



# **Groundwater Report**

**Spring 2016**

**San Joaquin County  
Flood Control and Water Conservation District**





# **San Joaquin County Flood Control and Water Conservation District**

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Kris Balaji

## **Deputy Director of Public Works**

Fritz Buchman

## **Report Prepared by:**

### **DISTRICT STAFF**

Brandon W. Nakagawa, P.E. .... Water Resources Coordinator  
Michael Callahan, P.E. .... Senior Engineer  
Gerardo Dominguez, P.E. .... Associate Engineer  
Justin Padilla ..... Engineering Assistant



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Copies of the Spring 2016 Groundwater Report may be purchased for \$30 and 36"X48" Contour Maps for \$25 each from:

San Joaquin County Department of Public Works

P.O. Box 1810

Stockton, California 95201

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## Acknowledgements

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This Groundwater Report is a product of the commitment that the San Joaquin County Flood Control and Water Conservation District together with many other interested agencies made to sustain and enhance the groundwater resources of the Eastern San Joaquin Basin. The District extends thanks to...

California Water Service

City of Lathrop

City of Lodi

City of Manteca

City of Stockton Municipal Utilities Department

East Bay Municipal Utility District

Libby-Owens-Ford, Lathrop

Morada Area Association

Newark Sierra Paperboard Company

Pacific Gas and Electric Company

San Joaquin County Department of Public Works

State of California, Department of Water Resources, Central District

Stockton East Water District

United States Bureau of Reclamation

United States Geological Survey

Most of all, we would like to thank all of the individual well owners, who give us access to their wells and in some cases some of their time.



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# **San Joaquin County Flood Control and Water Conservation District Spring 2016 Groundwater Report**

## **Introduction**

Since the fall of 1971, the San Joaquin County Flood Control and Water Conservation District has monitored groundwater levels and groundwater quality and has published the data in the Semi-annual Groundwater Report. This report utilizes data from federal, state and local government agencies as well as non-governmental sources.

Water level data is collected on a semi-annual basis, during the months of April and October, to observe groundwater levels before and after peak groundwater pumping conditions. Over 550 wells, of which 270 are measured by County staff, are included in the Monitoring Program. The exact number of wells varies from year to year, depending on circumstances such as destructions, new well construction, well accessibility, and well condition.

## **Purpose**

The purpose of the Semi-annual Groundwater Report is to provide information on groundwater conditions in San Joaquin County and to publish the results of the groundwater monitoring program which consists of the following:

1. Monitor groundwater quality along a North-South line from the north of the City of Stockton to the City of Lathrop.
2. Measure groundwater levels on a County-wide basis.

In general, water quality data is more meaningful after peak production which usually occurs during the summer months. Therefore, groundwater quality data will be published only in the fall report. The groundwater depth and elevation data will be published both in the spring and fall.

Saline intrusion from the west is a continuing concern affecting the quality of groundwater in the Basin. Groundwater quality analysis is completed on an annual basis, from approximately 18 municipal and domestic supply wells (exact number varies from year to year) located in proximity to the saline front.

## **Procedure**

Groundwater quality sampling is conducted on an annual basis during the month of October, along with the Fall measurements. Approximately 18 wells are currently sampled. The exact number of wells may vary depending on well access and other conditions. Replicate groundwater samples (two) are analyzed for Chloride (Cl<sup>-</sup>) by Fruit Growers Laboratory, Inc., and analyzed for Electrical Conductivity (EC) using DiST 3 by Hanna Instruments. Total Dissolved Solids (TDS) are calculated using the formula:  $TDS = 0.64 \times EC$  (umhos). Data is then stored in a database for accessibility and reporting requirements.

Water Level Measurements are performed with the use of either a steel chain or sounder. Data is then immediately recorded in field books and then stored in a database for accessibility and reporting requirements.

## **Section 1– Annual Rainfall Distribution**

### **Summary of Annual Rainfall Distribution**

The groundwater basin in San Joaquin County responds to changes in annual precipitation. There are four total annual precipitation graphs and four monthly precipitation graphs included in this report (Figures 1-1 through 1-8). These graphs reflect three areas located across San Joaquin County and one area in Calaveras County. The station located at the Stockton Fire Station as well as the station located in Tracy, has pertinent data beginning in 1940. Elliot station has been collecting data since 1927 and Camp Pardee station has data from 1949 to 2016

.

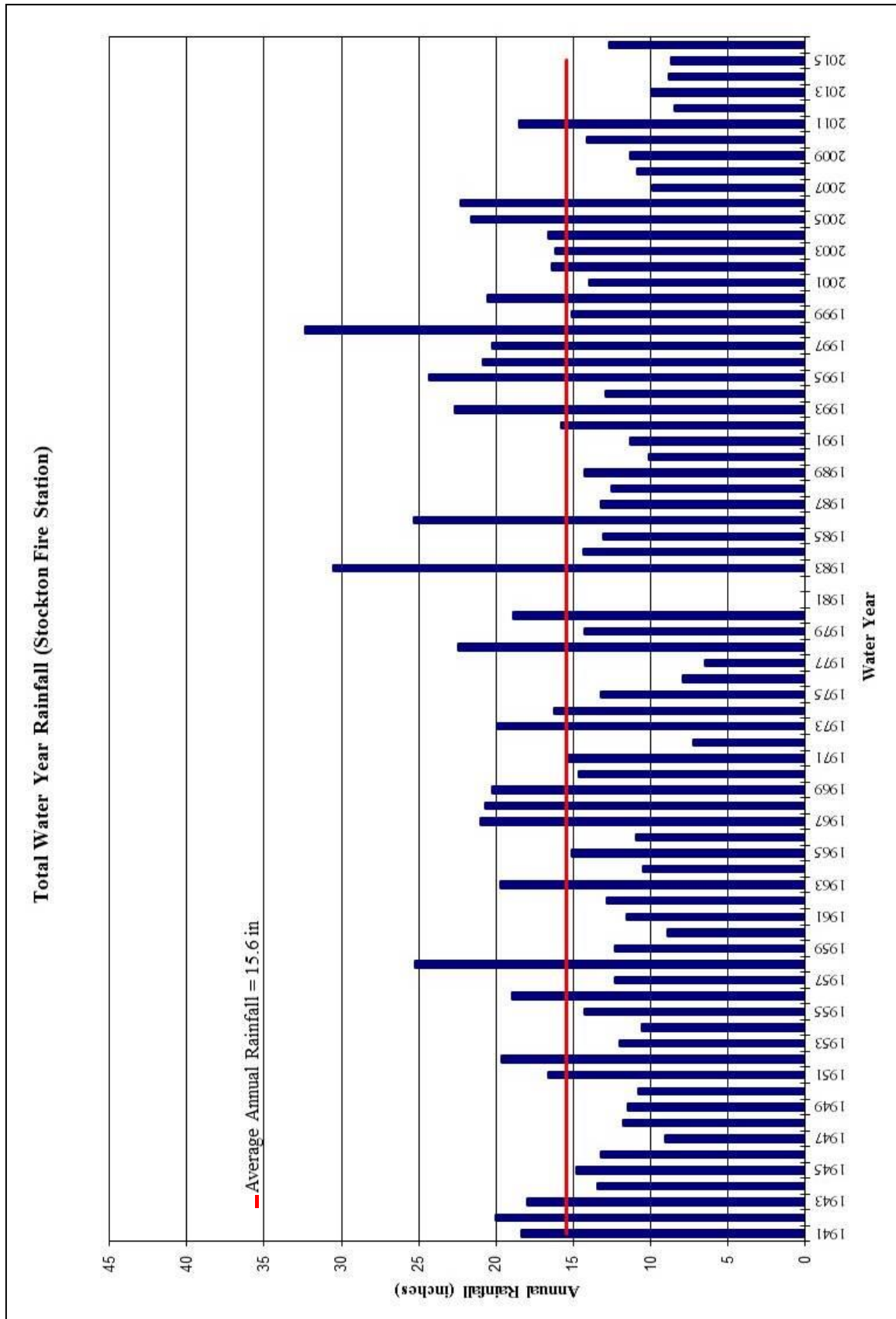


Figure 1-1 Total Annual Rainfall (Stockton Fire Station 4)

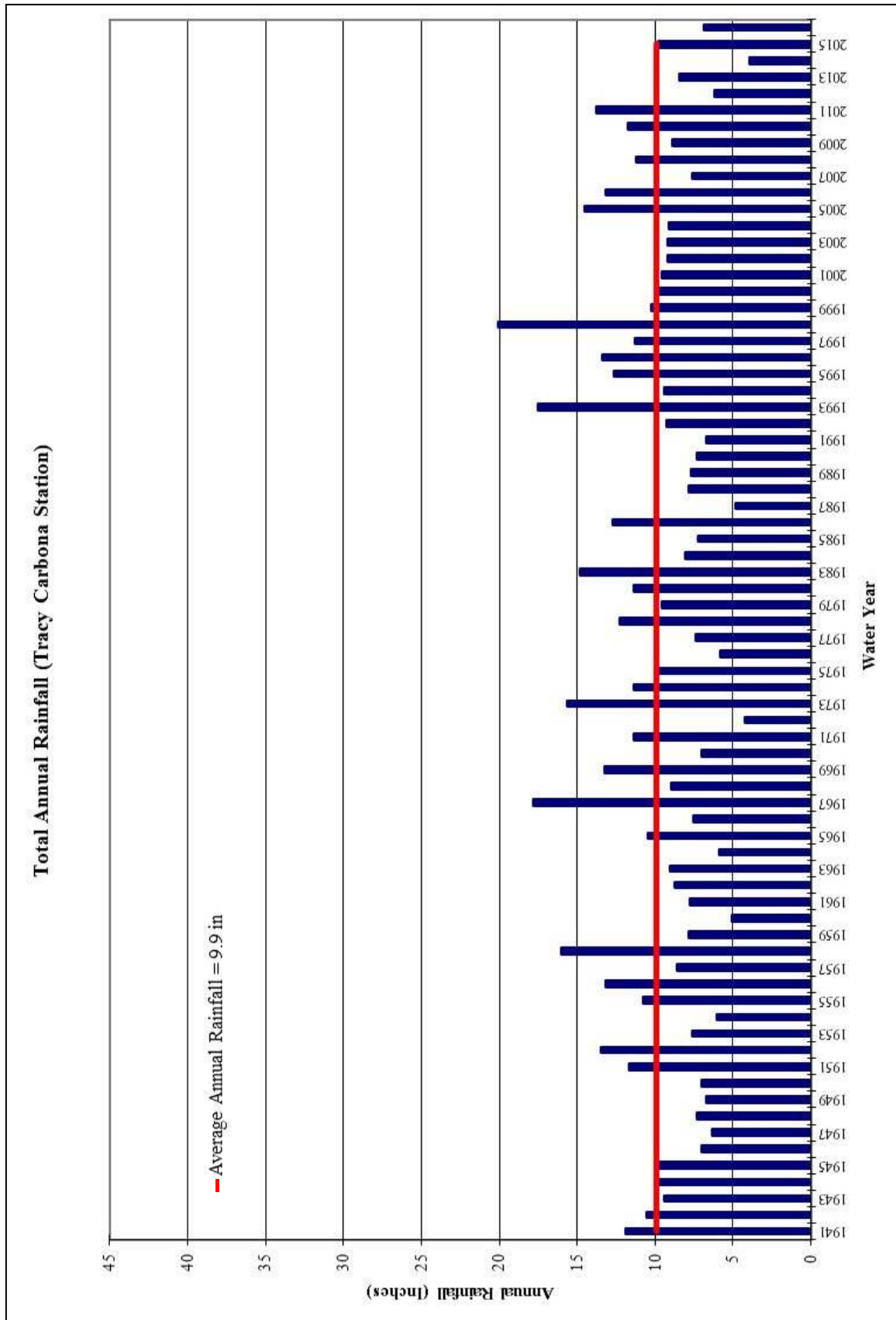


Figure 1-2 Total Annual Rainfall (Tracy Carbona Station)

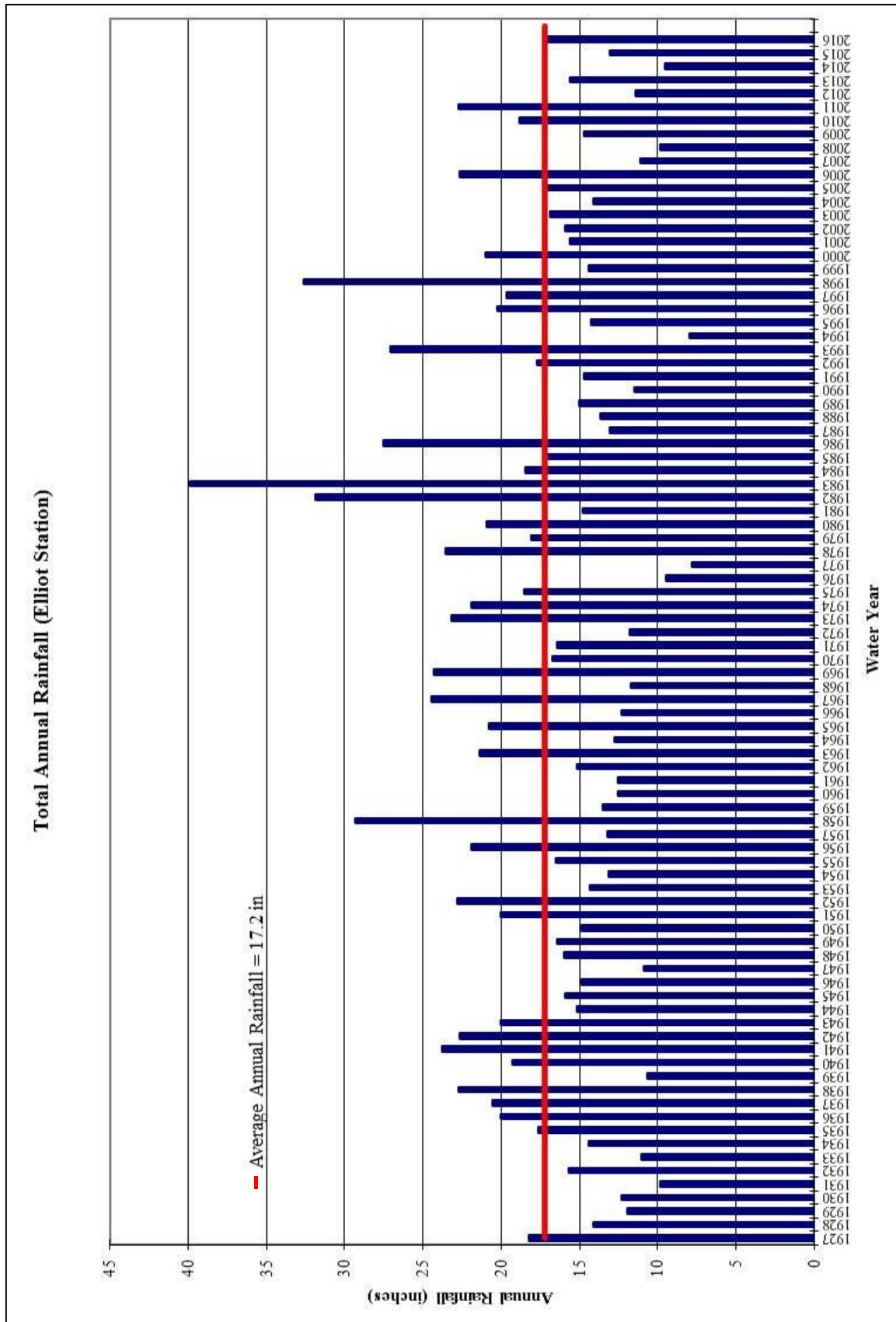


Figure 1-3 Total Annual Rainfall (Elliot Station)

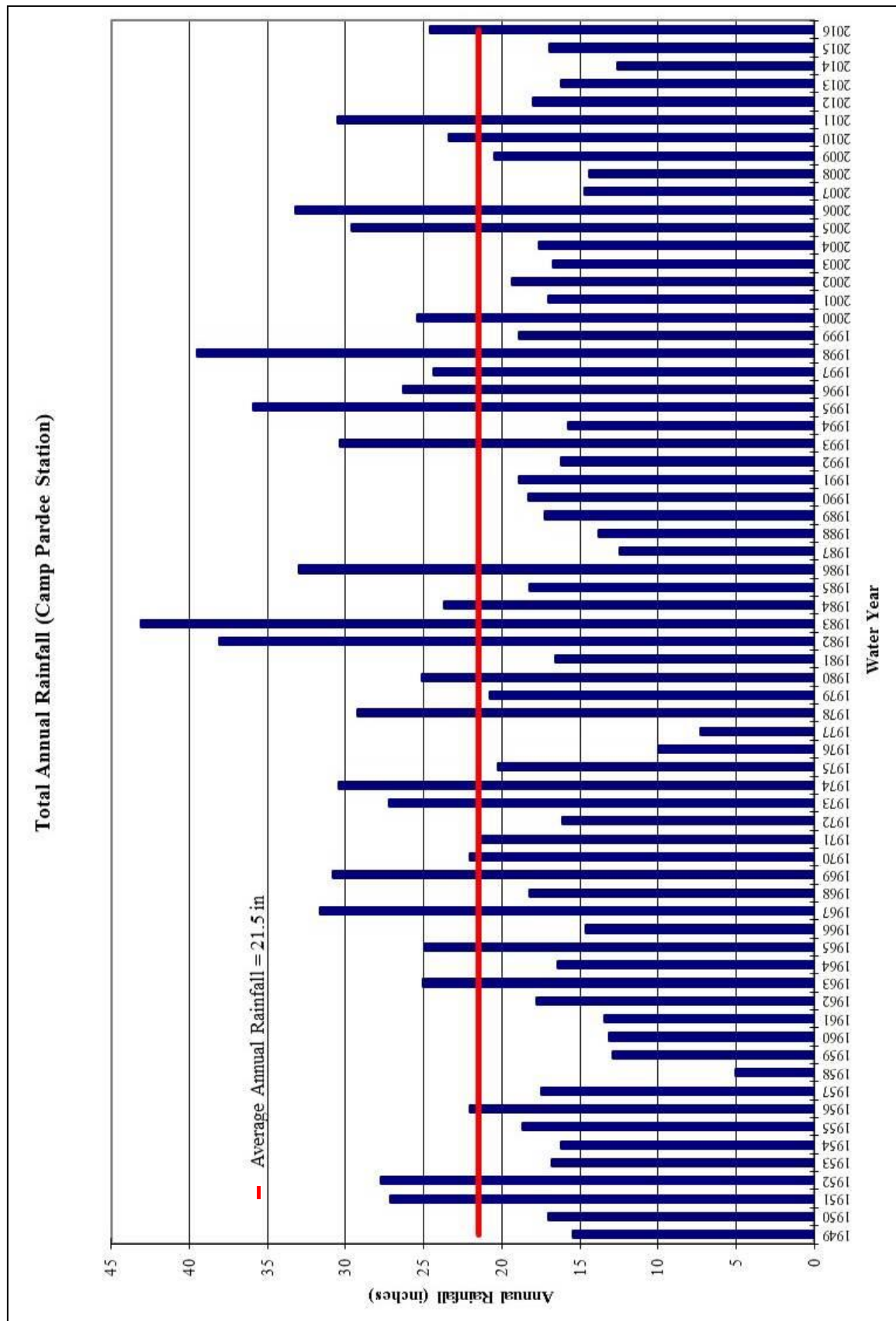


Figure 1-4 Total Annual Rainfall (Camp Pardee)

## Monthly Rainfall Distribution

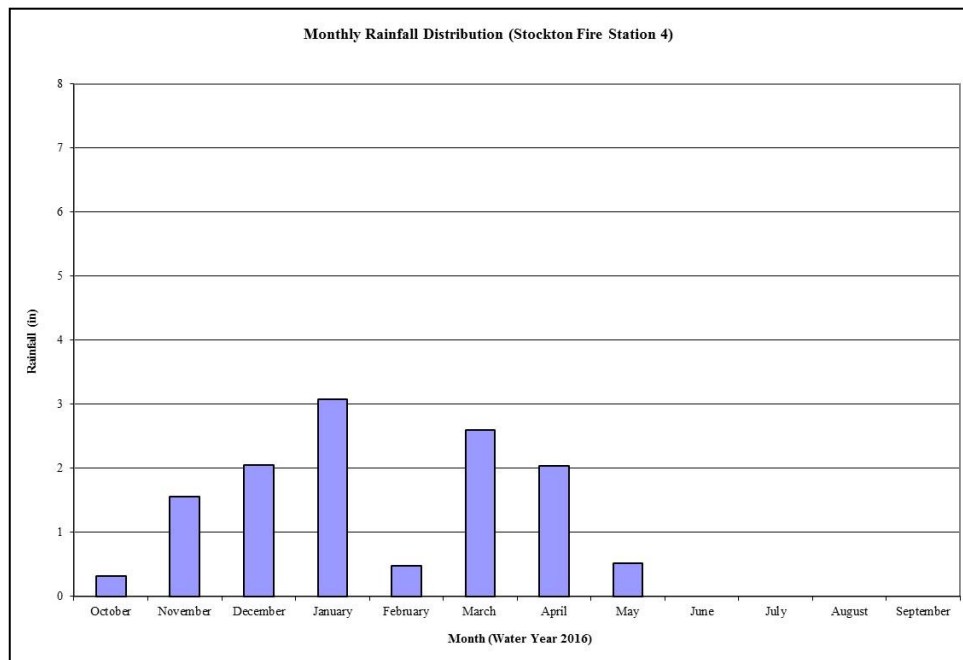


Figure 1-5 Monthly Rainfall Distribution (Stockton Fire Station 4)

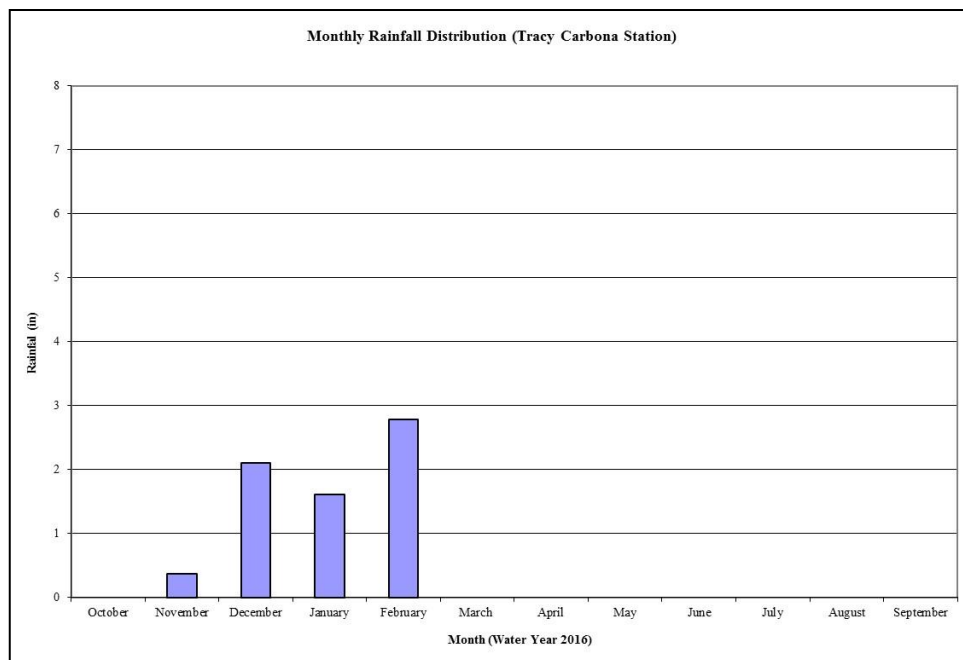


Figure 1-6 Monthly Rainfall Distribution (Tracy Carbona Station)

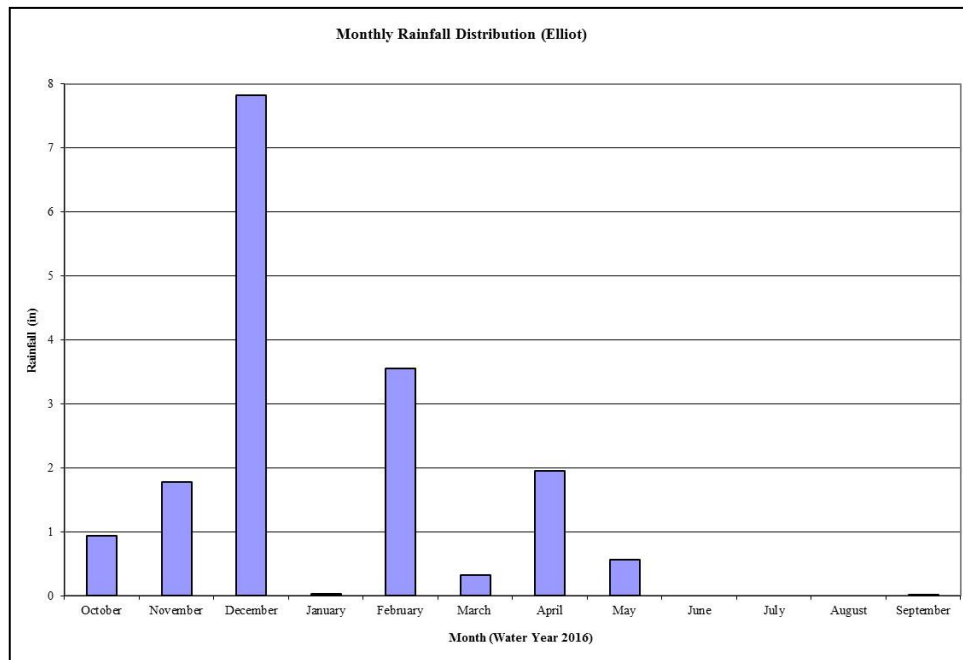


Figure 1-7 Monthly Rainfall Distribution (Elliot Station)

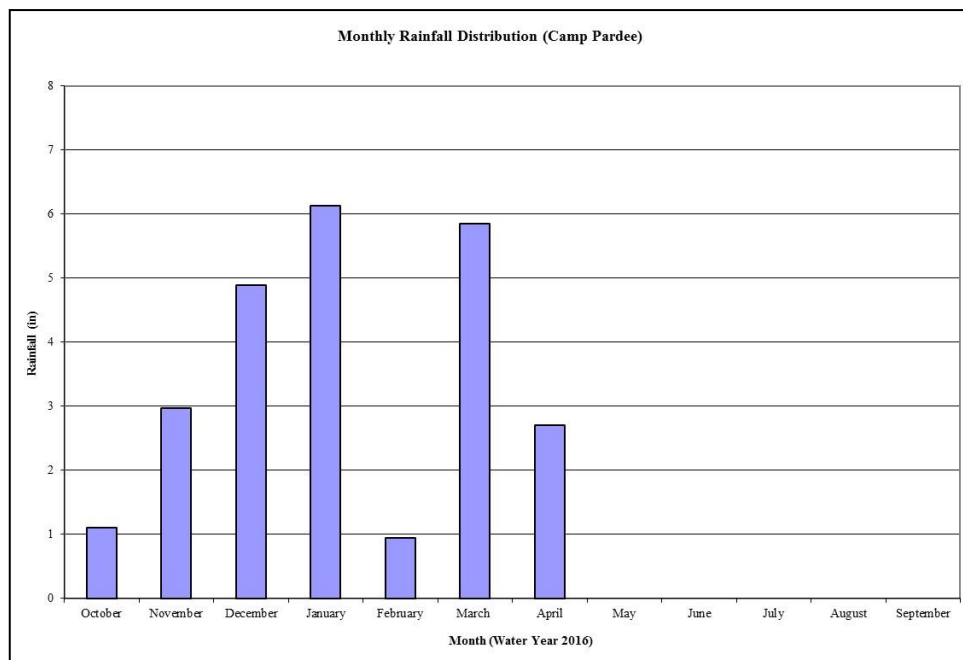


Figure 1-8 Monthly Rainfall Distribution (Camp Pardee)

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## Section 2 – Groundwater Elevation Monitoring

### Summary of Groundwater Elevations

The information contained in the Spring 2016 Groundwater Report is summarized as follows

#### GROUNDWATER LEVELS

Central San Joaquin Water Conservation District (CSJWCD) – Sixty-one (61) wells are monitored in CSJWCD. Thirty-nine (39) wells were able to be compared. Twenty-one (21) show decreases in groundwater levels. Sixteen (16) wells show increases in groundwater levels. No change was observed in two (2) wells.

North San Joaquin Water Conservation District (NSJWCD) – One-hundred seventy (170) wells are monitored in NSJWCD. One-hundred twenty-one (121) wells were able to be compared. Eighty-eight (88) wells decreased in groundwater levels. Thirty (30) wells increased in groundwater levels. No change was observed in three (3) wells.

Oakdale Irrigation District (OID) – Five (5) wells are monitored in the OID area. No wells were able to be compared.

Stockton East Water District (SEWD) – One-hundred sixty-one (161) wells are monitored in SEWD. Ninety (90) wells were able to be compared. Sixty-two (62) wells decreased in groundwater levels. Twenty-six (26) wells show increases in groundwater levels. Two (2) wells had no change in groundwater elevations.

South San Joaquin Irrigation District (SSJID) – Forty (40) wells are monitored in the SSJID area. Thirty (30) wells were able to be compared. Twenty-five (25) wells show decreases in groundwater levels. Three (3) wells show increases in groundwater levels. No change was observed in two (2) wells.

Southwest County Areas – Thirty-nine (39) wells are monitored across the Southwest Area of the County. Twenty-nine (29) wells were able to be compared. Eight (8) wells decreased in groundwater levels. Nineteen (19) wells increased in groundwater levels. Two (2) wells had no change in groundwater elevations.

Woodbridge Irrigation District (WID) – Thirty-four (34) wells are monitored in the WID. Nineteen (19) wells were able to be compared. Fourteen (14) wells decreased in groundwater levels. Three (3) wells show increases in groundwater levels. . Two (2) wells had no change in groundwater elevations.

**Table 2-1 Comparison of CSJWCD Water Levels**

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 01N07E11L001 | -57.00      | -48.00      | -9.00  |
| 01N07E11M001 | -49.70      | -43.70      | -6.00  |
| 01N07E13J002 | *           | *           | *      |
| 01N07E14J002 | -45.60      | *           | *      |
| 01N07E15M002 | *           | *           | *      |
| 01N07E24A001 | *           | *           | *      |
| 01N07E24R001 | *           | -50.00      | *      |
| 01N07E26H003 | -40.00      | *           | *      |
| 01N07E32A001 | -21.59      | -20.39      | -1.20  |
| 01N08E09L001 | -55.86      | -64.06      | 8.20   |
| 01N08E11L001 | -48.90      | -60.50      | 11.60  |
| 01N08E13J001 | -46.70      | -38.20      | -8.50  |
| 01N08E15J001 | -48.93      | -39.93      | -9.00  |
| 01N08E16G001 | -47.30      | -49.70      | 2.40   |
| 01N08E16H002 | -46.10      | -46.50      | 0.40   |
| 01N08E16P001 | -45.85      | -41.45      | -4.40  |
| 01N08E18A002 | -56.50      | -55.00      | -1.50  |
| 01N08E22J001 | -44.50      | -48.00      | 3.50   |
| 01N08E26A002 | -35.30      | *           | *      |
| 01N08E27R002 | -37.00      | -41.50      | 4.50   |
| 01N08E29M002 | -42.00      | -43.00      | 1.00   |
| 01N08E35F001 | -41.90      | *           | *      |
| 01N08E35R002 | *           | -33.00      | *      |
| 01N08E36F001 | -26.90      | -35.00      | 8.10   |
| 01N09E01C001 | -32.70      | -4.70       | -28.00 |
| 01N09E05J001 | -18.70      | -20.50      | 1.80   |
| 01N09E06N001 | -58.00      | *           | *      |
| 01N09E13D001 | 1.00        | 0.00        | 1.00   |
| 01N09E15B002 | *           | -4.70       | *      |
| 01N09E17D001 | -39.50      | -33.50      | -6.00  |
| 01N09E17M001 | -46.50      | -35.50      | -11.00 |
| 01N09E19C001 | -43.00      | -34.00      | -9.00  |
| 01N09E21J001 | *           | -2.66       | *      |
| 01N09E22G002 | -6.00       | -2.90       | -3.10  |
| 01N09E26A001 | 6.17        | 2.67        | 3.50   |
| 01N09E29R001 | -13.50      | -13.50      | 0.00   |
| 01N09E30C005 | -22.20      | -18.70      | -3.50  |
| 01N09E31J001 | *           | -29.95      | *      |
| 01N09E35K001 | 1.38        | 3.18        | -1.80  |
| 01S07E01J001 | *           | -27.60      | *      |

| StateWellID                             | Spring 2016 | Spring 2015 | Change             |
|-----------------------------------------|-------------|-------------|--------------------|
| 01S07E02J001                            | *           | *           | *                  |
| 01S07E12H001                            | *           | *           | *                  |
| 01S07E13J001                            | *           | *           | *                  |
| 01S08E04R001                            | -48.00      | -37.50      | -10.50             |
| 01S08E05A001                            | -34.40      | *           | *                  |
| 01S08E05R001                            | -37.80      | -39.30      | 1.50               |
| 01S08E06D001                            | -34.10      | -31.10      | -3.00              |
| 01S08E09Q001                            | -20.90      | -18.90      | -2.00              |
| 01S08E11F001                            | -29.90      | -22.90      | -7.00              |
| 01S08E12B001                            | *           | -13.20      | *                  |
| 01S08E14B001                            | -18.70      | -8.70       | -10.00             |
| 01S08E15P001                            | *           | *           | *                  |
| 01S08E20B001                            | -13.70      | -19.20      | 5.50               |
| 01S08E23A001                            | -6.50       | -5.50       | -1.00              |
| 01S09E02R001                            | 23.50       | *           | *                  |
| 01S09E05H002                            | -4.20       | -6.50       | 2.30               |
| 01S09E07A001                            | -6.30       | -7.30       | 1.00               |
| 01S09E07N001                            | -6.30       | -8.30       | 2.00               |
| 01S09E09R001                            | -0.20       | 2.80        | -3.00              |
| 01S09E11J002                            | 28.50       | *           | *                  |
| 01S09E18R003                            | *           | 8.00        | *                  |
| 01S09E19Q002                            | 12.00       | 12.00       | 0.00               |
| <b>Total Number of Wells</b>            |             |             | <b>61</b>          |
| <b>Total Number of Comparable Wells</b> |             |             | <b>39</b>          |
| <b>Number of Wells with Decrease</b>    |             |             | <b>21</b>          |
| <b>Number of Wells with Increase</b>    |             |             | <b>16</b>          |
| <b>Number of Wells with No Change</b>   |             |             | <b>2</b>           |
| <b>Range of Change</b>                  |             |             | <b>-28 to 11.6</b> |
| <b>Average Change</b>                   |             |             | <b>-2.06</b>       |

**Table 2-2 Comparison of NSJWCD Water Levels**

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 01S09E21J002 | 30.60       | 31.50       | -0.90  |
| 01S09E28M002 | *           | *           | *      |
| 03N06E04C001 | -2.24       | -1.24       | -1.00  |
| 03N06E23A003 | -27.98      | -27.27      | -0.70  |
| 03N06E24M003 | *           | -34.12      | *      |
| 03N06E25C001 | -37.15      | -34.55      | -2.60  |



\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 03N06E25H015       | *                  | *                  | *             |
| 03N06E36N001       | *                  | *                  | *             |
| 03N07E03R001       | -30.80             | *                  | *             |
| 03N07E05D005       | 19.67              | 19.37              | 0.30          |
| 03N07E08B012       | -19.35             | -19.05             | -0.30         |
| 03N07E08E002       | -35.00             | -35.00             | 0.00          |
| 03N07E09C001       | -35.70             | -28.20             | -7.50         |
| 03N07E09C003       | -23.28             | -22.18             | -1.10         |
| 03N07E09P002       | -33.48             | -31.58             | -1.90         |
| 03N07E10L004       | *                  | *                  | *             |
| 03N07E12P001       | -44.45             | -57.45             | 13.00         |
| 03N07E15C004       | -36.50             | -48.50             | 12.00         |
| 03N07E17A006       | -32.36             | -30.36             | -2.00         |
| 03N07E17D003       | -27.33             | -30.93             | 3.60          |
| 03N07E17D004       | -32.40             | -30.90             | -1.50         |
| 03N07E17K002       | -38.40             | -39.50             | 1.10          |
| 03N07E18D012       | -30.00             | -30.50             | 0.50          |
| 03N07E18M002       | -33.13             | -32.93             | -0.20         |
| 03N07E19J004       | -50.50             | -51.00             | 0.50          |
| 03N07E19Q012       | -39.48             | -37.78             | -1.70         |
| 03N07E20C012       | -37.54             | -37.34             | -0.20         |
| 03N07E21L003       | -55.00             | *                  | *             |
| 03N07E22C011       | -45.11             | -42.50             | -2.61         |
| 03N07E23C002       | *                  | -49.50             | *             |
| 03N07E23K011       | -49.64             | -46.74             | -2.90         |
| 03N07E25G001       | *                  | *                  | *             |
| 03N07E26G012       | -51.37             | -48.67             | -2.70         |
| 03N07E32Q012       | -49.25             | -46.15             | -3.10         |
| 03N07E33G002       | -54.20             | *                  | *             |
| 03N08E05K011       | -40.67             | -38.37             | -2.30         |
| 03N08E07J001       | *                  | -46.30             | *             |
| 03N08E12P011       | -37.77             | *                  | *             |
| 03N08E17B001       | -46.97             | -44.47             | -2.50         |
| 03N08E17Q011       | -50.27             | -47.67             | -2.60         |
| 03N08E19C001       | *                  | *                  | *             |
| 03N08E19M003       | -50.17             | -47.97             | -2.20         |
| 03N08E22A001       | -52.30             | -48.70             | -3.60         |
| 04N06E02R011       | *                  | *                  | *             |
| 04N06E03A012       | -2.40              | -8.50              | 6.10          |
| 04N06E06N012       | -9.10              | -12.60             | 3.50          |
| 04N06E12C004       | *                  | -35.00             | *             |
| 04N06E12N002       | *                  | -38.30             | *             |



\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 04N06E15B002       | -15.80             | -15.70             | -0.10         |
| 04N06E16A011       | -9.06              | -8.76              | -0.30         |
| 04N06E16C001       | -1.08              | -0.78              | -0.30         |
| 04N06E16K011       | 0.74               | 1.94               | -1.20         |
| 04N06E23D004       | -14.31             | -16.91             | 2.60          |
| 04N06E23K00        | -8.00              | -12.50             | 4.50          |
| 04N06E24D012       | -16.80             | -16.80             | 0.00          |
| 04N06E24F001       | -26.50             | -28.00             | 1.50          |
| 04N06E25B001       | -11.80             | -12.00             | 0.20          |
| 04N06E25R001       | -9.00              | -10.00             | 1.00          |
| 04N06E27D002       | 13.50              | 4.20               | 9.30          |
| 04N06E27Q012       | 16.28              | 15.48              | 0.80          |
| 04N06E36J012       | 8.50               | 8.30               | 0.20          |
| 04N07E01B011       | *                  | *                  | *             |
| 04N07E02R001       | -38.54             | -37.54             | -1.00         |
| 04N07E04B012       | -43.35             | -44.15             | 0.80          |
| 04N07E04Q012       | -38.71             | -40.41             | 1.70          |
| 04N07E07A001       | *                  | *                  | *             |
| 04N07E07H011       | -37.94             | -36.84             | -1.10         |
| 04N07E11D012       | -39.23             | -43.33             | 4.10          |
| 04N07E12E001       | *                  | *                  | *             |
| 04N07E12G012       | *                  | -35.14             | *             |
| 04N07E14P011       | -32.81             | -33.31             | 0.50          |
| 04N07E15B012       | *                  | -36.89             | *             |
| 04N07E16D001       | *                  | -36.84             | *             |
| 04N07E17J013       | *                  | *                  | *             |
| 04N07E17N001       | -38.40             | -41.30             | 2.90          |
| 04N07E19K001       | -30.10             | -23.10             | -7.00         |
| 04N07E19R011       | -20.31             | -19.91             | -0.40         |
| 04N07E20H003       | -98.30             | *                  | *             |
| 04N07E21F001       | -48.80             | -28.80             | -20.00        |
| 04N07E23J012       | -28.93             | -27.53             | -1.40         |
| 04N07E24N002       | -29.44             | -27.73             | -1.71         |
| 04N07E25G015       | -19.94             | -23.74             | 3.80          |
| 04N07E27C002       | -44.00             | -29.50             | -14.50        |
| 04N07E28J002       | -24.70             | -21.70             | -3.00         |
| 04N07E28P011       | 4.23               | 7.63               | -3.40         |
| 04N07E29H001       | *                  | -20.64             | *             |
| 04N07E29N012       | -6.52              | -6.42              | -0.10         |
| 04N07E32F011       | 4.47               | 4.47               | 0.00          |

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 04N07E33H001       | 14.00              | 24.00              | -10.00        |
| 04N07E34K011       | -11.43             | -10.83             | -0.60         |
| 04N07E35C002       | *                  | -15.53             | *             |
| 04N07E35E013       | -17.44             | -15.03             | -2.41         |
| 04N07E36L001       | -28.50             | -27.60             | -0.90         |
| 04N08E01K001       | 47.03              | 48.93              | -1.90         |
| 04N08E02E011       | -10.97             | -9.37              | -1.60         |
| 04N08E04P014       | -39.37             | -35.07             | -4.30         |
| 04N08E06C002       | -33.07             | -36.97             | 3.90          |
| 04N08E06N002       | -42.70             | -40.70             | -2.00         |
| 04N08E11M012       | -9.37              | -7.37              | -2.00         |
| 04N08E12A011       | 73.83              | 74.33              | -0.50         |
| 04N08E12B011       | 48.33              | 49.63              | -1.30         |
| 04N08E12N001       | 20.13              | 23.23              | -3.10         |
| 04N08E14B011       | -3.07              | -1.37              | -1.70         |
| 04N08E14K001       | -19.60             | *                  | *             |
| 04N08E15D011       | *                  | -19.47             | *             |
| 04N08E15J011       | -15.67             | -13.87             | -1.80         |
| 04N08E17A001       | *                  | -26.30             | *             |
| 04N08E17J001       | -32.50             | *                  | *             |
| 04N08E21M001       | -36.60             | -35.10             | -1.50         |
| 04N08E22C015       | -22.27             | -19.37             | -2.90         |
| 04N08E26A012       | *                  | -9.77              | *             |
| 04N08E27J011       | -22.17             | -19.17             | -3.00         |
| 04N08E28E001       | *                  | -32.56             | *             |
| 04N08E32N001       | -58.10             | -38.60             | -19.50        |
| 04N08E34Q011       | -35.96             | -32.96             | -3.00         |
| 04N09E05E099       | 151.53             | 153.33             | -1.80         |
| 04N09E06H097       | *                  | 162.23             | *             |
| 04N09E06H098       | 172.53             | 175.93             | -3.40         |
| 04N09E06H099       | 204.83             | 206.23             | -1.40         |
| 04N09E06J098       | 204.33             | 205.53             | -1.20         |
| 04N09E06J099       | 160.23             | 162.33             | -2.10         |
| 04N09E06K097       | 109.83             | 108.43             | 1.40          |
| 04N09E06K099       | 122.23             | 122.03             | 0.20          |
| 04N09E06L011       | 111.13             | 112.73             | -1.60         |
| 04N09E06Q098       | 130.83             | 132.43             | -1.60         |
| 04N09E07B098       | 151.53             | 154.43             | -2.90         |
| 04N09E07B099       | 142.93             | 148.23             | -5.30         |
| 04N09E07D012       | 80.93              | 82.13              | -1.20         |
| 04N09E07E011       | 86.63              | 89.43              | -2.80         |



\*Measurement wasn't able to be completed due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 04N09E08N096       | 164.23             | 165.13             | -0.90         |
| 04N09E08N097       | 161.63             | 162.63             | -1.00         |
| 04N09E08N098       | 158.83             | 162.43             | -3.60         |
| 04N09E08N099       | 161.43             | 164.43             | -3.00         |
| 04N09E08P099       | 169.63             | 170.43             | -0.80         |
| 04N09E08R099       | 177.13             | 176.93             | 0.20          |
| 04N09E15D001       | 184.63             | *                  | *             |
| 04N09E16A001       | 179.23             | *                  | *             |
| 04N09E16D099       | *                  | 182.53             | *             |
| 04N09E16Q002       | 150.03             | 157.13             | -7.10         |
| 04N09E17A099       | 171.83             | 173.73             | -1.90         |
| 04N09E17E001       | 131.63             | 136.13             | -4.50         |
| 04N09E17E099       | 153.93             | 155.73             | -1.80         |
| 04N09E17F099       | 161.03             | 162.13             | -1.10         |
| 04N09E17G099       | 164.93             | 165.03             | -0.10         |
| 04N09E18A011       | 149.83             | *                  | *             |
| 04N09E18D002       | 52.63              | 53.53              | -0.90         |
| 04N09E18N011       | 24.23              | 26.33              | -2.10         |
| 04N09E20M001       | 111.34             | 111.84             | -0.50         |
| 04N09E21A001       | 166.84             | 168.14             | -1.30         |
| 04N09E28C002       | 185.84             | 187.34             | -1.50         |
| 05N06E36R001       | -43.30             | -38.80             | -4.50         |
| 05N07E31J001       | *                  | -53.00             | *             |
| 05N07E31Q001       | *                  | *                  | *             |
| 05N07E34G001       | *                  | *                  | *             |
| 05N07E34Q001       | *                  | -50.40             | *             |
| 05N08E24Q011       | 49.63              | 47.53              | 2.10          |
| 05N08E25P011       | 50.43              | 50.33              | 0.10          |
| 05N08E32R011       | -38.17             | -33.97             | -4.20         |
| 05N08E35K012       | 0.23               | 1.73               | -1.50         |
| 05N09E30C011       | 160.13             | 157.93             | 2.20          |
| 05N09E30M011       | 144.23             | 145.03             | -0.80         |
| 05N09E31L011       | 125.83             | 126.73             | -0.90         |
| Harney MW-1        | *                  | 0.00               | *             |
| Harney MW-2        | *                  | 0.00               | *             |
| Harney MW-3        | *                  | 0.00               | *             |
| Harney MW-4        | *                  | 0.00               | *             |
| North G-1          | -53.23             | *                  | *             |
| North G-3D         | -51.66             | *                  | *             |
| North G-4          | -52.87             | *                  | *             |



\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| StateWellID                             | Spring 2016 | Spring 2015 | Change           |
|-----------------------------------------|-------------|-------------|------------------|
| North G-5                               | *           | 0.00        | *                |
| North G-6                               | -49.52      | *           | *                |
| <b>Total Number of Wells</b>            |             |             | <b>170</b>       |
| <b>Total Number of Comparable Wells</b> |             |             | <b>121</b>       |
| <b>Number of Wells with Decrease</b>    |             |             | <b>88</b>        |
| <b>Number of Wells with Increase</b>    |             |             | <b>30</b>        |
| <b>Number of Wells with No Change</b>   |             |             | <b>3</b>         |
| <b>Range of Change</b>                  |             |             | <b>-20 to 13</b> |
| <b>Average Change</b>                   |             |             | <b>-1.24</b>     |

**Table 2-3 Comparison of OID Water Levels**

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 01S09E14K001 | 35.91       | *           | *      |
| 01S09E23N001 | *           | *           | *      |
| 01S09E24R001 | *           | *           | *      |
| 02N06E36A001 | -47.00      | *           | *      |
| C-1          | -54.50      | *           | *      |

|                                         |  |  |             |
|-----------------------------------------|--|--|-------------|
| <b>Total Number of Wells</b>            |  |  | <b>5.00</b> |
| <b>Total Number of Comparable Wells</b> |  |  | <b>0</b>    |
| <b>Number of Wells with Decrease</b>    |  |  | <b>*</b>    |
| <b>Number of Wells with Increase</b>    |  |  | <b>*</b>    |
| <b>Number of Wells with No Change</b>   |  |  | <b>*</b>    |
| <b>Range of Change</b>                  |  |  | <b>*</b>    |
| <b>Average Change</b>                   |  |  | <b>*</b>    |

**Table 2-4 Comparison of SEWD Water Levels**

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 01N06E01J001 | -30.50      | -27.50      | -3.00  |
| 01N06E01M001 | -39.00      | -36.00      | -3.00  |
| 01N06E02C001 | -20.93      | -19.43      | -1.50  |
| 01N06E02Q001 | -20.00      | -25.00      | 5.00   |
| 01N06E04J003 | -16.53      | -17.53      | 1.00   |
| 01N06E04J004 | -10.77      | -11.77      | 1.00   |
| 01N06E04J005 | -4.41       | -4.61       | 0.20   |
| 01N06E05H001 | -6.99       | -6.89       | -0.10  |
| 01N06E05M004 | *           | *           | *      |
| 01N06E12A001 | -27.00      | -22.00      | -5.00  |
| 01N06E12F001 | -51.00      | -47.00      | -4.00  |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 01N06E12G001       | -23.80             | -24.80             | 1.00          |
| 01N06E27R002       | -6.20              | -6.20              | 0.00          |
| 01N06E36C003       | -16.40             | -15.30             | -1.10         |
| 01N06E36C004       | -10.90             | -11.00             | 0.10          |
| 01N06E36C005       | -9.30              | -9.50              | 0.20          |
| 01N07E01A002       | *                  | *                  | *             |
| 01N07E01M002       | -62.00             | -54.50             | -7.50         |
| 01N07E02G001       | -59.50             | -48.50             | -11.00        |
| 01N07E03D002       | -78.96             | *                  | *             |
| 01N07E03D003       | *                  | -48.13             | *             |
| 01N07E03D004       | -50.58             | -36.38             | -14.20        |
| 01N07E03D005       | -12.64             | -25.54             | 12.90         |
| 01N07E04R001       | -50.00             | -27.00             | -23.00        |
| 01N07E05A001       | -37.00             | *                  | *             |
| 01N07E05N001       | *                  | 0.00               | *             |
| 01N07E08B001       | *                  | *                  | *             |
| 01N07E08H002       | *                  | 0.00               | *             |
| 01N07E08P001       | -37.50             | -23.50             | -14.00        |
| 01N07E09E004       | -34.00             | -27.00             | -7.00         |
| 01N07E09H001       | -44.50             | -32.50             | -12.00        |
| 01N07E09Q003       | -50.00             | -38.50             | -11.50        |
| 01N07E10D001       | -55.00             | -38.00             | -17.00        |
| 01N07E10G001       | *                  | *                  | *             |
| 01N07E16M001       | -41.00             | -35.00             | -6.00         |
| 01N07E17D001       | -30.50             | -27.50             | -3.00         |
| 01N07E17D002       | -32.50             | -26.50             | -6.00         |
| 01N07E18B001       | -28.00             | -26.00             | -2.00         |
| 01N07E18D001       | -21.00             | -24.00             | 3.00          |
| 01N07E18E003       | -24.00             | -21.00             | -3.00         |
| 01N07E18L001       | -26.00             | -24.00             | -2.00         |
| 01N07E19G001       | -18.00             | *                  | *             |
| 01N07E20G001       | -23.00             | *                  | *             |
| 01S06E01C002       | -7.00              | -5.00              | -2.00         |
| 01S06E02D004       | -5.69              | -4.79              | -0.90         |
| 01S06E02G002       | *                  | -4.67              | *             |
| 01S06E10G001       | -4.80              | -3.80              | -1.00         |
| 01S07E06M002       | -7.00              | *                  | *             |
| 01S07E08J002       | -10.00             | *                  | *             |
| 01S07E36D001       | 10.35              | 18.75              | -8.40         |
| 02N05E01A002       | -30.24             | -28.84             | -1.40         |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 02N05E01A003       | -19.11             | -19.01             | -0.10         |
| 02N05E01A004       | -15.46             | -15.06             | -0.40         |
| 02N05E01A005       | -13.54             | -13.74             | 0.20          |
| 02N05E01A006       | -11.18             | -10.78             | -0.40         |
| 02N06E03A003       | -42.80             | -34.80             | -8.00         |
| 02N06E06C002       | *                  | *                  | *             |
| 02N06E08N001       | -27.28             | -27.68             | 0.40          |
| 02N06E08N002       | -24.92             | -25.52             | 0.60          |
| 02N06E08N003       | -21.61             | -22.51             | 0.90          |
| 02N06E11H004       | -49.80             | -49.40             | -0.40         |
| 02N06E11H005       | -51.07             | -52.87             | 1.80          |
| 02N06E11H006       | -49.72             | -47.02             | -2.70         |
| 02N06E11H007       | -49.55             | -46.35             | -3.20         |
| 02N06E13R002       | *                  | *                  | *             |
| 02N06E17G001       | *                  | -22.70             | *             |
| 02N06E20E001       | -18.60             | -20.10             | 1.50          |
| 02N06E20E002       | -17.00             | -19.80             | 2.80          |
| 02N06E20E003       | -15.60             | -18.00             | 2.40          |
| 02N06E22B001       | -35.00             | -38.00             | 3.00          |
| 02N06E22E001       | -28.00             | -28.00             | 0.00          |
| 02N06E22G001       | *                  | 0.00               | *             |
| 02N06E22G002       | *                  | 0.00               | *             |
| 02N06E22Q001       | *                  | 0.00               | *             |
| 02N06E22Q002       | *                  | -42.00             | *             |
| 02N06E24F001       | -40.50             | -38.50             | -2.00         |
| 02N06E24J002       | -54.30             | *                  | *             |
| 02N06E27L001       | -28.00             | -41.00             | 13.00         |
| 02N06E27P001       | -31.00             | *                  | *             |
| 02N06E32G001       | -9.39              | -8.99              | -0.40         |
| 02N06E34C001       | -27.00             | -36.00             | 9.00          |
| 02N06E35B001       | *                  | 0.00               | *             |
| 02N06E36D001       | *                  | -42.50             | *             |
| 02N06E36F001       | -34.50             | -38.50             | 4.00          |
| 02N06E36G001       | *                  | 0.00               | *             |
| 02N06E36N003       | -40.50             | -50.50             | 10.00         |
| 02N06E36R003       | -26.00             | -34.00             | 8.00          |
| 02N07E03D001       | -76.00             | -59.00             | -17.00        |
| 02N07E06P002       | -46.80             | *                  | *             |
| 02N07E08D001       | -53.70             | -51.20             | -2.50         |

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 02N07E08K003       | -71.00             | -60.00             | -11.00        |
| 02N07E08R002       | -58.04             | -54.24             | -3.80         |
| 02N07E10F002       | -58.50             | *                  | *             |
| 02N07E11F001       | *                  | -73.50             | *             |
| 02N07E11R002       | -69.00             | -59.00             | -10.00        |
| 02N07E12A003       | -57.35             | -51.85             | -5.50         |
| 02N07E15C001       | *                  | -61.30             | *             |
| 02N07E16F002       | *                  | -67.44             | *             |
| 02N07E16L001       | *                  | -61.30             | *             |
| 02N07E18H002       | -53.70             | -59.70             | 6.00          |
| 02N07E20N002       | *                  | -44.00             | *             |
| 02N07E21A002       | *                  | -60.81             | *             |
| 02N07E21K002       | -72.00             | -55.00             | -17.00        |
| 02N07E21N001       | -76.00             | *                  | *             |
| 02N07E23B001       | -81.00             | -64.00             | -17.00        |
| 02N07E24B001       | -69.10             | *                  | *             |
| 02N07E24Q001       | *                  | *                  | *             |
| 02N07E26H003       | *                  | -61.00             | *             |
| 02N07E26N001       | -71.20             | *                  | *             |
| 02N07E28K002       | -77.00             | -60.00             | -17.00        |
| 02N07E28N004       | *                  | -43.00             | *             |
| 02N07E28P001       | *                  | *                  | *             |
| 02N07E29B001       | *                  | -58.50             | *             |
| 02N07E29M002       | -47.50             | -43.00             | -4.50         |
| 02N07E30E001       | *                  | -40.50             | *             |
| 02N07E30H001       | -46.50             | *                  | *             |
| 02N07E30K001       | -29.00             | *                  | *             |
| 02N07E31M001       | *                  | *                  | *             |
| 02N07E32J002       | -54.00             | -38.00             | -16.00        |
| 02N07E32M002       | -49.00             | -35.00             | -14.00        |
| 02N07E32R001       | *                  | -28.60             | *             |
| 02N07E33L001       | -65.00             | -40.00             | -25.00        |
| 02N07E34R001       | -56.00             | -45.00             | -11.00        |
| 02N07E35L001       | *                  | *                  | *             |
| 02N07E36H001       | *                  | -63.70             | *             |
| 02N08E03G002       | -89.70             | *                  | *             |
| 02N08E04C001       | -55.80             | -53.50             | -2.30         |
| 02N08E05C001       | *                  | -62.50             | *             |
| 02N08E08N001       | -71.50             | *                  | *             |
| 02N08E09G002       | *                  | *                  | *             |



\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| <b>StateWellID</b> | <b>Spring 2016</b> | <b>Spring 2015</b> | <b>Change</b> |
|--------------------|--------------------|--------------------|---------------|
| 02N08E10H002       | -77.10             | -53.10             | -24.00        |
| 02N08E13K001       | *                  | *                  | *             |
| 02N08E14C001       | -53.00             | -48.00             | -5.00         |
| 02N08E15M002       | -64.20             | *                  | *             |
| 02N08E16D001       | -80.10             | -54.10             | -26.00        |
| 02N08E18C001       | *                  | -58.70             | *             |
| 02N08E20F001       | *                  | *                  | *             |
| 02N08E24J001       | *                  | *                  | *             |
| 02N08E24P001       | -59.40             | -35.40             | -24.00        |
| 02N08E28H002       | -49.60             | -54.60             | 5.00          |
| 02N08E32L002       | *                  | *                  | *             |
| 02N08E33E001       | -67.60             | -60.60             | -7.00         |
| 02N09E03A001       | *                  | 56.40              | *             |
| 02N09E04H001       | *                  | *                  | *             |
| 02N09E05H001       | -13.30             | -9.30              | -4.00         |
| 02N09E05N001       | -25.89             | -22.49             | -3.40         |
| 02N09E08N001       | *                  | *                  | *             |
| 02N09E09D001       | *                  | -10.80             | *             |
| 02N09E18Q001       | *                  | *                  | *             |
| 02N09E22D001       | *                  | 0.00               | *             |
| 02N09E28N001       | -17.10             | *                  | *             |
| 02S07E11N002       | 25.00              | 32.00              | -7.00         |
| 03N07E28K012       | -60.96             | -48.16             | -12.80        |
| 03N07E35C002       | -54.20             | -53.80             | -0.40         |
| 03N07E35L001       | -68.00             | -68.50             | 0.50          |
| 03N07E36J001       | -54.30             | -53.30             | -1.00         |
| 03N08E27R001       | *                  | *                  | *             |
| 03N09E25R001       | 80.70              | *                  | *             |
| 03N09E36G001       | 60.20              | *                  | *             |
| Foothill MW-1      | *                  | 0.00               | *             |
| Foothill MW-2R     | *                  | 0.00               | *             |
| Foothill MW-3      | *                  | 0.00               | *             |

|                                         |                  |
|-----------------------------------------|------------------|
| <b>Total Number of Wells</b>            | <b>161</b>       |
| <b>Total Number of Comparable Wells</b> | <b>90</b>        |
| <b>Number of Wells with Decrease</b>    | <b>62</b>        |
| <b>Number of Wells with Increase</b>    | <b>26</b>        |
| <b>Number of Wells with No Change</b>   | <b>2</b>         |
| <b>Range of Change</b>                  | <b>-26 to 13</b> |
| <b>Average Change</b>                   | <b>-4.25</b>     |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

**Table 2-5 Comparison of SSJID Water Levels**

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 01S07E09Q001 | -5.17       | -2.67       | -2.50  |
| 01S07E14M001 | -7.10       | -4.10       | -3.00  |
| 01S07E14P003 | -8.80       | *           | *      |
| 01S07E15F002 | -11.60      | -5.60       | -6.00  |
| 01S07E18L001 | -0.13       | 1.27        | -1.40  |
| 01S07E21G001 | 5.75        | 8.05        | -2.30  |
| 01S07E25E001 | 2.50        | 5.00        | -2.50  |
| 01S07E25R001 | 7.95        | 10.15       | -2.20  |
| 01S07E26G001 | 2.00        | *           | *      |
| 01S07E27K001 | 3.80        | 6.70        | -2.90  |
| 01S07E30R001 | 7.96        | 9.56        | -1.60  |
| 01S08E19R001 | *           | *           | *      |
| 01S08E25Q001 | *           | *           | *      |
| 01S08E29K001 | 1.00        | 1.50        | -0.50  |
| 01S08E30C002 | -2.00       | 2.00        | -4.00  |
| 01S08E34Q001 | 14.56       | 15.16       | -0.60  |
| 01S08E35R002 | 22.17       | 22.87       | -0.70  |
| 01S09E29M002 | 23.50       | 27.00       | -3.50  |
| 01S09E33J002 | 47.42       | 49.92       | -2.50  |
| 01S09E33P001 | 44.51       | 45.71       | -1.20  |
| 01S09E34A001 | *           | *           | *      |
| 02S04E15R001 | 52.00       | 54.00       | -2.00  |
| 02S06E27E001 | 7.00        | 9.00        | -2.00  |
| 02S07E07D002 | 9.00        | 9.00        | 0.00   |
| 02S07E07Q001 | 20.86       | 23.06       | -2.20  |
| 02S07E08R001 | 23.46       | 26.26       | -2.80  |
| 02S07E10B002 | 20.86       | 24.76       | -3.90  |
| 02S07E12R001 | 21.75       | 21.05       | 0.70   |
| 02S07E19H001 | 19.00       | 20.00       | -1.00  |
| 02S07E22N002 | 23.65       | 15.35       | 8.30   |
| 02S08E04M001 | 17.00       | *           | *      |
| 02S08E06J001 | 16.00       | 16.00       | 0.00   |
| 02S08E07R001 | *           | *           | *      |
| 02S08E08A001 | 21.00       | *           | *      |
| 02S08E08E001 | *           | *           | *      |
| 02S08E09J001 | 31.16       | 31.06       | 0.10   |
| 02S08E12D001 | 33.47       | 33.97       | -0.50  |
| 02S09E03K001 | *           | *           | *      |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 02S09E07D001 | 35.99       | *           | *      |
| 02S09E12R001 | 66.15       | 66.85       | -0.70  |
| 02S09E19B002 | 54.90       | 56.30       | -1.40  |

|                                         |                  |
|-----------------------------------------|------------------|
| <b>Total Number of Wells</b>            | <b>40</b>        |
| <b>Total Number of Comparable Wells</b> | <b>30</b>        |
| <b>Number of Wells with Decrease</b>    | <b>25</b>        |
| <b>Number of Wells with Increase</b>    | <b>3</b>         |
| <b>Number of Wells with No Change</b>   | <b>2</b>         |
| <b>Range of Change</b>                  | <b>-6 to 8.3</b> |
| <b>Average Change</b>                   | <b>-1.49</b>     |

**Table 2-6 Comparison of South West County Area  
Water Levels**

| StateWellID  | Spring 2015 | Spring 2014 | Change |
|--------------|-------------|-------------|--------|
| 01S05E31R002 | 1.10        | 0.70        | 0.40   |
| 01S06E04J001 | -1.00       | -1.00       | 0.00   |
| 01S06E14F001 | *           | 2.40        | *      |
| 01S06E15F001 | 2.41        | 1.71        | 0.70   |
| 01S06E23C003 | 4.03        | 4.83        | -0.80  |
| 01S06E26K001 | 3.14        | 3.04        | 0.10   |
| 02S05E08B001 | *           | -0.30       | *      |
| 02S05E13N001 | *           | *           | *      |
| 02S06E10K001 | 3.00        | 3.00        | 0.00   |
| 02S06E25J001 | 13.80       | 15.30       | -1.50  |
| 02S06E26B001 | *           | *           | *      |
| 02S06E31N001 | 51.88       | 53.30       | -1.42  |
| 03N06E05C002 | -5.15       | 0.00        | -5.15  |
| 03S05E04H001 | *           | *           | *      |
| 03S06E03F002 | 7.50        | *           | *      |
| 03S06E23C001 | 1.00        | -1.20       | 2.20   |
| 03S06E27N001 | 65.80       | *           | *      |
| 04N06E34J002 | -2.60       | 21.40       | -24.00 |
| Corral MW-4  | *           | 0.00        | *      |
| Corral MW-5  | *           | 0.00        | *      |
| Corral MW-6  | *           | 0.00        | *      |
| Corral MW-7  | *           | 0.00        | *      |
| MW-1A        | -12.95      | -11.62      | -1.33  |
| MW-1B        | -21.15      | -22.62      | 1.47   |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| StateWellID | Spring 2016 | Spring 2015 | Change |
|-------------|-------------|-------------|--------|
| MW-1C       | -19.90      | -21.53      | 1.63   |
| MW-2A       | -22.10      | -22.33      | 0.23   |
| MW-2B       | -27.17      | -30.91      | 3.74   |
| MW-2C       | -27.96      | -32.45      | 4.49   |
| MW-3A       | -24.84      | -25.15      | 0.31   |
| MW-3B       | -29.82      | -34.60      | 4.78   |
| MW-3C       | -34.14      | -41.12      | 6.98   |
| MW-4A       | -20.28      | -20.71      | 0.43   |
| MW-4B       | -25.91      | -29.42      | 3.51   |
| MW-4C       | -25.85      | -30.00      | 4.15   |
| MW-5A       | -16.06      | -17.86      | 1.80   |
| MW-5B       | -18.64      | -21.18      | 2.54   |
| MW-5C       | -19.43      | -21.00      | 1.57   |
| MW-6A       | -16.66      | -15.56      | -1.10  |
| MW-6B       | -18.84      | -18.88      | 0.04   |
| MW-6C       | -19.66      | -19.51      | -0.15  |

|                                         |                   |
|-----------------------------------------|-------------------|
| <b>Total Number of Wells</b>            | <b>39</b>         |
| <b>Total Number of Comparable Wells</b> | <b>29</b>         |
| <b>Number of Wells with Decrease</b>    | <b>8</b>          |
| <b>Number of Wells with Increase</b>    | <b>19</b>         |
| <b>Number of Wells with No Change</b>   | <b>2</b>          |
| <b>Range of Change</b>                  | <b>-24 to 6.9</b> |
| <b>Average Change</b>                   | <b>0.19</b>       |

**Table 2-7 Comparison of WID Water Levels**

| StateWellID  | Spring 2015 | Spring 2014 | Change |
|--------------|-------------|-------------|--------|
| 03N05E13L001 | *           | *           | *      |
| 03N05E14C001 | -3.30       | -5.10       | 1.80   |
| 03N06E04P012 | -9.56       | -8.26       | -1.30  |
| 03N06E05N003 | -14.00      | *           | *      |
| 03N06E07D013 | *           | -7.58       | *      |
| 03N06E07H003 | -18.00      | -16.00      | -2.00  |
| 03N06E09N011 | *           | *           | *      |
| 03N06E10D001 | -5.90       | *           | *      |
| 03N06E15C004 | *           | *           | *      |
| 03N06E17A004 | -27.70      | *           | *      |
| 03N06E18M003 | -15.60      | -15.10      | -0.50  |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

| StateWellID  | Spring 2016 | Spring 2015 | Change |
|--------------|-------------|-------------|--------|
| 03N06E20D002 | -18.50      | -18.50      | 0.00   |
| 03N06E26P002 | -34.70      | -33.70      | -1.00  |
| 03N06E27E001 | -36.20      | *           | *      |
| 03N06E29C001 | -30.30      | -29.30      | -1.00  |
| 03N06E30R001 | -22.70      | *           | *      |
| 03N06E32R001 | -25.00      | *           | *      |
| 04N05E10K001 | *           | -5.00       | *      |
| 04N05E13C012 | -2.33       | -2.83       | 0.50   |
| 04N05E13H001 | -8.00       | -5.50       | -2.50  |
| 04N05E13R004 | -10.00      | -7.00       | -3.00  |
| 04N05E14B002 | -11.90      | -14.90      | 3.00   |
| 04N05E14P001 | -2.00       | -2.00       | 0.00   |
| 04N05E22H001 | *           | -7.50       | *      |
| 04N05E24J004 | *           | -4.60       | *      |
| 04N05E26F001 | -2.30       | -0.30       | -2.00  |
| 04N05E36C004 | -3.09       | -0.19       | -2.90  |
| 04N05E36H003 | -7.50       | -5.50       | -2.00  |
| 04N06E17G004 | -3.00       | -2.50       | -0.50  |
| 04N06E18R012 | -4.20       | -2.40       | -1.80  |
| 04N06E19R012 | -5.18       | -2.48       | -2.70  |
| 04N06E29N002 | -9.40       | -7.40       | -2.00  |
| 04N06E30E001 | *           | -3.30       | *      |
| 05N05E28L003 | *           | -2.50       | *      |

|                                         |                |
|-----------------------------------------|----------------|
| <b>Total Number of Wells</b>            | <b>34</b>      |
| <b>Total Number of Comparable Wells</b> | <b>19</b>      |
| <b>Number of Wells with Decrease</b>    | <b>14</b>      |
| <b>Number of Wells with Increase</b>    | <b>3</b>       |
| <b>Number of Wells with No Change</b>   | <b>2</b>       |
| <b>Range of Change</b>                  | <b>-3 to 3</b> |
| <b>Average Change</b>                   | <b>-1.05</b>   |

\*Measurement not taken due to one or more of the following reasons: pumping, pump house locked, unable to get tape in casing, insects or dogs.

## HYDROGRAPHS

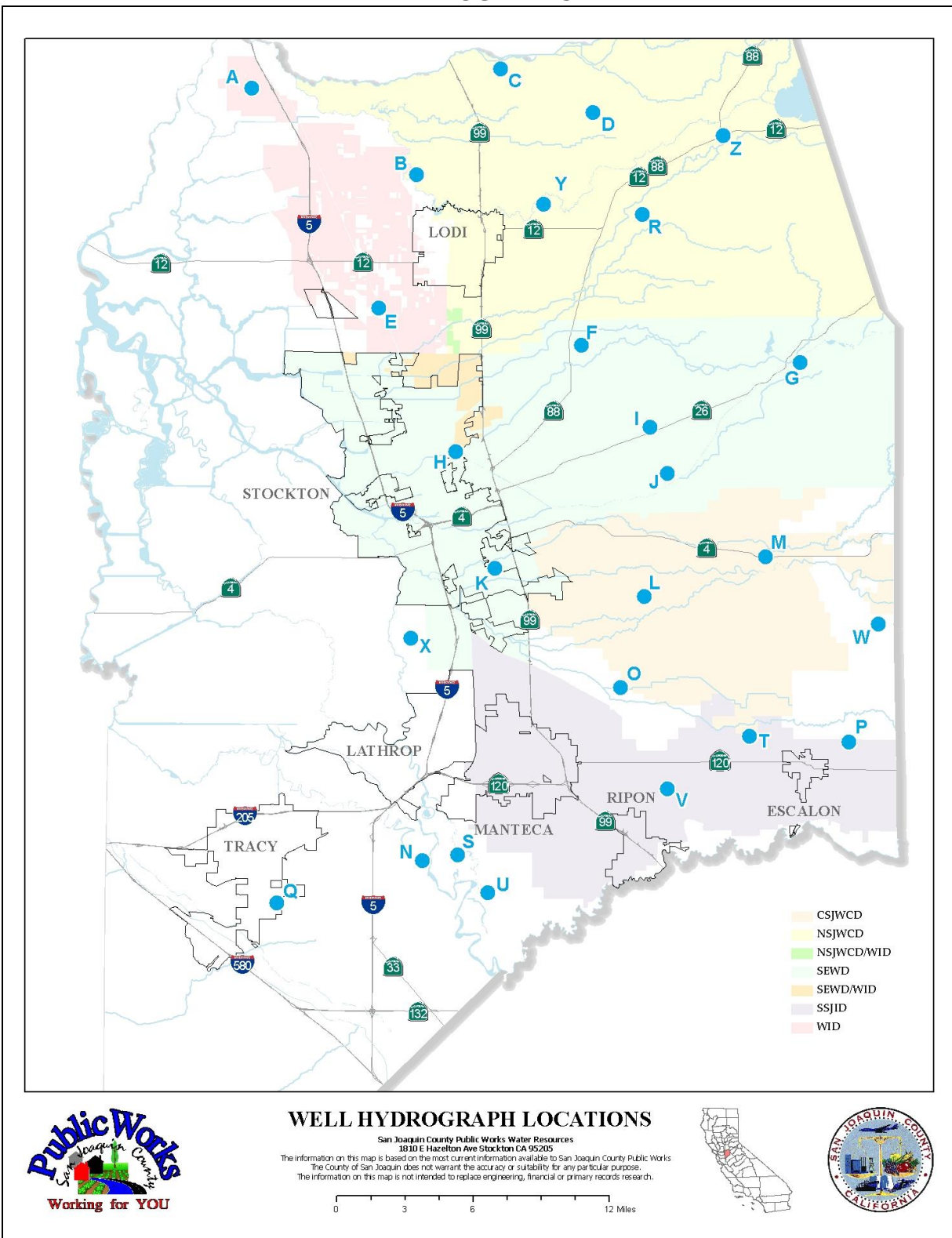


Figure 2-1 Well Hydrograph Locations

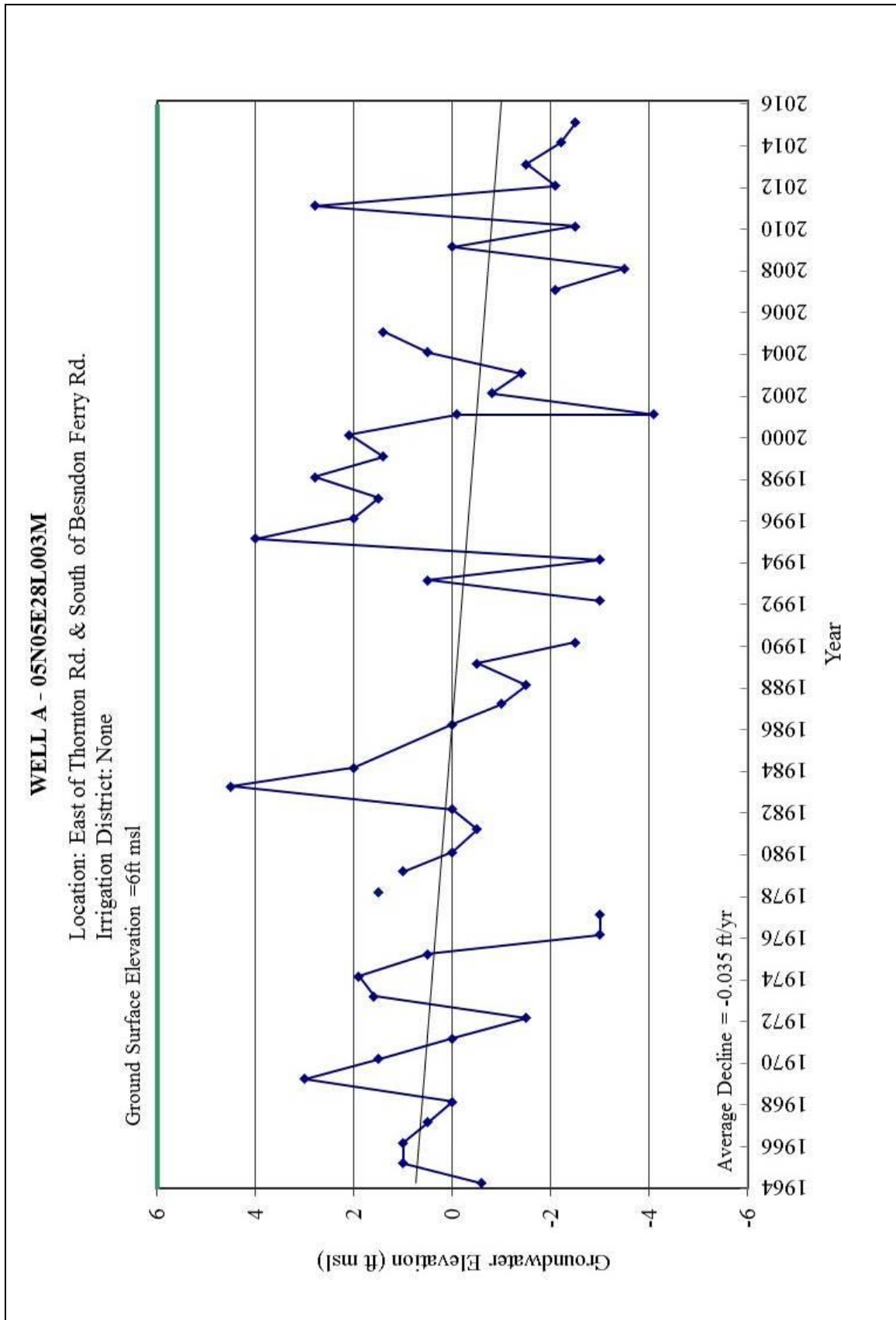


Figure 2-2 Spring Hydrograph Well A

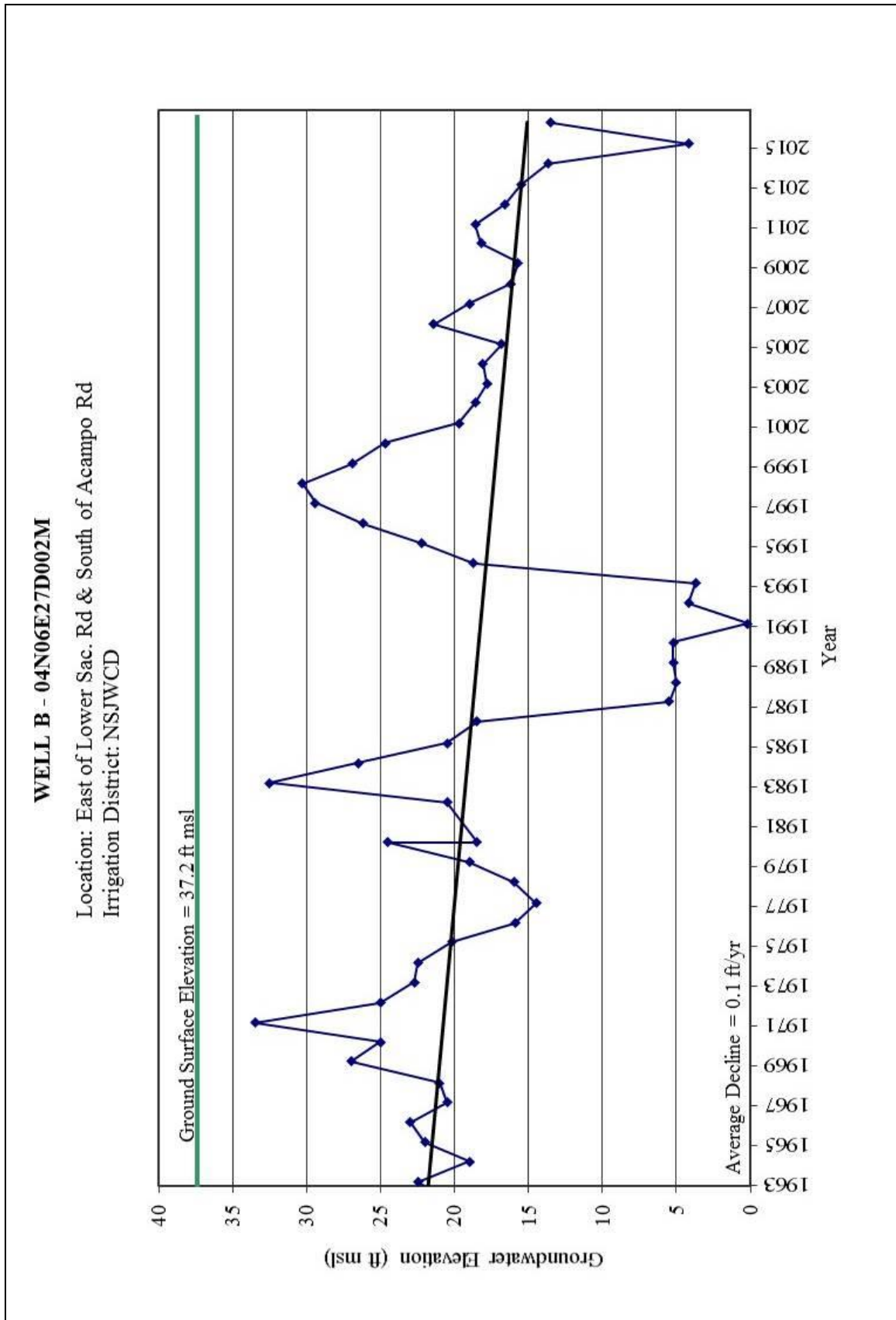


Figure 2-3 Spring Hydrograph Well B

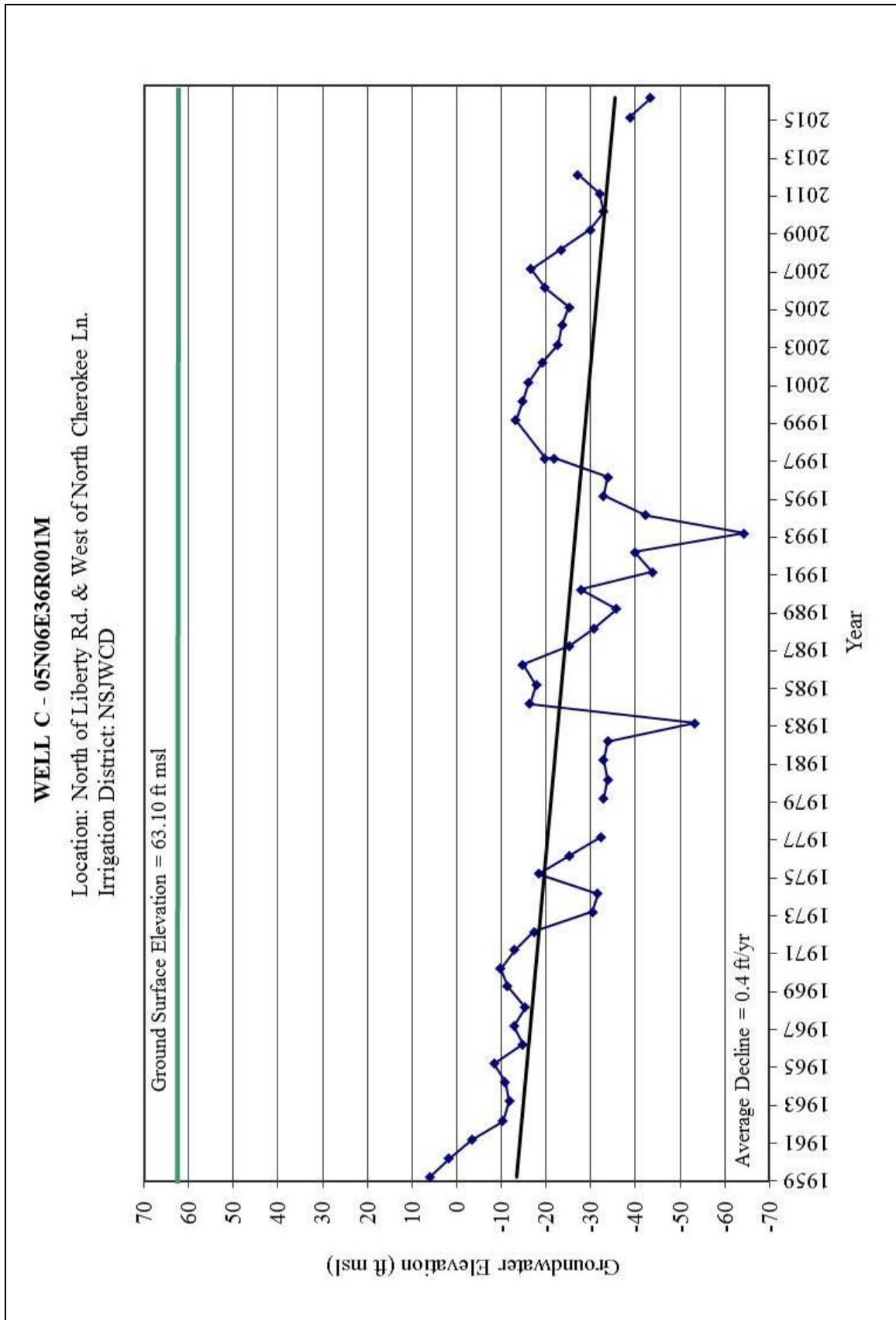


Figure 2-4 Spring Hydrograph Well C

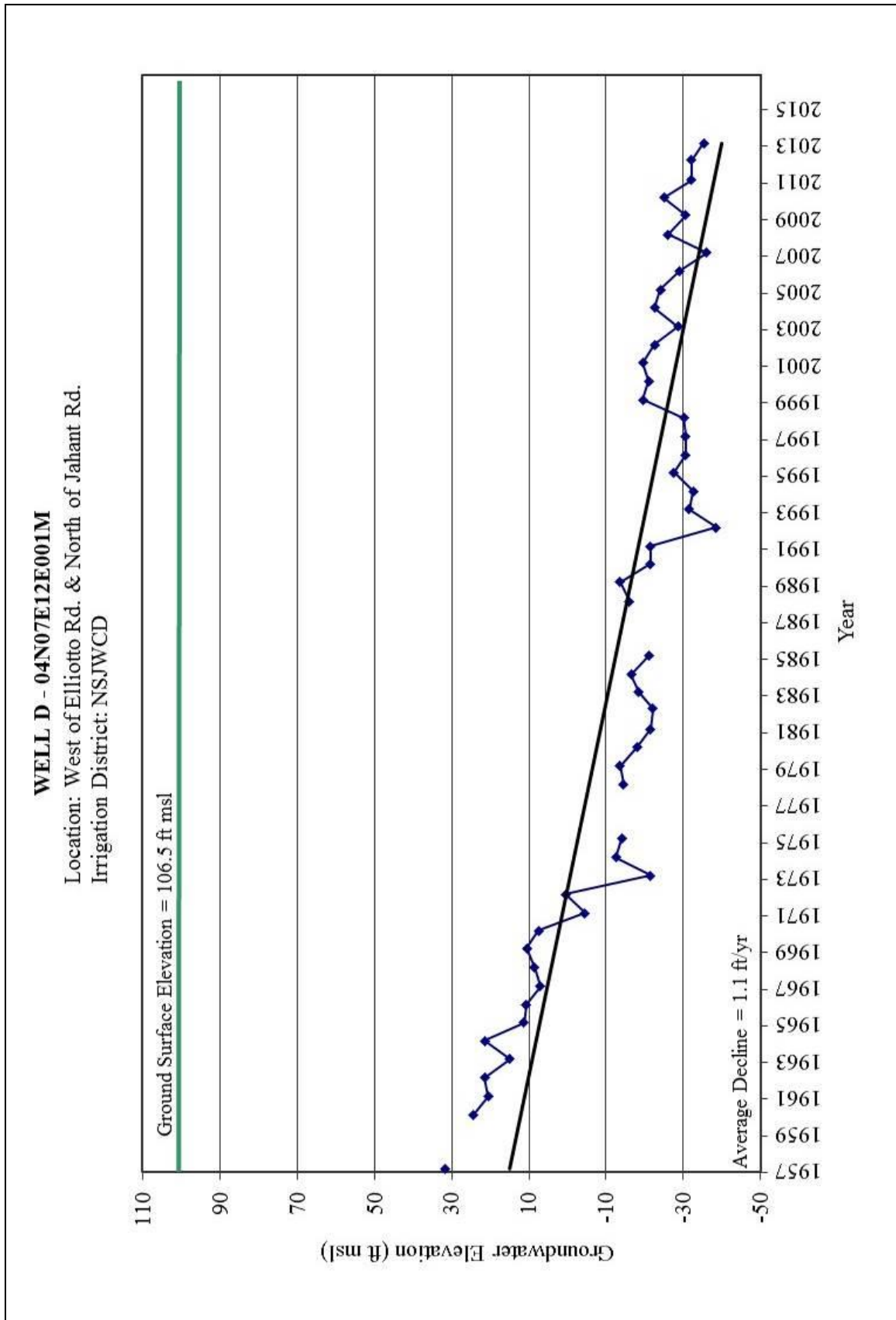


Figure 2-5 Spring Hydrograph Well D

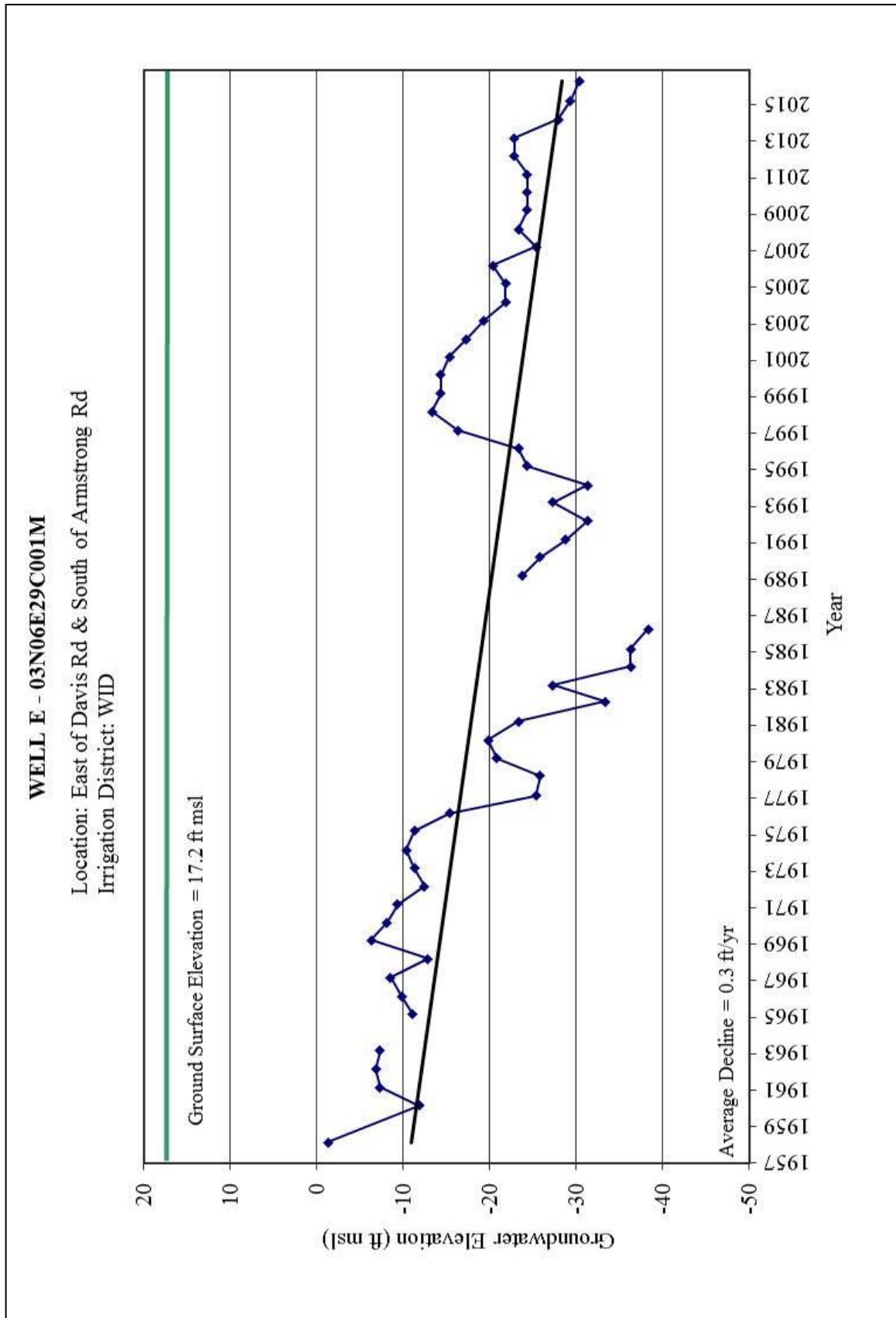


Figure 2-6 Spring Hydrograph Well E

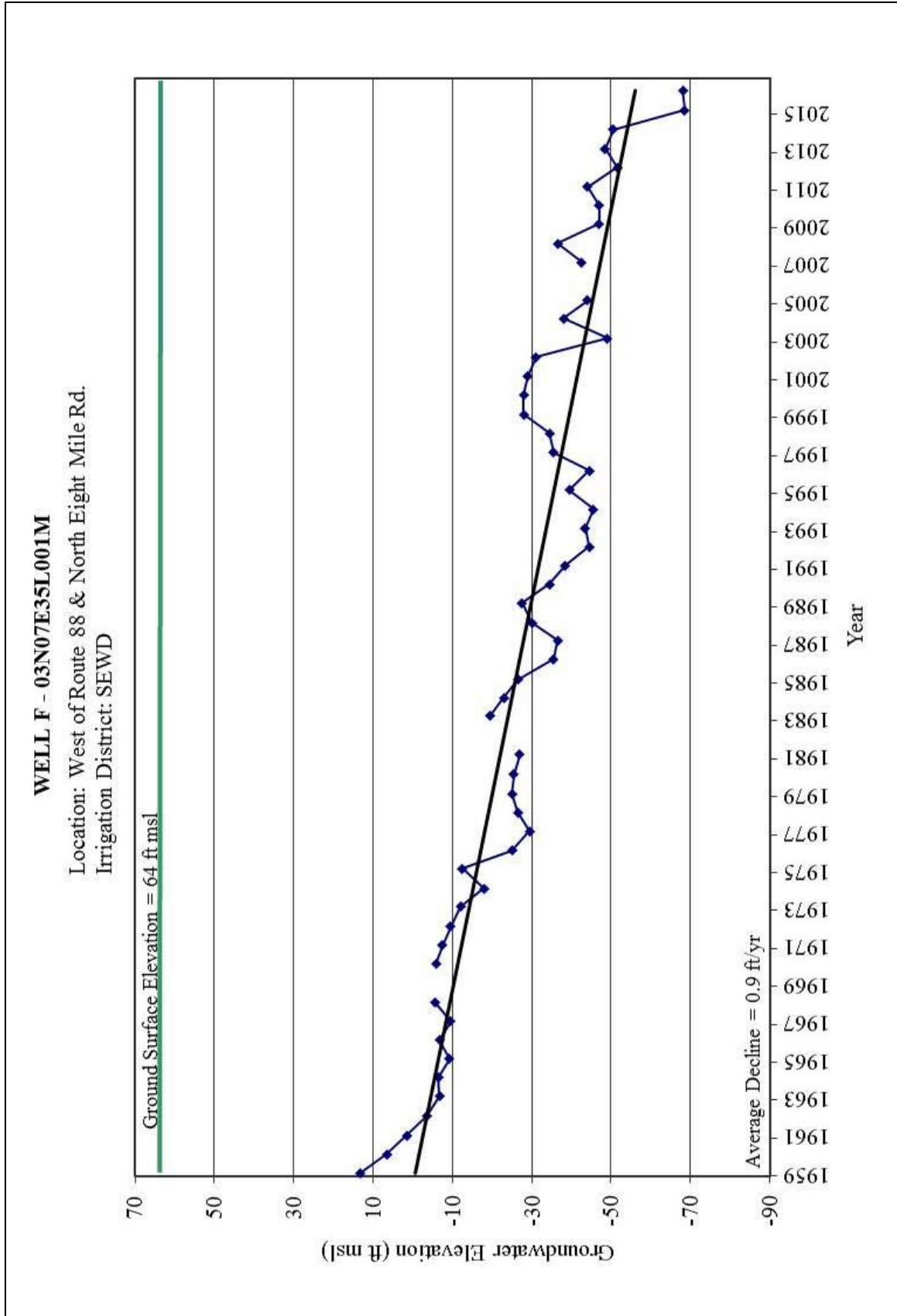


Figure 2-7 Spring Hydrograph Well F

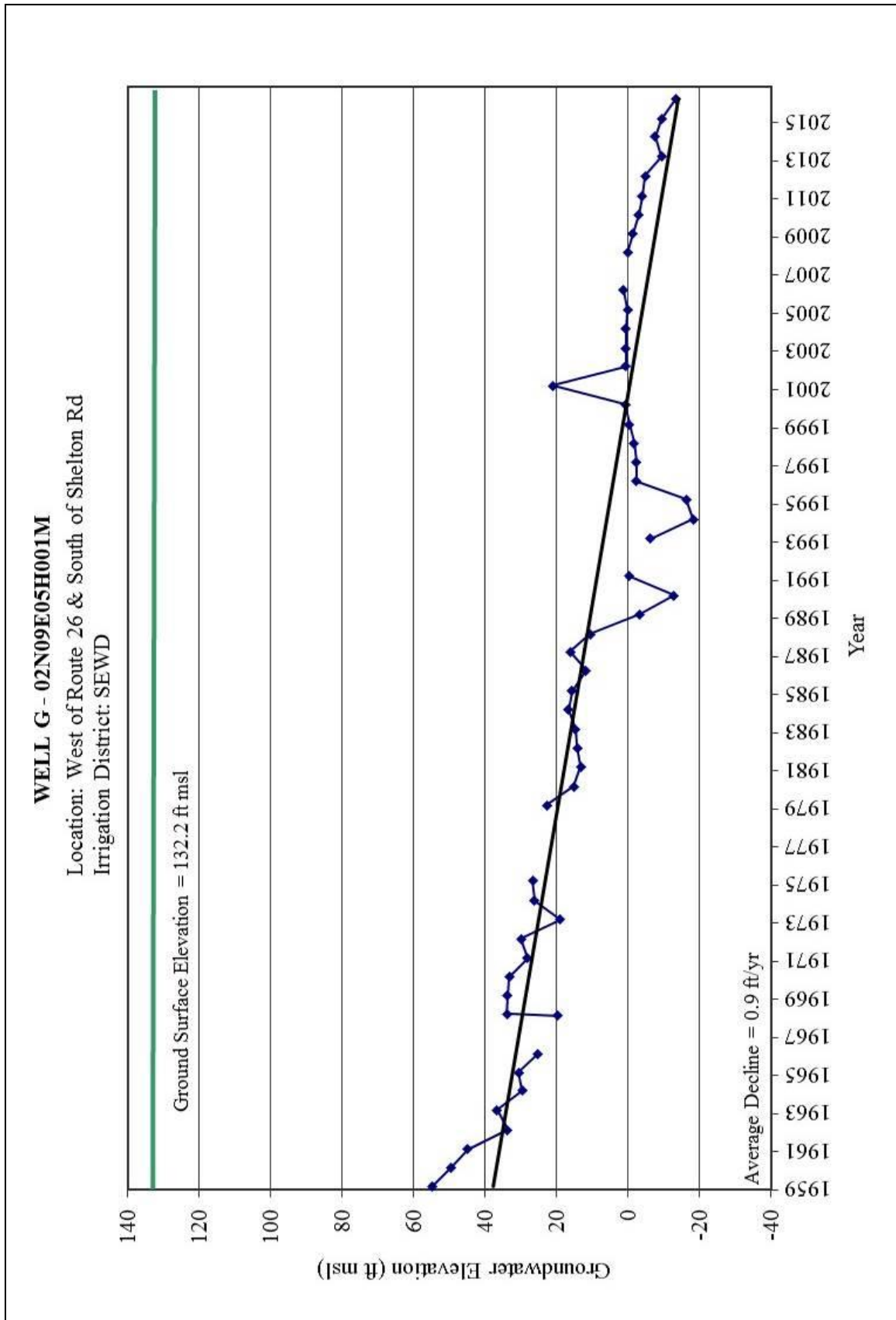


Figure 2-8 Spring Hydrograph Well G

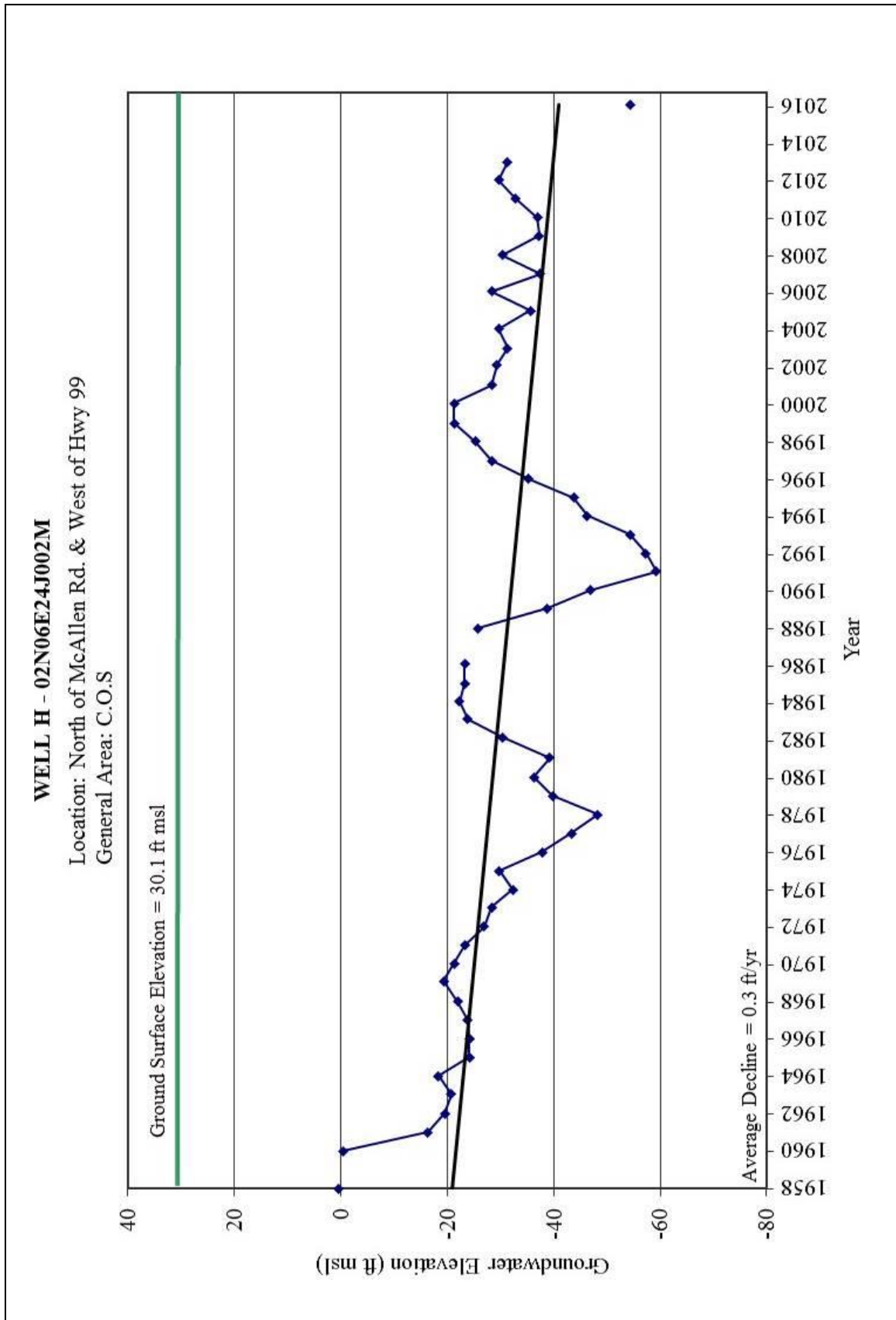


Figure 2-9 Spring Hydrograph Well H

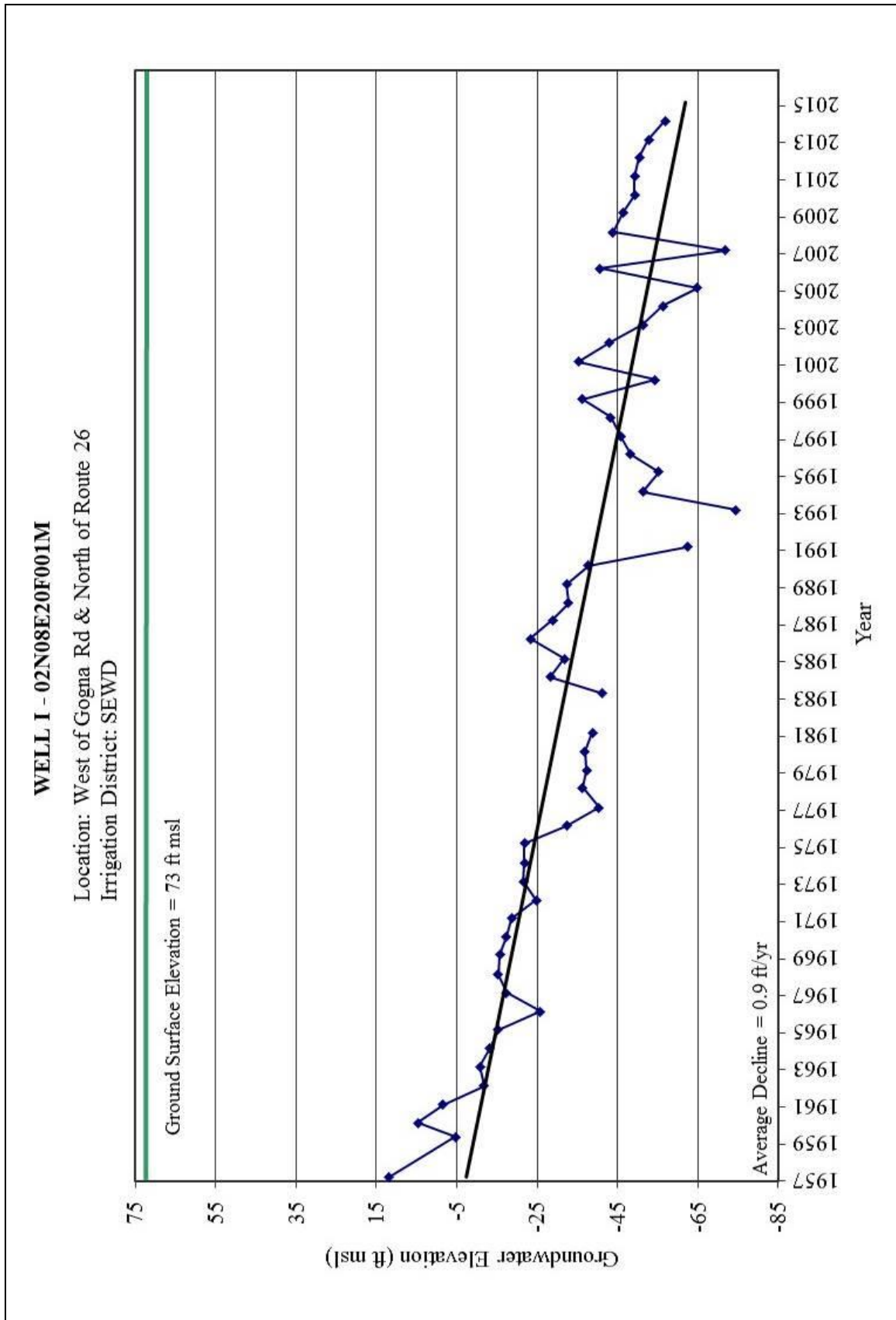


Figure 2-10 Spring Hydrograph Well I

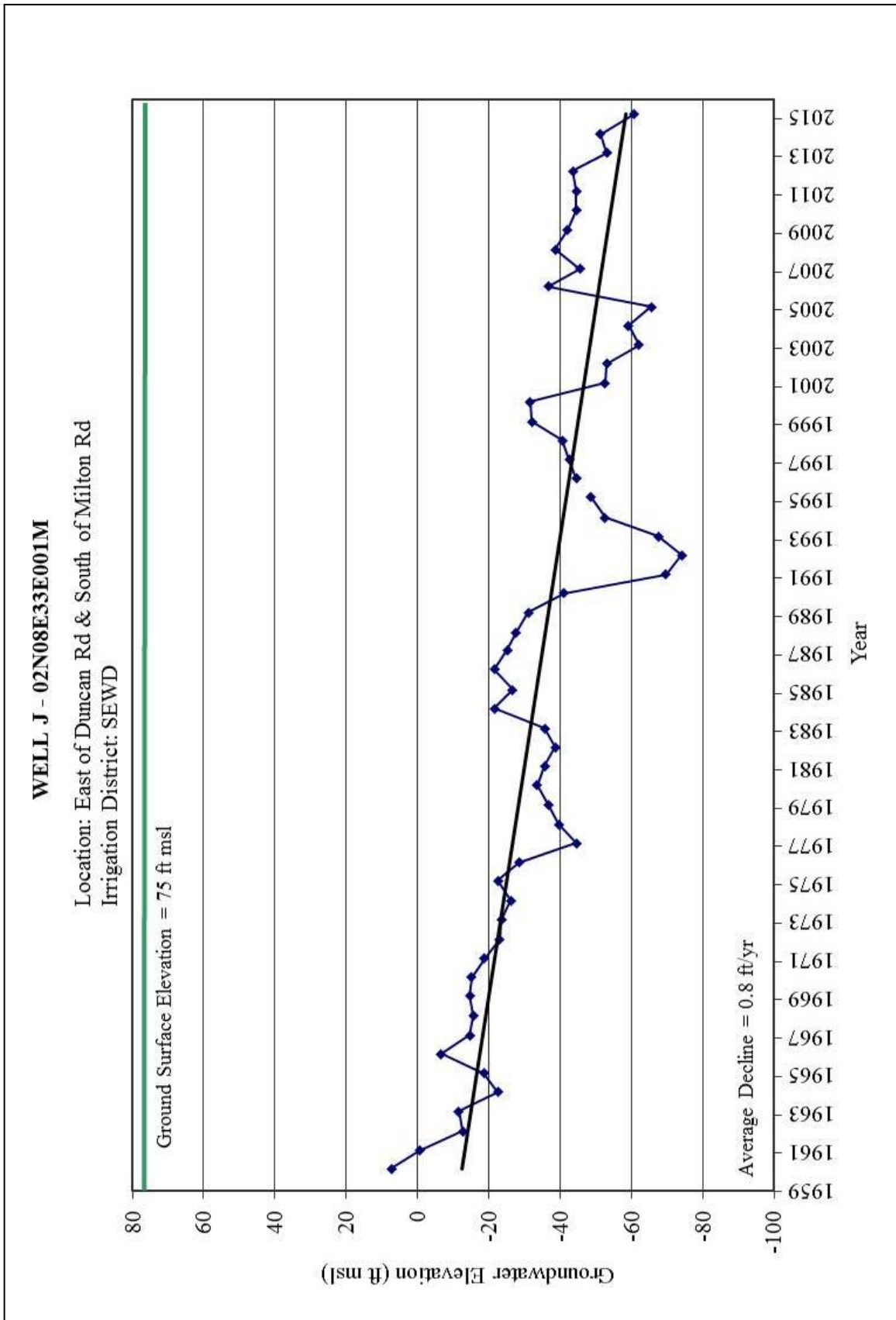


Figure 2-11 Spring Hydrograph Well J

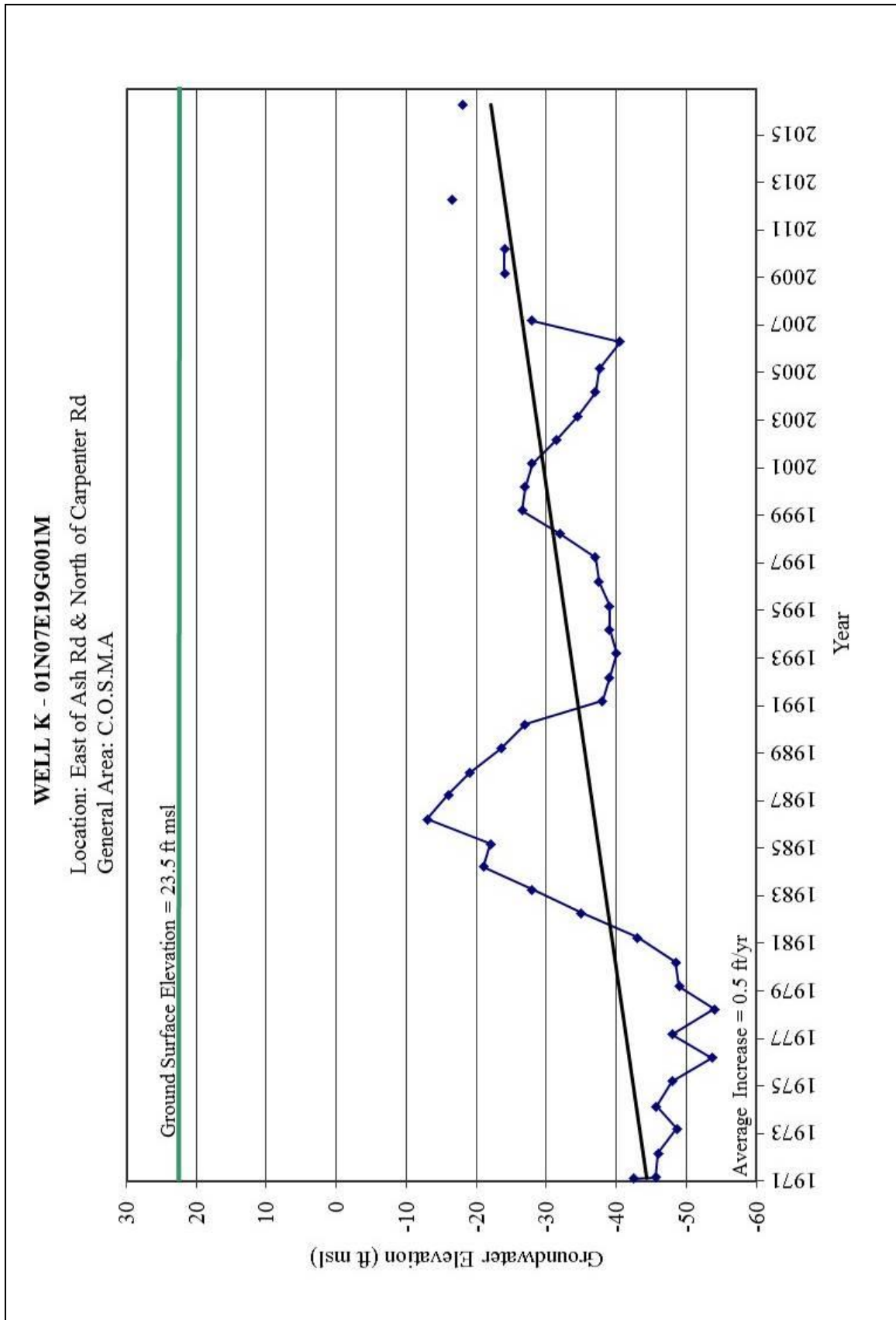


Figure 2-12 Spring Hydrograph Well K

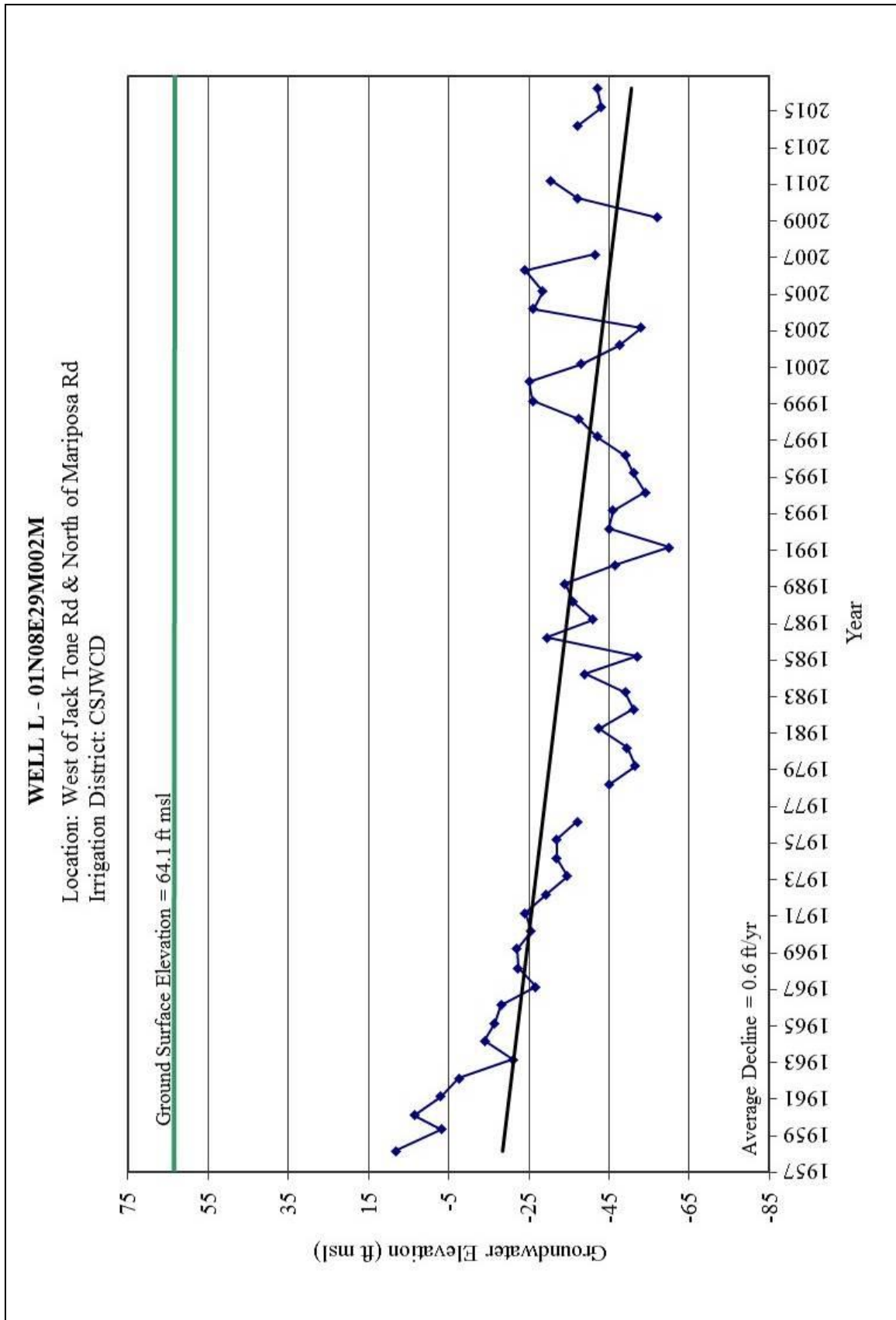


Figure 2-13 Spring Hydrograph Well L

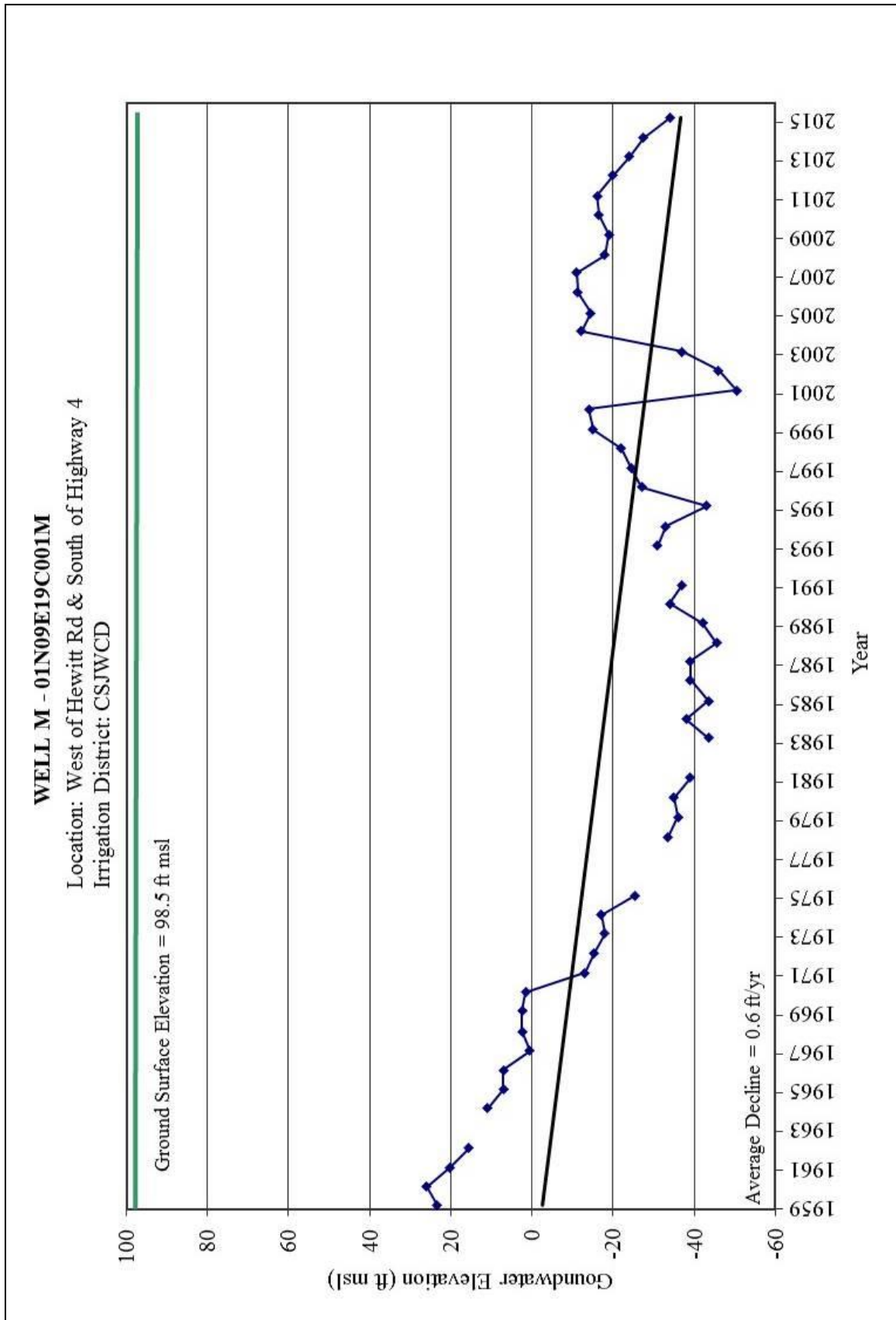


Figure 2-14 Spring Hydrograph Well M

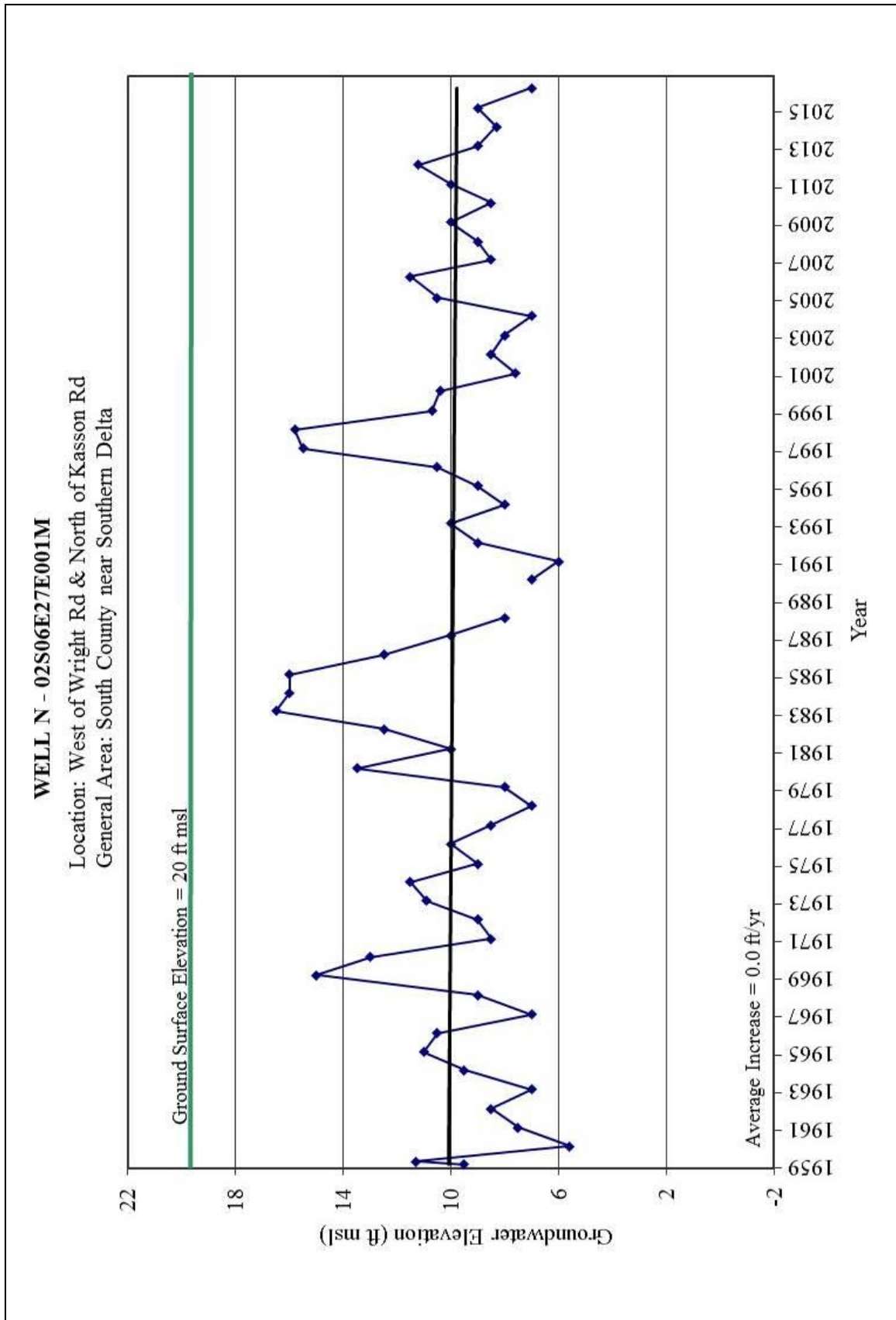


Figure 2-15 Spring Hydrograph Well N

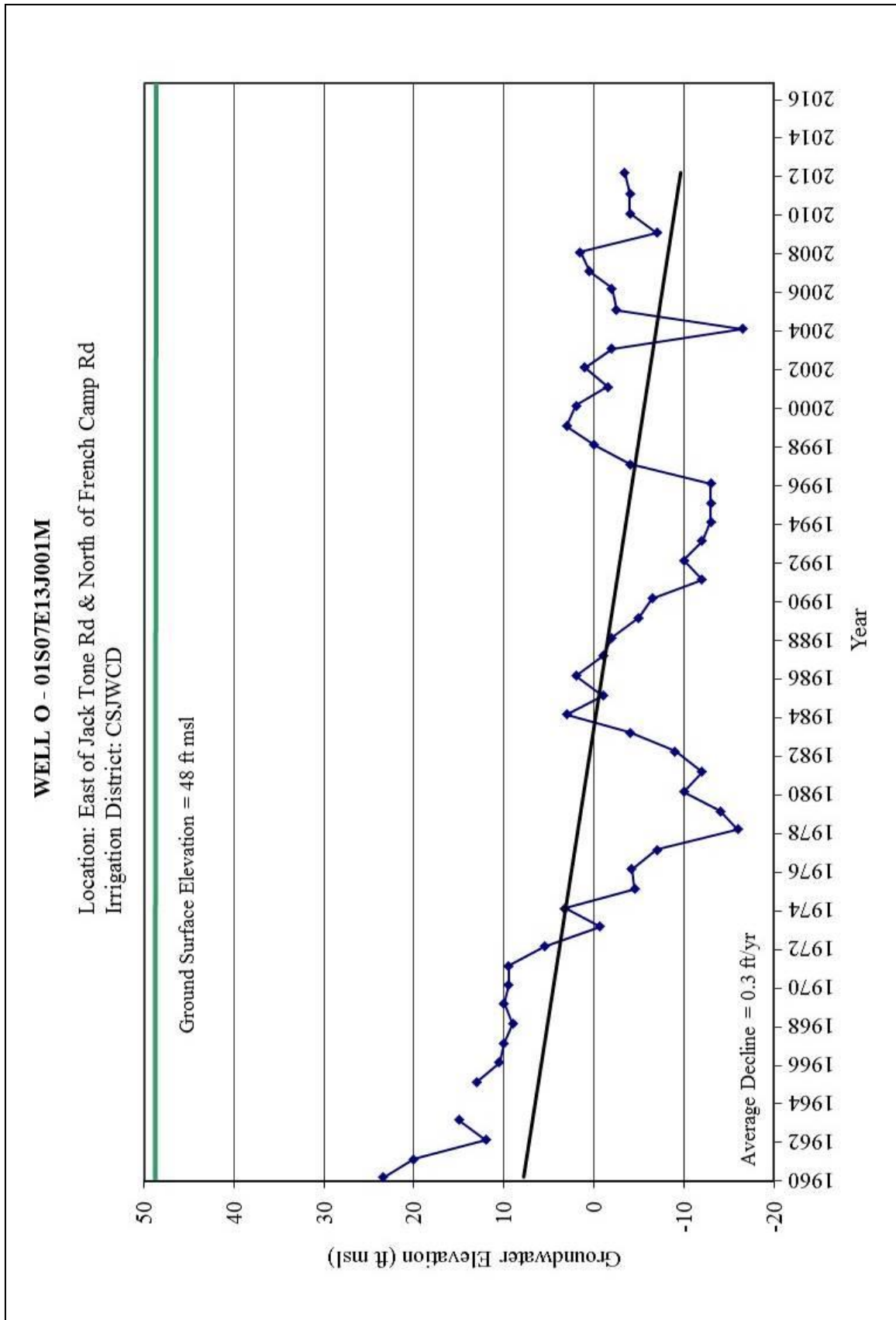


Figure 2-16 Spring Hydrograph Well O

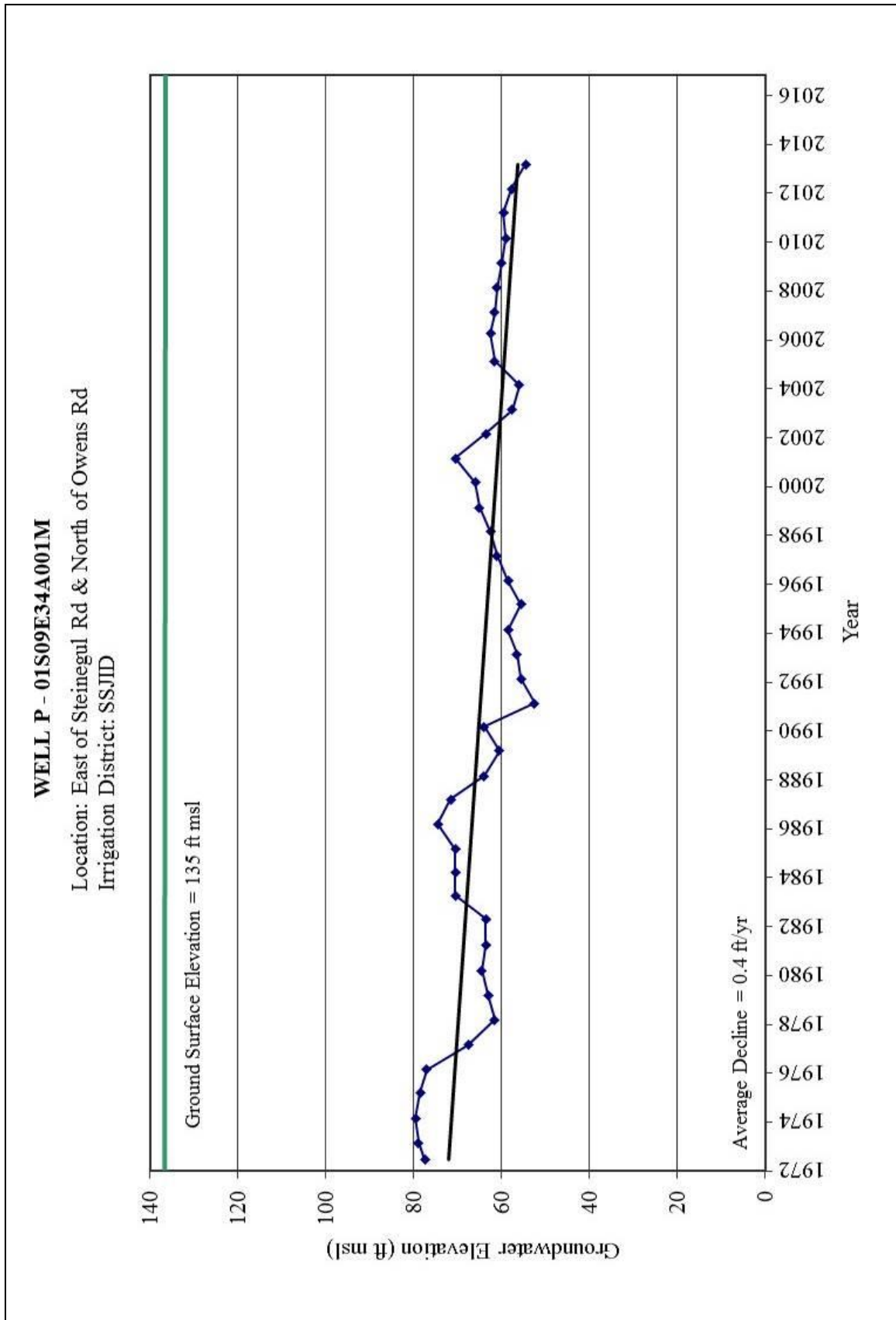


Figure 2-17 Spring Hydrograph Well P

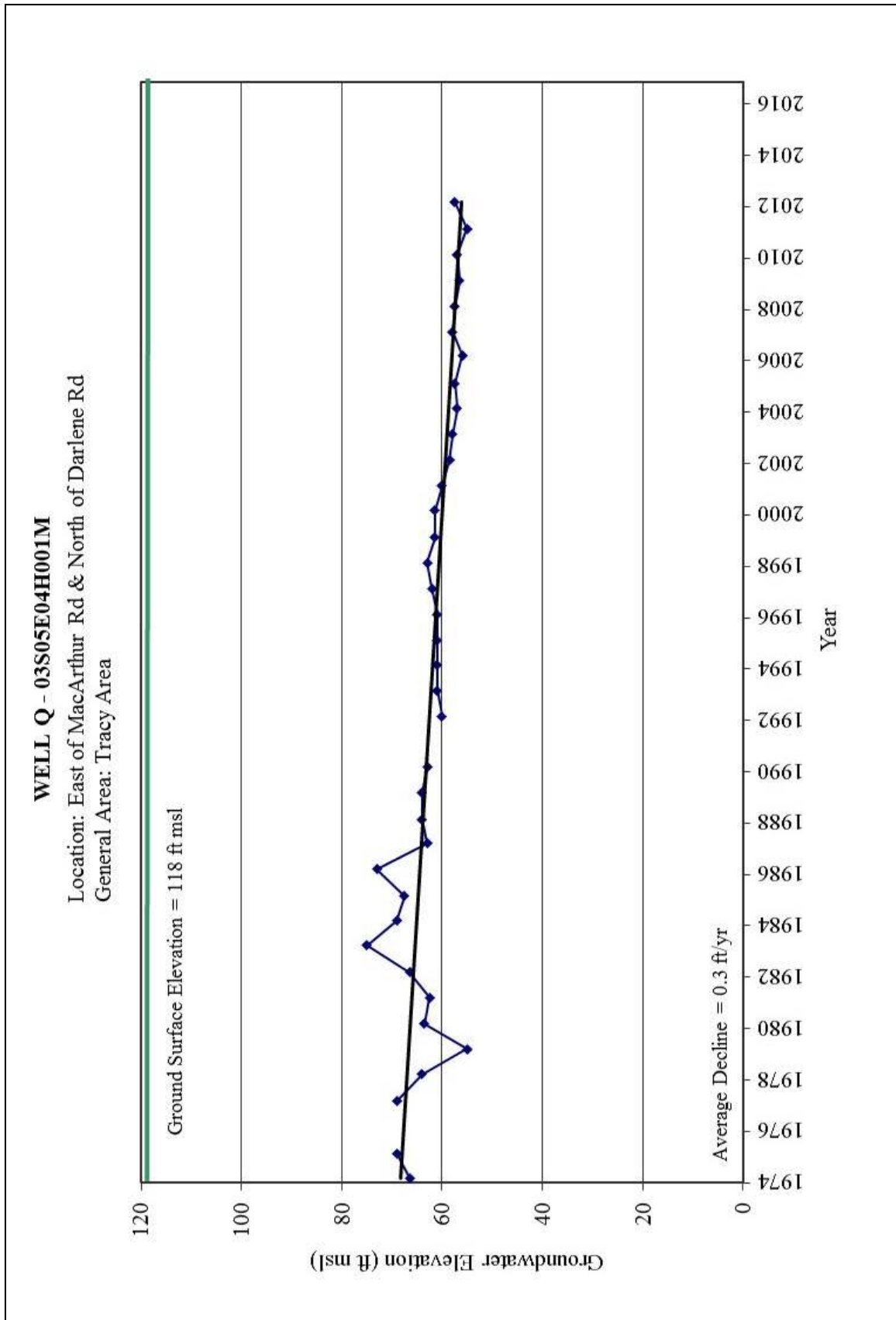


Figure 2-18 Spring Hydrograph Well Q

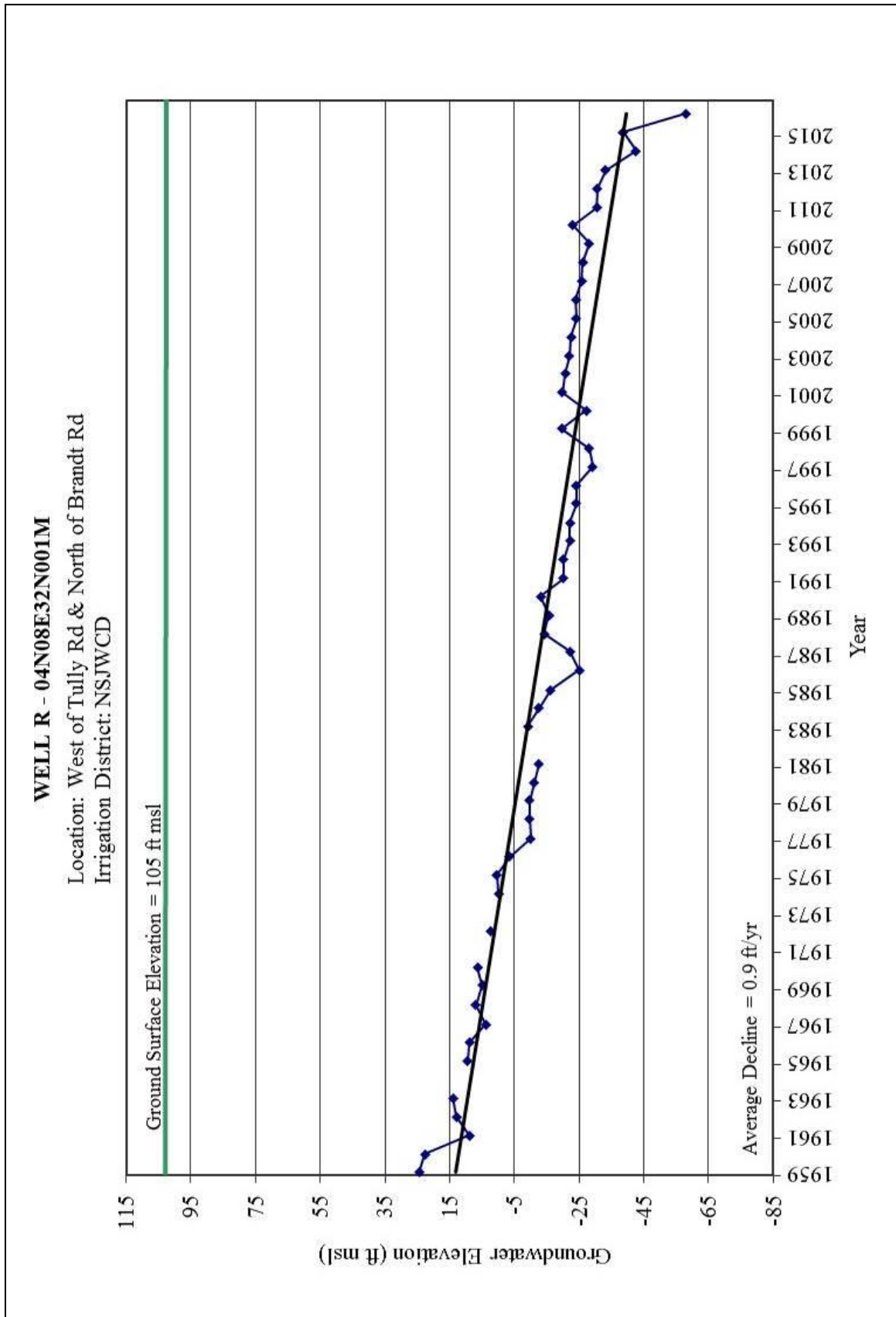


Figure 2-19 Spring Hydrograph Well R

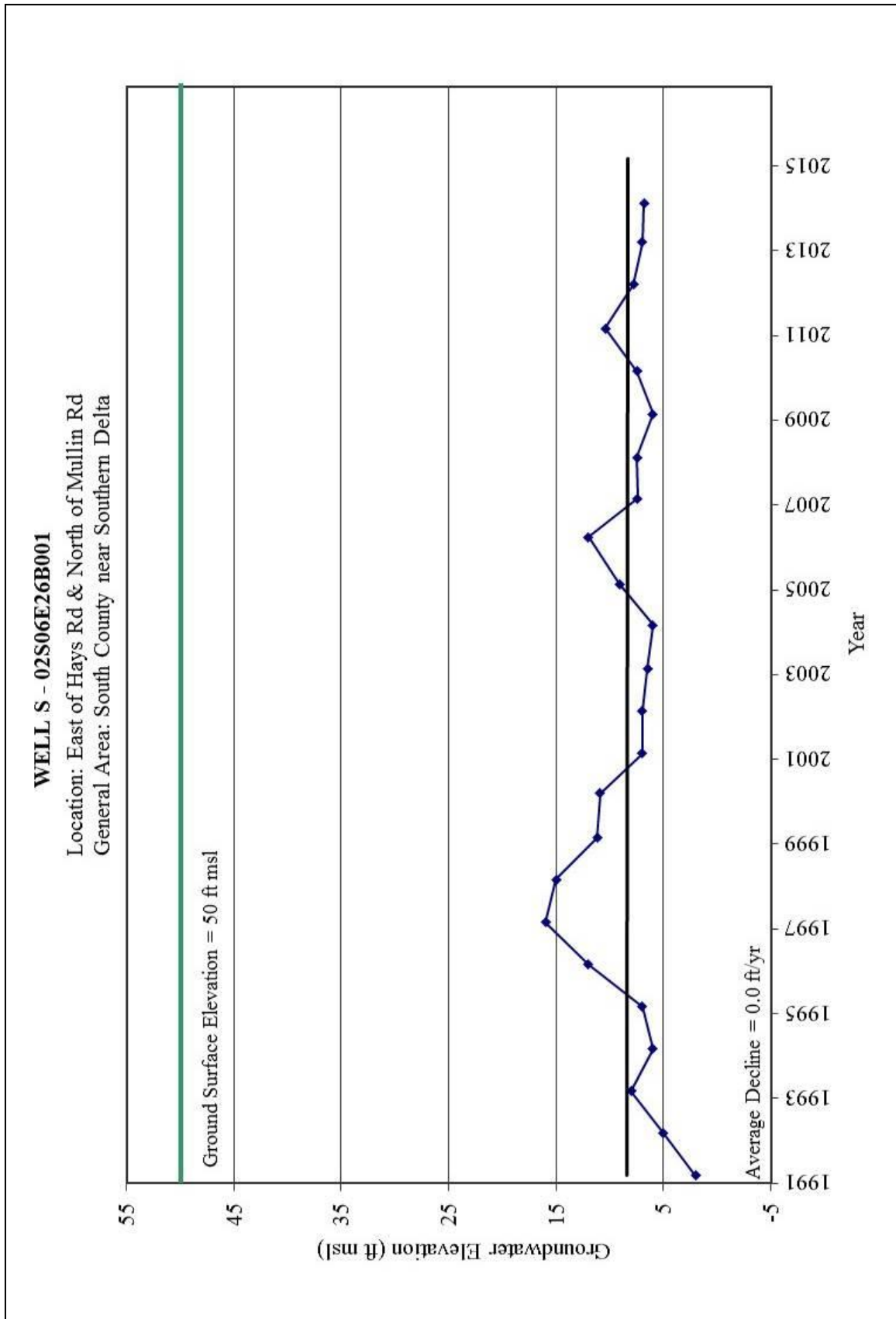


Figure 2-20 Spring Hydrograph Well S

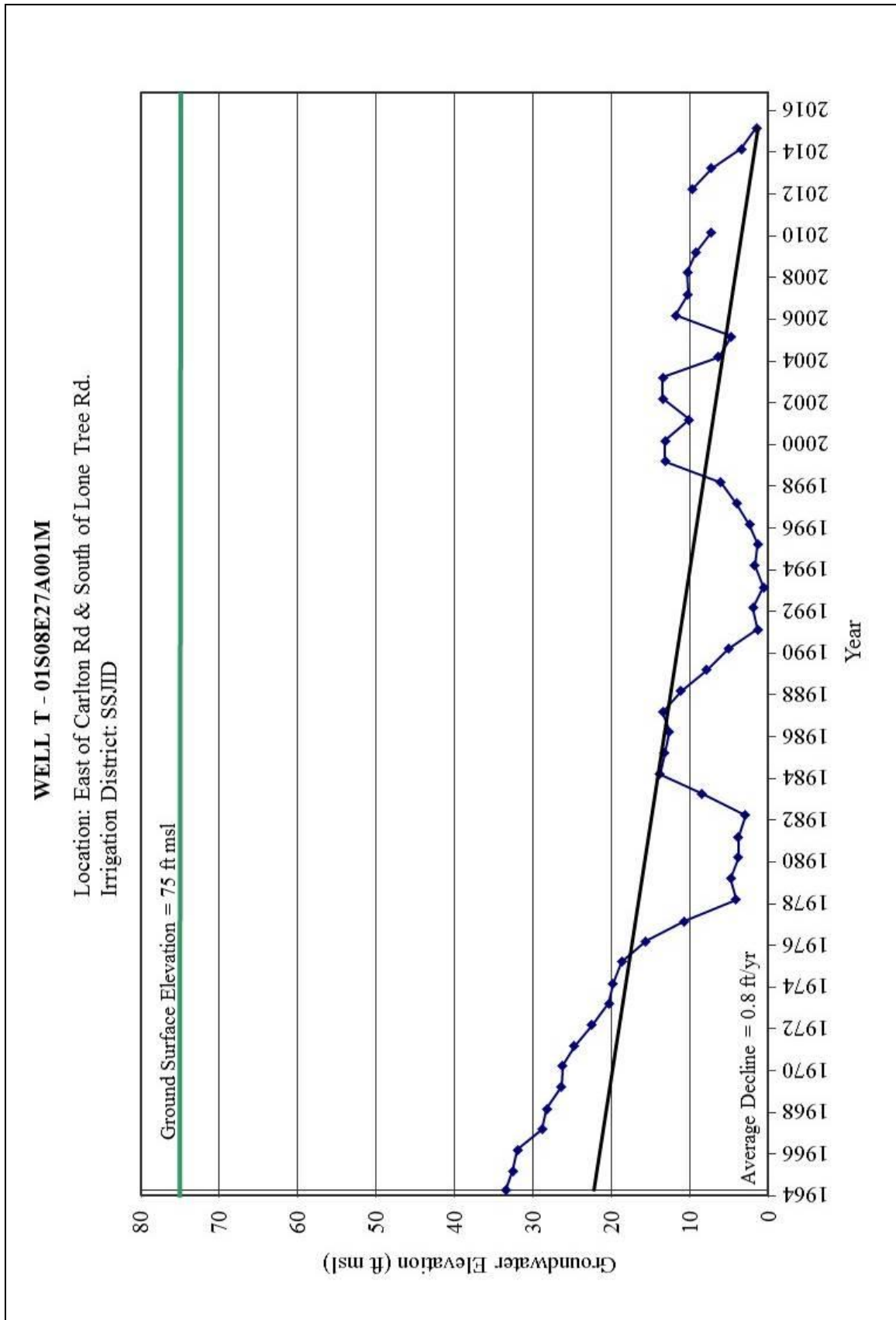


Figure 2-21 Spring Hydrograph Well T

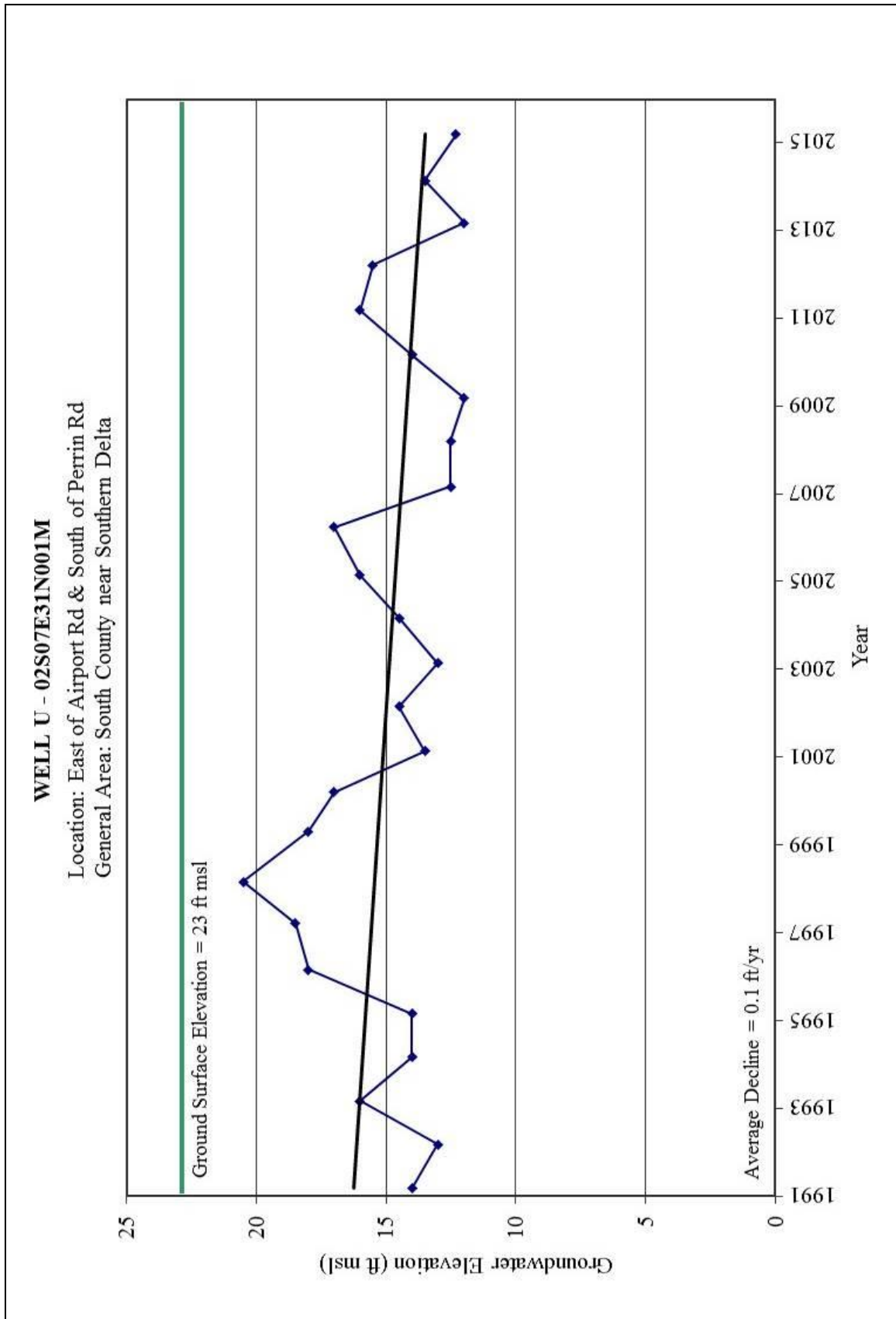


Figure 2-22 Spring Hydrograph Well U

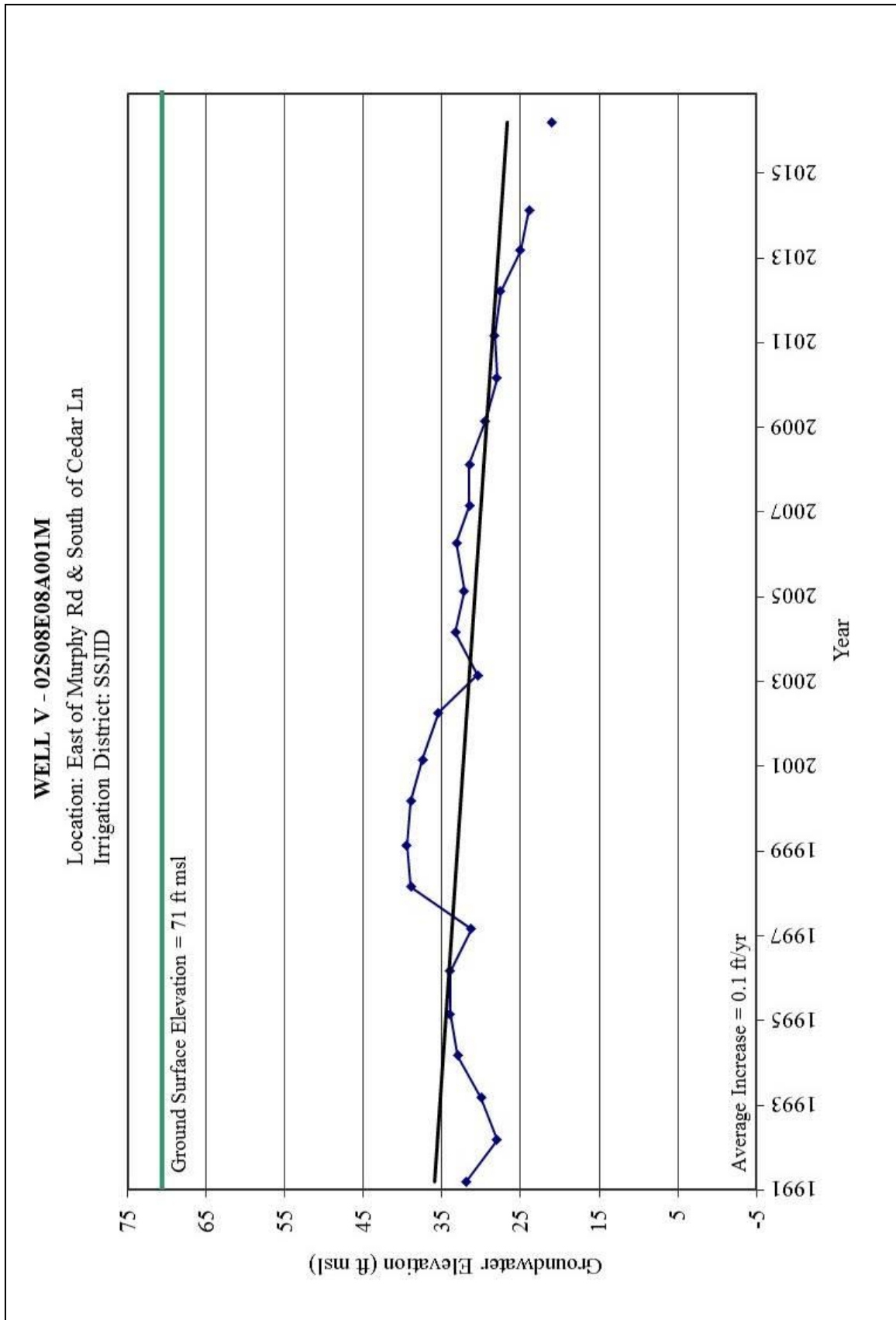


Figure 2-23 Spring Hydrograph Well V

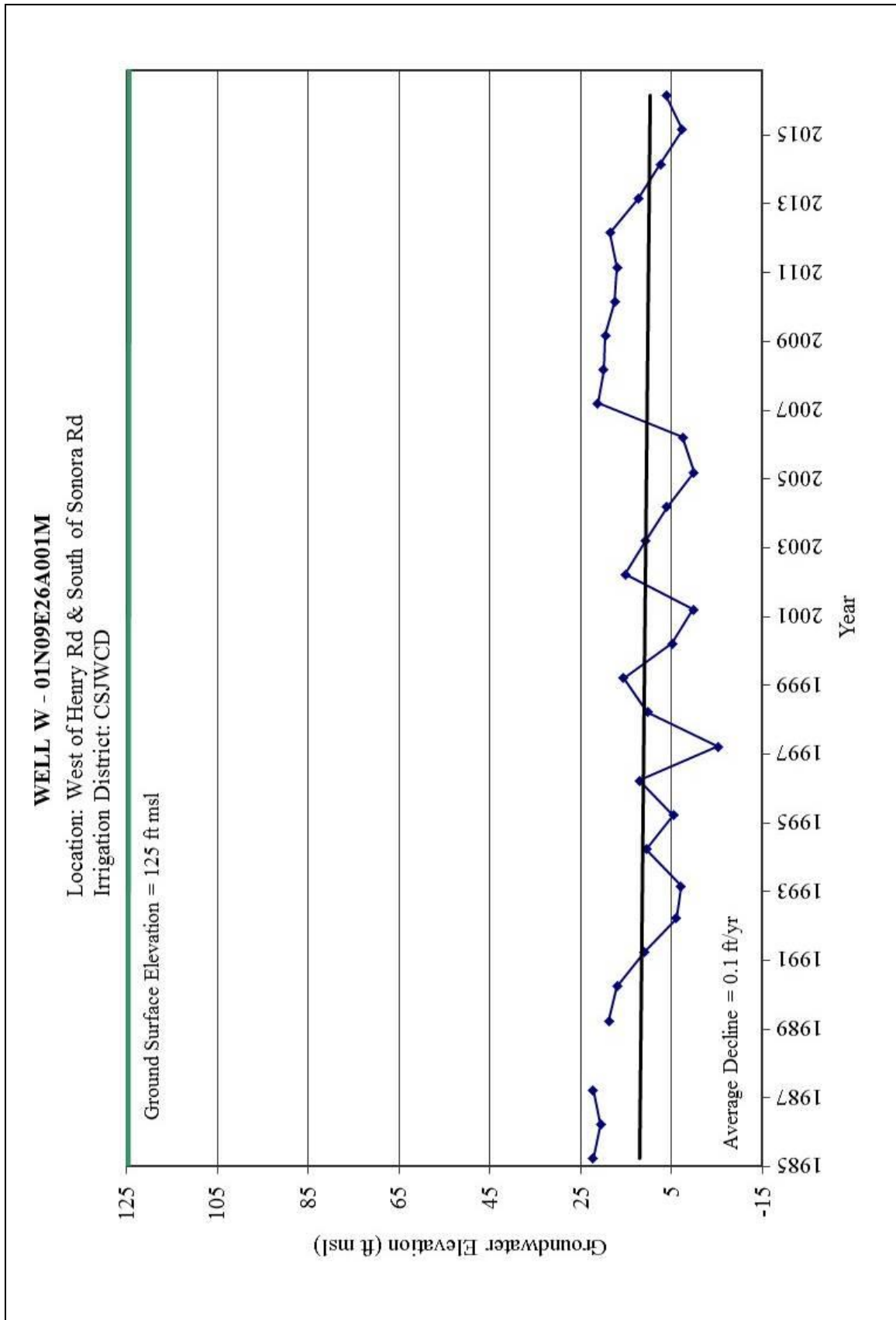


Figure 2-24 Spring Hydrograph Well W

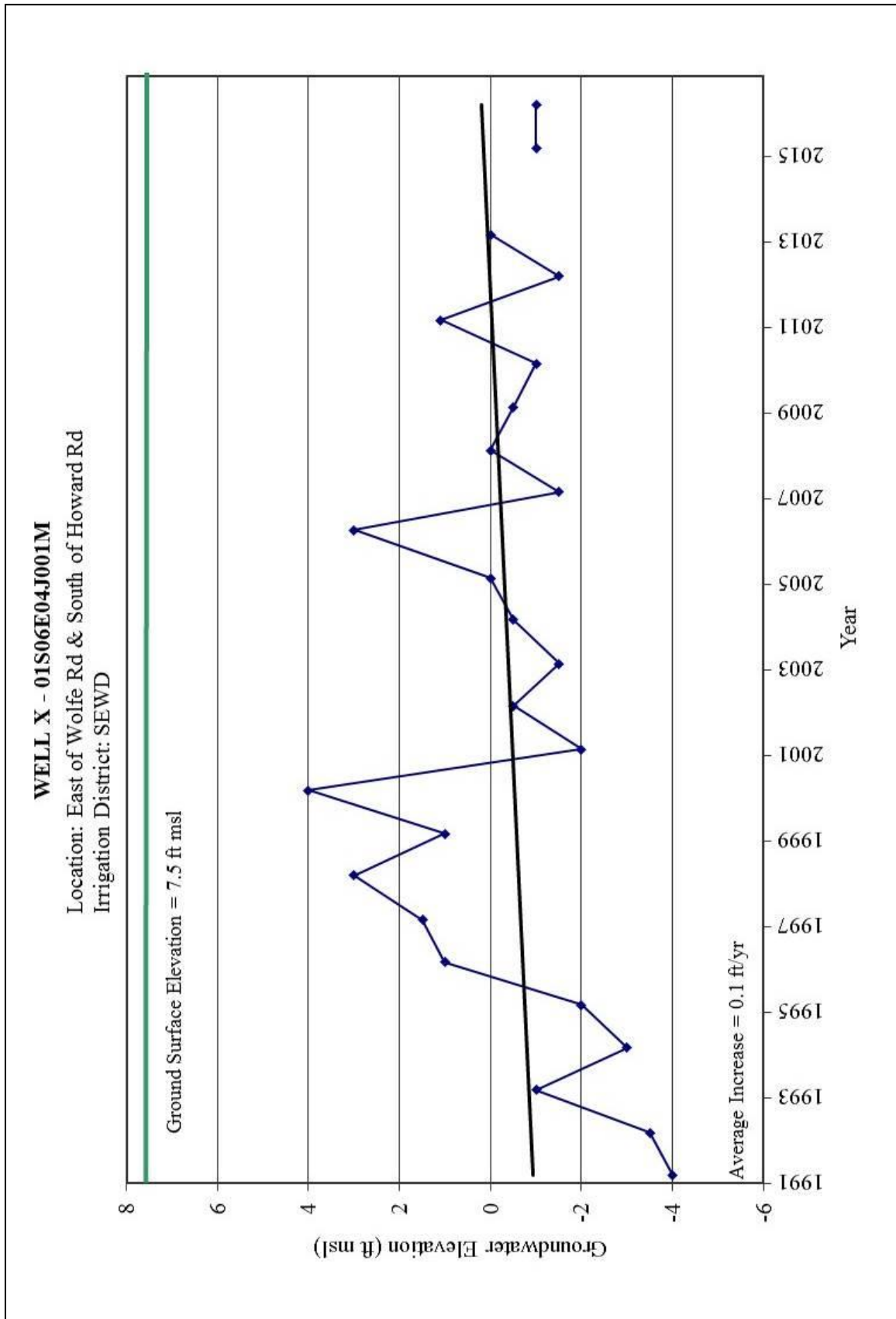


Figure 2-25 Spring Hydrograph Well X

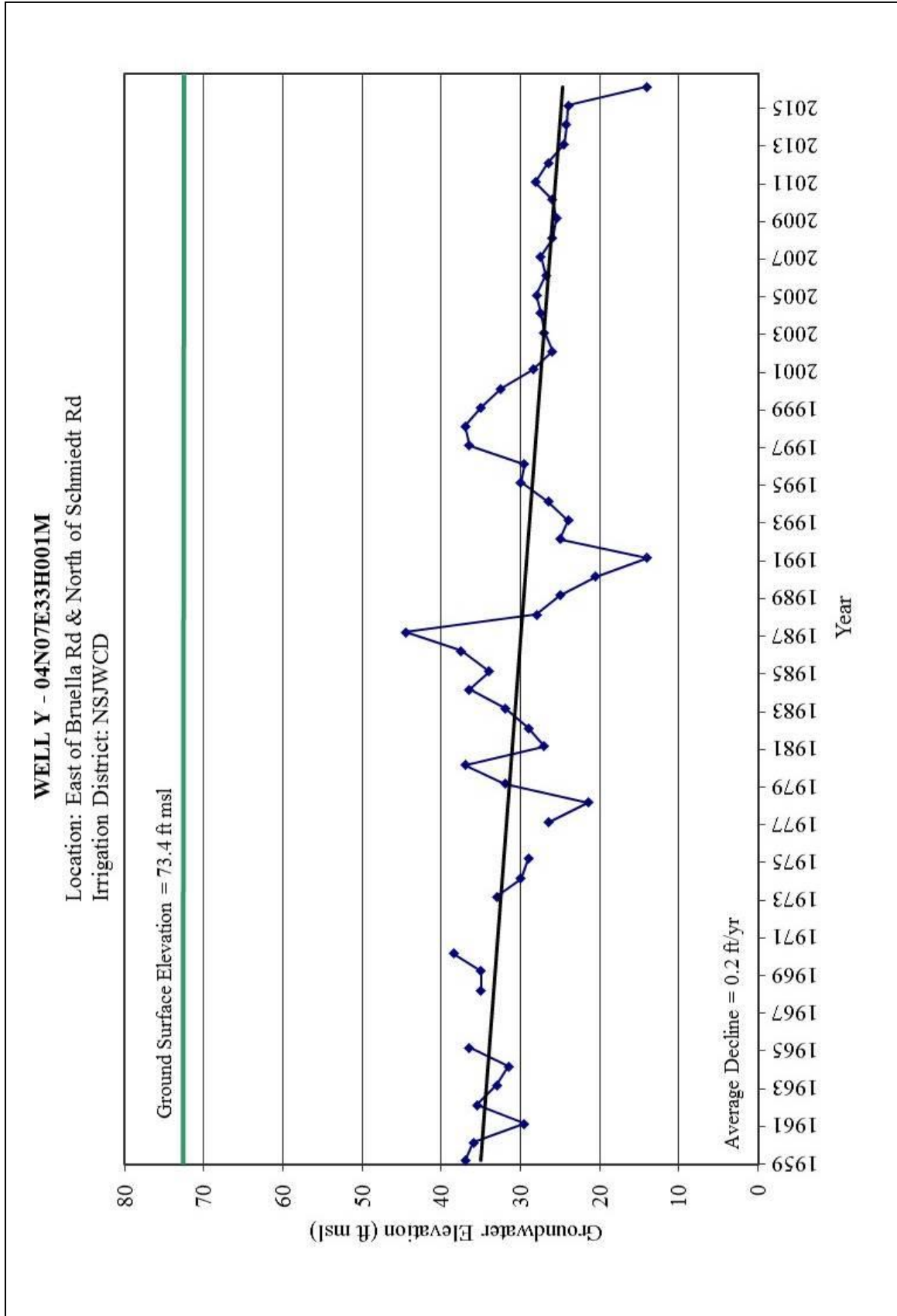


Figure 2-26 Spring Hydrograph Well Y

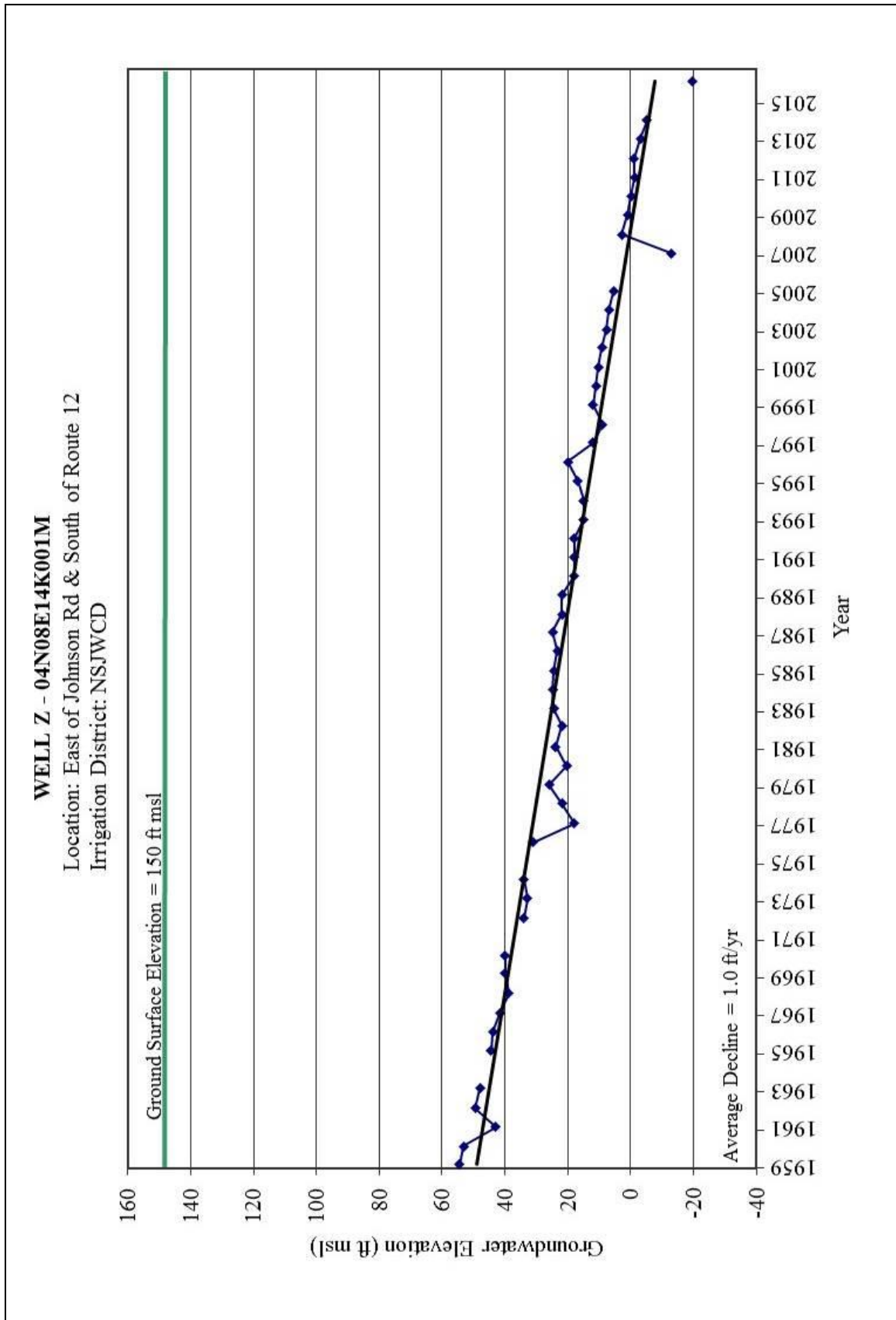


Figure 2-27 Spring Hydrograph Well Z

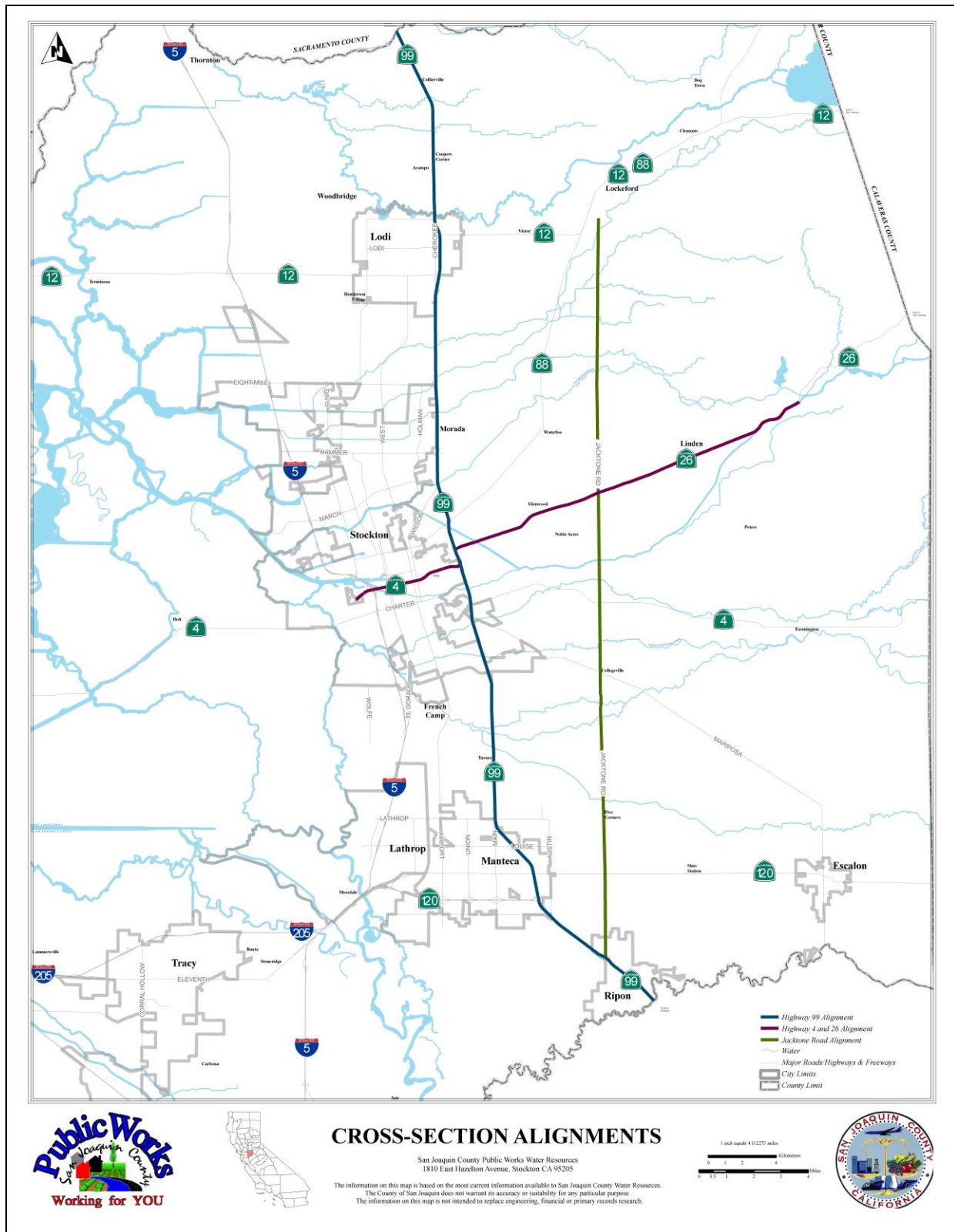


Figure 2-28 Cross Section Alignments

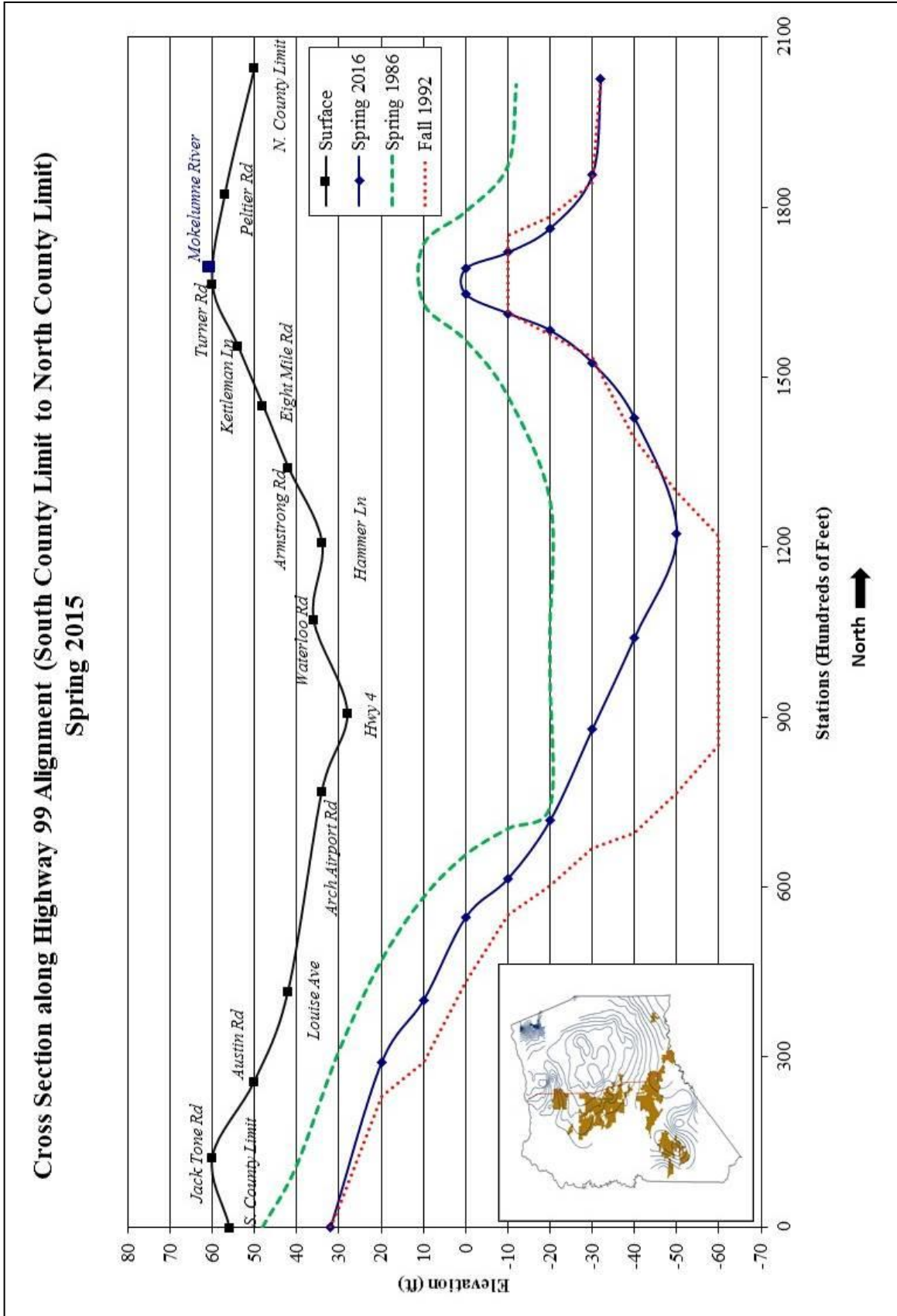


Figure 2-29 Highway 99 Cross Section Spring 2016

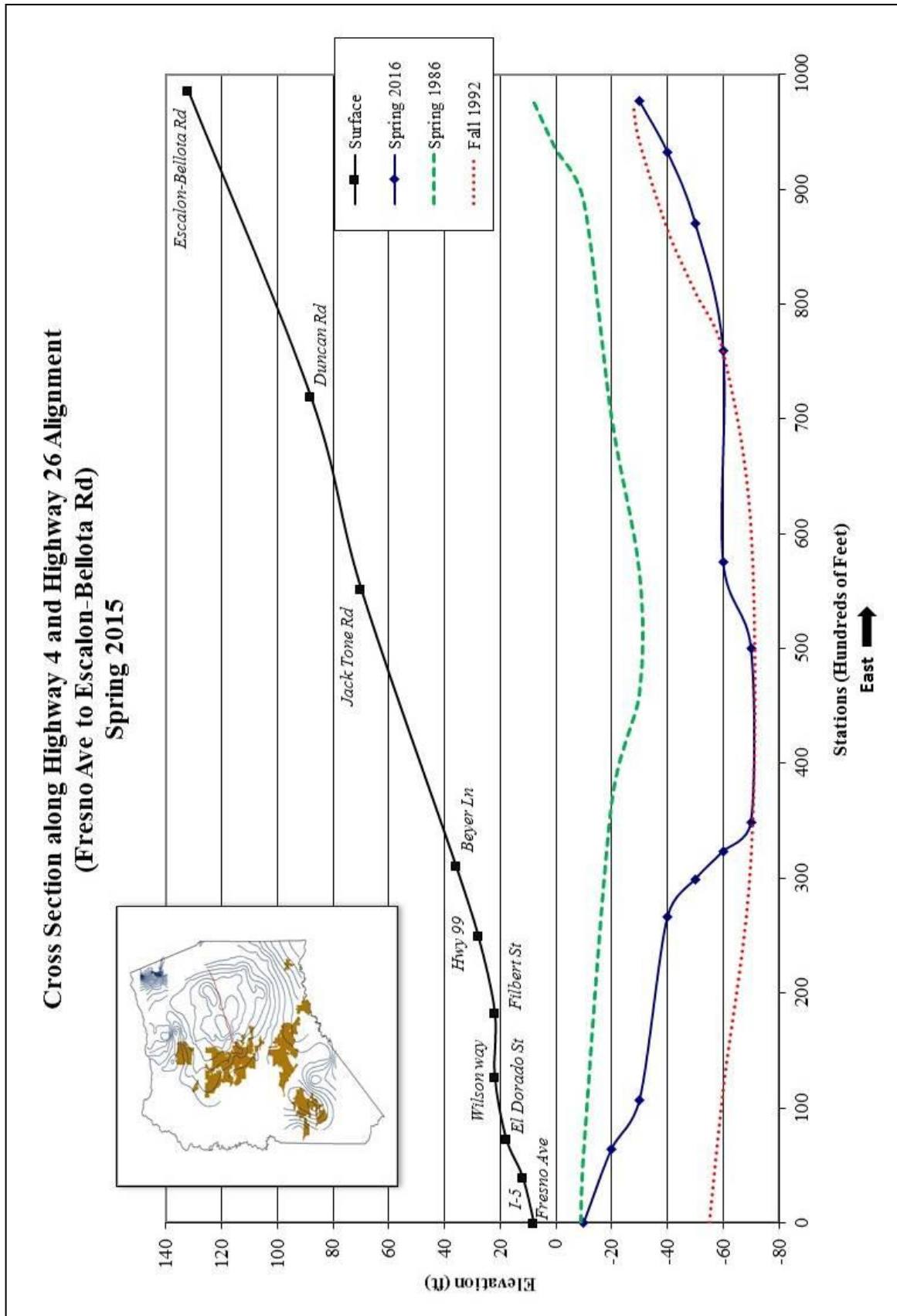


Figure 2-30 Highway 4 & Highway 26 Cross Section Spring 2016

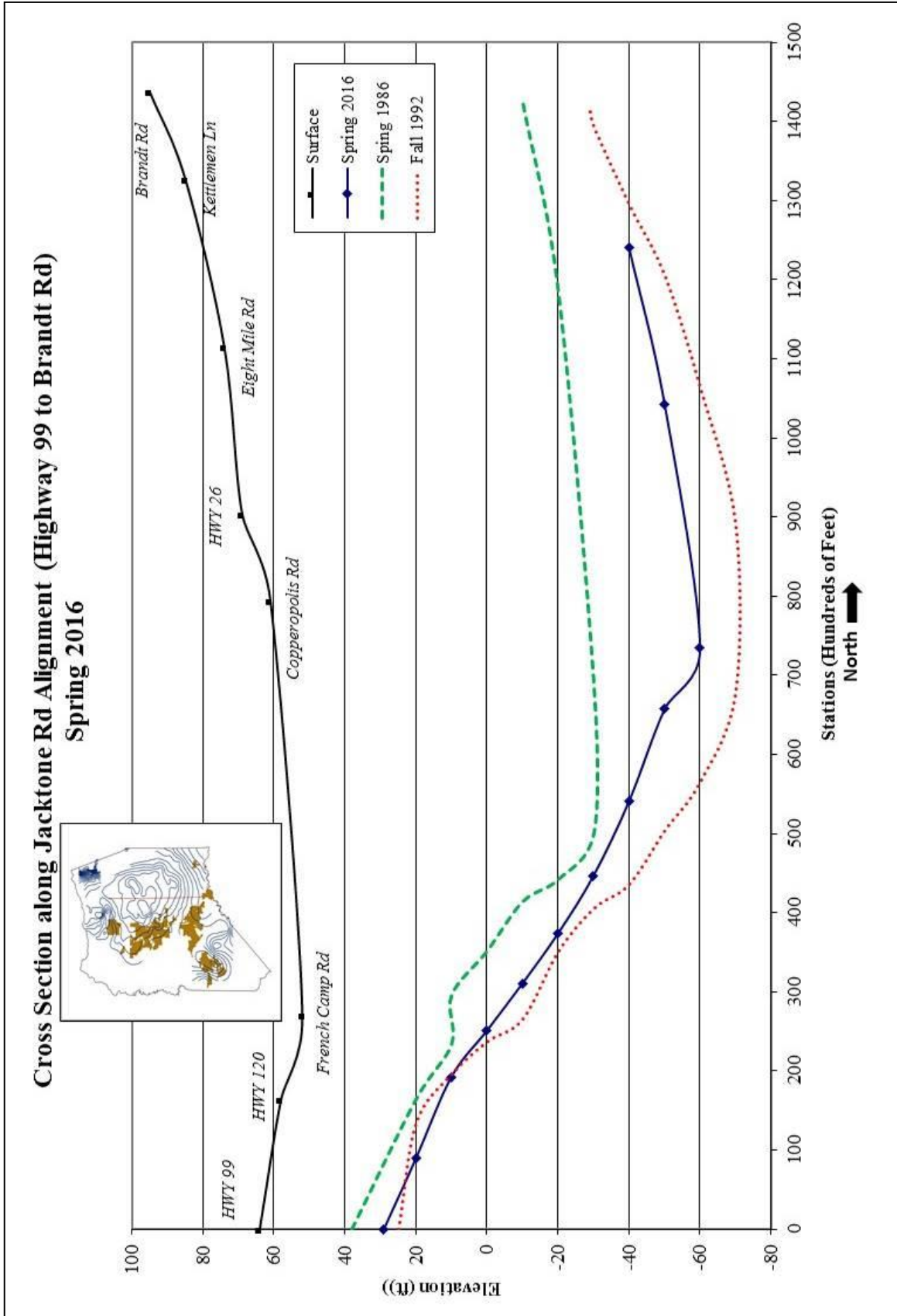


Figure 2-31 Jacktone Rd Cross Section Spring 2016

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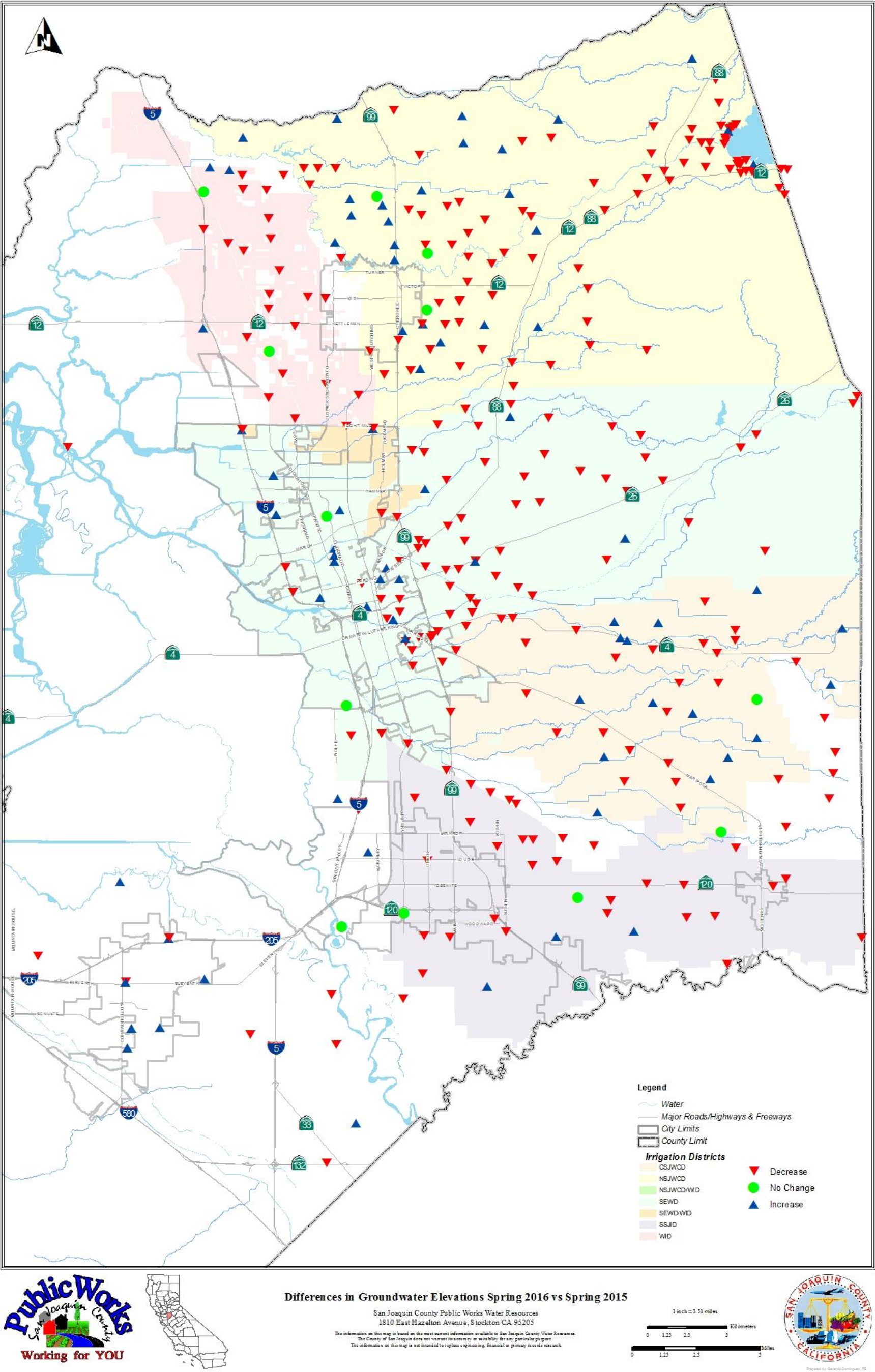
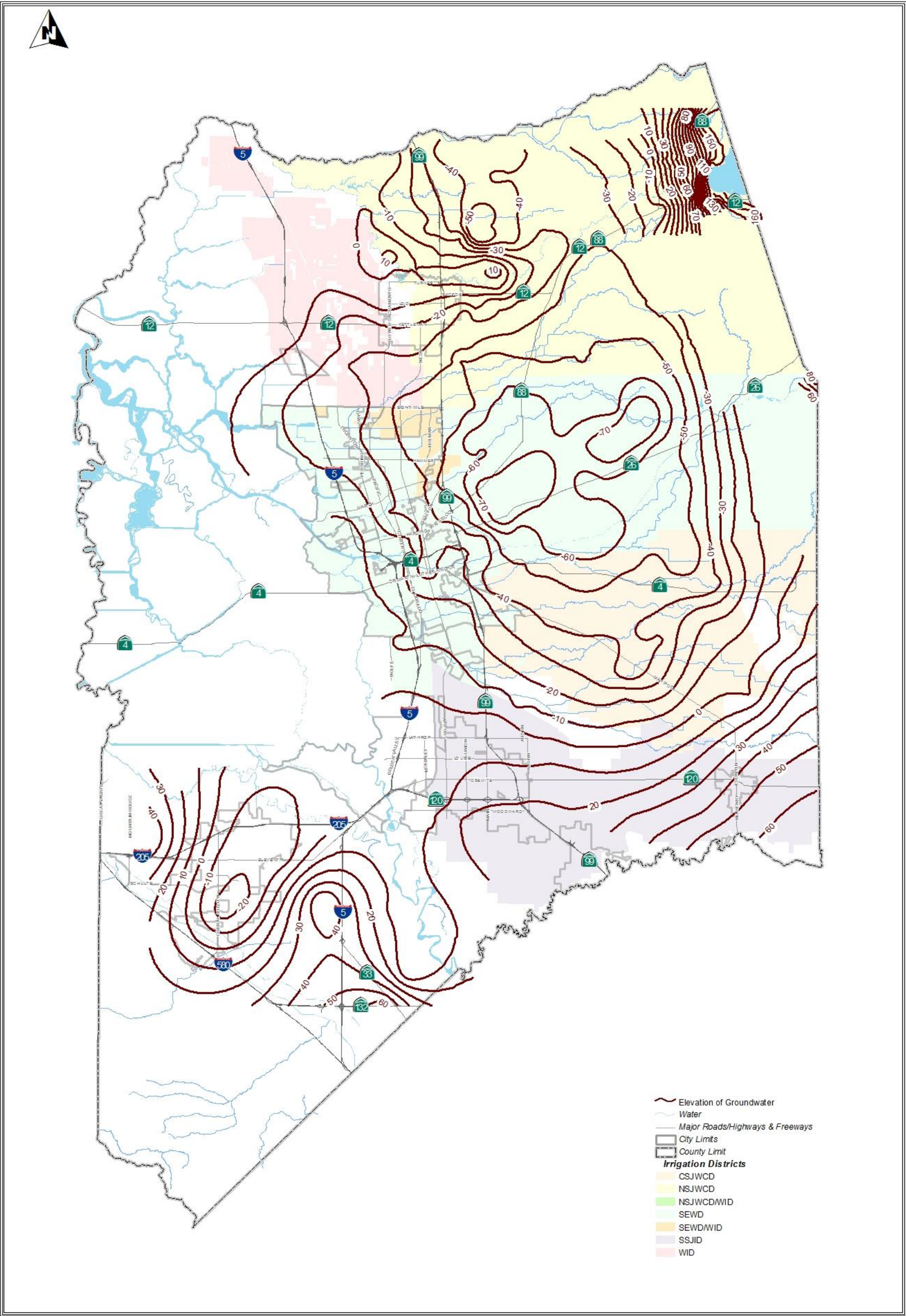


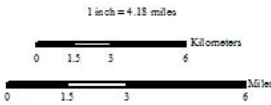
Figure 2-32 Differences in Groundwater Elevations Spring 2016 (Spring 2016 and Spring 2015 Comparisons)



**LINES OF EQUAL ELEVATION OF GROUNDWATER SPRING 2016**

San Joaquin County Public Works Water Resources  
1810 East Hazelton Avenue, Stockton CA 95205

The information on this map is based on the most current information available to San Joaquin County Water Resources.  
The County of San Joaquin does not warrant its accuracy or suitability for any particular purpose.  
The information on this map is not intended to replace engineering, financial or primary record research.



Prepared by: Gerardo Dominguez, P.E.

Figure 2-33 Lines of Equal Elevation of Groundwater Spring 2016



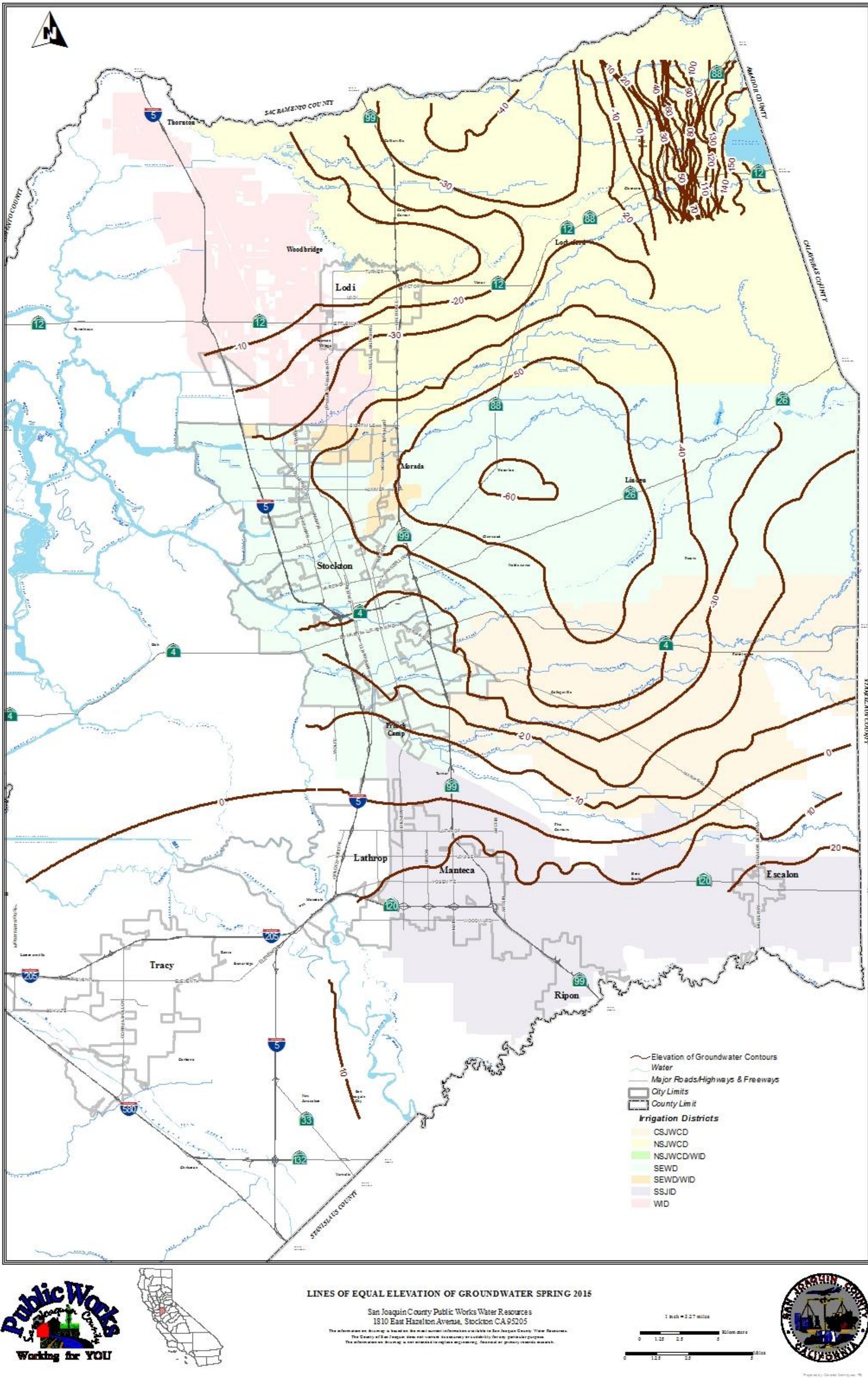


Figure 2-34 Lines of Equal Elevation of Groundwater Spring 2015



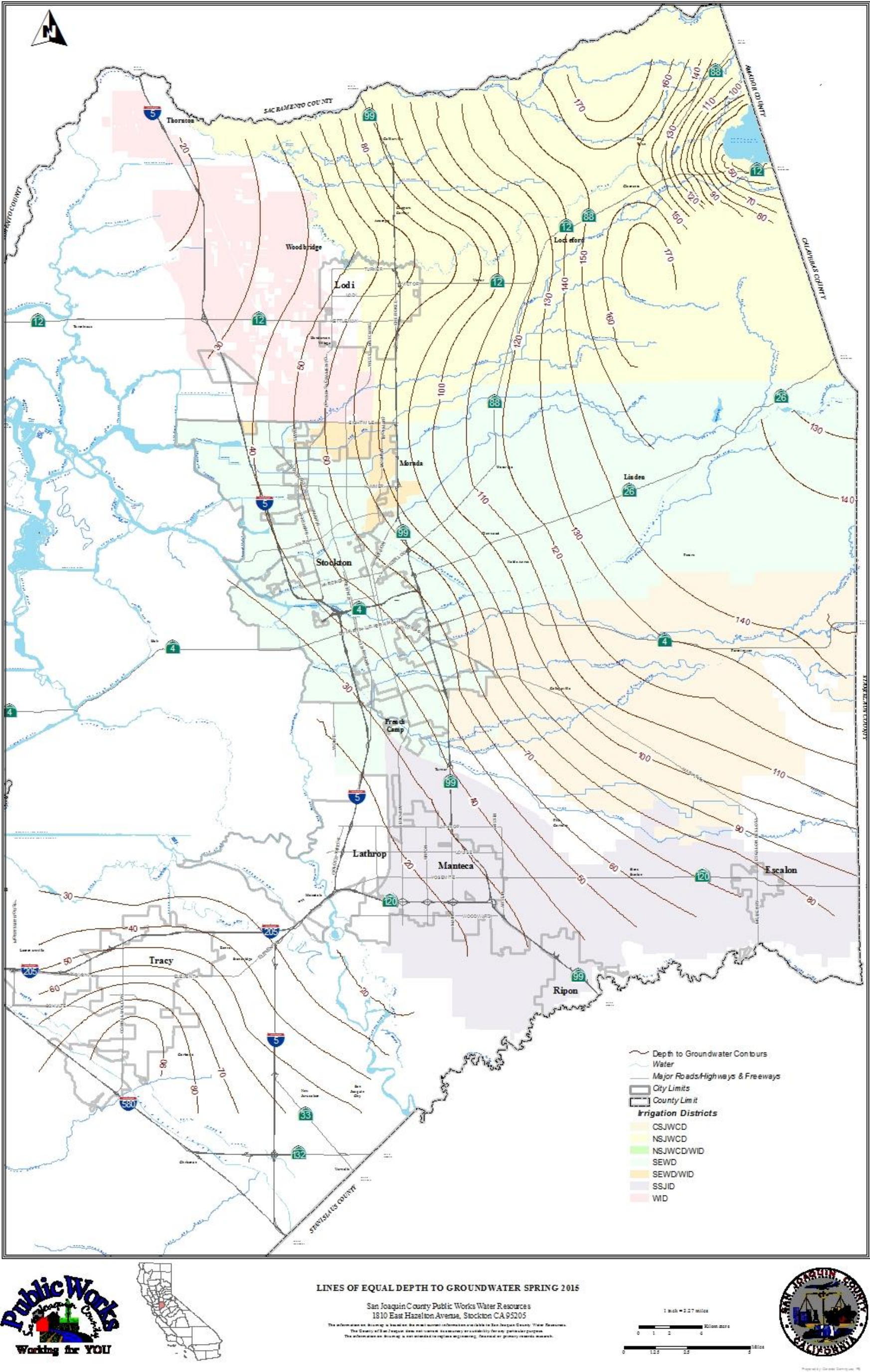


Figure 2-36 Lines of Equal Depth to Groundwater Spring 2015