

INDUSTRIAL AREA IM/IRA SURFACE WATER MONITORING

MONTHLY STATUS REPORT

FEBRUARY 1995

U.S. DEPARTMENT OF ENERGY

Rocky Flats Plant

Golden, Colorado

ENVIRONMENTAL PROTECTION MANAGEMENT DEPARTMENT

SURFACE WATER

March 30, 1995

ADMIN RECORD

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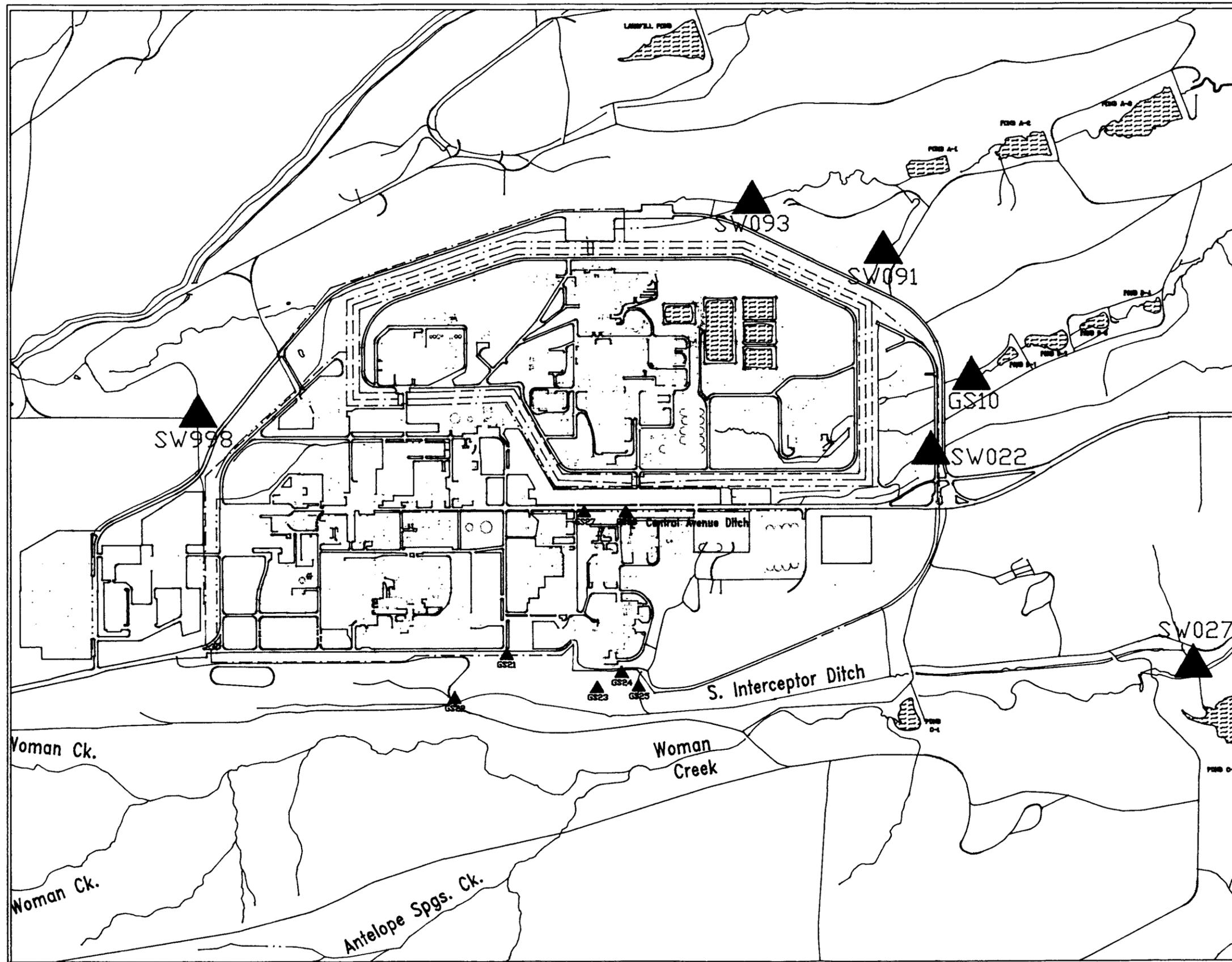
1. INTRODUCTION

The Interim Measure/Interim Remedial Action/Decision Document (IM/IRA/DD) for the Industrial Area at the Rocky Flats Environmental Technology Site (RFETS) was prepared in accordance with the Rocky Flats Plant Interagency Agreement (IAG), dated January 22, 1991, and applicable regulatory guidance documents. The objective of the Industrial Area IM/IRA/DD is to ensure that environmental monitoring is adequate to support decontamination and decommissioning (D&D) and other nonroutine activities within the Industrial Area at RFETS. To achieve this objective, a monitoring safety net approach is used around the RFETS Industrial Area to monitor for, protect against, and respond to any actual or potential contaminant releases.

The following elements relating to surface water monitoring are detailed in the IM/IRA/DD:

- Surface water monitoring in areas of concern, which previously focused on the terminal ponds (and other sites in the Buffer Zone), will be expanded to include the Industrial Area.
- Surface water quality and hydraulic flow conditions will be studied in the Industrial Area to establish baseline conditions.
- Monitoring systems for air and surface water use state-of-the-art technologies to accomplish plant transition monitoring objectives. Technical improvements for monitoring building D&D activities will be reviewed regularly in an attempt to improve air and surface water monitoring capabilities.
- Verification monitoring for D&D activities is the second and outer layer of environmental surveillance that will verify that D&D contaminant pathway protection procedures and site-specific monitoring activities are effective.
- The type and extent of verification monitoring will depend on the type of D&D activity being performed and the assessed environmental hazard associated with that activity.
- A statistically based methodology has been identified to develop site-specific baseline conditions for environmental media at D&D activity locations and to determine when pre-programmed response actions are needed.

EG&G, Environmental Protection Department, Surface Water is responsible for the implementation of surface water monitoring activities required by the Industrial Area IM/IRA/DD. The report contained herein provides a monthly summary of the highlights and analytical results of this activity for the month of January 1995. Figure 1-1 shows the location surface water monitoring sites discussed in this report. Figure 1-2 shows the Industrial Area subbasins and hydrologic routing. Figure 1-3 shows a close-up of gaging stations GS27 and GS28 which support D&D operations at Building 889 and the Industrial Area IM/IRA Pilot Project.



LEGEND

- ▲ Gaging and Sampling Station
- ~ Streams, Ditches, Drainage Features
- == Security Fences
- Paved Roads
- - - Dirt Roads
- Buildings

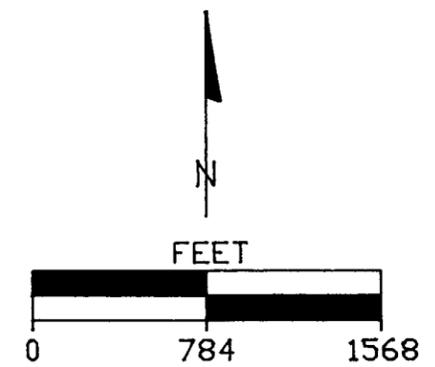
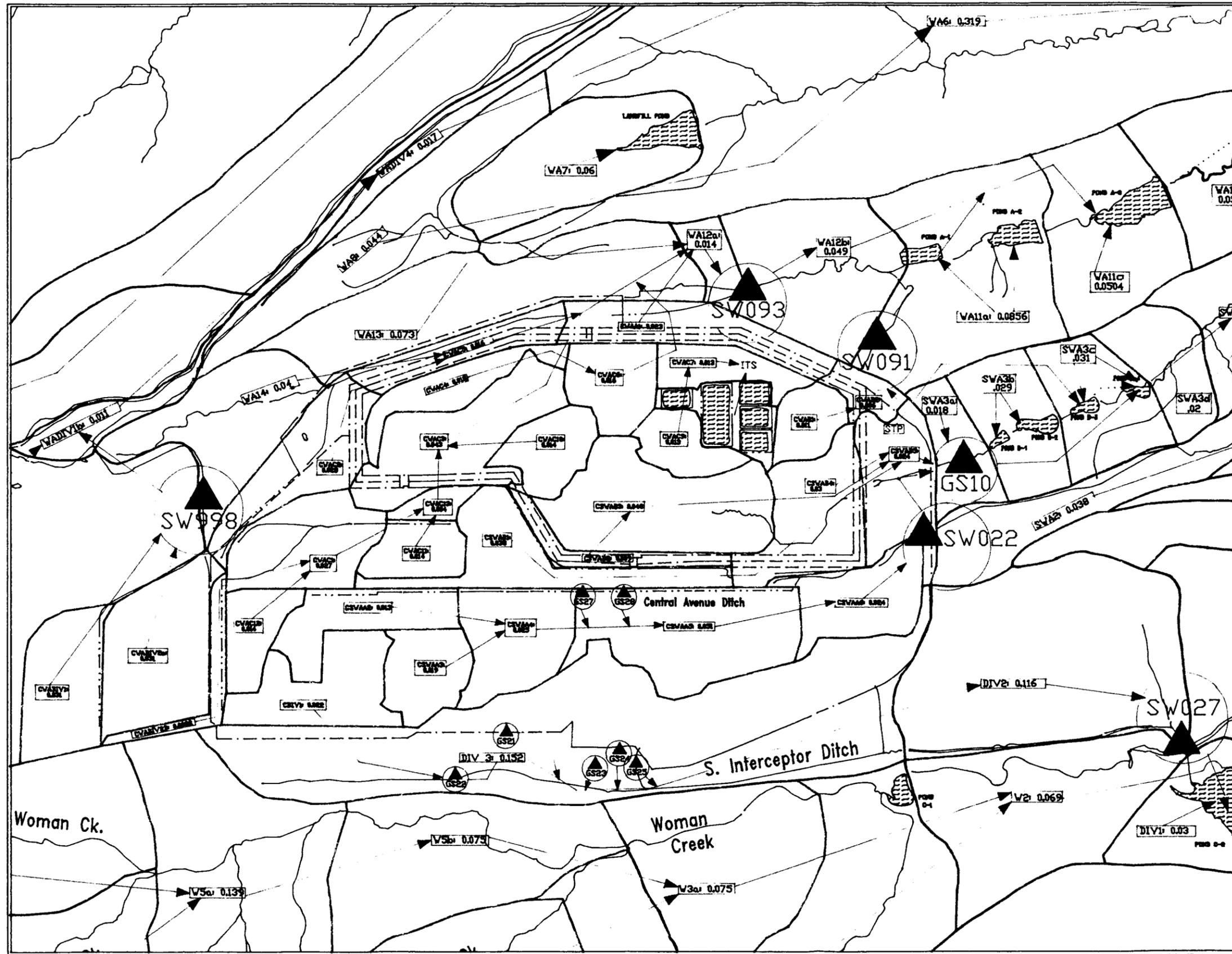


Figure 1-1
 RFETS
 Industrial Area IM/IRA
 Gaging Station Network
 Surface Water
 Verification Monitoring
 Locations



LEGEND

- ▲ Gaging and Sampling Station
- Streams, Ditches, Drainage Features
- - - Security Fences
- Basin Boundaries
- AREA Basin Areas (sq. mi.)
- ▶ Natural Discharge
- ▶ Controlled Transfers and Discharges

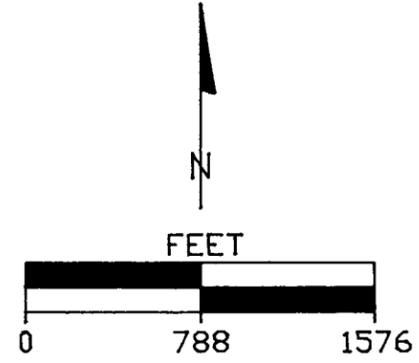


Figure 1-2
 RFETS
 Industrial Area IM/IRA
 Gaging Station Network:
 Surface Water
 Routing Diagram

Central Avenue

Central Avenue Ditch

GS27

GS28

884

889

866

827

879

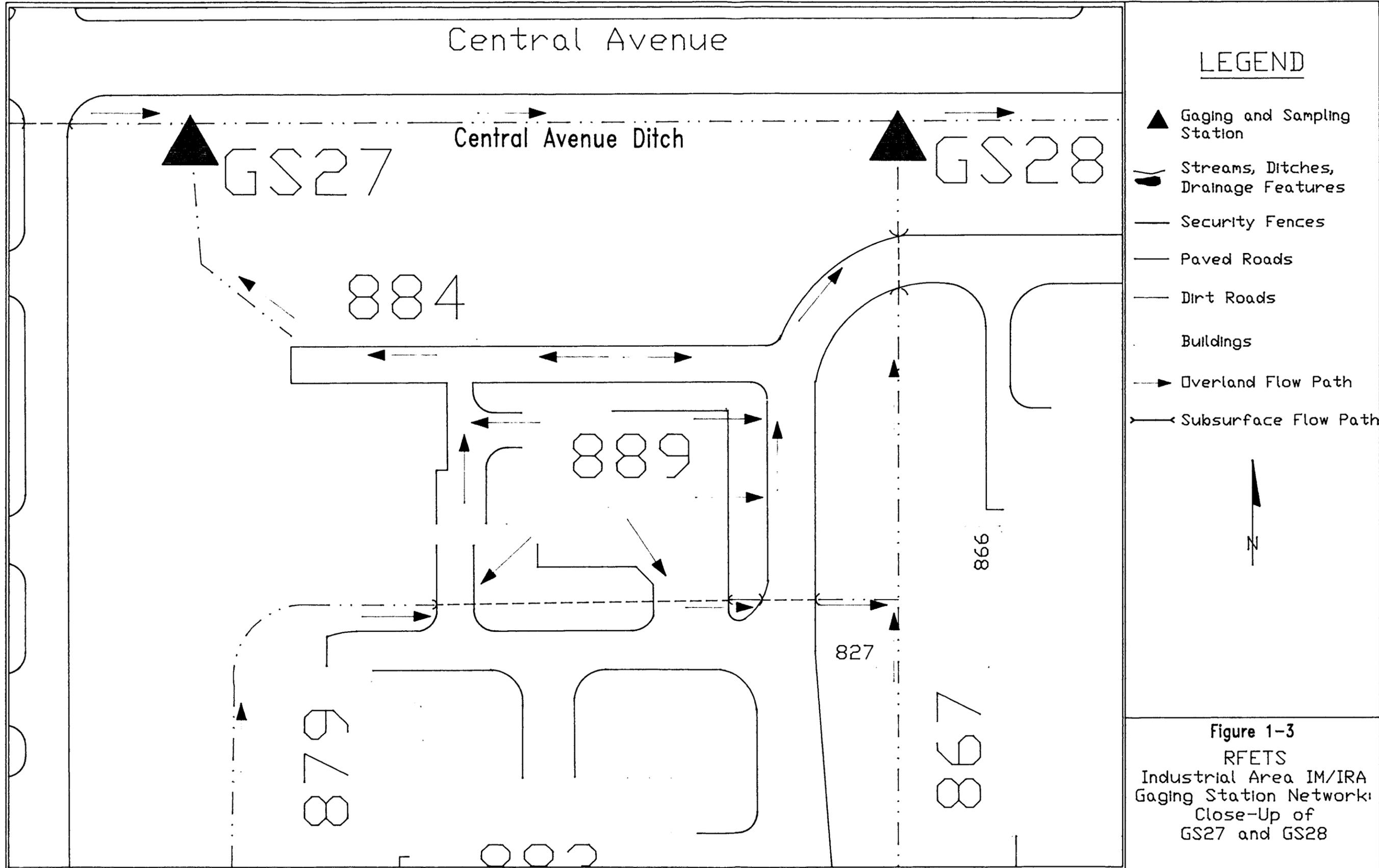
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LEGEND

- ▲ Gaging and Sampling Station
- ▬ Streams, Ditches, Drainage Features
- Security Fences
- Paved Roads
- Dirt Roads
- ▭ Buildings
- Overland Flow Path
- ↔ Subsurface Flow Path



Figure 1-3
RFETS
Industrial Area IM/IRA
Gaging Station Network:
Close-Up of
GS27 and GS28



2. HIGHLIGHTS

The following activities occurred during the period from February 1, 1995 to February 28, 1995:

- Gaging station SW022 was instrumented and began collecting discharge record on 2/9/95. Samplers are to be installed at a later date.
- Approximately half of the ordered ISCO automated surface water monitoring equipment was received. The remaining equipment is expected in two subsequent shipments in the beginning of March.
- Historical analytical data for the IM/IRA monitoring locations were retrieved from RFEDS. All available stormwater monitoring data were retrieved when historical data existed. Initial data compilation and reduction was performed for the development of baseline water quality conditions at the IM/IRA gaging stations. Final baseline conditions, and warning and control limits will be determined using both historical and future data.
- Surface Water personnel completed various computer based training courses and the 8-Hour OSHA Refresher in order to satisfy requirements set forth by the Readiness Assessment Checklist.
- The flume at GS10 was retrofitted with new wing walls and a new approach tarp. The flume had been neglected by the USGS, but with these upgrades the flume is now leaking less than 1%.
- Maintenance and deconning were performed on all ISCO 3700/2700 automatic water samplers in preparation for field deployment. Sampling carboys were deconned and designated for all sites.
- Equipment shelters and ISCO 3700R refrigerated samplers were deployed at SW998, SW093, GS10, and SW022.

3. DATA SUMMARY

All discharge data provided in Monthly Status Reports are **preliminary and subject to revision**. Final data will be delivered in the Annual Report.

3.1 Tier 1: Industrial Area Outfalls

The objective of the Tier I Industrial Area gaging stations is to monitor and characterize surface water leaving the Industrial Area and determine if D&D activities have impacted surface water. These gaging stations monitor six (6) of the seven (7) major pathways discussed in the Industrial Area IM/IRA/DD.

3.1.1 Gaging Station GS10

Location:

- 39° 53' 35.11"N 105° 11' 26.6"W
- South Walnut Creek, above the Pond B-1 Bypass; co-located with SW023

Drainage Characteristics:

- Pathway 2
- Total and Effective Area: 0.281 mi.² = 179.8 ac (approximately 78% impervious)
- Sub-basins: CSWAB1, CSWAB2, CSWAB3, CSWAB4, CSWAB5, CSWAA2, CSWAA3, CSWAA4, CSWAA5, CSWAA6 (Figure 1-2)
- Description: GS10 lies on South Walnut Creek just above the B-1 Bypass. The basin consists of the central and southern area of the Industrial Area (total of 140ac 100% impervious).
- Areas draining to this site: 900, 800, 700, 600, 500, 400, 300, 100

Hardware Configuration:

- Primary Device: 9½" Parshall flume
- Flow Meter: ISCO® Model 3230 (bubbler)
- Sampler: ISCO® Model 3700R Refrigerated
- Radio Telemetry: No
- Power: DC solar power system
- Water Quality Parameters: None

Discharge Data

Table 3-1. GS10 Mean Daily Discharge Data

| Date | Mean CFS | Min. CFS | Max. CFS | Discharge |
|-----------------------|--------------|--------------|--------------|-----------|
| 2/1/95 | 0.044 | 0.032 | 0.165 | 3767 |
| 2/2/95 | 0.032 | 0.025 | 0.046 | 2787 |
| 2/3/95 | 0.026 | 0.021 | 0.032 | 2208 |
| 2/4/95 | 0.025 | 0.022 | 0.030 | 2144 |
| 2/5/95 | 0.025 | 0.022 | 0.031 | 2141 |
| 2/6/95 | 0.022 | 0.016 | 0.031 | 1891 |
| 2/7/95 | 0.017 | 0.015 | 0.021 | 1466 |
| 2/8/95 | 0.018 | 0.015 | 0.023 | 1538 |
| 2/9/95 | 0.018 | 0.014 | 0.026 | 1545 |
| 2/10/95 | BD | BD | BD | BD |
| 2/11/95 | BD | BD | BD | BD |
| 2/12/95 | BD | BD | BD | BD |
| 2/13/95 | BD | BD | BD | BD |
| 2/14/95 | BD | BD | BD | BD |
| 2/15/95 | 0.210 | 0.099 | 0.416 | 18150 |
| 2/16/95 | 0.101 | 0.062 | 0.494 | 8752 |
| 2/17/95 | 0.157 | 0.052 | 0.658 | 13599 |
| 2/18/95 | 0.081 | 0.059 | 0.199 | 6990 |
| 2/19/95 | 0.068 | 0.056 | 0.158 | 5868 |
| 2/20/95 | 0.065 | 0.048 | 0.308 | 5581 |
| 2/21/95 | 0.050 | 0.044 | 0.100 | 4324 |
| 2/22/95 | <i>0.051</i> | <i>0.041</i> | <i>0.070</i> | 4418 |
| 2/23/95 | 0.053 | 0.045 | 0.061 | 4586 |
| 2/24/95 | 0.050 | 0.045 | 0.060 | 4304 |
| 2/25/95 | 0.048 | 0.043 | 0.056 | 4183 |
| 2/26/95 | 0.048 | 0.044 | 0.061 | 4178 |
| 2/27/95 | 0.053 | 0.044 | 0.105 | 4618 |
| 2/28/95 | 0.070 | 0.055 | 0.234 | 6060 |
| Monthly Values | | | | |
| Mean | 0.058 | 0.040 | 0.147 | 5004 |
| Min. | 0.017 | 0.014 | 0.021 | 1466 |
| Max. | 0.210 | 0.099 | 0.658 | 18150 |

Total Discharge: 115100 Cubic Feet
 Partial Month

KEY: BD = bad data; *italics* = estimated data from field observations and discharge record at adjacent gages

Bad data can be attributed to equipment failures and winter freezing conditions.

Figure 3-1. GS10 Monthly Discharge

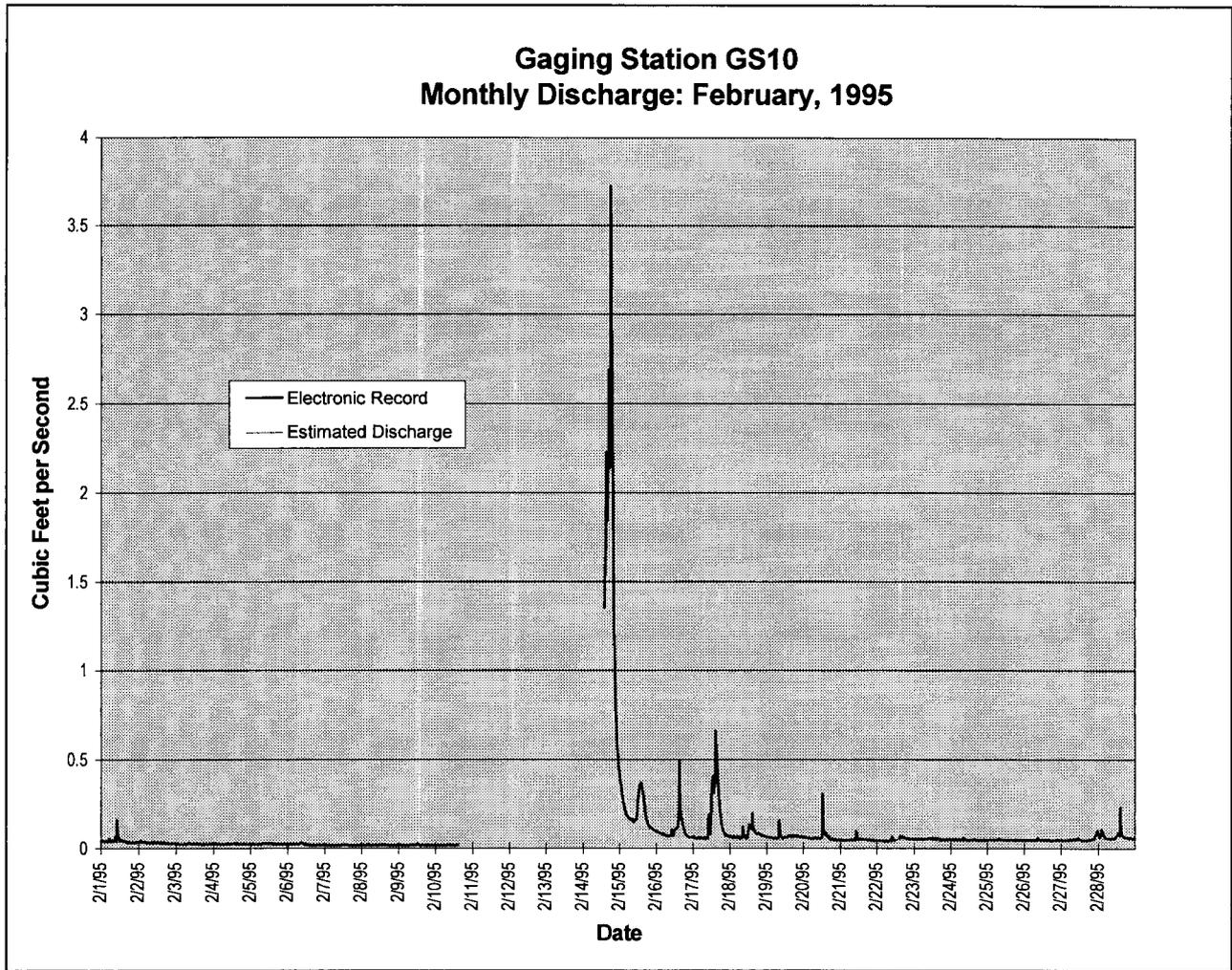
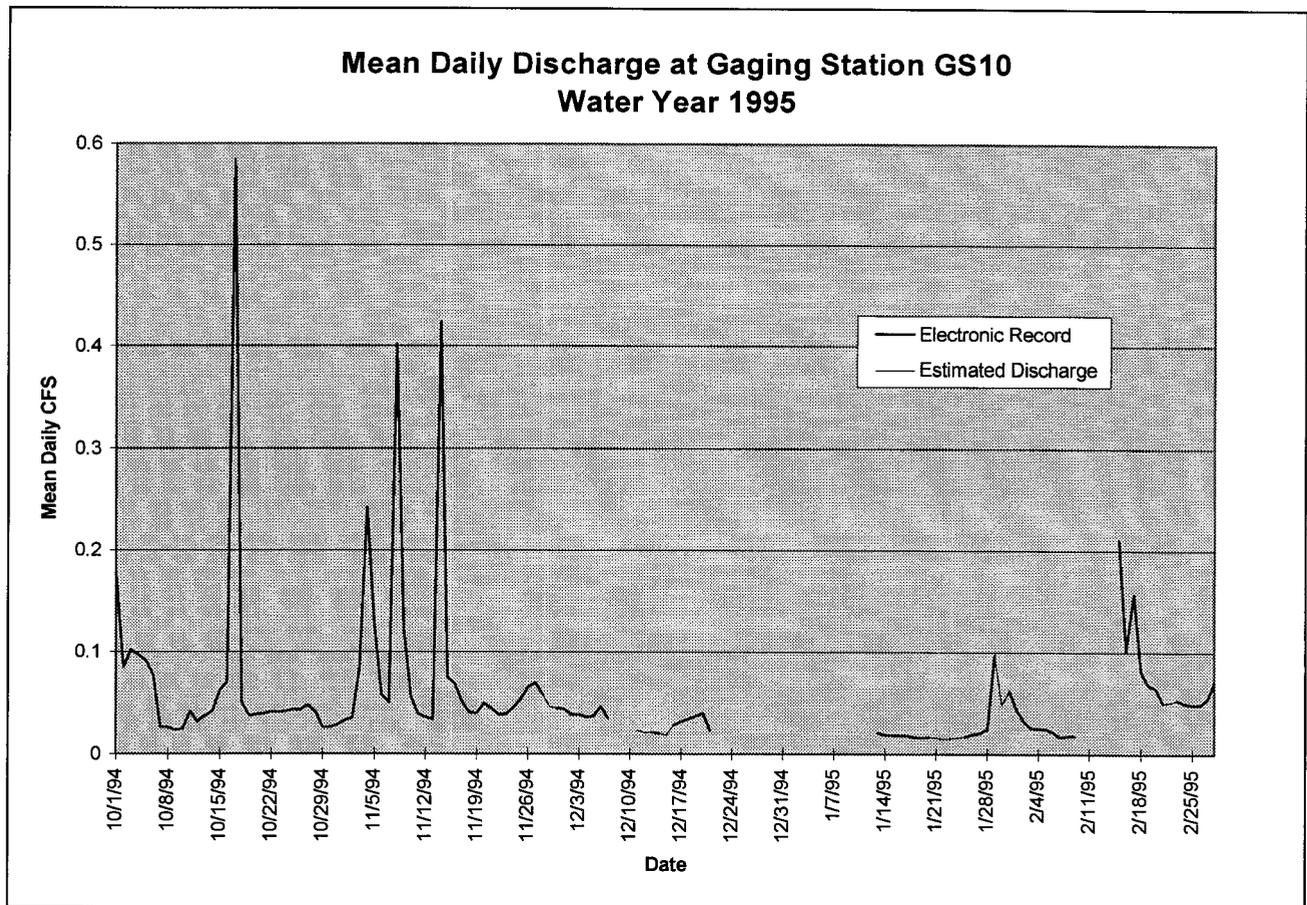


Figure 3-2. GS10 Mean Daily Discharge, Water Year 1995



Analytical Results

No analytical results compiled to date.

3.1.2 Gaging Station SW022

Location:

- State Plane: 2086443.2; 749757.8
- Central Avenue Ditch at the splitter box near T903A, Inner East Gate

Drainage Characteristics:

- Pathway 1
- Total and Effective Area: $0.132 \text{ mi.}^2 = 84.5 \text{ ac}$ (approximately 75% impervious)
- Sub-basins: CSWAA2, CSWAA3, CSWAA4, CSWAA5, CSWAA6 (Figure 1-2)
- Description: SW022 lies on the Central Avenue Ditch at the splitter box near T903A, Inner East Gate. The basin consists of the southern area of the Industrial Area.
- Areas draining to this site: 900, 800, 600, 400, 300, 100

Hardware Configuration:

- Primary Device: 9 ½" Parshall flume
- Flow Meter: ISCO® Model 4230 (bubbler)
- Sampler: ISCO® Model 3700R Refrigerated
- Radio Telemetry: No
- Power: DC power system
- Water Quality Parameters: None

Discharge Data

Table 3-2. SW022 Mean Daily Discharge Data

| Date | Mean CFS | Min. CFS | Max. CFS | Discharge |
|-----------------------|--------------|--------------|--------------|-----------|
| 2/1/95 | BD | BD | BD | BD |
| 2/2/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/3/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/4/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/5/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/6/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/7/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/8/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/9/95 | <i>0.000</i> | <i>0.000</i> | <i>0.000</i> | 0 |
| 2/10/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/11/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/12/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/13/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/14/95 | BD | BD | BD | BD |
| 2/15/95 | BD | BD | BD | BD |
| 2/16/95 | BD | BD | BD | BD |
| 2/17/95 | 0.043 | 0.000 | 0.339 | 3730 |
| 2/18/95 | 0.001 | 0.000 | 0.006 | 75 |
| 2/19/95 | 0.001 | 0.000 | 0.006 | 73 |
| 2/20/95 | 0.002 | 0.000 | 0.007 | 132 |
| 2/21/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/22/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/23/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/24/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/25/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/26/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/27/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/28/95 | 0.000 | 0.000 | 0.000 | 0 |
| Monthly Values | | | | |
| Mean | 0.002 | 0.000 | 0.015 | 167 |
| Min. | 0.000 | 0.000 | 0.000 | 0 |
| Max. | 0.043 | 0.000 | 0.339 | 3730 |

Total Discharge: 4010 Cubic Feet
 Partial Month

KEY: BD = bad data; *italics* = estimated data from field observations and discharge record at adjacent gages

Bad data can be attributed to equipment failures and winter freezing conditions.

Figure 3-3. SW022 Monthly Discharge

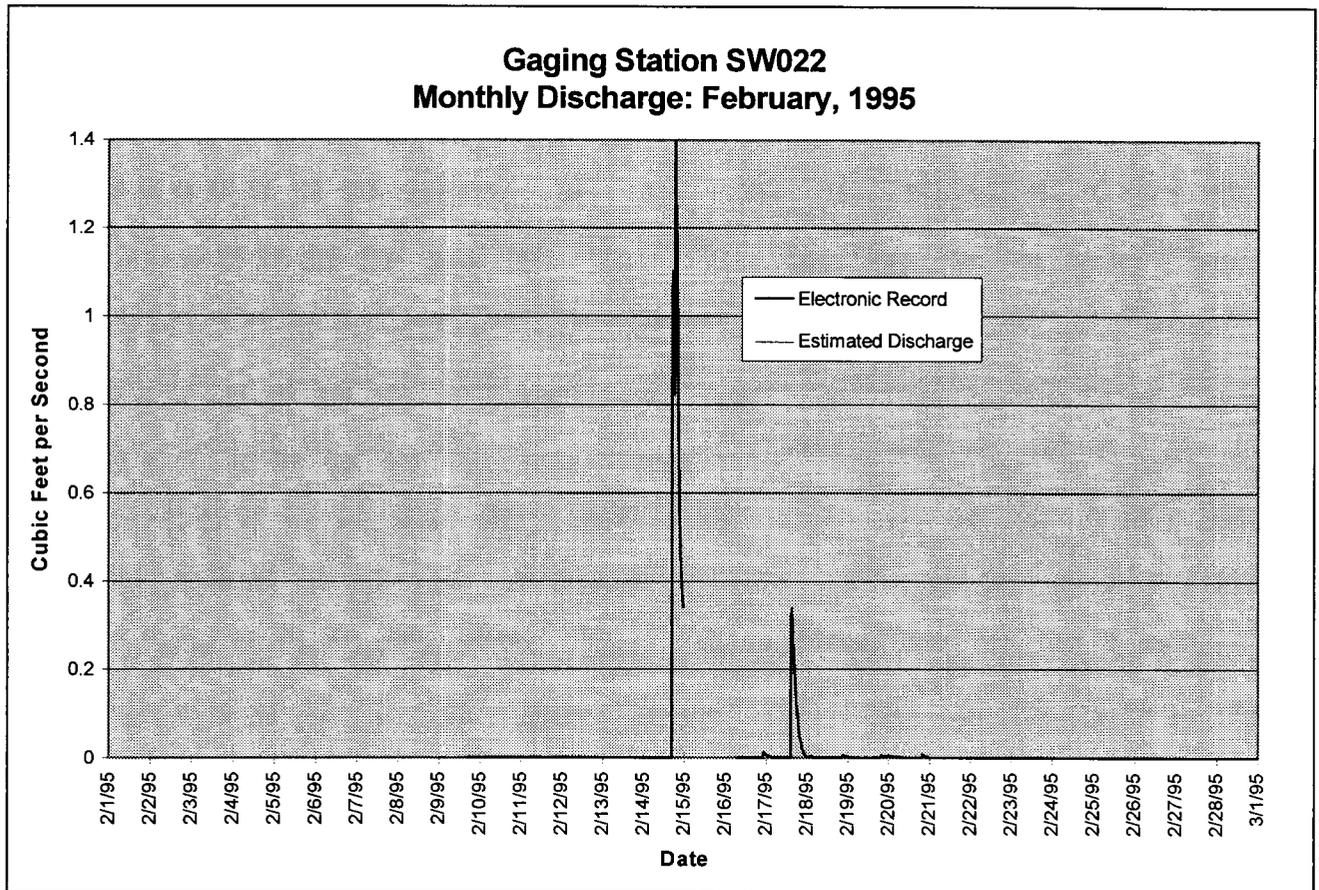
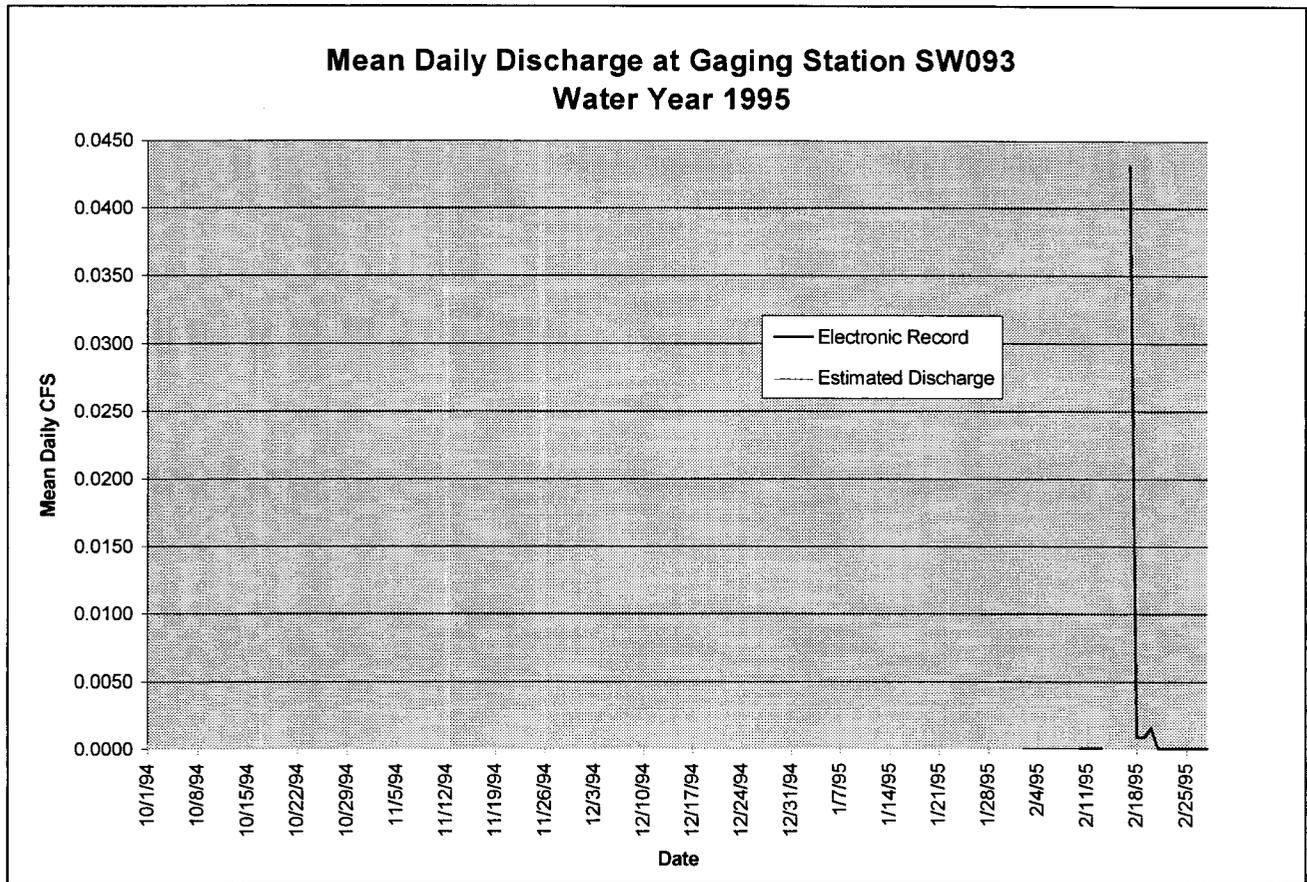


Figure 3-4. SW022 Mean Daily Discharge, Water Year 1995



Analytical Results

No analytical results compiled to date.

3.1.3 Gaging Station SW027

Location:

- 39° 53' 11.5"N 105° 11' 4.3"W
- SID Culvert Number 4; outlet of SID to Pond C-2 prior to crossing under Woman Creek

Drainage Characteristics:

- Pathway 5
- Area: $0.29 \text{ mi.}^2 = 185.6 \text{ ac}$ (approximately 15% impervious)
- Sub-basins: DIV2, DIV3, CDIV1 (Figure 1-2)
- Description: SW027 lies on the South Interceptor Ditch at the upstream end of dual 66" cmps which convey SID water under Woman Creek and into Pond C-2. The basin consists of the sloping, vegetated area immediately south of the Industrial Area. This basin receives Industrial Area runoff primarily from the 800 and 400 Areas.

Hardware Configuration:

- Primary Device: Dual 66" Parallel cmps
- Flow Meter: ISCO® Model 3230 (bubbler)
- Sampler: ISCO® Model 3700R Refrigerated
- Radio Telemetry: No
- Power: DC solar power system
- Water Quality Parameters: None

Discharge Data

Table 3-3. SW027 Mean Daily Stage Data

| Date | Mean Feet | Min. Feet | Max. Feet |
|-----------------------|------------------|------------------|------------------|
| 2/1/95 | 0.000 | 0.000 | 0.000 |
| 2/2/95 | 0.000 | 0.000 | 0.000 |
| 2/3/95 | 0.000 | 0.000 | 0.000 |
| 2/4/95 | 0.000 | 0.000 | 0.000 |
| 2/5/95 | 0.000 | 0.000 | 0.000 |
| 2/6/95 | 0.000 | 0.000 | 0.000 |
| 2/7/95 | 0.000 | 0.000 | 0.000 |
| 2/8/95 | 0.000 | 0.000 | 0.000 |
| 2/9/95 | 0.000 | 0.000 | 0.000 |
| 2/10/95 | 0.000 | 0.000 | 0.000 |
| 2/11/95 | 0.000 | 0.000 | 0.000 |
| 2/12/95 | 0.000 | 0.000 | 0.000 |
| 2/13/95 | 0.000 | 0.000 | 0.000 |
| 2/14/95 | 0.000 | 0.000 | 0.000 |
| 2/15/95 | 0.074 | 0.000 | 0.300 |
| 2/16/95 | 0.094 | 0.087 | 0.106 |
| 2/17/95 | 0.104 | 0.083 | 0.182 |
| 2/18/95 | 0.120 | 0.077 | 0.182 |
| 2/19/95 | 0.070 | 0.058 | 0.081 |
| 2/20/95 | 0.053 | 0.042 | 0.062 |
| 2/21/95 | 0.042 | 0.031 | 0.052 |
| 2/22/95 | 0.038 | 0.029 | 0.046 |
| 2/23/95 | 0.033 | 0.023 | 0.042 |
| 2/24/95 | 0.024 | 0.001 | 0.037 |
| 2/25/95 | 0.000 | 0.000 | 0.001 |
| 2/26/95 | 0.000 | 0.000 | 0.000 |
| 2/27/95 | 0.000 | 0.000 | 0.000 |
| 2/28/95 | 0.000 | 0.000 | 0.000 |
| Monthly Values | | | |
| <i>Mean</i> | 0.023 | 0.015 | 0.039 |
| <i>Min.</i> | 0.000 | 0.000 | 0.000 |
| <i>Max.</i> | 0.120 | 0.087 | 0.300 |

KEY: BD = bad data; *italics* = estimated data from field observations and discharge record at adjacent gages

Bad data can be attributed to equipment failures and winter freezing conditions.

Figure 3-5. SW027 Monthly Stage

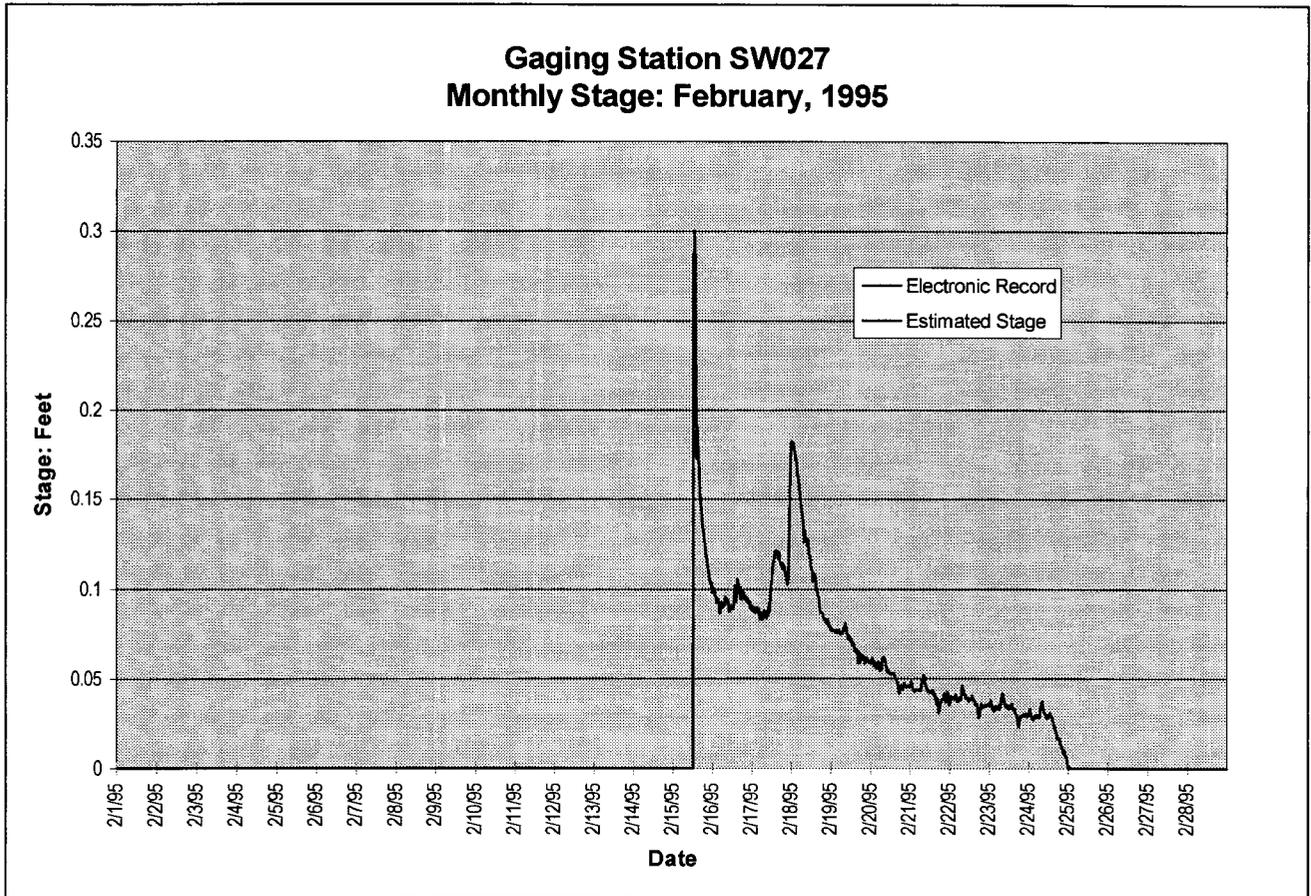
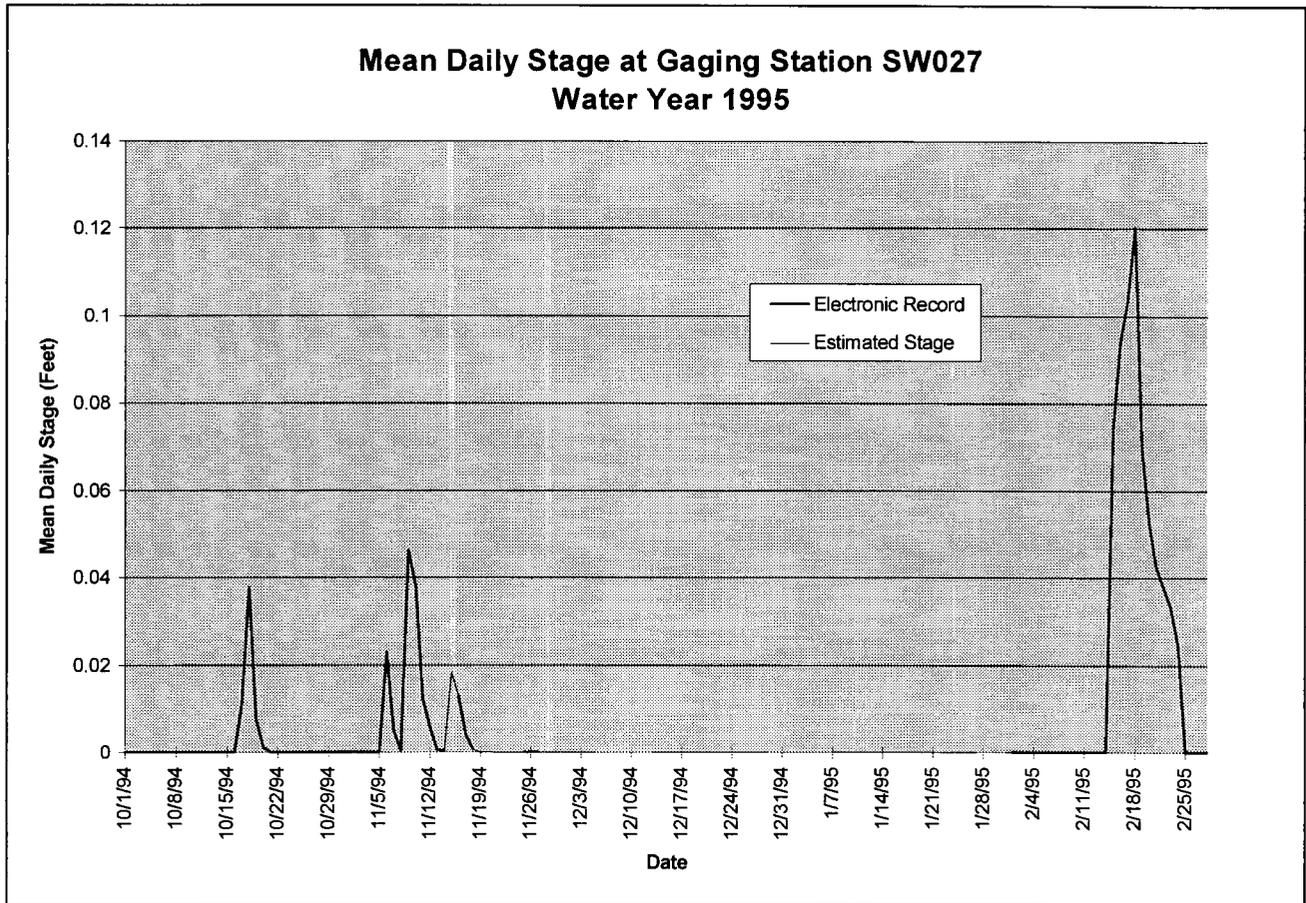


Figure 3-6. SW027 Mean Daily Stage, Water Year 1995



Analytical Results

No analytical results compiled to date.

3.1.4 Gaging Station SW091

Location:

- State Plane: 2086064; 751322
- small tributary of North Walnut Creek, which drains the northeast corner of Industrial Area near the Solar Ponds

Drainage Characteristics:

- Pathway 6
- Area: $0.019 \text{ mi.}^2 = 12.2 \text{ ac}$ (approximately 45% impervious)
- Sub-basins: CWAB1, CWAB2, portion of WA11 (Figure 1-2)
- Description: SW091 lies on a small tributary of North Walnut Creek, which drains the northeast corner of Industrial Area near the Solar Ponds. The basin consists of 10.9 acres of the Industrial Area. This basin receives Industrial Area runoff primarily from the open area immediately east of the Solar Ponds.

Hardware Configuration:

- Primary Device: 1' H Flume
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: Not yet instrumented
- Power: Not yet instrumented
- Water Quality Parameters: None

Discharge Data

No record to date.

Analytical Results

No analytical results compiled to date.

3.1.5 Gaging Station SW093

Location:

- State Plane: 2085008.5; 751710.2
- North Walnut Creek below 6' cmp draining Industrial Area; directly north of Solar Pond C

Drainage Characteristics:

- Pathway 3
- Area: $0.362 \text{ mi.}^2 = 231.7 \text{ ac}$ (approximately 46% impervious)
- Sub-basins: WA12a, WA13, WA14, CWAA1, CWAC6, CWAC5, CWAC2, CWAC4, CWAC3, CWAC10, CWAC13, CWAC11, CWAC1, CWAC12, CWADIV2b (Figure 1-2)
- Description: SW093 lies on North Walnut Creek, which drains the north and northwest areas of Industrial Area. The basin consists of 150.4 acres of the Industrial Area. This basin receives Industrial Area runoff from the 700, 500, 300, and 100 Areas.

Hardware Configuration:

- Primary Device: 36" Parshall Flume w/ a 36" Rectangular Weir
- Flow Meter: ISCO® Model 3230 (bubbler)
- Sampler: ISCO® Model 3700 Portable
ISCO® Model 6000 VOC
- Radio Telemetry: Yes
- Power: DC solar power system
- Water Quality Parameters: None

Figure 3-7. SW093 Monthly Discharge

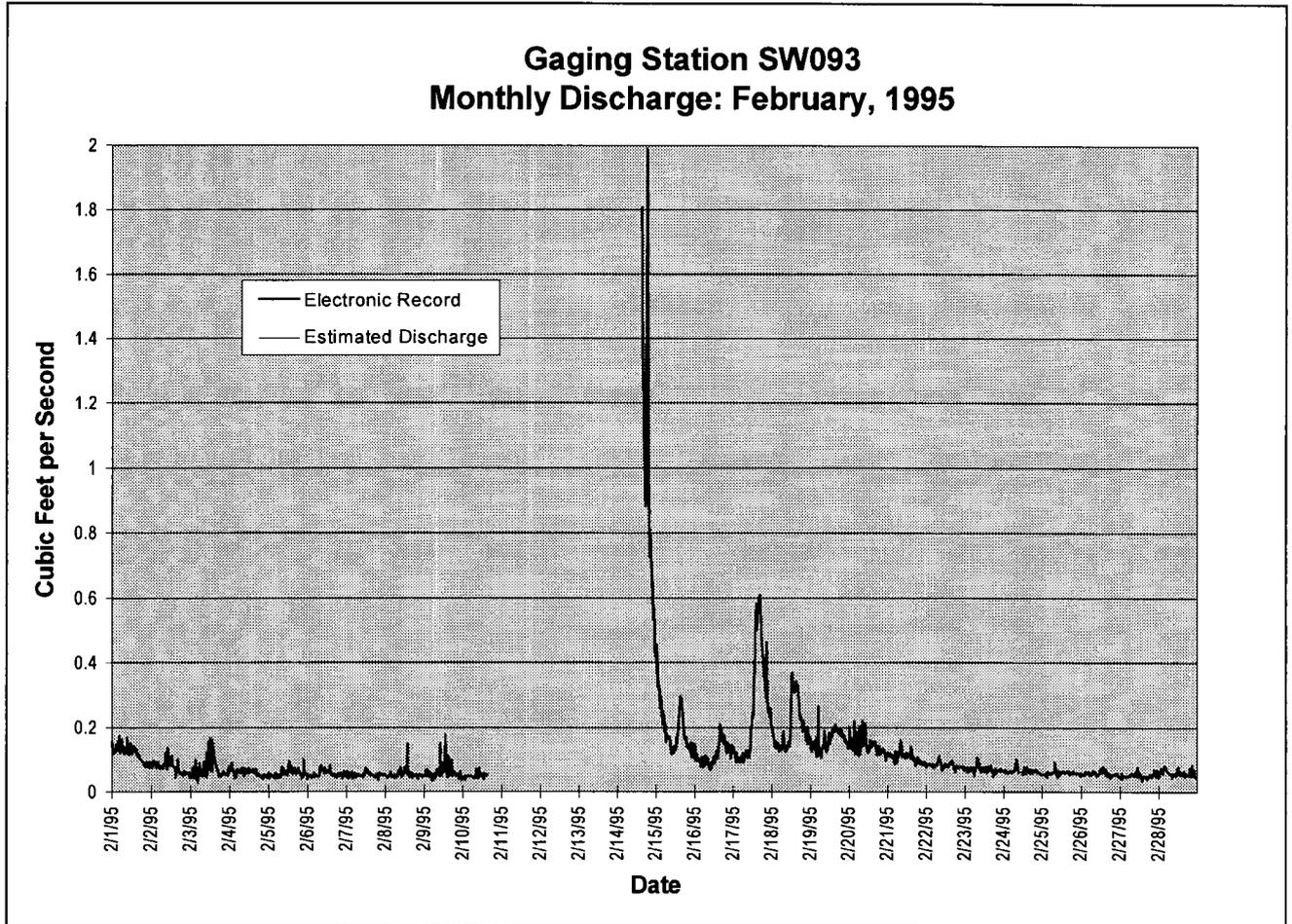
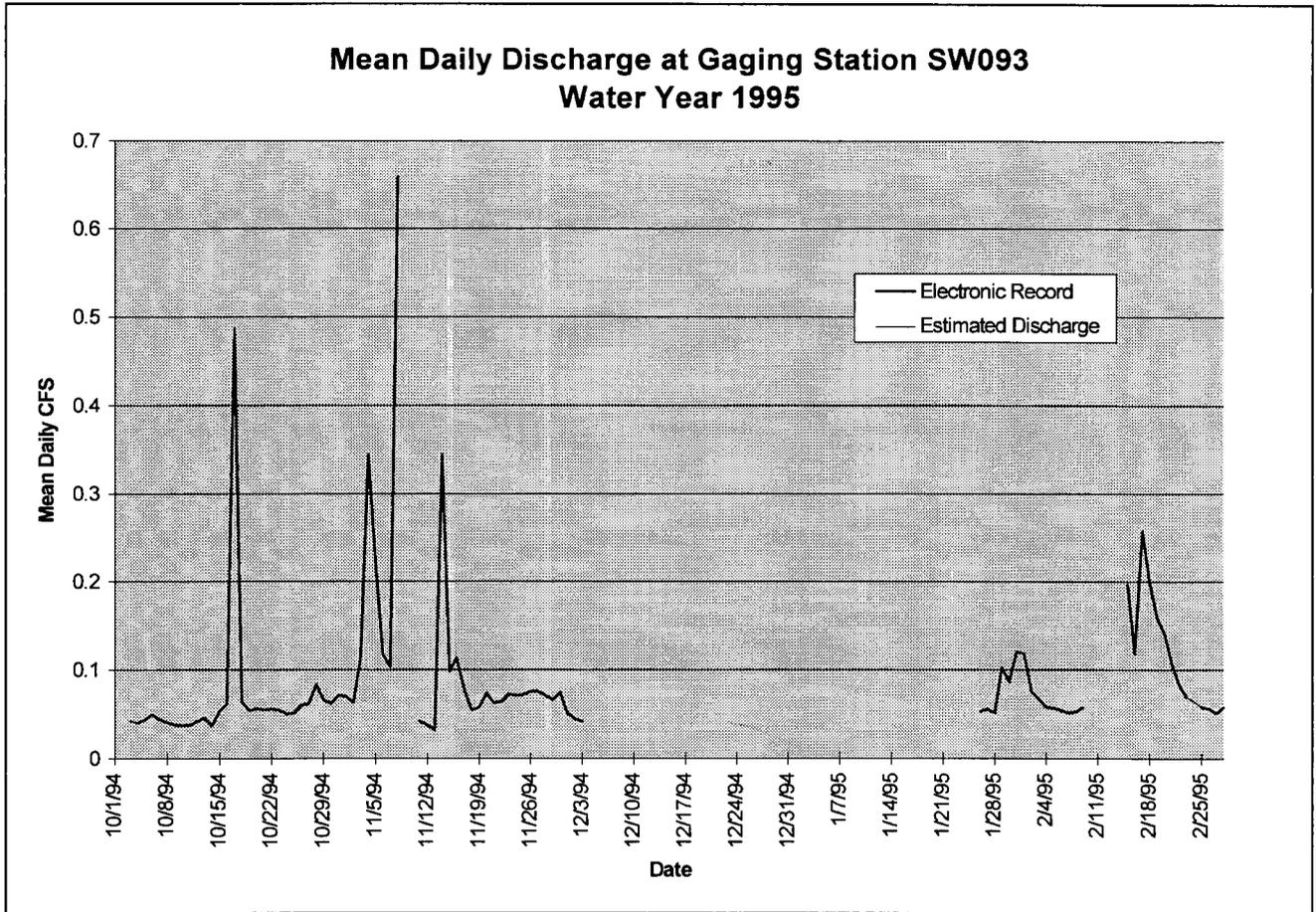


Figure 3-8. SW093 Mean Daily Discharge, Water Year 1995



Analytical Results

No analytical results compiled to date.

3.1.6 Gaging Station SW998

Location:

- State Plane: 2080607.8; 749862.5
- West Diversion Ditch north of 130 buildings

Drainage Characteristics:

- Pathway 4
- Area: $0.069 \text{ mi.}^2 = 44.2 \text{ ac}$ (approximately 90% impervious)
- Sub-basins: CWADIV1, CWADIV2a (Figure 1-2)
- Description: SW998 lies on the West Diversion Ditch north of the 130 area. This basin receives Industrial Area runoff from the 130 areas only.

Hardware Configuration:

- Primary Device: 9.5" Parshall Flume
- Flow Meter: ISCO® Model 3230 (bubbler)
- Sampler: ISCO® Model 3700 Portable
ISCO® Model 6000 VOC
- Radio Telemetry: No
- Power: AC line power
- Water Quality Parameters: None

Discharge Data

Table 3-5. SW998 Mean Daily Discharge Data

| Date | Mean CFS | Min. CFS | Max. CFS | Discharge |
|-----------------------|----------|----------|----------|-----------|
| 2/1/95 | BD | BD | BD | BD |
| 2/2/95 | BD | BD | BD | BD |
| 2/3/95 | 0.008 | 0.000 | 0.045 | 653 |
| 2/4/95 | 0.004 | 0.000 | 0.038 | 367 |
| 2/5/95 | 0.003 | 0.000 | 0.023 | 230 |
| 2/6/95 | 0.005 | 0.000 | 0.045 | 425 |
| 2/7/95 | 0.004 | 0.000 | 0.045 | 330 |
| 2/8/95 | 0.002 | 0.000 | 0.036 | 213 |
| 2/9/95 | 0.000 | 0.000 | 0.012 | 39 |
| 2/10/95 | BD | BD | BD | BD |
| 2/11/95 | BD | BD | BD | BD |
| 2/12/95 | BD | BD | BD | BD |
| 2/13/95 | BD | BD | BD | BD |
| 2/14/95 | BD | BD | BD | BD |
| 2/15/95 | BD | BD | BD | BD |
| 2/16/95 | BD | BD | BD | BD |
| 2/17/95 | 0.032 | 0.000 | 0.169 | 2760 |
| 2/18/95 | 0.006 | 0.000 | 0.028 | 480 |
| 2/19/95 | 0.004 | 0.000 | 0.025 | 318 |
| 2/20/95 | 0.000 | 0.000 | 0.007 | 29 |
| 2/21/95 | 0.000 | 0.000 | 0.002 | 2 |
| 2/22/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/23/95 | 0.000 | 0.000 | 0.001 | 1 |
| 2/24/95 | 0.000 | 0.000 | 0.002 | 3 |
| 2/25/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/26/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/27/95 | 0.000 | 0.000 | 0.000 | 0 |
| 2/28/95 | 0.001 | 0.000 | 0.040 | 121 |
| Monthly Values | | | | |
| <i>Mean</i> | 0.004 | 0.000 | 0.027 | 314 |
| <i>Min.</i> | 0.000 | 0.000 | 0.000 | 0 |
| <i>Max.</i> | 0.032 | 0.000 | 0.169 | 2760 |

Total Discharge: 5971 Cubic Feet
 Partial Month

KEY: BD = bad data; *italics* = estimated data from field observations and discharge record at adjacent gages

Bad data can be attributed to equipment failures and winter freezing conditions.

Figure 3-9. SW998 Monthly Discharge

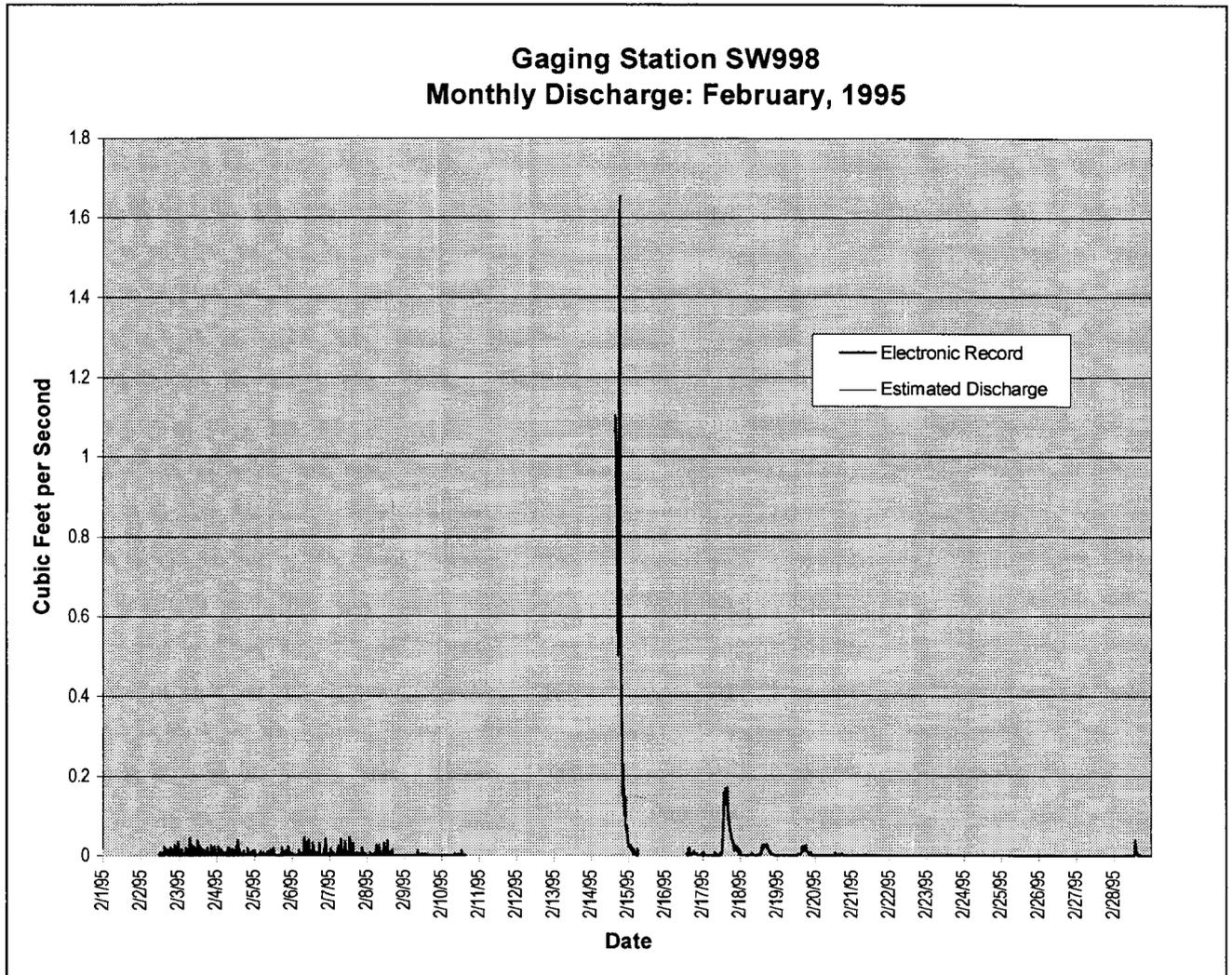
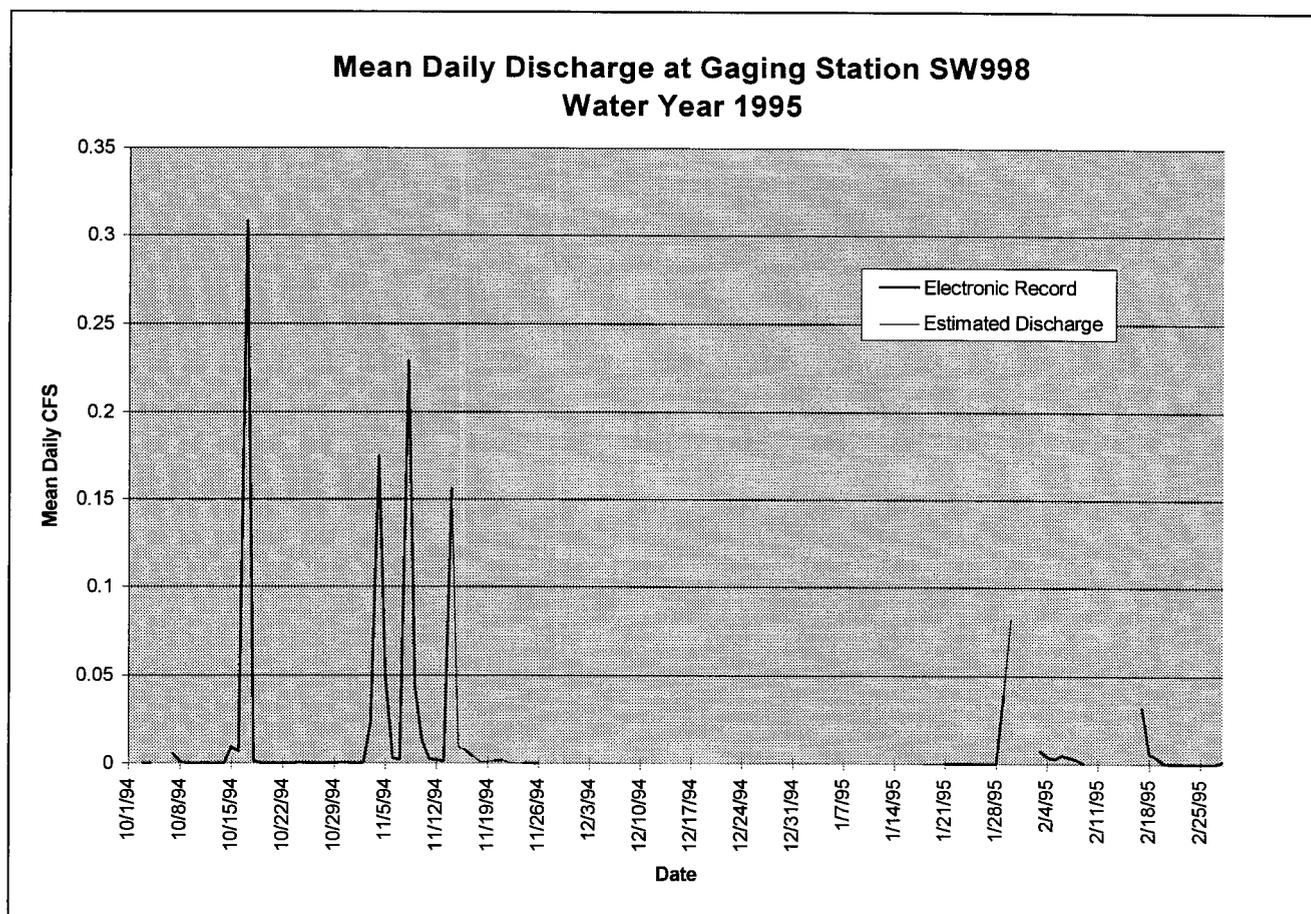


Figure 3-10. SW998 Mean Daily Discharge, Water Year 1995



Analytical Results

No analytical results compiled to date.

3.2 Tier II: D&D Subbasin Outfalls

The objective of the Tier II Industrial Area gaging stations is to monitor surface water at the outlet of the subbasins where D&D activities are located. This tier provides a more detailed monitoring approach to identify potential releases and to evaluate the effectiveness of the engineering controls being employed at the specific D&D location.

3.2.1 Gaging Station GS21

Location:

- State Plane: 2083061; 748147
- concrete spillway near intersection of Seventh St. and Cactus Avenue

Drainage Characteristics:

- Pathway 5
- Buildings: T664A, 664
- Sub-basins: DIV3 (Figure 1-2)
- Description: GS21 lies on the concrete spillway near intersection of Seventh St. and Cactus Avenue, at the southwest corner of the 850 parking lot. This basin receives Industrial Area runoff principally from the roads, parking lots and storage area south of Building 664.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: Yes
- Power: Not yet instrumented
- Water Quality Parameters: None

Discharge Data

No record to date.

Analytical Results

No samples to date.

3.2.2 Gaging Station GS22

Location:

- State Plane: 2082646; 747799
- concrete apron at 400 Area outfall to SID

Drainage Characteristics:

- Pathway 5
- Buildings: T124A, 440, 444, T444A, 447, 451, 457, 460, 461, 462
- Sub-basins: CDIV1 (Figure 1-2)
- Description: GS22 lies at the concrete apron at the 400 Area outfall to the SID. This basin receives Industrial Area runoff principally from the roads, parking lots and buildings of the 400 Area.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: No
- Power: Not yet instrumented
- Water Quality Parameters: None

Discharge Data

No record to date.

Analytical Results

No samples to date.

3.2.3 Gaging Station GS23

Location:

- State Plane: 2083781; 747885
- Building 881 septic lift station overflow outfall south of 881

Drainage Characteristics:

- Pathway 5
- Buildings: unknown surface water flow
- Sub-basins: unknown surface water contributions (Figure 1-2)
- Description: GS23 monitors a 5.5" metal pipe which outfalls on the hillside south of the southwest corner of Building 881. The pipe is thought to be the outfall for the overflow from the Bldg. 881 septic lift station. The sources of any surface water seen at this site is unknown.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: No
- Power: Not yet instrumented
- Water Quality Parameters: None

Discharge Data

No record to date.

Analytical Results

No samples to date.

3.2.4 Gaging Station GS24

Location:

- State Plane: 2083973; 747999
- 12" cmp south of 881

Drainage Characteristics:

- Pathway 5
- Buildings: 869, 881, T881G, 887, 885
- Sub-basins: DIV3 (Figure 1-2)
- Description: GS24 monitors a 12" cmp which outfalls on the hillside south of Building 881. Surface water originates as runoff from the areas south and west of Building 881.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: No
- Power: Not yet instrumented
- Water Quality Parameters: None

Discharge Data

No record to date.

Analytical Results

No samples to date.

3.2.5 Gaging Station GS25

Location:

- State Plane: 2084114; 747891
- 18.5" cmp southeast of 881

Drainage Characteristics:

- Pathway 5
- Buildings: 883, T883, T881A, -B, 890, 881, 881F, 882, 830, T881G, 887, 885
- Sub-basins: DIV3 (Figure 1-2)
- Description: GS25 monitors a 18.5" cmp which outfalls on the hillside southeast of Building 881. Surface water at this site originates as runoff from the areas east, north, and northeast of 881.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: No
- Power: Not yet instrumented
- Water Quality Parameters: None

Discharge Data

No record to date.

Analytical Results

No samples to date.

3.2.6 Gaging Station GS27

Location:

- State Plane: 2083680; 749282
- small drainage ditch NW of Building 884 (see Figure 1-3)

Drainage Characteristics:

- Pathway 1
- Buildings: 889, T889A, 884
- Sub-basins: CSWAA5 (Figure 1-2)
- Description: GS27 monitors a small ditch which outfalls to the Central Avenue Ditch northwest of Building 884. Surface water at this site originates as runoff from the areas north and west of 889 and surrounding 884.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: Not yet instrumented
- Power: Not yet instrumented
- Water Quality Parameters: Not yet instrumented

Discharge Data

No record to date.

Analytical Results

No samples to date.

3.2.7 Gaging Station GS28

Location:

- State Plane: 2084010; 749282
- concrete drainage channel northeast of Building 889 (see Figure 1-3)

Drainage Characteristics:

- Pathway 1
- Buildings: 889, T889A, 879, 883, 866, 827, 867, 865
- Sub-basins: CSWAA5 (Figure 1-2)
- Description: GS28 monitors a concrete drainage channel which outfalls to the Central Avenue Ditch northeast of Building 889. Surface water at this site originates as runoff from the northern portion of the 800 Area.

Hardware Configuration:

- Primary Device: Not yet installed
- Flow Meter: Not yet instrumented
- Sampler: Not yet instrumented
- Radio Telemetry: Not yet instrumented
- Power: Not yet instrumented
- Water Quality Parameters: Not yet instrumented

Discharge Data

No record to date.

Analytical Results

No samples to date.

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