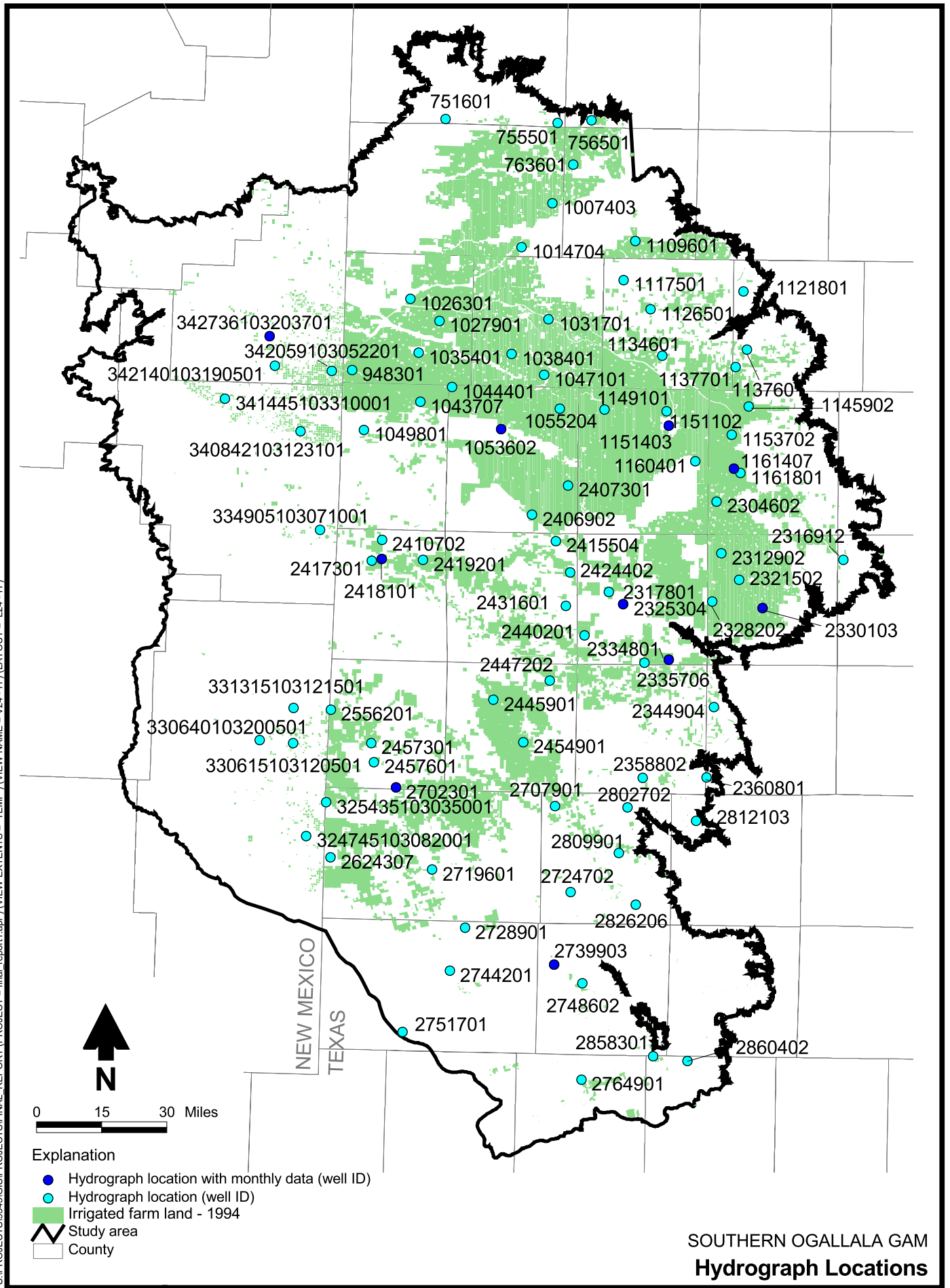


## **Appendix D**

# **Simulated and Observed Hydrographs for Transient Model Calibration**

(S:\PROJECTS\9345\GIS\PROJECTS\FINAL\_REPORT (PROJECT = final\_report1.apr) (VIEW EXTENTS = TEMP) (VIEW NAME = V24 - H) (LAYOUT = L24 - H)



SOUTHERN OGALLALA GAM  
Hydrograph Locations

**Table D-1. Well Locations**  
**Page 1 of 2**

| Name       | Well ID         | X-Coordinate | Y-Coordinate |
|------------|-----------------|--------------|--------------|
| ANDREWS1   | 2728901         | 4151430.44   | 20150514.67  |
| ANDREWS2   | 2744201         | 4133013.62   | 20098137.35  |
| ANDREWS3   | 2751701         | 4075341.60   | 20023780.13  |
| BAILEY1    | 1043707         | 4096906.53   | 20790090.92  |
| BAILEY2    | 1049801         | 4028543.99   | 20755921.39  |
| BORDEN1    | 2812103         | 4432587.56   | 20280676.80  |
| BRISCOE1   | 1121801         | 4490034.68   | 20924412.34  |
| BRISCOE2   | 1137601         | 4494481.77   | 20853670.96  |
| BRISCOE3   | 1137701         | 4480884.20   | 20832578.24  |
| CASTRO1    | 1031701         | 4253131.03   | 20890595.60  |
| CASTRO2    | 1038401         | 4208299.29   | 20848326.49  |
| CASTRO3    | 1047101         | 4247580.17   | 20822922.64  |
| COCHRAN1   | 2410702         | 4050544.96   | 20622511.52  |
| COCHRAN2   | 2417301         | 4037974.81   | 20597035.28  |
| COCHRAN3   | 2419201         | 4100515.60   | 20597782.14  |
| COCHRAN4   | 2418101         | 4050265.001  | 20598828.43  |
| CROSBY1    | 2312902         | 4463317.10   | 20605637.39  |
| CROSBY2    | 2321502         | 4484910.85   | 20573575.80  |
| CROSBY3    | 2328202         | 4452393.40   | 20547193.30  |
| CROSBY4    | 2330103         | 4513456.675  | 20539510.7   |
| CURRY1     | 342736103203701 | 3914051.53   | 20870087.99  |
| CURRY2     | 342140103190501 | 3920413.12   | 20833972.53  |
| CURRY3     | 342059103052201 | 3989482.84   | 20827709.58  |
| DAWSON1    | 2802702         | 4349389.98   | 20296887.27  |
| DAWSON2    | 2809901         | 4338417.61   | 20241370.66  |
| DAWSON3    | 2724702         | 4279696.94   | 20193831.08  |
| DAWSON4    | 2707901         | 4260900      | 20298678     |
| DAWSON5    | 2826206         | 4358922      | 20178429     |
| DEAFSMITH1 | 1007403         | 4257942.46   | 21031823.64  |
| DEAFSMITH2 | 1014704         | 4220354.00   | 20978161.94  |
| DICKENS1   | 2316912         | 4611569.84   | 20597895.30  |
| FLOYD1     | 1145902         | 4496281.90   | 20784336.69  |
| FLOYD2     | 1153702         | 4475863.26   | 20749888.19  |
| FLOYD3     | 1161801         | 4486416.36   | 20703593.45  |
| FLOYD4     | 2304602         | 4457513.08   | 20668896.60  |
| FLOYD5     | 1161407         | 4478435.862  | 20708980.47  |
| GAINES1    | 325435103035001 | 3982648.90   | 20303015.94  |
| GAINES2    | 2624307         | 3988041.65   | 20236028.94  |
| GAINES3    | 2719601         | 4111466.79   | 20221121.46  |
| GARZA1     | 2344904         | 4454058.42   | 20419104.22  |
| GARZA2     | 2360801         | 4445065.68   | 20333172.58  |
| GLASSCOCK1 | 2858301         | 4380174.94   | 19994188.07  |
| GLASSCOCK2 | 2860402         | 4422010.72   | 19988593.48  |
| HALE1      | 1149101         | 4321156.00   | 20780757.27  |
| HALE2      | 1151102         | 4396539.39   | 20778578.02  |

**Table D-1. Well Locations**  
**Page 2 of 2**

| Name       | Well ID         | X-Coordinate | Y-Coordinate |
|------------|-----------------|--------------|--------------|
| HALE3      | 1160401         | 4431650.61   | 20717610.15  |
| HALE4      | 1151403         | 4399199.536  | 20761306.13  |
| HOCKLEY1   | 2415504         | 4262136.77   | 20620825.59  |
| HOCKLEY2   | 2424402         | 4279348.81   | 20582848.26  |
| HOCKLEY3   | 2431601         | 4274274.16   | 20541727.70  |
| LAMB1      | 1044401         | 4135509.78   | 20808177.93  |
| LAMB2      | 1055204         | 4266898.33   | 20781848.48  |
| LAMB3      | 2407301         | 4277001.63   | 20688348.37  |
| LAMB4      | 2406902         | 4233110.83   | 20652892.21  |
| LAMB5      | 1053602         | 4195280.898  | 20756914.4   |
| LEA1       | 331315103121501 | 3942962.99   | 20417571.69  |
| LEA2       | 330640103200501 | 3901926.92   | 20378786.14  |
| LEA3       | 330615103120501 | 3942588.62   | 20375069.27  |
| LEA4       | 324745103082001 | 3958502.08   | 20262160.34  |
| LUBBOCK1   | 2317801         | 4326383.19   | 20558805.86  |
| LUBBOCK2   | 2440201         | 4297100.77   | 20506163.37  |
| LUBBOCK3   | 2334801         | 4369821.60   | 20472713.22  |
| LUBBOCK4   | 2325304         | 4344096.97   | 20543920.14  |
| LUBBOCK5   | 2335706         | 4399079.298  | 20476402.39  |
| LYNN1      | 2358802         | 4367780.98   | 20332925.80  |
| MARTIN1    | 2748602         | 4293982.91   | 20083165.95  |
| MARTIN2    | 2739903         | 4259729.408  | 20105689.38  |
| MIDLAND1   | 2764901         | 4293030.03   | 19965706.41  |
| OLDHAM1    | 751601          | 4127901.53   | 21133994.17  |
| OLDHAM2    | 755501          | 4263992.75   | 21129589.64  |
| PARMER1    | 1026301         | 4084857.98   | 20915230.69  |
| PARMER2    | 1027901         | 4120326.66   | 20888570.57  |
| PARMER3    | 1035401         | 4094885.36   | 20849923.87  |
| PARMER4    | 948301          | 4014049.37   | 20828963.65  |
| POTTER1    | 756501          | 4305150.83   | 21132728.06  |
| RANDALL1   | 763601          | 4283251.28   | 21078835.35  |
| RANDALL2   | 1109601         | 4358426.29   | 20985658.08  |
| ROOSEVELT1 | 341445103310001 | 3859447.17   | 20793733.46  |
| ROOSEVELT2 | 340842103123101 | 3951380.75   | 20754207.50  |
| ROOSEVELT3 | 334905103071001 | 3974980.21   | 20634397.03  |
| SWISHER1   | 1117501         | 4344278.05   | 20938382.60  |
| SWISHER2   | 1126501         | 4377181.37   | 20902614.23  |
| SWISHER3   | 1134601         | 4391479.50   | 20846042.98  |
| TERRY1     | 2447202         | 4254567.38   | 20451211.87  |
| TERRY2     | 2445901         | 4185937.28   | 20427740.73  |
| TERRY3     | 2454901         | 4222271.07   | 20376336.29  |
| YOAKUM1    | 2556201         | 3988154.13   | 20415782.85  |
| YOAKUM2    | 2457301         | 4037313.88   | 20375268.62  |
| YOAKUM3    | 2457601         | 4040806.32   | 20351989.58  |
| YOAKUM4    | 2702301         | 4067382.065  | 20320938.14  |

**Table D-2. Root Mean Squared Error for  
Each Hydrograph for the Transient Model Calibration  
Page 1 of 2**

| Well       | RMSE <sub>hyd</sub><br>(feet) |
|------------|-------------------------------|
| ANDREWS1   | 2.4                           |
| ANDREWS2   | 4.5                           |
| ANDREWS3   | 2.9                           |
| BAILEY1    | 53.1                          |
| BAILEY2    | 2.0                           |
| BORDEN1    | 5.0                           |
| BRISCOE1   | 12.0                          |
| BRISCOE2   | 3.8                           |
| BRISCOE3   | 27.2                          |
| CASTRO1    | 62.1                          |
| CASTRO2    | 5.7                           |
| CASTRO3    | 10.7                          |
| COCHRAN1   | 5.0                           |
| COCHRAN2   | 11.2                          |
| COCHRAN3   | 20.5                          |
| COCHRAN4   | 8.8                           |
| CROSBY1    | 69.4                          |
| CROSBY2    | 95.7                          |
| CROSBY3    | 24.0                          |
| CROSBY4    | 19.3                          |
| CURRY1     | 6.3                           |
| CURRY2     | 13.1                          |
| CURRY3     | 36.8                          |
| DAWSON1    | 3.4                           |
| DAWSON2    | 21.4                          |
| DAWSON3    | 3.6                           |
| DAWSON4    | 29.4                          |
| DAWSON5    | 12.6                          |
| DEAFSMITH1 | 7.7                           |
| DEAFSMITH2 | 18.7                          |
| DICKENS1   | 12.1                          |
| FLOYD1     | 19.2                          |
| FLOYD2     | 63.7                          |
| FLOYD3     | 89.4                          |
| FLOYD4     | 63.7                          |
| FLOYD5     | 25.2                          |
| GAINES1    | 20.3                          |
| GAINES2    | 15.3                          |
| GAINES3    | 13.9                          |
| GARZA1     | 10.9                          |
| GARZA2     | 6.6                           |
| GLASSCOCK1 | 17.5                          |
| GLASSCOCK2 | 18.2                          |
| HALE1      | 13.9                          |
| HALE2      | 21.3                          |

**Table D-2. Root Mean Squared Error for  
Each Hydrograph for the Transient Model Calibration  
Page 2 of 2**

| Well       | RMSE <sub>hyd</sub><br>(feet) |
|------------|-------------------------------|
| HALE3      | 21.8                          |
| HALE4      | 15.9                          |
| HOCKLEY1   | 13.8                          |
| HOCKLEY2   | 28.9                          |
| HOCKLEY3   | 12.6                          |
| LAMB1      | 15.5                          |
| LAMB2      | 38.2                          |
| LAMB3      | 33.1                          |
| LAMB4      | 15.9                          |
| LAMB5      | 13.4                          |
| LEA1       | 2.3                           |
| LEA2       | 21.6                          |
| LEA3       | 10.3                          |
| LEA4       | 5.3                           |
| LUBBOCK1   | 14.4                          |
| LUBBOCK2   | 15.9                          |
| LUBBOCK3   | 21.8                          |
| LUBBOCK4   | 78.1                          |
| LUBBOCK5   | 4.5                           |
| LYNN1      | 6.2                           |
| MARTIN1    | 20.5                          |
| MARTIN2    | 21.9                          |
| MIDLAND1   | 9.2                           |
| OLDHAM1    | 2.9                           |
| OLDHAM2    | 17.5                          |
| PARMER1    | 49.3                          |
| PARMER2    | 13.2                          |
| PARMER3    | 3.8                           |
| PARMER4    | 11.2                          |
| POTTER1    | 31.9                          |
| RANDALL1   | 12.7                          |
| RANDALL2   | 39.9                          |
| ROOSEVELT1 | 21.2                          |
| ROOSEVELT2 | 11.3                          |
| ROOSEVELT3 | 8.3                           |
| SWISHER1   | 18.2                          |
| SWISHER2   | 39.4                          |
| SWISHER3   | 17.6                          |
| TERRY1     | 14.8                          |
| TERRY2     | 6.0                           |
| TERRY3     | 10.1                          |
| YOAKUM1    | 17.2                          |
| YOAKUM2    | 7.6                           |
| YOAKUM3    | 5.9                           |
| YOAKUM4    | 4.2                           |

