128	1,349	19,705	1,259	21,485
Recharge	23,402	0	23,402	0	23,402	0
Evapotranspiration	0	1,826	0	1,763	0	1,795
Lateral Inflow	5,005	4,877	4,674	4,580	4,825	4,751
Vertical Leakage Downward	1,365	4,081	507	7,051	780	5,338
Evangeline						
Storage	1	3	574	0	73	1
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	3,681	0	3,681	0	3,681
Streams and Rivers	0	863	5	828	0	836
Recharge	340	0	340	0	340	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	4,081	1,365	7,051	507	5,338	780
Lateral Inflow	2,680	1,752	3,308	7,610	2,883	4,188
Vertical Leakage Downward	808	245	1,562	214	1,084	232
Jasper						
Storage	1	208	282	58	100	102
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	197	785	188	998	196	855
Lateral Inflow	1,448	655	1,399	813	1,404	743

Table A-1. (continued)

Calhoun						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	2	1	23	0	23	0
Reservoirs (River package)	2,993	0	3,269	0	3,268	0
Springs (Drain package)	0	1,151	0	1,021	0	1,022
General Head Boundaries	144	12,828	1,694	8,289	1,678	8,303
Wells	0	1,464	0	2,853	0	2,853
Streams and Rivers	6,370	3,564	3,899	2,066	3,906	2,073
Recharge	3,039	0	3,039	0	3,039	0
Evapotranspiration	0	1,282	0	1,224	0	1,224
Lateral Inflow	11,465	3,826	9,871	4,707	9,872	4,697
Vertical Leakage Downward	337	234	13	1,648	15	1,628
Evangeline						
Storage	1	0	7	0	6	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	27	0	64	0	64
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	234	337	1,648	13	1,628	15
Lateral Inflow	1,033	906	190	1,773	205	1,766
Vertical Leakage Downward	1	0	4	0	4	0
Jasper						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--

Table A-1. (continued)

Colorado						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	183	15	1,463	0	1,437	0
Reservoirs (River package)	1,408	0	1,408	0	1,408	0
Springs (Drain package)	0	6	0	5	0	5
General Head Boundaries	0	0	0	0	0	0
Wells	0	16,930	0	24,378	0	24,378
Streams and Rivers	28,347	12,482	33,916	8,349	33,749	8,390
Recharge	35,074	0	35,074	0	35,074	0
Evapotranspiration	0	57	0	54	0	54
Lateral Inflow	8,838	21,384	8,743	20,894	8,726	20,766
Vertical Leakage Downward	703	23,677	322	27,245	323	27,125
Evangeline						
Storage	5	4	70	0	69	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	15,681	0	22,580	0	22,580
Streams and Rivers	3,928	3,103	5,238	1,978	5,236	1,979
Recharge	2,515	0	2,515	0	2,515	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	23,677	703	27,245	322	27,125	323
Lateral Inflow	8,786	19,394	8,880	18,816	8,849	18,677
Vertical Leakage Downward	473	508	565	813	581	814
Jasper						
Storage	112	1	481	0	460	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	624	0	900	0	900
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	485	226	1,029	59	1,009	89
Lateral Inflow	595	341	268	819	276	757

Table A-1. (continued)

De Witt						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	0	11	0	11	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	98	0	3,482	0	3,482
Streams and Rivers	2,094	1,229	4,183	246	4,182	246
Recharge	4,569	0	4,569	0	4,569	0
Evapotranspiration	0	25	0	0	0	0
Lateral Inflow	0	1,467	89	1,214	89	1,214
Vertical Leakage Downward	0	3,845	0	3,910	0	3,910
Evangeline						
Storage	4	0	63	0	63	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	970	0	7,662	0	7,662
Streams and Rivers	8,294	8,747	12,430	5,692	12,429	5,692
Recharge	5,786	0	5,773	0	5,773	0
Evapotranspiration	0	60	0	56	0	56
Vertical Leakage Upward	3,845	0	3,910	0	3,910	0
Lateral Inflow	987	7,133	1,143	7,413	1,143	7,412
Vertical Leakage Downward	87	2,090	43	2,539	43	2,539
Jasper						
Storage	562	2	1,326	0	1,326	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,674	0	3,801	0	3,801
Streams and Rivers	780	643	1,053	454	1,053	454
Recharge	243	0	243	0	243	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	2,322	160	2,934	72	2,934	72
Lateral Inflow	663	1,090	459	1,688	459	1,688

Table A-1. (continued)

Duval						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	1	0	106	0	70	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	394	0	733	0	733
Streams and Rivers	1,544	3,215	3,451	1,230	2,594	1,961
Recharge	5,270	0	5,270	0	5,270	0
Evapotranspiration	0	34	0	17	0	21
Lateral Inflow	671	3,467	666	3,184	657	3,337
Vertical Leakage Downward	339	715	40	4,368	79	2,619
Evangeline						
Storage	72	0	859	0	295	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	4,363	0	7,949	0	7,949
Streams and Rivers	2,962	8,272	6,070	4,955	4,326	5,451
Recharge	14,506	0	14,506	0	14,506	0
Evapotranspiration	0	335	0	28	0	35
Vertical Leakage Upward	715	339	4,368	40	2,619	79
Lateral Inflow	1,410	3,973	1,769	12,000	1,484	6,757
Vertical Leakage Downward	1,001	3,384	1,032	3,632	668	3,627
Jasper						
Storage	866	0	2,131	0	1,945	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,892	0	5,283	0	5,283
Streams and Rivers	0	0	0	0	0	0
Recharge	189	0	189	0	189	0
Evapotranspiration	0	412	0	371	0	371
Vertical Leakage Upward	3,597	940	4,188	431	4,206	354
Lateral Inflow	2,256	2,663	2,127	2,550	2,210	2,543

Table A-1. (continued)

Fayette						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Evangeline						
Storage	5	0	43	0	43	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	169	0	884	0	884
Streams and Rivers	94	773	803	59	803	59
Recharge	1,737	0	1,737	0	1,737	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	108	700	51	565	51	565
Vertical Leakage Downward	56	356	0	1,126	0	1,126
Jasper						
Storage	1,107	0	3,693	0	3,693	0
Reservoirs (River package)	117	0	201	0	201	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	1,583	0	7,308	0	7,308
Streams and Rivers	677	452	1,241	19	1,241	19
Recharge	355	0	354	0	354	0
Evapotranspiration	0	11	0	5	0	5
Vertical Leakage Upward	507	314	1,769	9	1,769	9
Lateral Inflow	145	549	361	278	361	278

Table A-1. (continued)

Fort Bend						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	5	0	13	0	11	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	5,921	0	5,921	0	5,921
Streams and Rivers	8,234	6,299	8,309	5,980	8,291	6,051
Recharge	884	0	884	0	884	0
Evapotranspiration	0	18	0	17	0	17
Lateral Inflow	10,575	4,483	10,552	4,473	10,566	4,469
Vertical Leakage Downward	0	2,976	0	3,368	0	3,294
Evangeline						
Storage	2	0	8	0	7	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,882	0	2,882	0	2,882
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	2,976	0	3,368	0	3,294	0
Lateral Inflow	2,298	2,654	2,281	3,015	2,286	2,991
Vertical Leakage Downward	251	0	240	0	285	0
Jasper						
Storage	135	0	206	0	159	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	226	0	202	0	254
Lateral Inflow	107	16	49	53	113	17

Table A-1. (continued)

Goliad						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	0	15	0	14	0
Reservoirs (River package)	1,500	0	1,547	0	1,546	0
Springs (Drain package)	0	12	0	5	0	5
General Head Boundaries	0	0	0	0	0	0
Wells	0	650	0	1,383	0	1,383
Streams and Rivers	2,234	8,879	3,297	6,652	3,283	6,733
Recharge	10,556	0	10,556	0	10,556	0
Evapotranspiration	0	218	0	163	0	165
Lateral Inflow	912	4,690	773	3,406	761	3,588
Vertical Leakage Downward	783	1,535	105	4,684	111	4,398
Evangeline						
Storage	2	0	59	0	61	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	5,493	0	11,457	0	11,457
Streams and Rivers	16,678	15,202	18,789	9,515	18,654	9,619
Recharge	7,979	0	7,979	0	7,979	0
Evapotranspiration	0	43	0	31	0	31
Vertical Leakage Upward	1,535	783	4,684	105	4,398	111
Lateral Inflow	3,800	8,457	4,612	14,976	4,465	14,275
Vertical Leakage Downward	437	454	574	613	552	617
Jasper						
Storage	19	14	355	0	365	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	387	377	663	287	670	280
Lateral Inflow	526	540	376	1,107	366	1,122

Table A-1. (continued)

Gonzales						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Evangeline						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Jasper						
Storage	396	0	451	0	451	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	1	0	1	0	1
General Head Boundaries	0	0	0	0	0	0
Wells	0	4	0	4	0	4
Streams and Rivers	12	164	20	160	20	160
Recharge	139	0	139	0	139	0
Evapotranspiration	0	70	0	68	0	68
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	43	350	21	398	21	398

Table A-1. (continued)

Jackson						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	481	1	3,128	0	3,064	0
Reservoirs (River package)	4,149	0	4,213	0	4,213	0
Springs (Drain package)	0	100	0	36	0	37
General Head Boundaries	80	610	1,733	142	1,712	143
Wells	0	39,090	0	64,067	0	64,067
Streams and Rivers	55,771	26,417	53,223	8,086	53,250	8,179
Recharge	11,805	0	11,805	0	11,805	0
Evapotranspiration	0	529	0	385	0	386
Lateral Inflow	21,348	16,126	24,456	10,085	24,453	9,999
Vertical Leakage Downward	23	10,791	0	15,760	0	15,689
Evangeline						
Storage	9	0	77	0	75	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	14,417	0	23,697	0	23,697
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	10,791	23	15,760	0	15,689	0
Lateral Inflow	13,015	10,172	14,774	8,214	14,719	8,087
Vertical Leakage Downward	760	0	1,296	1	1,296	1
Jasper						
Storage	174	3	461	0	425	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	390	51	385	48	411
Lateral Inflow	261	42	101	228	106	168

Table A-1. (continued)

Jim Hogg						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	2	0	2	0	2
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	14	0	14	0	14
Streams and Rivers	0	2,024	0	2,009	0	2,017
Recharge	6,440	0	6,440	0	6,440	0
Evapotranspiration	0	443	0	442	0	442
Lateral Inflow	382	3,251	377	3,261	380	3,255
Vertical Leakage Downward	313	1,399	310	1,399	310	1,401
Evangeline						
Storage	4	42	30	17	20	20
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	371	0	371	0	371
Streams and Rivers	342	4,069	412	3,655	380	3,749
Recharge	7,165	0	7,165	0	7,165	0
Evapotranspiration	0	657	0	584	0	598
Vertical Leakage Upward	1,399	313	1,399	310	1,401	310
Lateral Inflow	504	1,996	321	2,037	364	2,019
Vertical Leakage Downward	549	2,514	408	2,761	431	2,693
Jasper						
Storage	11	399	51	269	40	300
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	594	0	594	0	594
Streams and Rivers	0	0	0	0	0	0
Recharge	155	0	155	0	155	0
Evapotranspiration	0	172	0	162	0	170
Vertical Leakage Upward	2,370	533	2,628	392	2,556	415
Lateral Inflow	1,355	2,194	865	2,284	1,007	2,280

Table A-1. (continued)

Jim Wells						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	8	0	281	0	152	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	14	0	5	0	8
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,257	0	13,567	0	7,317
Streams and Rivers	5,557	18,173	14,515	6,284	11,039	9,124
Recharge	25,328	0	25,328	0	25,328	0
Evapotranspiration	0	237	0	157	0	171
Lateral Inflow	3,722	9,291	3,316	8,293	3,433	9,004
Vertical Leakage Downward	568	5,212	209	15,340	135	14,462
Evangeline						
Storage	5	0	4,994	0	1,056	0
Reservoirs (River package)	562	0	562	0	562	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,491	0	36,421	0	17,670
Streams and Rivers	561	4,370	1,019	3,410	1,003	3,194
Recharge	2,234	0	2,234	0	2,234	0
Evapotranspiration	0	8	0	5	0	4
Vertical Leakage Upward	5,212	568	15,340	209	14,462	135
Lateral Inflow	3,693	5,521	18,266	7,387	7,894	8,221
Vertical Leakage Downward	865	175	5,254	237	2,329	316
Jasper						
Storage	100	3	1,410	0	963	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	7	0	7	0	7
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	132	735	245	1,971	367	1,098
Lateral Inflow	1,765	1,251	1,625	1,302	1,463	1,687

Table A-1. (continued)

Karnes						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Evangeline						
Storage	0	0	61	3	61	3
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	104	0	1,147	0	1,147
Streams and Rivers	280	581	486	3	487	3
Recharge	884	0	839	0	839	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	214	539	358	305	358	306
Vertical Leakage Downward	36	190	0	286	0	286
Jasper						
Storage	1,497	8	7,538	21	7,553	21
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,231	0	12,607	0	12,607
Streams and Rivers	747	551	2,239	0	2,244	0
Recharge	417	0	417	0	417	0
Evapotranspiration	0	78	0	1	0	1
Vertical Leakage Upward	395	97	936	0	937	0
Lateral Inflow	560	652	1,877	379	1,868	391

Table A-1. (continued)

Kenedy						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	1	0	110	0	33	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	18,999	0	17,601	0	18,343
Wells	0	41	0	41	0	41
Streams and Rivers	897	6,442	952	4,947	915	5,758
Recharge	25,221	0	25,221	0	25,221	0
Evapotranspiration	0	2,283	0	2,169	0	2,233
Lateral Inflow	4,224	2,619	3,919	2,580	4,089	2,587
Vertical Leakage Downward	214	175	0	2,859	0	1,295
Evangeline						
Storage	3	0	158	0	52	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	62	0	62	0	62
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	175	214	2,859	0	1,295	0
Lateral Inflow	728	663	1,406	4,983	1,047	2,627
Vertical Leakage Downward	33	1	623	0	296	0
Jasper						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--

Table A-1. (continued)

Kleberg						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	6	0	431	0	180	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	1	0	0	0	0
General Head Boundaries	0	16,786	3,803	7,454	514	10,174
Wells	0	948	0	5,086	0	2,583
Streams and Rivers	19,863	12,407	26,367	7,961	22,414	9,356
Recharge	4,486	0	4,486	0	4,486	0
Evapotranspiration	0	1,137	0	933	0	1,006
Lateral Inflow	12,640	4,515	12,126	5,964	11,748	6,037
Vertical Leakage Downward	55	1,256	0	19,816	0	10,187
Evangeline	0	0	0	0		
Storage	20	0	6,479	0	1,295	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	7,682	0	44,910	0	22,410
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	1,256	55	19,816	0	10,187	0
Lateral Inflow	5,789	427	15,229	4,062	9,049	1,951
Vertical Leakage Downward	1,095	0	7,448	0	3,829	0
Jasper						
Storage	100	0	817	0	445	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	431	0	1,089	0	759
Lateral Inflow	388	57	321	48	369	55

Table A-1. (continued)

Lavaca						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	89	0	1,349	0	1,326	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	1,726	0	5,784	0	5,784
Streams and Rivers	8,823	5,526	12,585	1,454	12,580	1,462
Recharge	18,276	0	18,276	0	18,276	0
Evapotranspiration	0	3	0	1	0	1
Lateral Inflow	1,537	15,123	1,176	16,680	1,173	16,659
Vertical Leakage Downward	85	6,433	4	9,469	4	9,450
Evangeline						
Storage	6	0	61	9	60	9
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	6,907	0	23,405	0	23,405
Streams and Rivers	9,941	6,149	21,548	1,624	21,527	1,626
Recharge	6,093	0	6,051	0	6,051	0
Evapotranspiration	0	4	0	2	0	2
Vertical Leakage Upward	6,433	85	9,469	4	9,450	4
Lateral Inflow	4,055	13,064	3,892	13,715	3,890	13,673
Vertical Leakage Downward	189	513	73	2,331	74	2,331
Jasper						
Storage	1,331	1	3,021	0	3,016	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,404	0	8,533	0	8,533
Streams and Rivers	597	0	879	0	879	0
Recharge	170	0	169	0	169	0
Evapotranspiration	0	5	0	0	0	0
Vertical Leakage Upward	669	179	3,502	14	3,495	14
Lateral Inflow	478	656	1,278	302	1,291	302

Table A-1. (continued)

Live Oak						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	0	63	0	151	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	88	0	88	0	88
Streams and Rivers	177	0	177	0	177	0
Recharge	1,194	0	1,194	0	1,194	0
Evapotranspiration	0	6	0	4	0	4
Lateral Inflow	242	190	92	301	116	313
Vertical Leakage Downward	0	1,328	0	1,133	0	1,233
Evangeline	0	0	0	0		
Storage	0	8	123	0	248	0
Reservoirs (River package)	2,634	0	2,890	0	3,009	0
Springs (Drain package)	0	5	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	1,802	0	4,140	0	5,394
Streams and Rivers	635	8,684	1,106	5,915	1,513	3,996
Recharge	4,205	0	4,205	0	3,742	0
Evapotranspiration	0	68	0	38	0	27
Vertical Leakage Upward	1,328	0	1,133	0	1,233	0
Lateral Inflow	2,561	767	1,550	693	1,322	1,280
Vertical Leakage Downward	254	284	30	251	26	394
Jasper						
Storage	1,386	65	2,949	0	4,512	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	2,744	0	7,705	0	11,778
Streams and Rivers	441	394	997	90	1,412	24
Recharge	527	0	528	0	530	0
Evapotranspiration	0	56	0	39	0	30
Vertical Leakage Upward	386	949	1,151	268	2,121	100
Lateral Inflow	1,955	488	2,684	207	3,522	165

Table A-1. (continued)

Matagorda						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	92	0	337	0	329	0
Reservoirs (River package)	795	0	804	0	804	0
Springs (Drain package)	0	215	0	189	0	190
General Head Boundaries	897	10,747	2,496	8,702	2,479	8,711
Wells	0	27,682	0	38,931	0	38,931
Streams and Rivers	58,043	30,017	65,190	25,697	65,027	25,741
Recharge	23,061	0	23,061	0	23,061	0
Evapotranspiration	0	3,095	0	2,981	0	2,983
Lateral Inflow	12,254	14,546	11,547	15,560	11,588	15,458
Vertical Leakage Downward	0	8,845	0	11,374	0	11,274
Evangeline						
Storage	7	0	36	0	34	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	7,240	0	10,207	0	10,207
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	8,845	0	11,374	0	11,274	0
Lateral Inflow	2,565	4,431	3,057	4,569	3,050	4,457
Vertical Leakage Downward	229	0	303	0	300	0
Jasper						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--

Table A-1. (continued)

McMullen						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Evangeline						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Jasper						
Storage	401	0	624	0	750	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	19	0	286	0	437
Streams and Rivers	368	590	465	520	529	485
Recharge	249	0	249	0	249	0
Evapotranspiration	0	116	0	105	0	99
Vertical Leakage Upward	258	0	333	0	352	0
Lateral Inflow	205	756	190	950	205	1,065

Table A-1. (continued)

Nueces						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	9	0	1,217	0	528	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	89	0	59	0	20
General Head Boundaries	91	4,039	4,137	467	4,104	344
Wells	0	1,862	0	15,935	0	15,091
Streams and Rivers	11,348	11,049	36,234	1,836	38,808	1,125
Recharge	4,795	0	4,795	0	4,795	0
Evapotranspiration	0	372	0	281	0	281
Lateral Inflow	8,976	6,697	10,109	5,722	9,878	6,482
Vertical Leakage Downward	1,235	2,345	5	32,198	0	34,769
Evangeline						
Storage	2	0	88	0	37	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	1,083	0	33,913	0	40,761
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	2,345	1,235	32,198	5	34,769	0
Lateral Inflow	2,047	2,501	6,217	6,302	7,190	2,940
Vertical Leakage Downward	424	0	1,715	0	1,703	0
Jasper	0	0	0	0		
Storage	26	1	265	0	300	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	330	0	567	0	580
Lateral Inflow	402	98	396	93	407	128

Table A-1. (continued)

Refugio						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	1	58	0	150	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	129	0	92	0	94
General Head Boundaries	0	7,900	19	6,266	7	6,322
Wells	0	597	0	6,800	0	6,800
Streams and Rivers	27,574	39,589	36,727	21,749	34,917	23,392
Recharge	14,669	0	14,669	0	14,669	0
Evapotranspiration	0	1,906	0	1,725	0	1,741
Lateral Inflow	14,002	10,469	10,226	8,717	9,791	9,546
Vertical Leakage Downward	4,671	325	34	16,385	46	11,687
Evangeline						
Storage	0	0	9	0	15	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	466	0	35,465	0	25,466
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	325	4,671	16,385	34	11,687	46
Lateral Inflow	6,615	1,818	19,299	751	14,100	730
Vertical Leakage Downward	18	2	559	0	442	0
Jasper						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--

Table A-1. (continued)

San Patricio						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	63	623	0	2,384	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	376	0	250	0	40
General Head Boundaries	30	4,366	654	2,651	798	2,053
Wells	0	2,404	0	3,877	0	11,203
Streams and Rivers	3,004	12,018	3,593	6,015	5,528	2,936
Recharge	12,704	0	12,704	0	12,704	0
Evapotranspiration	0	515	0	440	0	380
Lateral Inflow	7,138	3,500	4,558	3,439	6,434	2,114
Vertical Leakage Downward	1,601	1,234	44	5,503	11	9,134
Evangeline						
Storage	0	2	21	0	99	0
Reservoirs (River package)	676	0	823	0	1,084	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	1,304	0	2,110	0	10,073
Streams and Rivers	0	657	0	584	0	338
Recharge	148	0	148	0	148	0
Evapotranspiration	0	13	0	10	0	6
Vertical Leakage Upward	1,234	1,601	5,503	44	9,134	11
Lateral Inflow	2,429	1,225	1,116	5,408	2,260	3,320
Vertical Leakage Downward	326	11	546	1	1,030	8
Jasper						
Storage	0	26	157	0	338	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	5	315	5	320	12	523
Lateral Inflow	358	23	280	122	406	233

Table A-1. (continued)

Victoria						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	0	20	165	0	164	0
Reservoirs (River package)	1,046	0	1,056	0	1,056	0
Springs (Drain package)	0	1,653	0	1,383	0	1,383
General Head Boundaries	0	594	0	389	0	390
Wells	0	7,680	0	22,769	0	22,769
Streams and Rivers	40,668	38,578	50,301	24,469	50,258	24,529
Recharge	24,830	0	24,830	0	24,830	0
Evapotranspiration	0	1,022	0	875	0	876
Lateral Inflow	7,789	19,437	7,198	19,289	7,212	19,267
Vertical Leakage Downward	1,250	6,601	56	14,434	58	14,365
Evangeline						
Storage	0	1	12	0	12	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	6,191	0	18,360	0	18,360
Streams and Rivers	1,611	4,238	2,021	2,465	2,020	2,466
Recharge	743	0	743	0	743	0
Evapotranspiration	0	27	0	26	0	26
Vertical Leakage Upward	6,601	1,250	14,434	56	14,365	58
Lateral Inflow	8,988	6,572	9,909	6,952	9,922	6,889
Vertical Leakage Downward	386	49	778	37	775	37
Jasper						
Storage	0	99	150	0	149	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	0	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	39	393	48	516	48	516
Lateral Inflow	637	184	556	238	556	237

Table A-1. (continued)

Washington						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Evangeline						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Jasper						
Storage	11	0	21	0	21	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	6	0	6	0	6
Streams and Rivers	0	0	0	0	0	0
Recharge	1	0	1	0	1	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	2	8	0	17	0	17

Table A-1. (continued)

Webb						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	--	--	--	--	--	--
Reservoirs (River package)	--	--	--	--	--	--
Springs (Drain package)	--	--	--	--	--	--
General Head Boundaries	--	--	--	--	--	--
Wells	--	--	--	--	--	--
Streams and Rivers	--	--	--	--	--	--
Recharge	--	--	--	--	--	--
Evapotranspiration	--	--	--	--	--	--
Lateral Inflow	--	--	--	--	--	--
Vertical Leakage Downward	--	--	--	--	--	--
Evangeline						
Storage	0	0	372	0	5	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	135	0	2,786	0	1,899
Streams and Rivers	0	770	79	32	7	152
Recharge	3,008	0	2,996	0	3,008	0
Evapotranspiration	0	471	0	0	0	3
Vertical Leakage Upward	--	--	--	--	--	--
Lateral Inflow	43	315	72	81	49	152
Vertical Leakage Downward	331	1,692	13	632	70	933
Jasper						
Storage	5	5	141	0	105	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	7	0	148	0	99
Streams and Rivers	0	0	0	0	0	0
Recharge	46	0	46	0	46	0
Evapotranspiration	0	88	0	59	0	67
Vertical Leakage Upward	1,680	325	651	12	934	68
Lateral Inflow	151	1,457	190	810	174	1,026

Table A-1. (continued)

Wharton						
	GAM07-12 Baseline Pumpage		GAM07-14 Availability Pumpage		GAM07-36 New Pumpage	
	In	Out	In	Out	In	Out
Chicot						
Storage	740	0	2,450	0	2,393	0
Reservoirs (River package)	537	0	537	0	537	0
Springs (Drain package)	0	9	0	8	0	8
General Head Boundaries	0	0	0	0	0	0
Wells	0	111,755	0	114,552	0	113,490
Streams and Rivers	121,457	13,331	127,760	12,631	126,905	12,775
Recharge	21,792	0	21,792	0	21,792	0
Evapotranspiration	0	243	0	233	0	235
Lateral Inflow	36,668	19,087	34,606	19,369	34,255	19,439
Vertical Leakage Downward	0	36,773	0	40,353	0	39,936
Evangeline						
Storage	18	0	81	0	76	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	68,245	0	69,980	0	69,306
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	36,773	0	40,353	0	39,936	0
Lateral Inflow	32,102	2,925	30,172	3,062	29,764	3,098
Vertical Leakage Downward	2,208	0	2,429	0	2,621	0
Jasper						
Storage	803	0	1,277	0	967	0
Reservoirs (River package)	0	0	0	0	0	0
Springs (Drain package)	0	0	0	0	0	0
General Head Boundaries	0	0	0	0	0	0
Wells	0	0	0	1,062	0	0
Streams and Rivers	0	0	0	0	0	0
Recharge	0	0	0	0	0	0
Evapotranspiration	0	0	0	0	0	0
Vertical Leakage Upward	0	970	45	595	0	1,024
Lateral Inflow	274	105	370	35	188	131