ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
QUARTERLY
ENVIRONMENTAL MONITORING REPORT
JANUARY – MARCH 2004

U. S. Department of Energy
Rocky Flats Project Office
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MAY 2004

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PREPARED BY URS GROUP, INC

THE DATA IN THIS DOCUMENT MAY BE PRELIMINARY AND COULD CHANGE AFTER THE DATA HAVE BEEN VERIFIED OR VALIDATED.

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HIGHLIGHTS FOR JANUARY - MARCH 2004

This report is produced and distributed quarterly as part of the Agencies' ongoing Agreement in Principle and as a forum for the Rocky Flats Cleanup Agreement (RFCA) quarterly monitoring requirement. As discussed at a previous Exchange of Information Meetings, the Site is consolidating its reporting for selected media. In an effort to provide a more meaningful interpretation of the data presented and to provide some natural resource efficiency, the Site will be providing analytical data in the following formats.

Airborne effluent data are represented by a single graph providing cumulative plutonium emissions for 1999, 2000, 2001, 2002, and 2003. Ambient air data are represented by two graphs – a summary of estimated off-site dose as compared to a 10 millirem per year standard, and air concentrations at perimeter sample locations expressed as a percentage of EPA's air concentration-based dose limit for members of the public. Meteorological data are represented by one windrose and a climatic summary for each month in the reporting period.

Surface water data are presented for several purposes. Compliance data are presented in support of the Site National Pollutant Discharge Elimination System (NPDES) permit are presented for the reporting period. Surface water data are also collected in support of RFCA. Stations GS01, GS03, GS08, GS10, GS11, GS31, SW022, SW027, and SW093 are routinely monitored. These data include a hydrograph, mean daily flow and available water quality measurements for each location during the reporting period. Performance monitoring and source detection stations may be reported as locations are added or removed from the program. These additional surface water stations are presented in the same manner as the routine stations. Some locations, like GS32, have no flow monitoring capabilities and only analytical data are provided. A quarterly summary of the incidental waters program is also provided.

Airborne Effluent

Preliminary isotopic analytical data through February 2004 are included in this report. Consistent with all other uses of these data, only positive values are included in the total release calculation (the negative values are treated as zeros). The uncertainty calculation reflects data error associated with all results.

Ambient Air

Isotopic analytical data for coarse (>10 micrometer aerodynamic equivalent diameter [AED]) and fine (≤ 10 micrometer AED) ambient air samples collected during the period November 2003 through February 2004 are included in this report. Ambient concentrations for 2003 are generally consistent with data from 1999 through 2002, though very high filter mass loading at S-254, elevating naturally occurring uranium concentration, occurred in October 2003. This event appears to be attributable to increased traffic on the

dirt road adjacent to S-254, increasing dust resuspension into the S-254 sample. Predominant wind patterns argue against this event being a result of Site activities.

An elevated Pu-239/240 observation occurred in November 2003 at location S-209. The elevated results were examined for any apparent laboratory errors or problems. Ratios of plutonium to americium were calculated, as were the ratios of the Pu-239/240 concentration in the coarse fraction to that in the fine fraction. No laboratory deviations could be verified for any of these elevated concentrations, although tracer recovery was low for the S-209 samples. The elevated Pu-239/240 and Am-241 results at this sampler could not be correlated with any specific Site activity or project, although a variety of dust-generating activities occurred on Site in November 2003. None occurred in close proximity to this sampler, however, and winds favorable to the transport of Site contaminants toward this location occurred during only 8.2% of the total hours in the sampling period. Relatively high levels of Am-241 also appeared to be present. Both Pu-239/240 and Am-241 occur predominantly in the coarse fraction in these samples. The coarse fraction contains an unusually high proportion of the measured uranium isotopes as well, which may simply indicate that this sampler was collecting mostly larger particles from a localized source during this period (perhaps from traffic on nearby roads, or road sanding operations).

Demolition and Remediation Project Monitoring

Effective the first quarter 2003, this report includes a Demolition and Remediation Project Monitoring section. The 903 Pad and Lip Area Remediation Projects began the week of November 14, 2002 and continue to the present. This report includes a graph of typical 1st quarter 2004 alpha results from the radionuclide Project Monitoring network. No results at or above PM-Rad action levels were observed.

Projects were not implemented during this quarter for which beryllium monitoring is specified in the Site's Integrated Monitoring Plan. No beryllium monitoring results are reported

Meteorology and Climatology

As part of Site closure plans, as discussed in the Integrated Monitoring Plan and at stakeholder meetings, the 61-meter tower meteorological instrumentation has been decommissioned. The tower itself is scheduled for demolition in June 2004. AlphaTRAC routinely collects representative meteorological data from the National Renewable Energy Laboratory (NREL), CDPHE stations, and other sources for use in the CAPARS model. The same AlphaTRAC software, designed to re-format meteorological data from the NREL location (approximately 1 mile north of the former 61-meter tower) for upload to the Site meteorological database and for subsequent use in air quality and surface water modeling, has been implemented.

As a result of meteorological data validation protocols, each 15-minute averaged observation is validated, rather than the entire observation record for the same time period (which might contain 70 different

Climatic summaries and wind roses for January, February, and March 2004 are included in this report. The climate data are now obtained from the NREL meteorological station. As a result, the mean daily low and high temperatures, mean daily dew point temperature, and the solar energy total are no longer reported.

Surface Water

Surface water analytical data collected during the reporting period for NPDES permit compliance are presented in this report. During the reporting period all NPDES data were within permit limitations except during March 2004 when three daily maxima for Carbonaceous Biochemical Oxygen Demand (CBOD5) were greater than the limitation of 20 mg/l were reported. The results for a samples collected on March 16, 17 and 18, 2004 were reported as >33 mg/L, >33 mg/L, and >32 mg/L respectively. These elevated values also resulted in an exceedance of the monthly average limitation, but the removal efficiency of the wastewater treatment plant remained above 90%. The cause of the upset has been attributed to a failed pump which allowed excess ethylene glycol-containing wastewater to be released to the influent. The ethylene glycol wastewater was collected from the fire protection systems in various buildings just before they are demolished. Operational changes have been made to prevent a recurrence of this event.

As reported previously, as of October 1, 2003, the first three years of the permit have been completed. Per the conditions of the permit, the acute WET test was discontinued and the frequency for the chronic WET test increased from two times per year to quarterly. The second quarterly chronic WET test was collected during the month of January 2004 and no toxicity was measured at the Sewage Treatment Plant during the reporting period.

Also included in this report are water quality data for two surface water locations that monitor the Mound Site area. These locations, SW061 and SW132, are sampled and analyzed quarterly for isotopic Pu/Am, selected total and dissolved metals, and volatile organic compounds (VOCs) using EPA Method 8260.

Hydrologic Monitoring and Rocky Flats Cleanup Agreement (RFCA) Monitoring

All available analytical data collected during the reporting period from samples supporting RFCA and Hydrologic Monitoring programs are included in this report. During the second quarter of FY04, 50 automated surface-water monitoring composite samples were collected and submitted for analysis.

Including all data available as of May 11, 2004, the 30-day moving average values for all Point of Evaluation (POE) and Point of Compliance (POC) monitoring locations were below the RFCA action levels and standards for all monitored analytes.

Incidental Water Monitoring

A summary of Incidental Waters dispositioned during the reporting period are presented in this report.

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1.0 AIR DATA

1.1 EFFLUENT AIR DATA

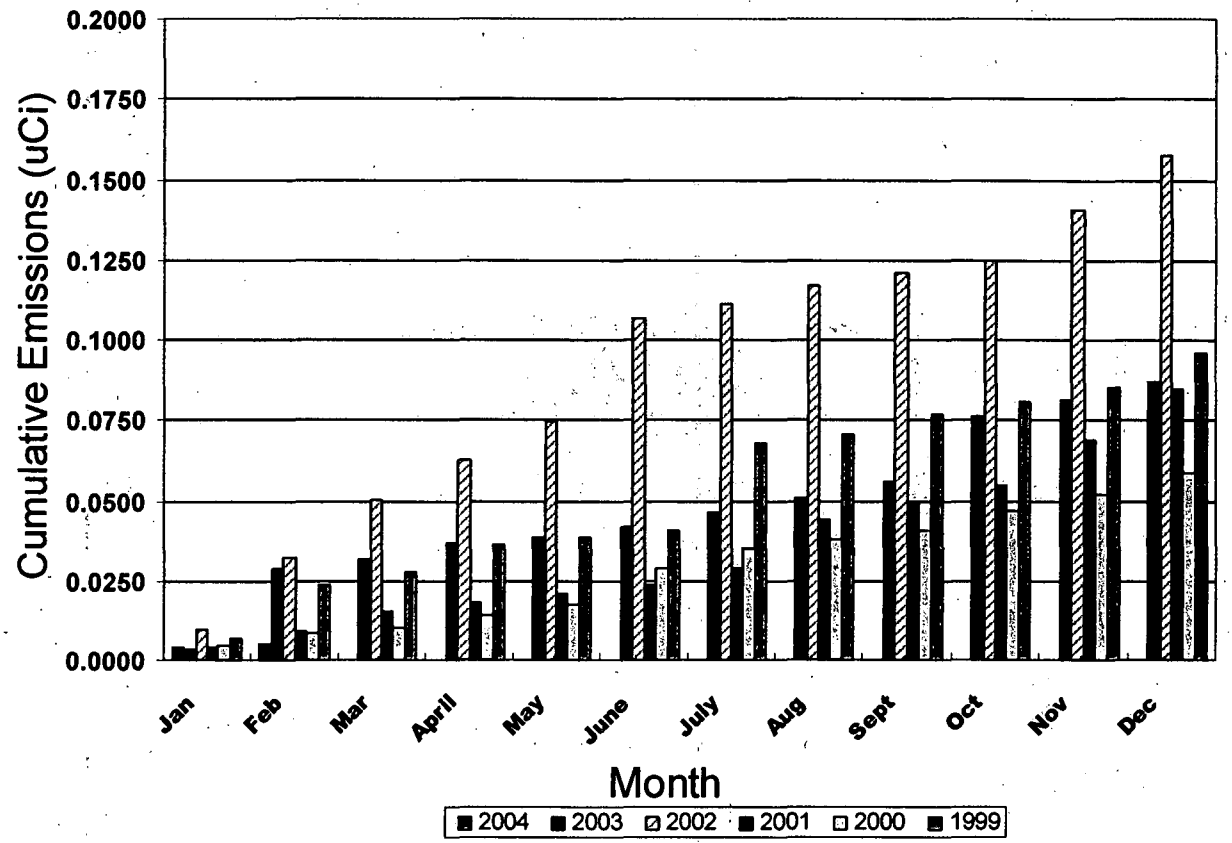
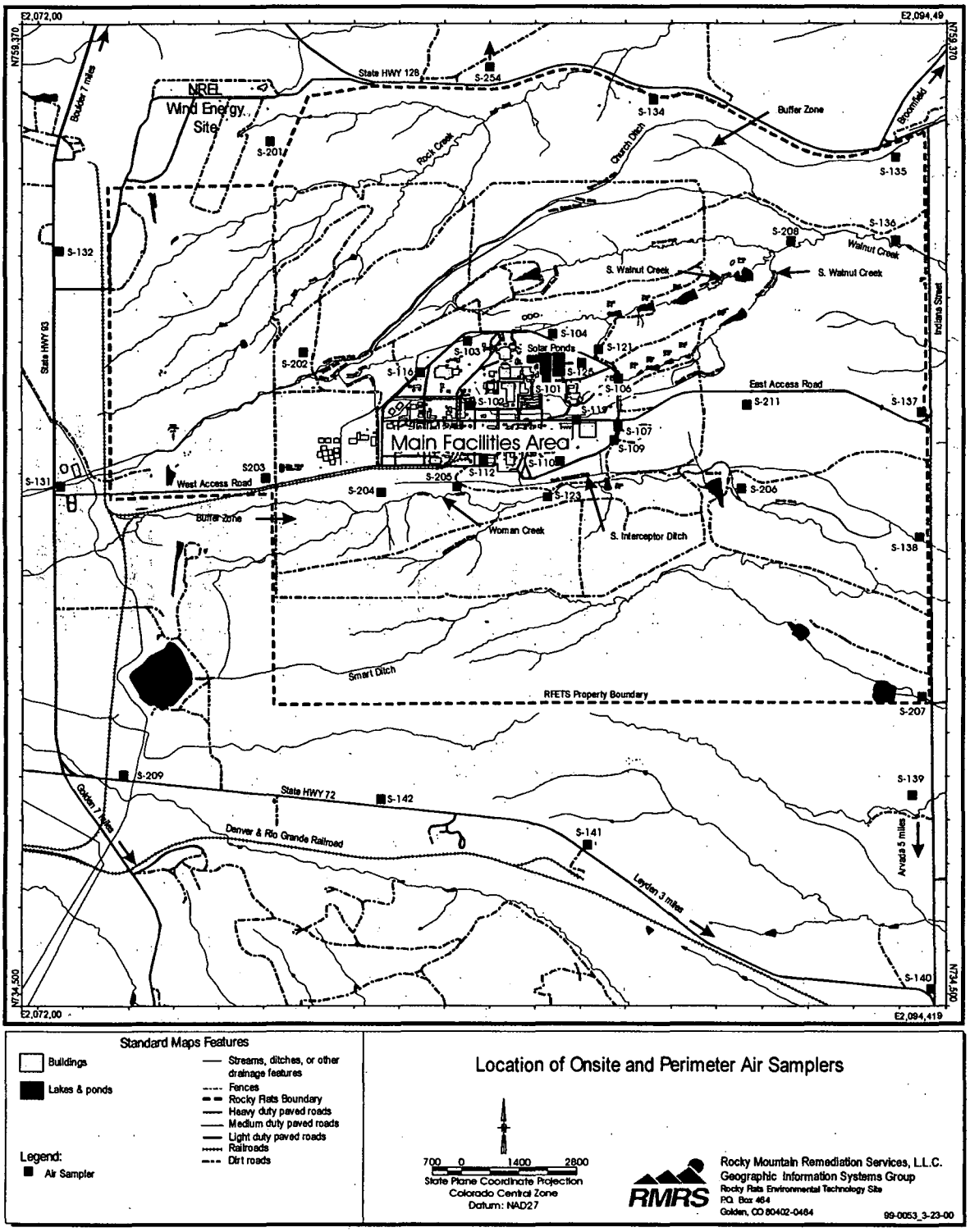


Figure 1-1. Cumulative Plutonium Airborne Effluent Emissions

The graph above shows the cumulative airborne effluent emissions of plutonium from the monitored building stacks. Isotopic results from the most recently analyzed effluent stack samples (November 2003-February 2004) are consistent with the previous three years' measured concentrations, with a cumulative 2003 plutonium emission of 0.0868 micro-Curies (μCi) and a 2004 year-to-date plutonium emission of 0.0053 micro-Curies (μCi).

Figure 1-2. Location of Onsite and Perimeter Air Samplers.



1.2 AMBIENT AIR DATA

1.2.1 Perimeter Sampler Locations

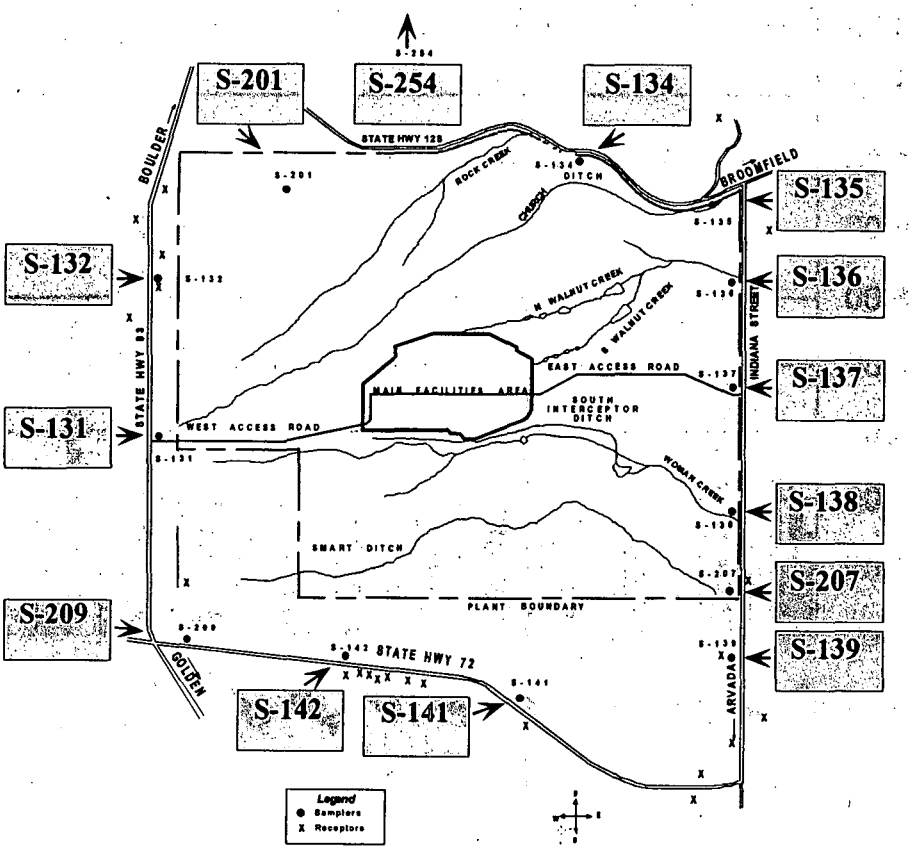


Figure 1-3 Perimeter Samplers Dose Map.

The map above illustrates the perimeter Radioactive Ambient Air Monitoring Program (RAAMP) sampler locations and the 12-month rolling average maximum potential dose through February 2004. Dose values are expressed as a percentage of EPA's air concentration-based dose limit for members of the public. The percentage values are based on the measured air concentrations, averaged over the trailing 12-month period and converted to a percent of the Rad NESHAP concentration limits, equivalent to a 10 mrem effective dose equivalent (EDE).

The percentages include naturally-occurring uranium isotopes as well as the isotopes with significant potential contributions from the Site. The EDEs in November and December 2003 occurred at locations S-209 and S-254. The highest effective dose equivalents in January and February 2004 occurred at location S-131. The 12-month rolling average percentages of the Rad NESHAP concentration limit for perimeter samplers, covering the period March 2003 through February 2004, range from 0.53% at S-134 to 2.21% at S-254. These percentages are consistent with previously reported data.

1.2.2 Perimeter Sampler Locations Dose Rate Summaries

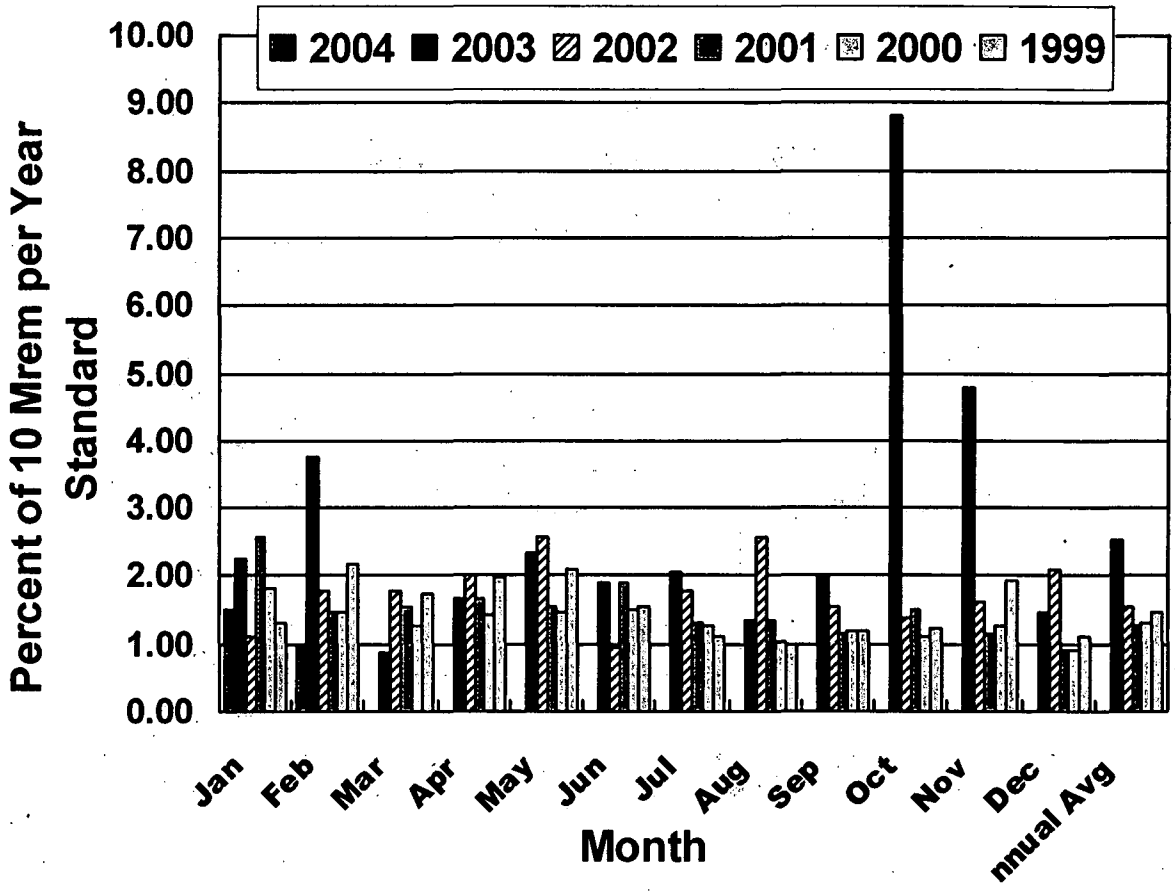


Figure 1-4. Maximum Offsite Dose Rate Summary.

The graph illustrates the monthly estimated maximum potential dose rates at the perimeter sampler showing the highest total radionuclide dose rate, including contributions from naturally-occurring uranium isotopes. The highest potential dose rates for November and December 2003 occurred at locations S-209 and S-254, respectively; the highest potential dose rates for January and February 2004 occurred at location S-131.

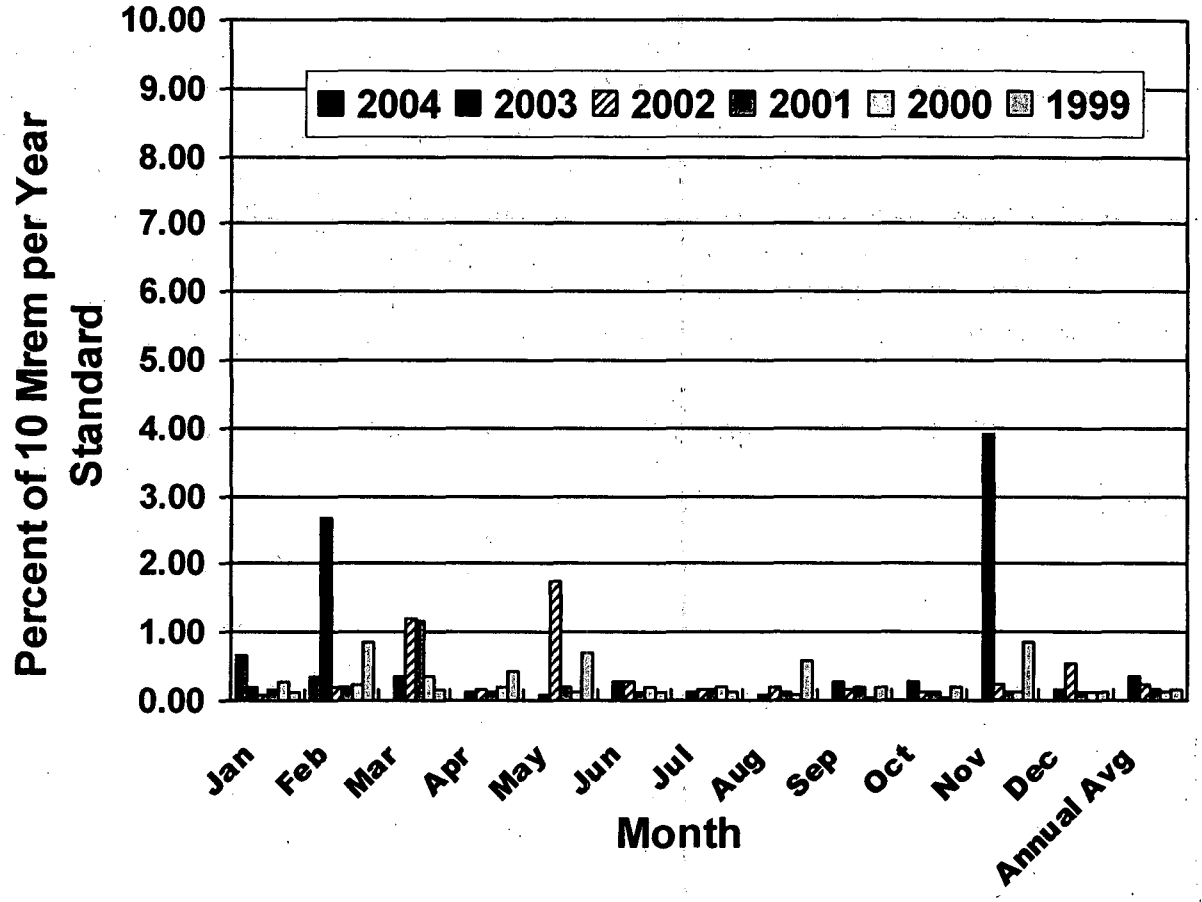


Figure 1-5. Offsite Dose Rate Summary Without U-234 and U-238.

Since the majority of the observed uranium appears to be due to natural soil contributions, omitting the dose contributions from uranium-234 and -238 may better reflect the majority of the Site's operational contribution at the same sampling locations. This view shows the maximum potential off-site dose rate, excluding uranium-234 and -238, to be less than 3.95% of the 10 mrem standard. The highest potential dose rates for November and December 2003 occurred at location S-209. January and February 2004 location with the highest potential dose rates was S-131.

1.2.3 Demolition and Remediation Performance Air Monitoring

In February 2002, the Air Quality Monitoring (AQM) Program began reporting project monitoring data from ongoing demolition and remediation projects. Project Monitoring for Radionuclides (PM-Rad) for the 903 Pad and Lip Area Remediation projects began the week of November 14, 2002 and continues to-date. Past PM-Rad projects include Building 886 demolition and the Solar Pond Remediation project. During 2004, the PM-Rad Industrial Area network was activated to run concurrently with Building 774 demolition activities. These two graphs display monitoring results for the 903 Pad and Lip Area Remediation projects and the Industrial Area network during a representative two-week period in the 1st quarter of 2004. No results at or above the PM-Rad action level have been observed to-date.

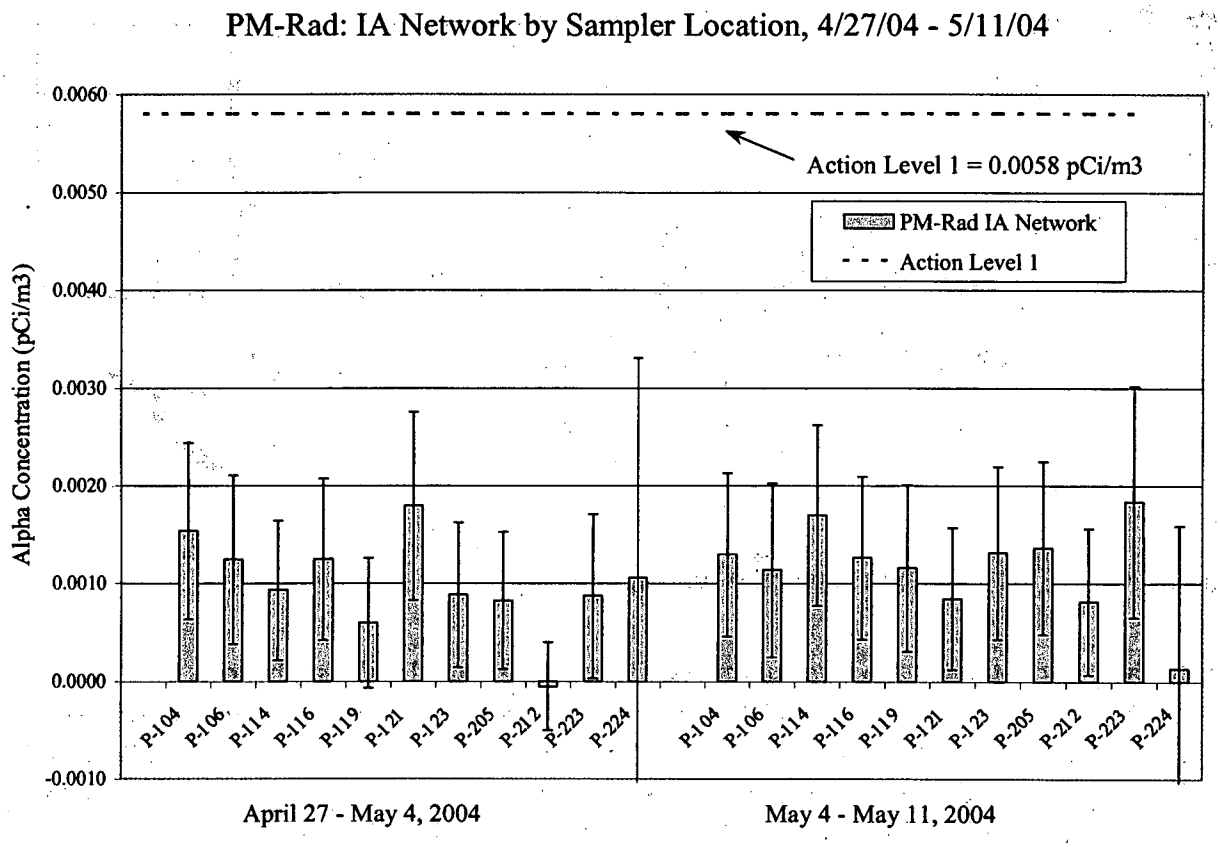


Figure 1-6. 903 Pad Performance Monitoring for Radionuclides.

For reference, a map illustrating the sampling locations used for PM-Rad of Industrial Area and 903 Pad demolition and remediation activities is included as Figure 1-7.

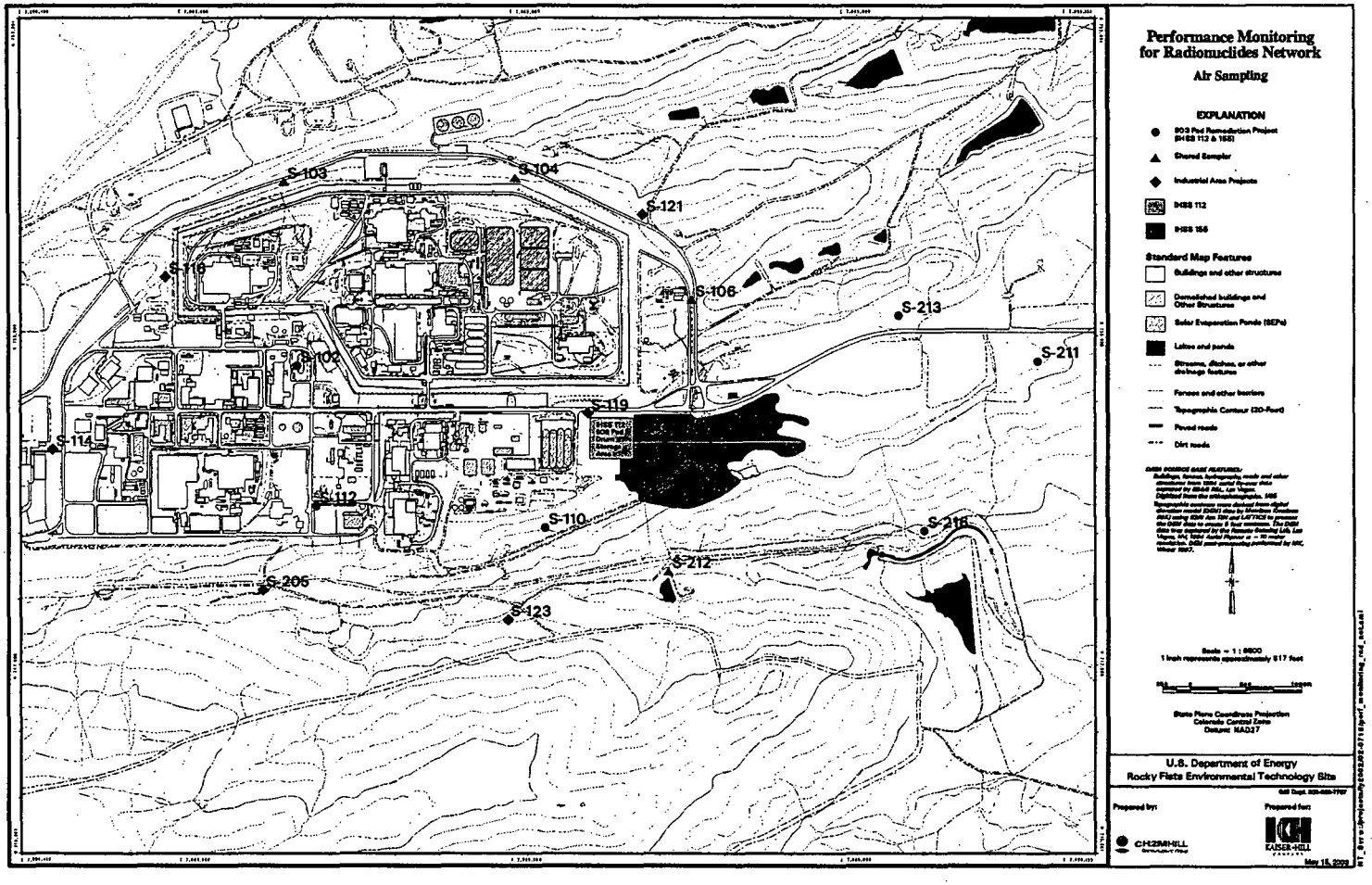


Figure 1-7. Industrial Area and 903 Pad Performance Monitoring for Radionuclides Network.

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2.0 METEOROLOGY AND CLIMATOLOGY

2.1 WIND ROSES FOR JANUARY, FEBRUARY, AND MARCH 2004

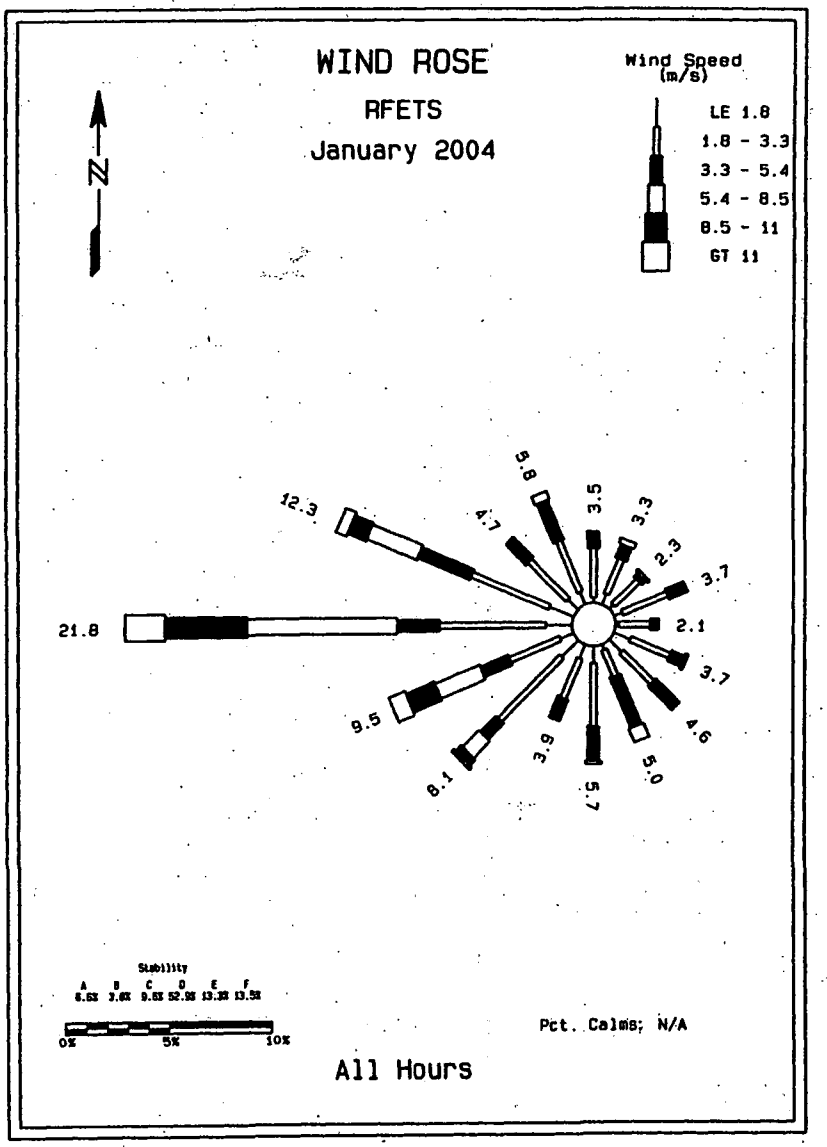

Figure 2-1. Wind Rose for Rocky Flats Environmental Technology Site for January 2004.

Monthly Climatic Summary

Month	Temperature (°F)			Mean Dew Point (°F)	Mean Relative Humidity (%)	Wind Speed (mph)		Pressure Mean (mb)	Solar Total (kW-h/m²)	Precipitation (in)	
	Mean Daily High	Mean Daily Low	Daily Mean			Mean	Max			Total	Max
Jan-04	---	---	34.15	---	31.35	9.75	55.37	810.8	---	0.03	0.01

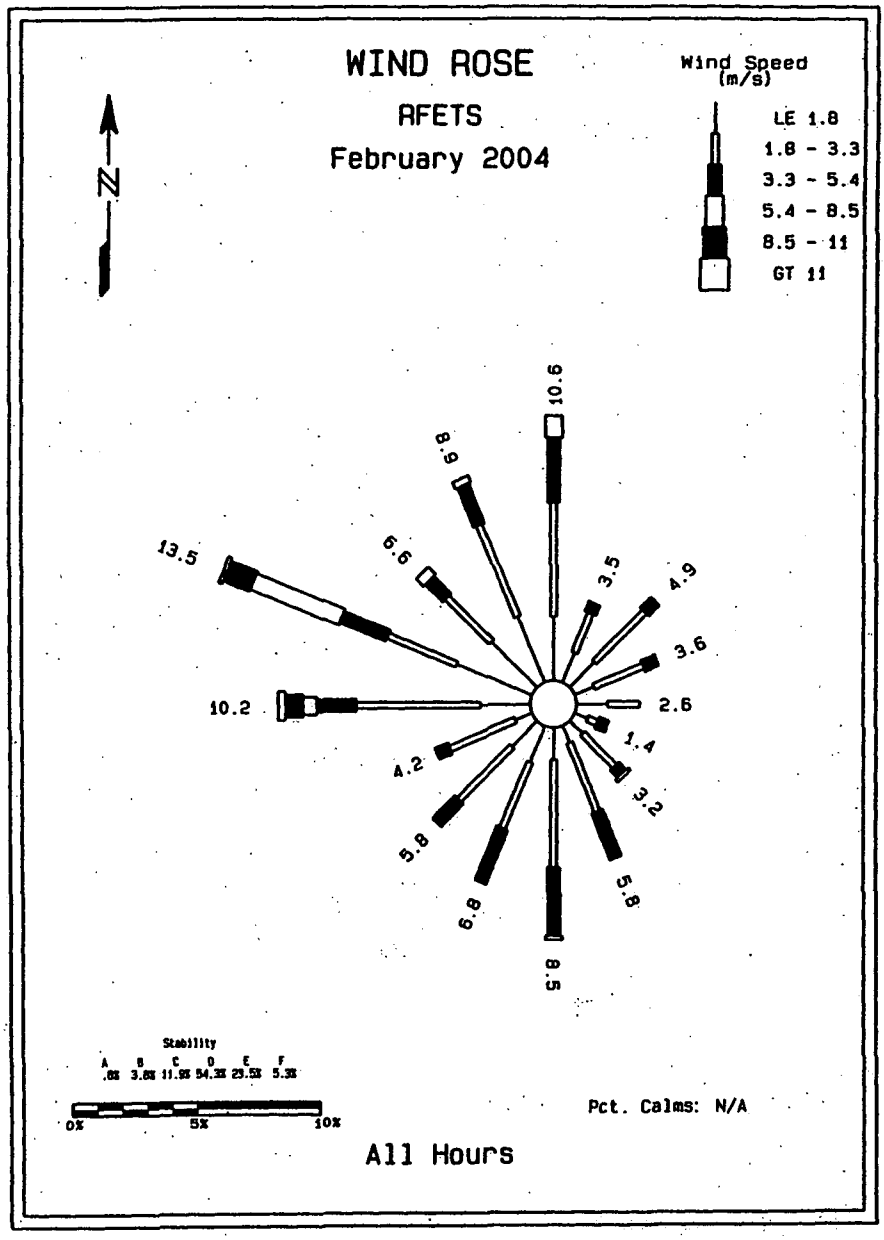

Figure 2-2. Wind Rose for Rocky Flats Environmental Technology Site for February 2004

Monthly Climate Summary

Month	Temperature (°F)			Mean Dew Point (°F)	Mean Relative Humidity (%)	Wind Speed (mph)		Pressure Mean (mb)	Solar Total (kW-h/m²)	Precipitation (In)	
	Mean Daily High	Mean Daily Low	Daily Mean			Mean	Max			Total	Max
Feb-04	---	---	31.23	---	36.66	6.54	36.31	810.1	---	0.61	0.06

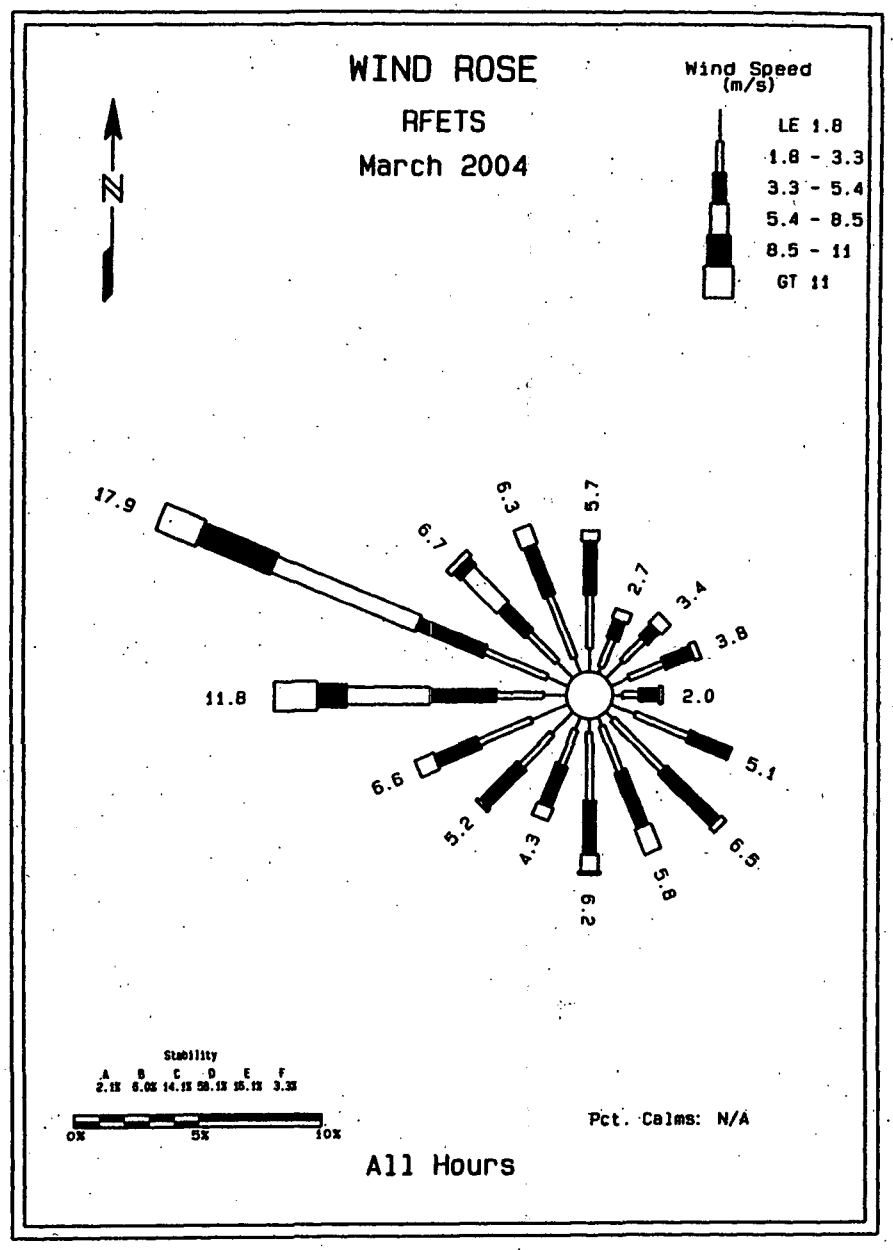

Figure 2-3. Wind Rose for Rocky Flats Environmental Technology Site for March 2004

Monthly Climatic Summary

Month	Temperature (°F)			Mean Dew Point (°F)	Mean Relative Humidity (%)	Wind Speed (mph)		Pressure Mean (mb)	Solar Total (kW-h/m²)	Precipitation (in)	
	Mean Daily High	Mean Daily Low	Daily Mean			Mean	Max			Total	Max
Mar-04	—	—	45.99	—	28.94	9.9	66.25	813.4	—	0.79	0.06

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3.0 SURFACE WATER DATA

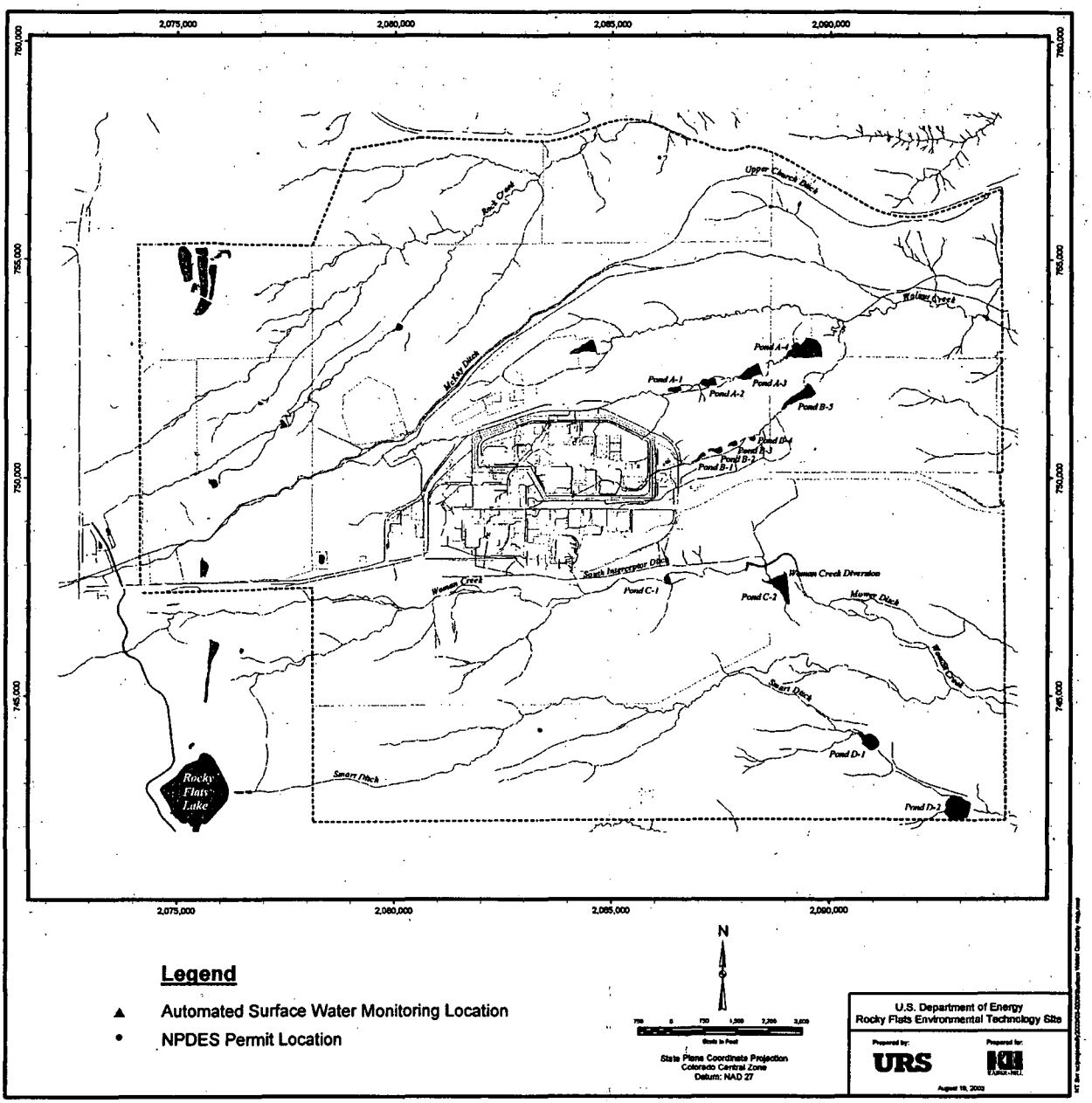

Figure 3-1. Holding Ponds and Liquid Effluent Water Courses

3.1 NPDES SUMMARY DATA

Table 3-1. Sewage Treatment Plant (Outfall STP1), Dates of discharge: 01/01/04 - 03/31/04.

Parameter & Units	Measured 30-day Average	Limit 30-Day Average	Measured 7-Day Average	Limit 7-Day Average	Measured Daily Minimum	Limit Daily Minimum	Measured Daily Maximum	Limit Daily Maximum	Measured Result	% Removal (calc)	% Removal Minimum
pH, SU	N/A	N/A	N/A	N/A	6.8-7.0	6.5	8.0-8.9	9.0	N/A	N/A	N/A
TSS, mg/l	<6	15	N/A	N/A	N/A	N/A	<4-14	25	N/A	N/A	N/A
TSS (Influent), mg/l	97-249	a	N/A	N/A	N/A	N/A	280-1100	a	N/A	N/A	N/A
TSS, % removal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	94%-98%	85%
Total Phos., mg/l	1-4	8	N/A	N/A	N/A	N/A	3-10	12	N/A	N/A	N/A
Total Cr., ug/l	N/A	N/A	N/A	N/A	N/A	N/A	<2-3	50	N/A	N/A	N/A
Potentially Dissolved Ag, ug/l	<0.3	0.6	N/A	N/A	N/A	N/A	<0.3	3.8	N/A	N/A	N/A
F. Coliform,	<3-<48	200b	<7-332	400b	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CBOD5, mg/l	3->10	8	N/A	N/A	N/A	N/A	7->33	20	N/A	N/A	N/A
CBOD5 (Influent), mg/l	70-133	a	N/A	N/A	N/A	N/A	130-360	a	N/A	N/A	N/A
CBOD5, % removal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	91%-98%	85%
Oil & Grease	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	c	N/A	N/A
NO3/NO2 as N, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	3-6	a	N/A	N/A	N/A
NO2 as N, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	.4-3.0	4.5	N/A	N/A	N/A
Ammonia as N, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	10-11	a	N/A	N/A	N/A
Alkalinity, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	140-180	a	N/A	N/A	N/A

a Report Only
b Geometric Mean
c No Sheen Observed
N/A Not Applicable
CBOD5 Carbonaceous Biochemical Oxygen Demand, 5-Day Test
TSS Total Suspended Solids
SU Standard Units
Note: Results are the range of value(s) measured during the reporting period.

Table 3-1. Sewage Treatment Plant, Outfall STP1 (continued).

Parameter & Units	Measured 30-day Average	Limit 30-Day Average	Measured 7-Day Average	Limit 7-Day Average	Measured Daily Minimum	Limit Daily Minimum	Measured Daily Maximum	Limit Daily Maximum	Measured Result	% Removal (calc)	% Removal Minimum
Gross alpha, pCi/l	1	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gross beta, pCi/l	6-11	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ceriodaphnia Acute test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fathead Minnows Acute test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ceriodaphnia Chronic test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PASS	N/A	N/A
Fathead Minnows Chronic test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PASS	N/A	N/A
Carbon Tetrachloride, ug/l	<1	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2 Dichloro-ethane, ug/l	<1	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene, ug/l	<1	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1 Dichloro-ethylene, ug/l	<1	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1 Trichloro-ethane, ug/l	<1	200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2 Dichloro-ethylene (transl), ug/l	<1	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloro-Ethylene, ug/l	<1	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloro -ethylene, ug/l	<1	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A Not Applicable
NS Not Sampled

3.2 MOUND PLUME SUMMARY DATA

Table 3-2. Mound Plume Locations SW061 and SW132.

Analyte	SW061 03/24/04	SW132 03/24/04
Pu 239/240, pCi/l	0.001±0.008	0.07±0.031
Am 241, pCi/l	0.001±0.011	0.054±0.028
Silver, dissolved, ug/l	<0.15	<0.15
Aluminum, total, ug/l	48.7	296
Arsenic, total, ug/l	1.2	1.1
Barium, total, ug/l	359	321
Beryllium, total, ug/l	<0.05	<0.05
Cadmium, dissolved, ug/l	0.22	0.2
Copper, dissolved, ug/l	0.31	1.0
Iron, total, ug/l	575	1010
Manganese, total, ug/l	202	971
Mercury, total, ug/l	<0.10	<0.10
Nickel, dissolved, ug/l	1.2	2.4
Lead, dissolved, ug/l	<0.5	<0.5
Antimony, total, ug/l	0.85	1.9
Selenium, dissolved, ug/l	<0.85	1.6
Zinc, dissolved, ug/l	33.7	44.9
EPA VOA Method 8260, Compounds Found > RFCA Segment 5 Action Level	None	None

4.0 HYDROLOGIC AND ROCKY FLATS CLEAN-UP AGREEMENT (RFCA) DATA

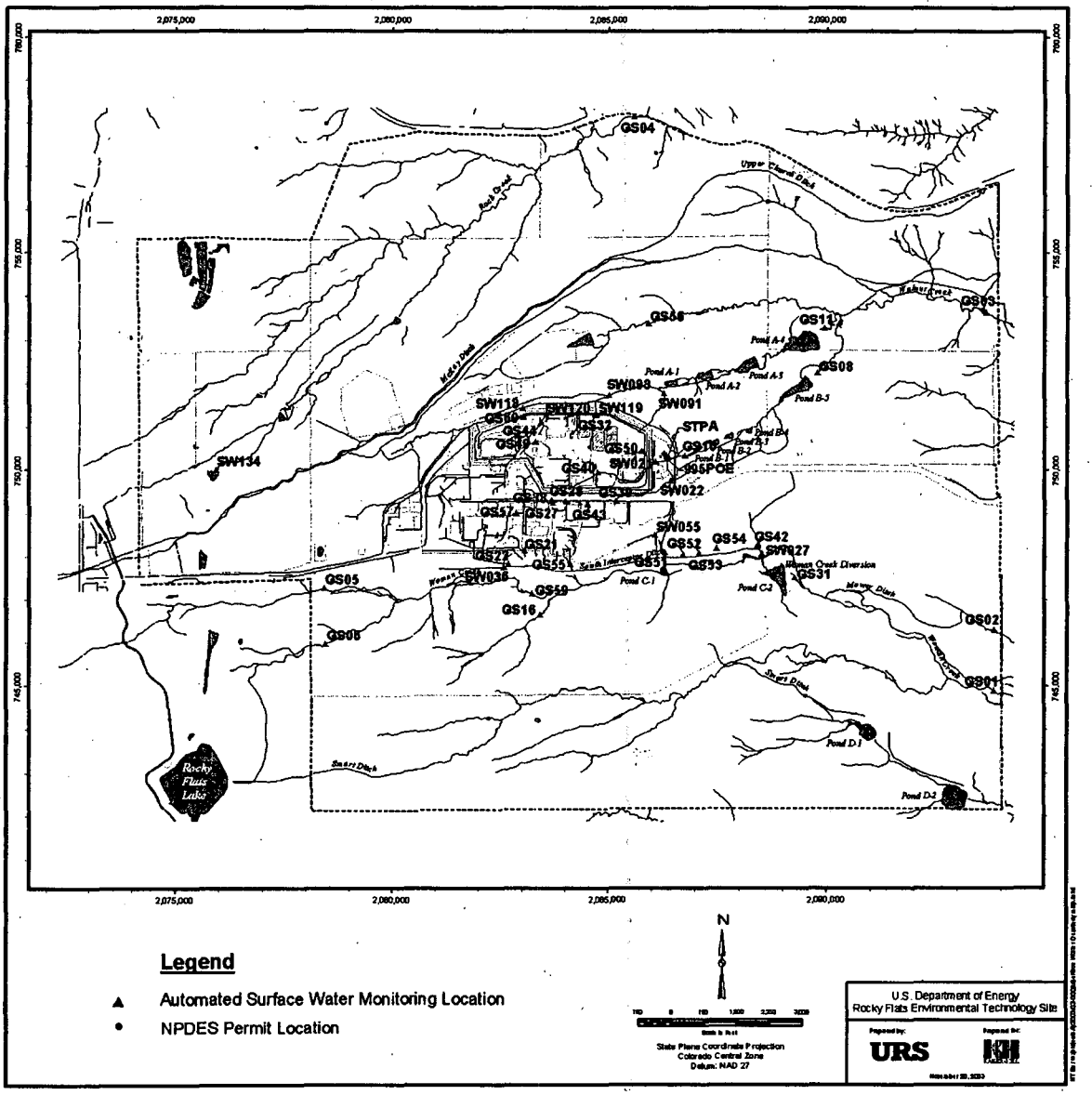

Figure 4-1. Gaging Station Locations

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4.1 FLOW MONITORING

Table 4-1. Gaging Station GS01: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.009	0.075	0.134
2	0.008	0.063	0.098
3	0.015	0.062	0.086
4	*0.054*[a]	0.052	0.093
5	*0.066*[a]	0.047	0.165
6	*0.085*[a]	*0.053*[a]	0.246
7	*0.105*[a]	*0.070*[a]	0.454
8	*0.124*[a]	0.066	0.378
9	*0.145*[a]	0.058	0.290
10	0.130	*0.047*[a]	*0.212*[a]
11	0.115	*0.038*	0.163
12	0.079	*0.037*[a]	0.141
13	0.059	*0.040*[a]	0.109
14	0.059	*0.047*[a]	0.088
15	0.075	*0.069*[a]	0.076
16	0.077	0.095	0.057
17	0.067	0.106	0.043
18	0.057	0.267	0.034
19	0.050	0.254	0.030
20	0.048	0.242	0.022
21	*0.060*[a]	0.289	0.022
22	0.068	0.235	0.022
23	0.067	0.254	0.019
24	0.110	0.202	0.017
25	0.086	0.154	0.016
26	0.090	0.138	0.016
27	*0.057*[a]	0.115	0.015
28	0.043	0.110	0.012
29	0.073	0.140	0.011
30	0.086	NA	0.010
31	0.106	NA	0.011
Monthly Average (cfs)	0.073	0.118	0.100

Monthly Discharge			
Cubic Feet	196314	295817	266866
Gallons	1468534	2212862	1996300
Acre-Feet	4.51	6.79	6.13

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS01 is located at 39° 52' 40"N, 105° 09' 55"W, at Woman Creek and Indiana Street (See Section 4 Map). This station is a RFCA Point of Compliance, a Buffer Zone Monitoring Location and a monitoring point for water leaving the Site and flowing to Woman Creek Reservoir. This station collects samples for selected radionuclides using continuous flow-paced sampling and storm event sampling for selected water quality parameters, metals, and major ions.

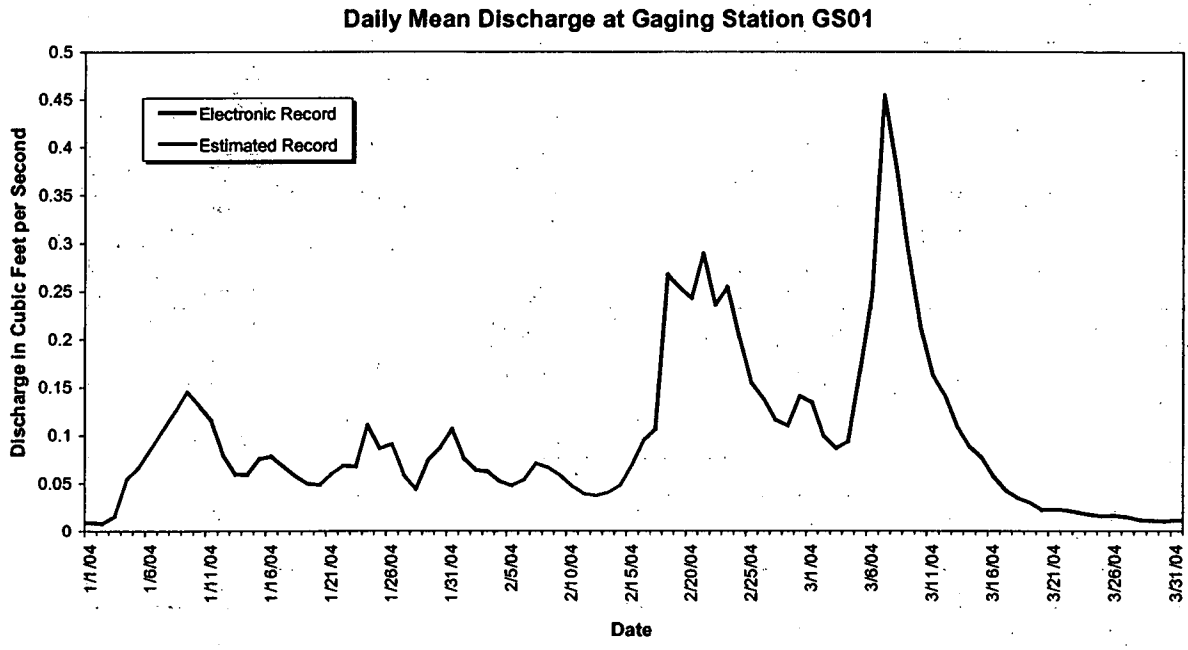

Figure 4-2. Mean Daily Discharge at GS01, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-2. Gaging Station GS02: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	*0.000*[a]	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

BD = Bad data due to equipment failures.

Buffer Zone Hydrologic monitoring location GS02 is located at state plane 2093817, 746302 on Mower Ditch 200 feet west of Indiana Street. This station monitors runoff from an area north of Mower Ditch between Pond C-2 and Indiana Street. The GS02 drainage area is approximately 157.7 acres. This station collects samples for sediment/sand, Ca, Mg, Na, K, Cl, F, SO4, HCO3, and TSS using storm-event, rising-limb, flow-paced composite sampling.

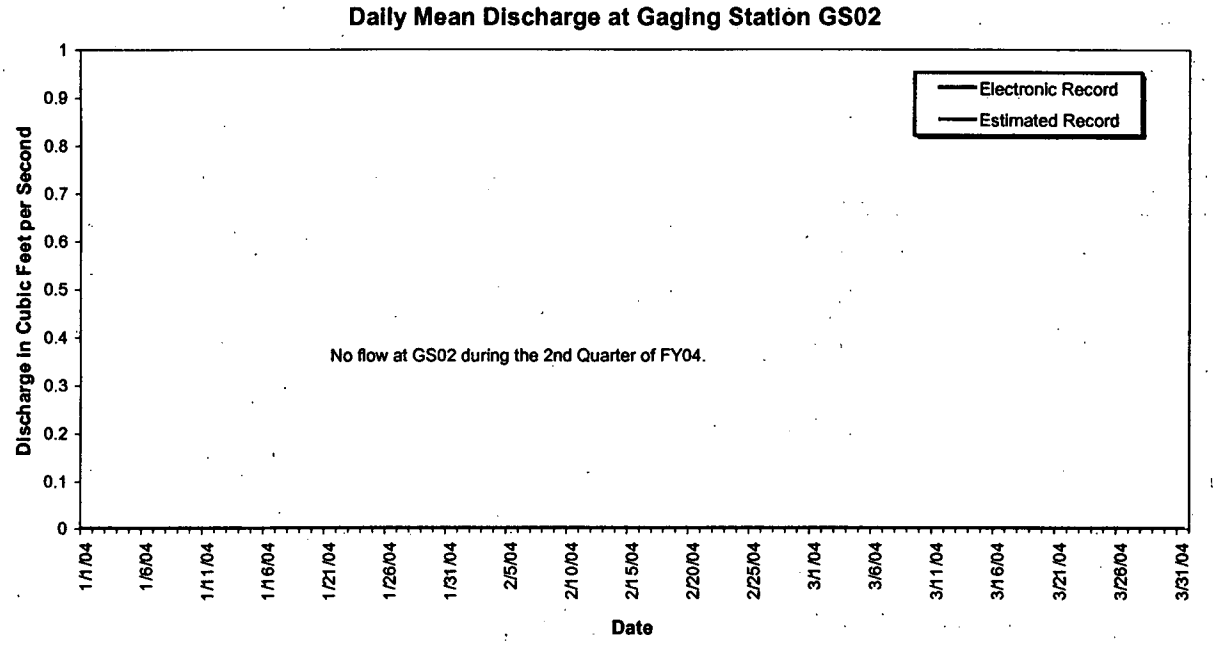

Figure 4-3. Mean Daily Discharge at GS02, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-3. Gaging Station GS03: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.006	0.000	0.000
2	0.005	0.000	0.000
3	0.013	0.000	0.000
4	*0.006*[a]	0.000	0.000
5	*0.003*[a]	0.002	0.000
6	*0.003*[a]	0.002	0.000
7	*0.003*[a]	0.000	0.000
8	*0.003*[a]	0.000	0.000
9	*0.004*[a]	0.000	0.264
10	0.004	0.000	1.102
11	0.003	0.000	1.241
12	0.004	0.000	1.844
13	0.004	0.000	1.764
14	0.003	0.000	1.761
15	0.003	0.000	1.459
16	0.002	0.000	1.360
17	0.002	0.000	1.199
18	0.003	0.000	1.102
19	0.003	0.000	0.884
20	0.006	0.000	0.666
21	0.005	0.000	0.487
22	0.004	0.000	0.234
23	0.003	0.000	0.030
24	0.001	0.000	0.016
25	0.003	0.000	0.014
26	0.003	0.000	0.014
27	0.002	0.000	0.012
28	0.000	0.000	0.015
29	0.000	0.000	0.014
30	0.000	NA	0.010
31	0.000	NA	0.005
Monthly Average (cfs)	0.003	0.000	0.500

Monthly Discharge

Cubic Feet	9026	328	1339070
Gallons	67518	2457	10016941
Acre-Feet	0.21	0.01	30.74

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS03 is located at 39° 54' 7"N, 105° 9' 59"W, at Walnut Creek and Indiana Street (See Section 4 Map). This station is a RFCA Point of Compliance, a Buffer Zone Monitoring Location and a monitoring point for water leaving the Site and flowing to the Broomfield Diversion Ditch. This station collects samples for selected radionuclides using continuous flow-paced sampling and storm event sampling for selected water quality parameters, metals, and major ions.

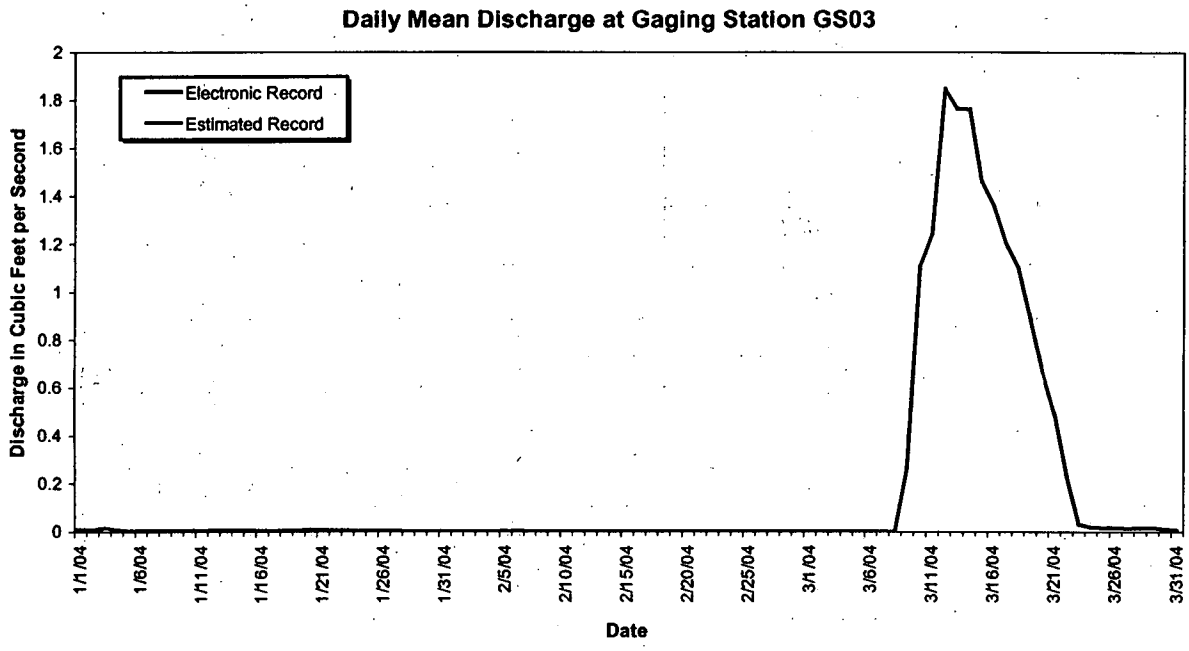

Figure 4-4. Mean Daily Discharge at GS03, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-4. Gaging Station GS04: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.140	0.217
2	0.005	*0.132*[a]	0.189
3	0.059	*0.127*[a]	0.170
4	WR	0.120	*0.172*[a]
5	WR	0.133	0.247
6	WR	0.134	0.536
7	WR	0.146	0.676
8	WR	0.149	0.509
9	0.180	0.133	0.383
10	0.176	0.119	0.294
11	0.169	0.109	0.230
12	*0.136*[a]	WR	0.204
13	*0.123*[a]	WR	0.182
14	0.116	WR	0.156
15	0.137	0.163	0.147
16	0.145	0.190	0.137
17	0.138	0.330	0.124
18	0.121	0.456	0.111
19	0.102	0.343	0.098
20	0.097	0.436	0.095
21	0.101	0.369	0.091
22	0.113	0.325	0.092
23	0.137	0.332	0.082
24	0.162	0.284	0.080
25	0.138	0.258	0.077
26	0.114	0.240	0.074
27	0.108	0.221	0.068
28	0.098	0.203	0.060
29	0.118	0.245	0.053
30	0.151	NA	0.055
31	0.159	NA	0.052
Monthly Average (cfs)	0.119	0.225	0.183

Monthly Discharge

Cubic Feet	268247	504385	489170
Gallons	2006626	3773062	3659245
Acre-Feet	6.16	11.58	11.23

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Buffer Zone Hydrologic monitoring location GS04 is located at state plane 2085568, 758145 on Rock Creek 300 feet upstream of the box culvert under Hwy. 128. This station monitors runoff from the Rock Creek drainage in the northwest Buffer Zone. The GS04 drainage area is approximately 1500 acres. This station collects samples for sediment/sand, Ca, Mg, Na, K, Cl, F, SO4, HCO3, and TSS using storm-event, rising-limb, flow-paced composite sampling.

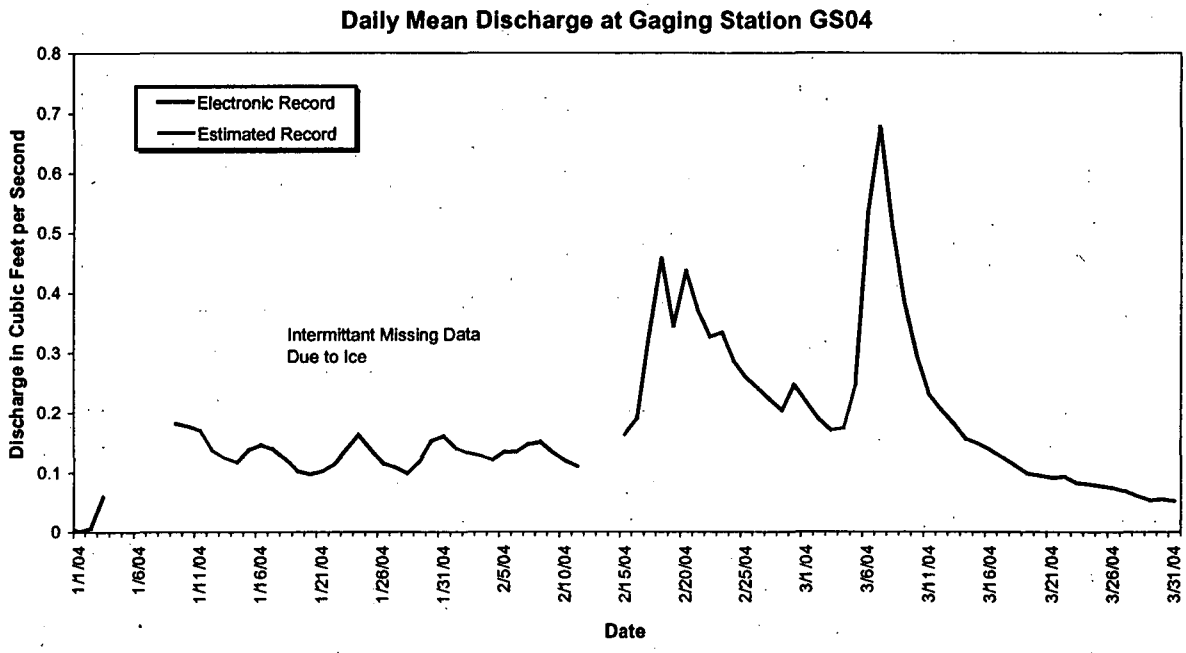

Figure 4-5. Mean Daily Discharge at GS04, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-5. Gaging Station GS05: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.040	0.026	0.031
2	0.031	0.045	0.032
3	0.033	0.030	0.029
4	WR	0.021	0.033
5	WR	0.011	0.056
6	WR	0.002	0.142
7	WR	0.000	0.153
8	0.071	WR	0.161
9	0.043	WR	0.130
10	0.038	WR	0.103
11	0.033	WR	0.085
12	0.029	WR	0.071
13	0.033	WR	0.051
14	0.031	WR	0.043
15	0.032	WR	0.037
16	0.032	0.040	0.034
17	0.033	0.080	0.038
18	0.034	0.069	0.034
19	0.038	0.048	0.033
20	0.032	0.070	0.035
21	0.051	0.063	0.046
22	0.051	0.069	0.048
23	0.064	0.063	0.033
24	0.036	0.046	0.042
25	0.036	0.038	0.037
26	0.070	0.033	0.038
27	WR	0.032	0.036
28	WR	0.029	0.046
29	0.048	0.037	0.049
30	0.045	NA	0.048
31	0.028	NA	0.047
Monthly Average (cfs)	0.041	0.041	0.058

Monthly Discharge

Cubic Feet	87738	73519	155605
Gallons	656325	549957	1164004
Acre-Feet	2.01	1.69	3.57

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

BD = Bad data due to equipment failures.

WR = No data or unacceptable data due to winter icing conditions.

Buffer Zone Hydrologic monitoring location GS05 is located at state plane 2078428, 747260 on Woman Creek 320 feet east of the west Buffer Zone fence. This station monitors runoff from the Woman Creek drainage southwest of the Site including areas west of Hwy. 93. This station collects samples for sediment/sand, Ca, Mg, Na, K, Cl, F, SO4, HCO3, and TSS using storm-event, rising-limb, flow-paced composite sampling.

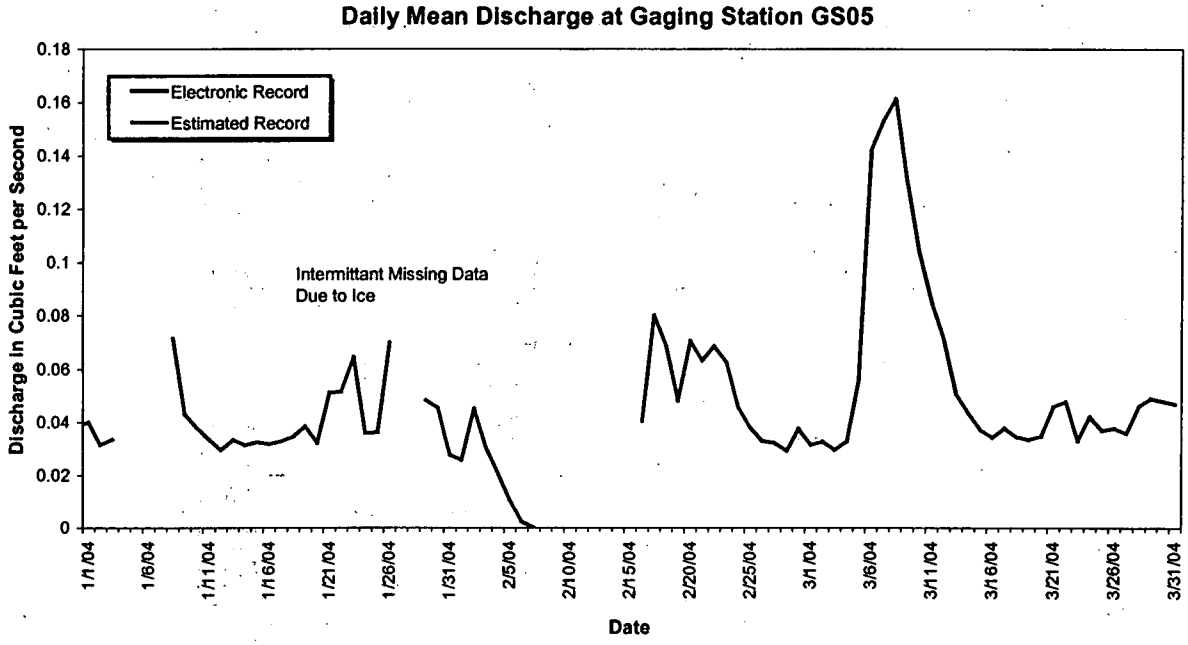

Figure 4-6. Mean Daily Discharge at GS05, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-6. Gaging Station GS06: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0048	WR	0.0069
2	0.0048	WR	0.0064
3	0.0049	WR	0.0040
4	0.0050	WR	0.0013
5	WR	WR	0.0007
6	WR	*0.0054*[a]	0.0281
7	WR	WR	0.0543
8	WR	WR	0.0304
9	0.0132	WR	0.0149
10	0.0153	WR	0.0085
11	0.0156	WR	0.0058
12	*0.0119*[a]	WR	0.0045
13	*0.0102*[a]	WR	0.0066
14	WR	WR	0.0044
15	WR	WR	0.0050
16	WR	0.0033	0.0026
17	WR	*0.0070*[a]	0.0014
18	WR	0.0115	0.0014
19	WR	0.0068	0.0049
20	0.0068	0.0094	0.0033
21	WR	0.0167	0.0000
22	WR	0.0162	0.0000
23	*0.0102*[a]	0.0124	0.0000
24	*0.0073*[a]	0.0084	0.0000
25	WR	0.0067	0.0426
26	WR	0.0074	0.0437
27	WR	*0.0074*	0.0674
28	WR	*0.0055*[a]	0.0345
29	0.0035	*0.0061*[a]	0.0190
30	0.0046	NA	0.0189
31	*0.0040*[a]	NA	0.0172
Monthly Average (cfs)	0.0081	0.0087	0.0141

Monthly Discharge

Cubic Feet	10554	11237	37871
Gallons	78947	84056	283298
Acre-Feet	0.24	0.26	0.87

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Buffer Zone Hydrologic monitoring location GS06 is located at state plane 2078449, 745968 on the Owl Branch to Woman Creek 330 feet east of the west Buffer Zone fence. This station monitors runoff from the area northeast of Rocky Flats Lake. This station collects samples for sediment/sand, Ca, Mg, Na, K, Cl, F, SO4, HCO3, and TSS using storm-event, rising-limb, flow-paced composite sampling.

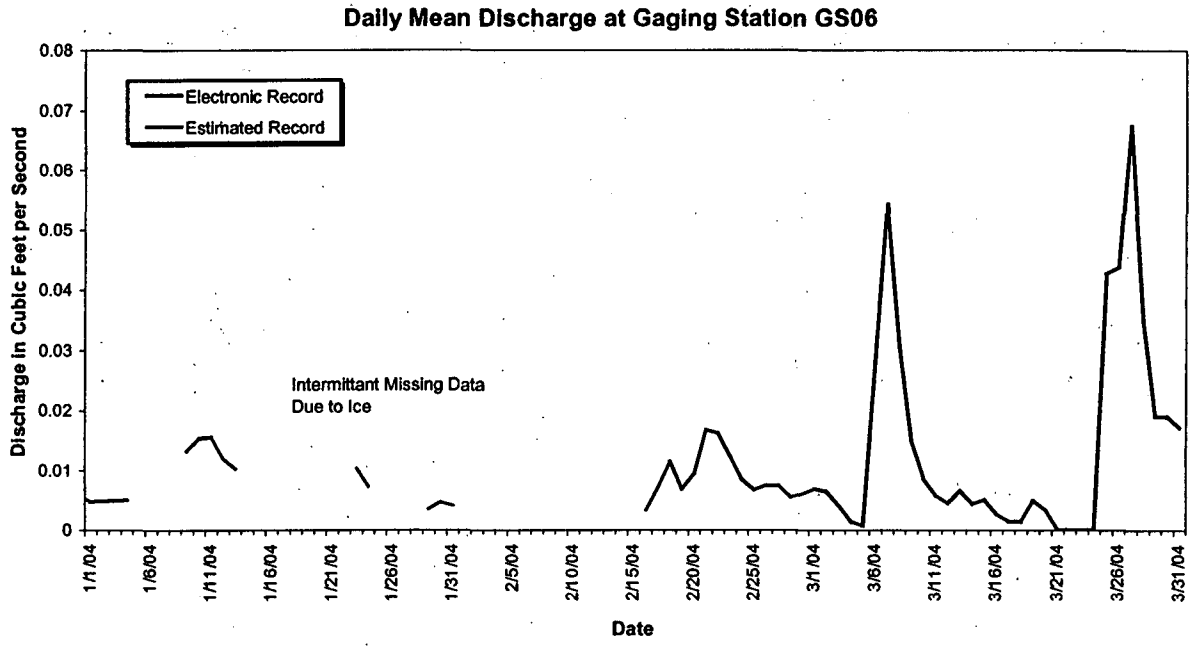

Figure 4-7. Mean Daily Discharge at GS06, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-7. Gaging Station GS08: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.965
10	0.000	0.000	1.414
11	0.000	0.000	1.474
12	0.000	0.000	1.998
13	0.000	0.000	1.876
14	0.000	0.000	1.858
15	0.000	0.000	1.507
16	0.000	0.000	1.454
17	0.000	0.000	1.275
18	0.000	0.000	1.182
19	0.000	0.000	0.924
20	0.000	0.000	0.703
21	0.000	0.000	0.504
22	0.000	0.000	0.147
23	0.000	*0.012*[a]	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.557

Monthly Discharge

Cubic Feet	0	1066	1493122
Gallons	0	7973	11169332
Acre-Feet	0.00	0.02	34.27

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS08 is located 39° 53' 54"N, 105° 10' 48"W, at the Pond B-5 Outfall on South Walnut Creek (See Section 4 Map). This station is a RFCA Point of Compliance and monitors water discharged from Pond B-5 to South Walnut Creek. This station collects samples for selected radionuclides using continuous flow-paced sampling.

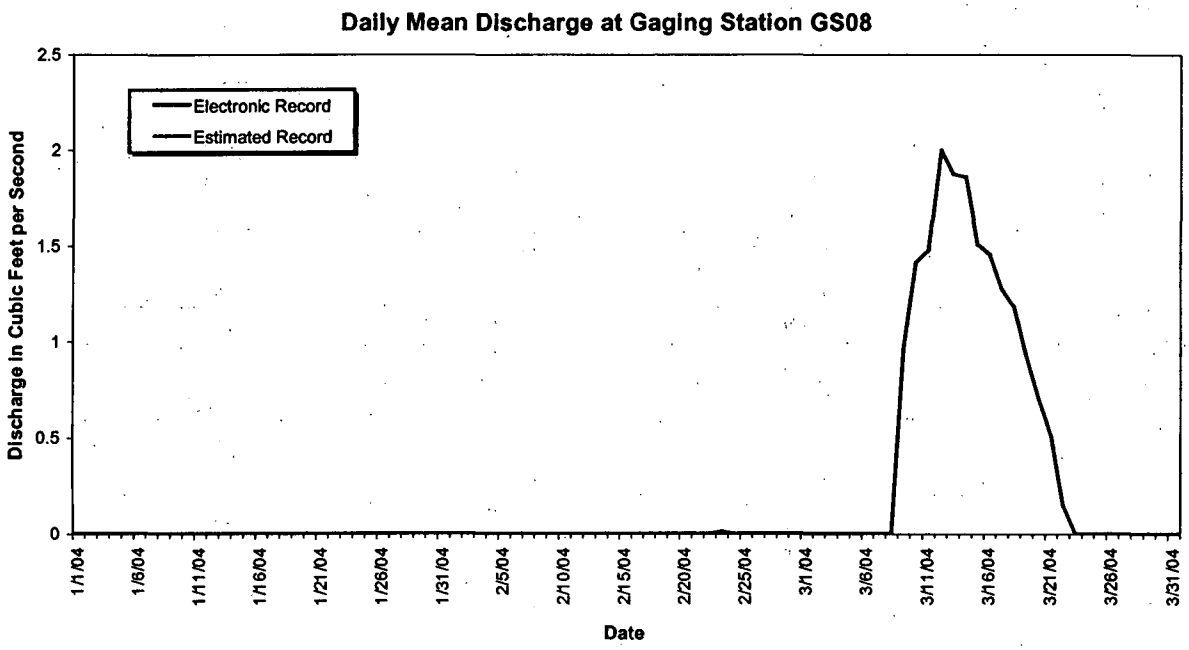

Figure 4-8. Mean Daily Discharge at GS08, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-8. Gaging Station GS10: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.019	0.027	0.011
2	0.019	0.013	0.011
3	0.023	0.010	0.010
4	0.022	0.018	0.027
5	*0.014*[a]	0.024	0.471
6	*0.016*[a]	0.023	0.188
7	*0.045*[a]	0.016	0.028
8	0.028	0.014	0.018
9	0.020	0.016	0.024
10	0.014	0.013	0.012
11	0.012	0.014	0.011
12	0.011	*0.013*[a]	0.010
13	0.010	*0.027*[a]	0.011
14	0.012	*0.032*[a]	0.009
15	0.011	0.036	0.009
16	0.010	0.031	0.009
17	0.010	0.074	0.013
18	0.009	0.043	0.012
19	0.010	0.052	0.011
20	0.023	0.273	0.010
21	0.019	0.041	0.022
22	0.015	0.023	0.013
23	0.015	0.016	0.015
24	0.011	0.012	0.025
25	0.011	0.012	0.018
26	0.015	0.010	0.020
27	0.013	0.010	0.015
28	0.013	0.009	0.016
29	0.013	0.032	0.015
30	0.013	NA	0.015
31	0.012	NA	0.015
Monthly Average (cfs)	0.016	0.032	0.035

Monthly Discharge

Cubic Feet	42261	80590	94756
Gallons	316136	602852	708825
Acre-Feet	0.97	1.85	2.17

Note: mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS10 is located 39° 53' 35"N, 105° 11' 27"W on South Walnut Creek above the Pond B-1 Bypass (See Section 4 Map). This station is a RFCA Action Level Framework and a New Source Detection Location and monitors water leaving the Site Industrial Area and entering the B-Series Ponds and South Walnut Creek. This station collects samples for selected radionuclides, metals, and water quality parameters using continuous flow-paced sampling.

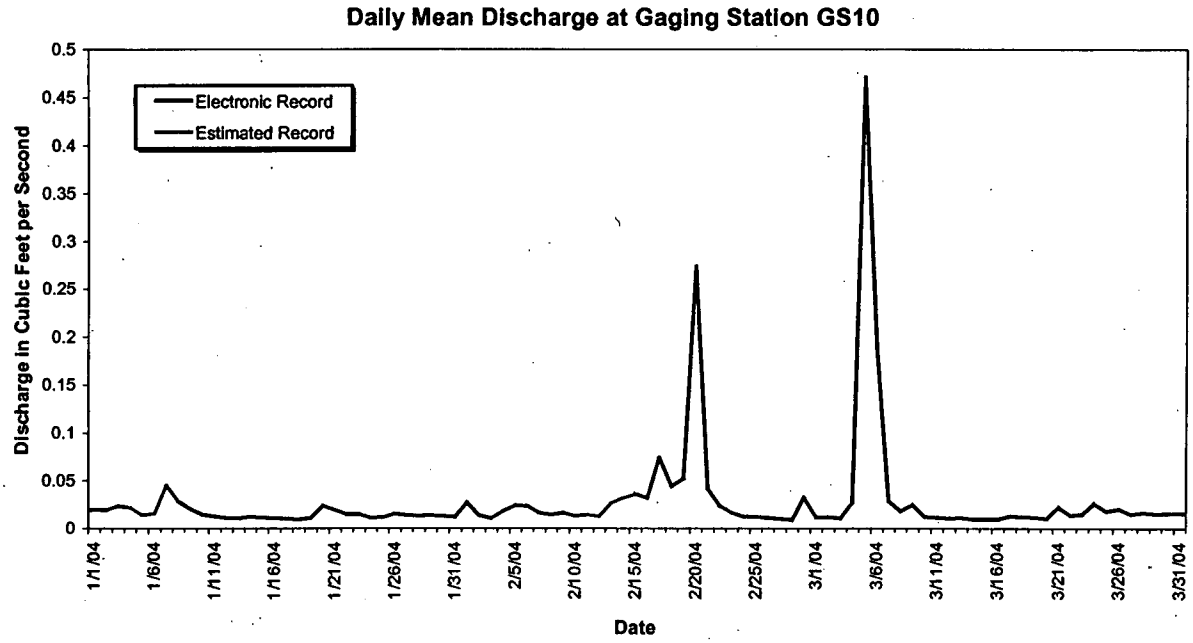

Figure 4-9. Mean Daily Discharge at GS10, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-9. Gaging Station GS11: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS11 is located 39° 54' 3"N, 105° 10' 47"W, at the Pond A-4 Outfall on North Walnut Creek (See Section 4 Map). This station is a RFCA Point of Compliance and monitors water discharged from Pond A-4 to North Walnut Creek. This station collects samples for selected radionuclides using continuous flow-paced sampling.

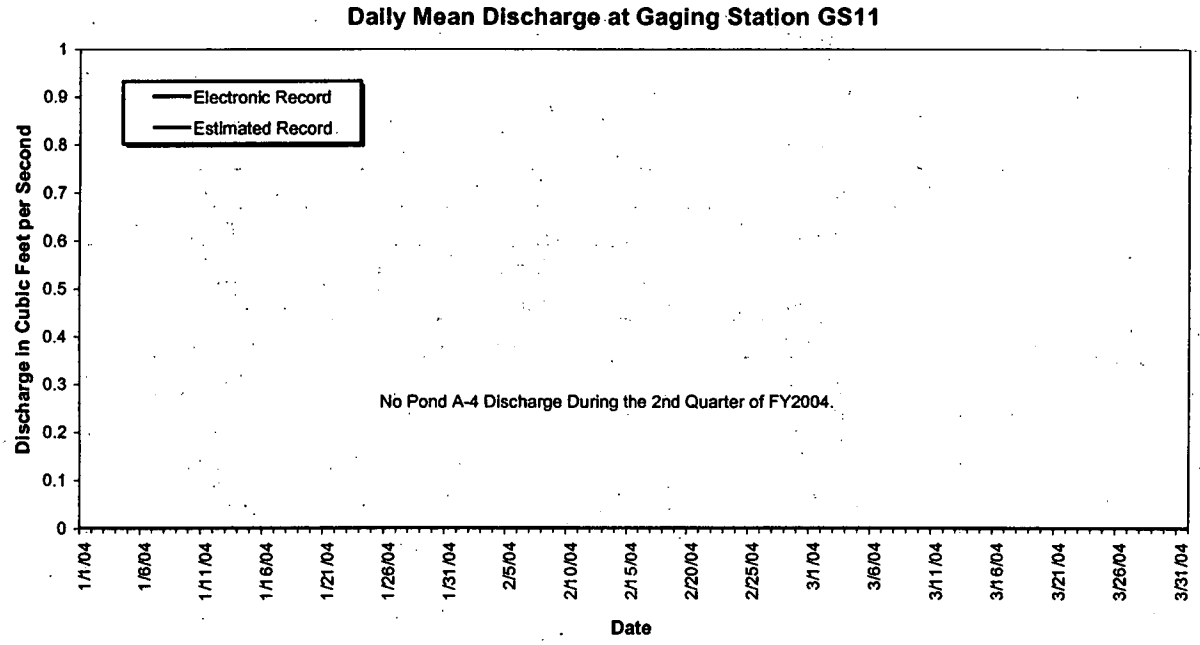

Figure 4-10. Mean Daily Discharge at GS11 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-10. Gaging Station GS16: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	WR	WR	*0.078*[a]
2	WR	WR	0.079
3	WR	WR	*0.074*[a]
4	WR	WR	*0.079*[a]
5	WR	WR	0.093
6	WR	WR	*0.177*[a]
7	WR	WR	*0.155*[a]
8	WR	WR	0.116
9	WR	WR	0.097
10	WR	WR	0.083
11	WR	WR	0.076
12	WR	WR	0.073
13	WR	WR	0.066
14	WR	WR	0.066
15	WR	WR	0.061
16	0.087	WR	0.058
17	0.082	WR	0.055
18	WR	WR	0.058
19	WR	0.119	0.058
20	WR	0.151	0.058
21	WR	*0.142*[a]	0.062
22	WR	*0.142*[a]	0.062
23	WR	0.122	0.063
24	WR	0.101	0.069
25	WR	0.091	0.067
26	WR	*0.084*[a]	0.063
27	WR	0.080	0.059
28	WR	*0.077*[a]	0.064
29	WR	0.102	0.063
30	WR	NA	0.062
31	0.083	NA	0.062
Monthly Average (cfs)	0.084	0.110	0.076

Monthly Discharge

Cubic Feet	21692	104599	203394
Gallons	162271	782455	1521495
Acre-Feet	0.50	2.40	4.67

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Buffer Zone Hydrologic monitoring location GS16 is located at state plane 2083406, 746659 on Antelope Springs Creek 970 feet upstream of Woman Creek. This station monitors discharge from Antelope Springs and runoff from the surrounding area. The GS16 drainage area is approximately 105 acres. This station collects flow data only.

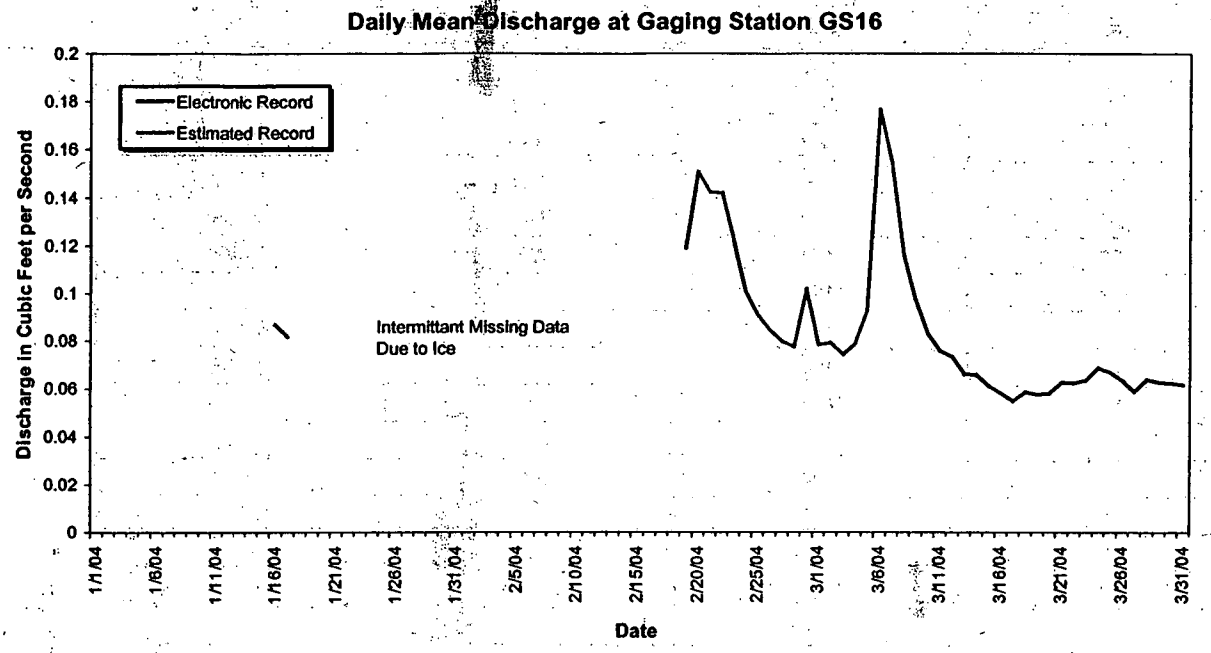

Figure 4-11. Mean Daily Discharge at GS16, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-11. Gaging Station GS21: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	*0.0000*[a]
2	0.0000	*0.0000*[a]	*0.0000*[a]
3	0.0000	*0.0000*[a]	*0.0000*[a]
4	0.0000	0.0000	0.0000
5	0.0000	*0.0000*[a]	0.0105
6	0.0000	*0.0000*[a]	*0.0029*[a]
7	*0.0000*[a]	*0.0000*[a]	*0.0001*[a]
8	*0.0000*[a]	*0.0000*[a]	*0.0000*[a]
9	0.0000	*0.0000*[a]	0.0000
10	0.0013	*0.0000*[a]	0.0000
11	0.0000	*0.0000*[a]	0.0000
12	0.0000	*0.0000*[a]	0.0000
13	0.0000	*0.0000*[a]	0.0000
14	0.0000	*0.0000*[a]	0.0000
15	0.0000	*0.0000*[a]	0.0000
16	0.0000	*0.0000*[a]	0.0000
17	0.0000	*0.0000*[a]	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0001	0.0000
20	*0.0000*[a]	*0.0050*[a]	0.0000
21	*0.0000*[a]	*0.0000*[a]	0.0000
22	*0.0000*[a]	*0.0000*[a]	0.0000
23	*0.0000*[a]	0.0000	0.0000
24	0.0000	*0.0000*[a]	0.0000
25	0.0000	0.0000	0.0000
26	*0.0000*[a]	0.0000	0.0000
27	*0.0000*[a]	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0002	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	0.0002	0.0004

Monthly Discharge

Cubic Feet	116	464	1166
Gallons	868	3473	8724
Acre-Feet	0.00	0.01	0.03

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS21 was installed on 12/10/02 as a Performance Monitoring location in support of D&D for the 400 and 600 Areas. GS21 is located at state plane 2083049, 748139 in a ditch SE of B664. The GS21 drainage area is approximately 3.2 acres. This station will collect samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

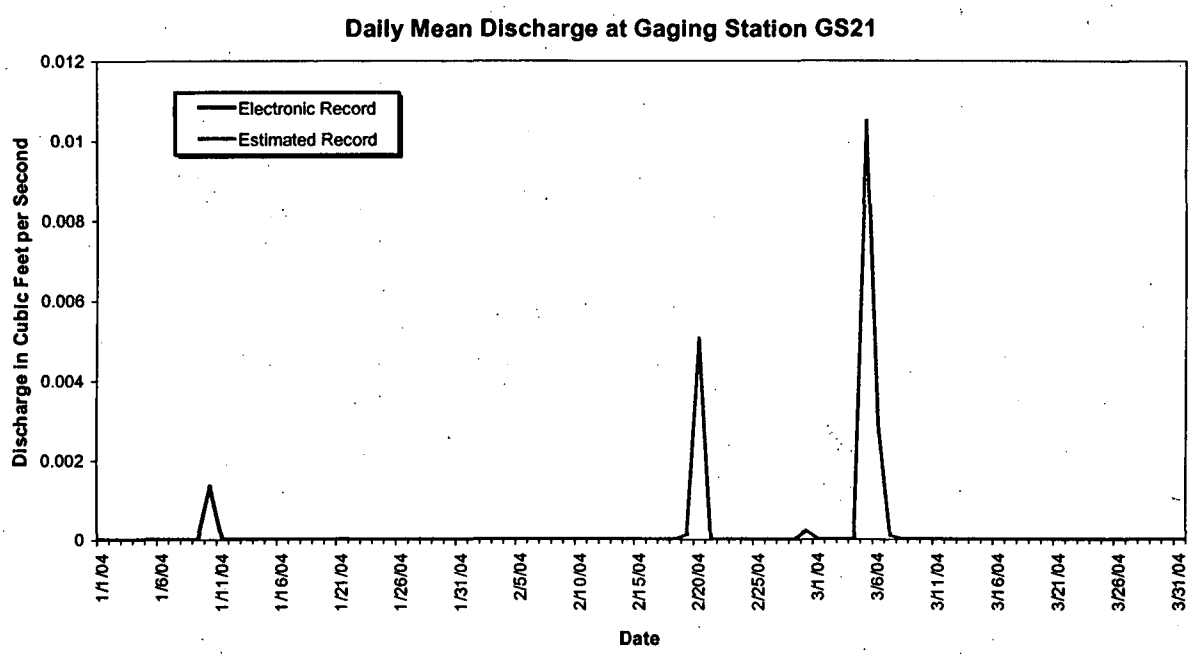

Figure 4-12. Mean Daily Discharge at GS21, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-12. Gaging Station GS22: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.007	0.025	0.009
2	0.007	0.024	0.013
3	0.020	0.004	0.009
4	*0.009*[a]	0.017	0.029
5	*0.008*[a]	0.027	0.120
6	*0.011*[a]	0.023	0.132
7	*0.078*[a]	0.033	0.018
8	0.009	0.013	0.016
9	*0.008*[a]	0.005	0.013
10	0.012	*0.009*[a]	0.013
11	0.009	*0.014*[a]	0.011
12	0.007	*0.010*[a]	0.010
13	0.007	*0.017*[a]	0.009
14	0.007	*0.027*[a]	0.008
15	0.006	*0.024*[a]	0.007
16	0.005	*0.021*[a]	0.006
17	0.005	*0.028*[a]	0.006
18	0.005	0.010	0.006
19	0.004	0.030	0.015
20	0.028	0.108	0.014
21	0.033	0.063	0.018
22	*0.005*[a]	0.020	0.018
23	0.007	0.011	0.019
24	0.005	0.010	0.025
25	0.005	0.009	0.014
26	*0.017*[a]	0.009	0.014
27	*0.006*[a]	0.008	0.017
28	0.006	0.008	0.024
29	0.005	0.048	0.009
30	0.004	NA	0.007
31	0.006	NA	0.006
Monthly Average (cfs)	0.011	0.023	0.020

Monthly Discharge

Cubic Feet	29947	56409	54794
Gallons	224018	421970	409888
Acre-Feet	0.69	1.29	1.26

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS22 was upgraded as a Performance monitoring location in support of D&D activities for the 400 Area. GS22 is located at state plane 2082678, 747820 on the outlet of a culvert draining a portion of the 400 Area immediately upstream from the SID south of B664. The GS22 drainage area is approximately 17.2 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

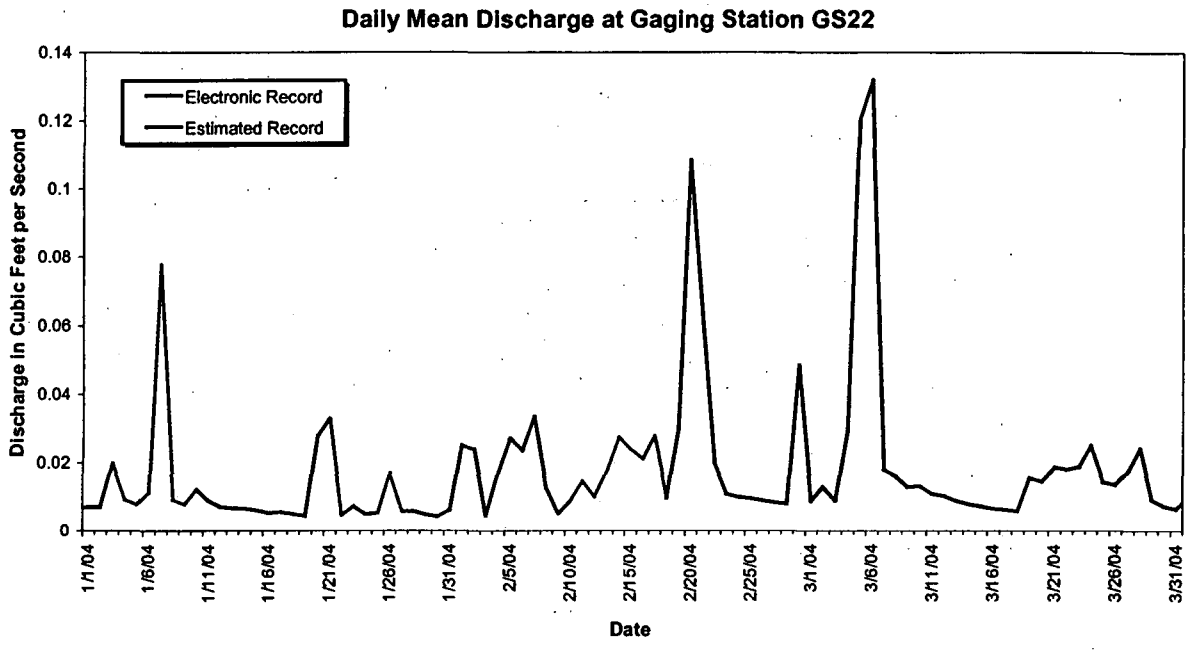

Figure 4-13. Mean Daily Discharge at GS22, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-13. Gaging Station GS27: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000
5	0.0000	0.0000	*0.0000*[a]
6	0.0000	0.0000	*0.0000*[a]
7	0.0000	0.0000	*0.0002*[a]
8	0.0000	0.0000	*0.0000*[a]
9	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000
14	0.0000	*0.0000*[a]	0.0000
15	0.0000	*0.0000*[a]	0.0000
16	0.0000	*0.0000*[a]	0.0000
17	0.0000	*0.0000*[a]	0.0000
18	0.0000	0.0002	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	*0.0000*[a]	0.0000
21	*0.0000*[a]	*0.0001*[a]	0.0000
22	*0.0000*[a]	*0.0000*[a]	0.0000
23	0.0000	0.0000	0.0000
24	0.0000	*0.0000*[a]	0.0000
25	0.0000	*0.0000*[a]	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0000	*0.0000*[a]
30	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	NA	0.0000

Monthly Discharge

Cubic Feet	0	31	17
Gallons	0	235	129
Acre-Feet	0.00	0.00	0.00

Note: mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS27 is located at State Plane 2080529; 751216, at the small drainage ditch NW of Building 884 (see Section 4 Map). This location is a Performance and Best Management Practices Monitoring Location and monitors water draining from the Building 889 area. This station collects samples for selected radionuclides using continuous, flow-paced sampling.

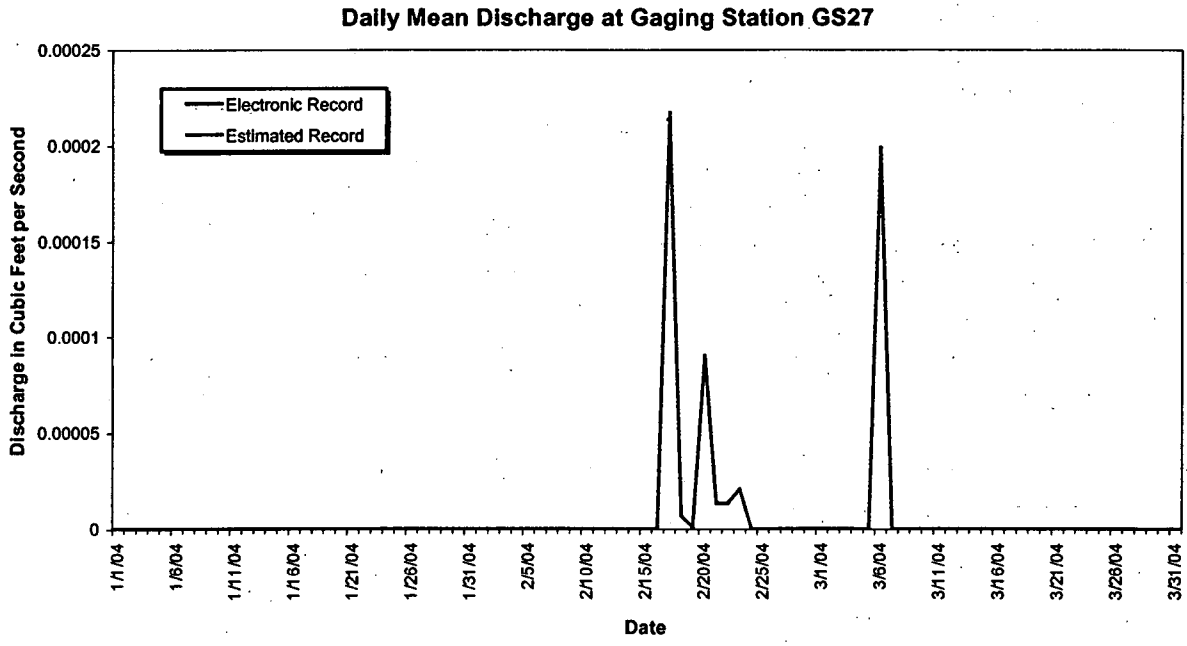

Figure 4-14. Mean Daily Discharge at GS27 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-14. Gaging Station GS28: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS28 was re-installed as a Performance monitoring location in support of D&D activities for the 800 Area. GS28 is located at state plane 2084008, 749279 on a ditch NW of B865. The GS28 drainage area is approximately 3 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

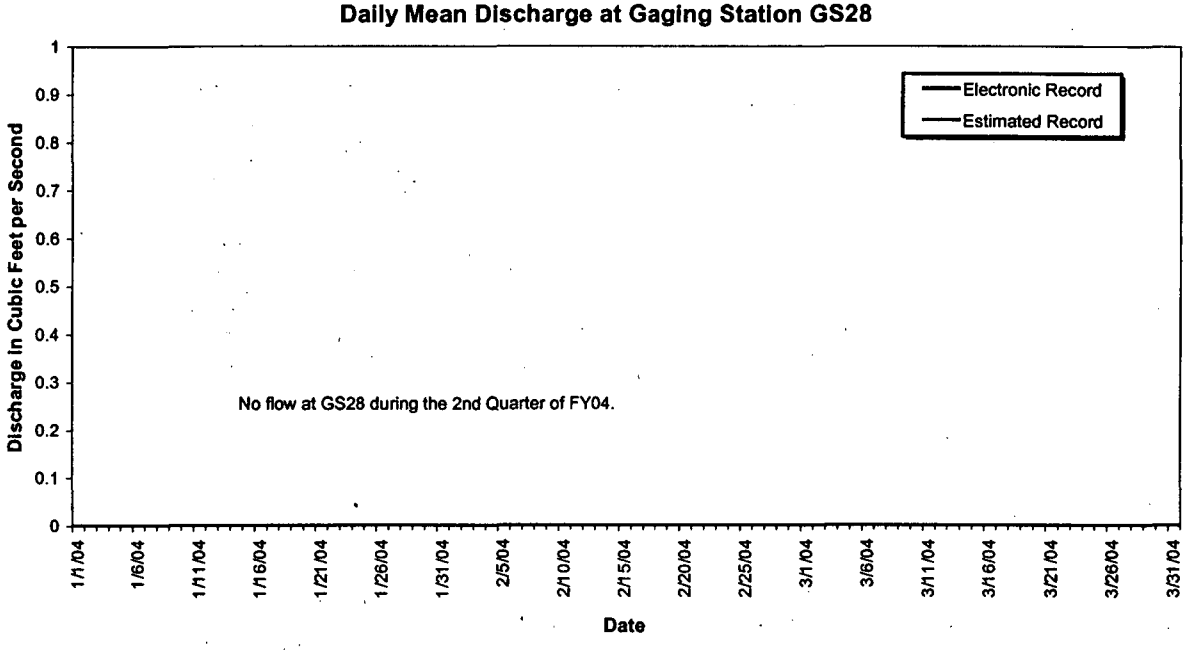

Figure 4-15. Mean Daily Discharge at GS28 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-15. Gaging Station GS31: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS31 is located at State Plane 2089268: 747506, at the Pond C-2 Outfall (See Section 4 Map). This station is a RFCA Point of Compliance and monitors water discharged from Pond C-2. This station collects samples for selected radionuclides using continuous flow-paced sampling.

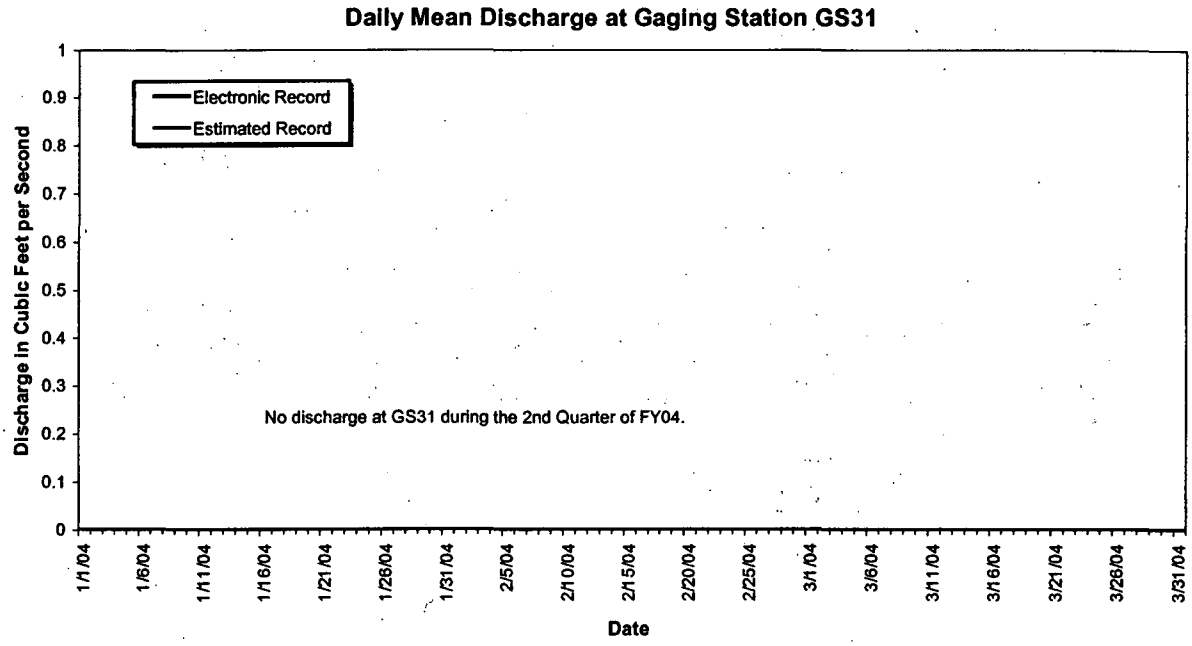

Figure 4-16. Mean Daily Discharge at GS31 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-16. Gaging Station GS38: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.004*[a]	0.000
2	0.000	*0.000*[a]	0.000
3	0.000	0.000	0.000
4	0.000	0.001	0.004
5	0.000	*0.001*[a]	0.194
6	0.000	*0.003*[a]	0.077
7	*0.011*[a]	*0.010*[a]	0.004
8	*0.002*[a]	*0.002*[a]	0.000
9	0.000	0.000	0.000
10	0.000	*0.001*[a]	0.000
11	0.000	*0.005*[a]	0.000
12	0.000	0.000	0.000
13	0.000	*0.017*[a]	0.000
14	0.000	*0.007*[a]	0.000
15	0.000	*0.002*[a]	0.000
16	0.000	*0.000*[a]	0.000
17	0.000	0.016	0.000
18	0.000	0.000	0.000
19	0.000	0.007	0.000
20	*0.001*[a]	0.108	0.000
21	0.002	0.010	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	*0.001*[a]	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	*0.002*[a]	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.001	0.007	0.009

Monthly Discharge

Cubic Feet	1365	16846	24040
Gallons	10211	126013	179835
Acre-Feet	0.03	0.39	0.55

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS38 was upgraded on 5/16/03 as a Performance monitoring location in support of closure activities in the 100, 300, 400, and 600 Areas. GS38 is located at state plane 2083684, 749289 on the Central Ave. Ditch just east of 8th Street. The GS38 drainage area is approximately 40.7 acres. This station now collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

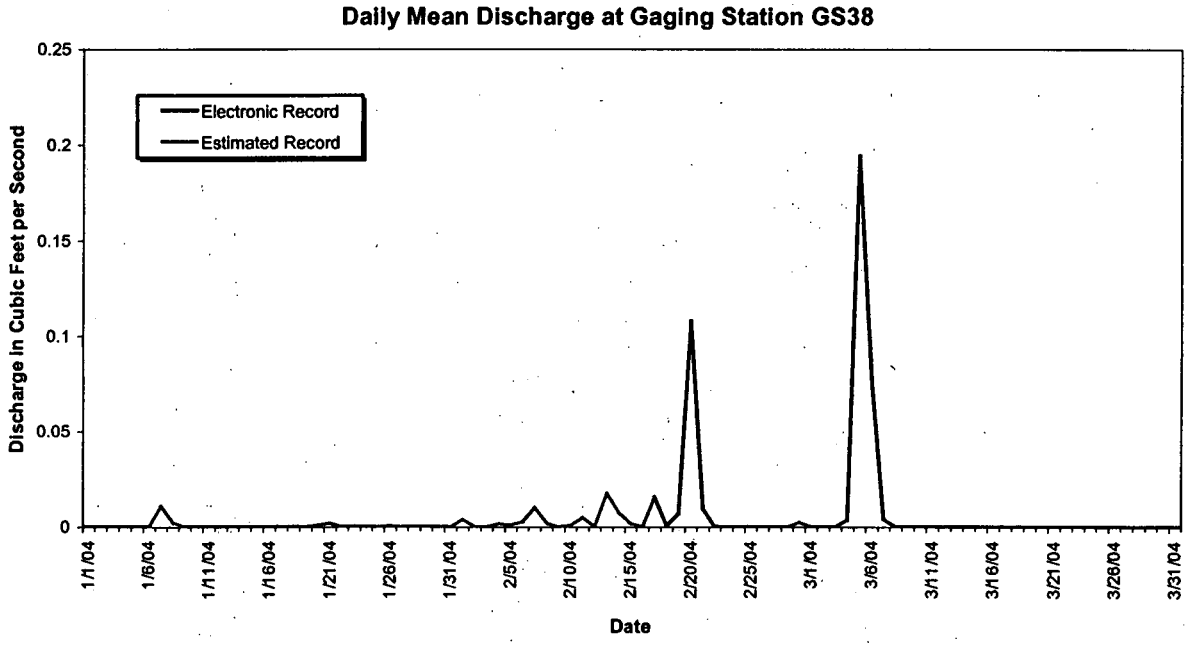

Figure 4-17. Mean Daily Discharge at GS38 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-17. Gaging Station GS39: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.000*[a]	0.001
2	0.000	*0.000*[a]	0.002
3	0.000	*0.000*[a]	*0.000*[a]
4	0.000	*0.000*[a]	*0.000*[a]
5	0.000	*0.000*[a]	0.022
6	0.000	*0.000*[a]	0.000
7	0.000	*0.000*[a]	0.000
8	0.000	*0.000*[a]	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	*0.000*[a]	0.000
13	0.000	*0.000*[a]	0.000
14	0.000	*0.000*[a]	0.000
15	0.000	*0.000*[a]	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	*0.000*[a]	0.000
19	0.000	0.000	0.000
20	0.000	0.003	0.000
21	*0.000*[a]	0.000	0.000
22	*0.000*[a]	*0.000*[a]	0.000
23	*0.001*[a]	*0.000*[a]	0.000
24	*0.000*[a]	*0.000*[a]	0.000
25	*0.000*[a]	*0.000*[a]	0.000
26	*0.000*[a]	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0001	0.0002	0.0008

Monthly Discharge

Cubic Feet	172	418	2187
Gallons	1289	3127	16358
Acre-Feet	0.00	0.01	0.05

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS39 is located in the drainage ditch northwest of the 904 Pad. This location is a RFCA Source Location station monitoring water flowing from the area of the 903 Pad as well as part of the 904 Pad and contractor yard to South Walnut Creek. This station collects samples for selected radionuclides using continuous, flow-paced sampling.

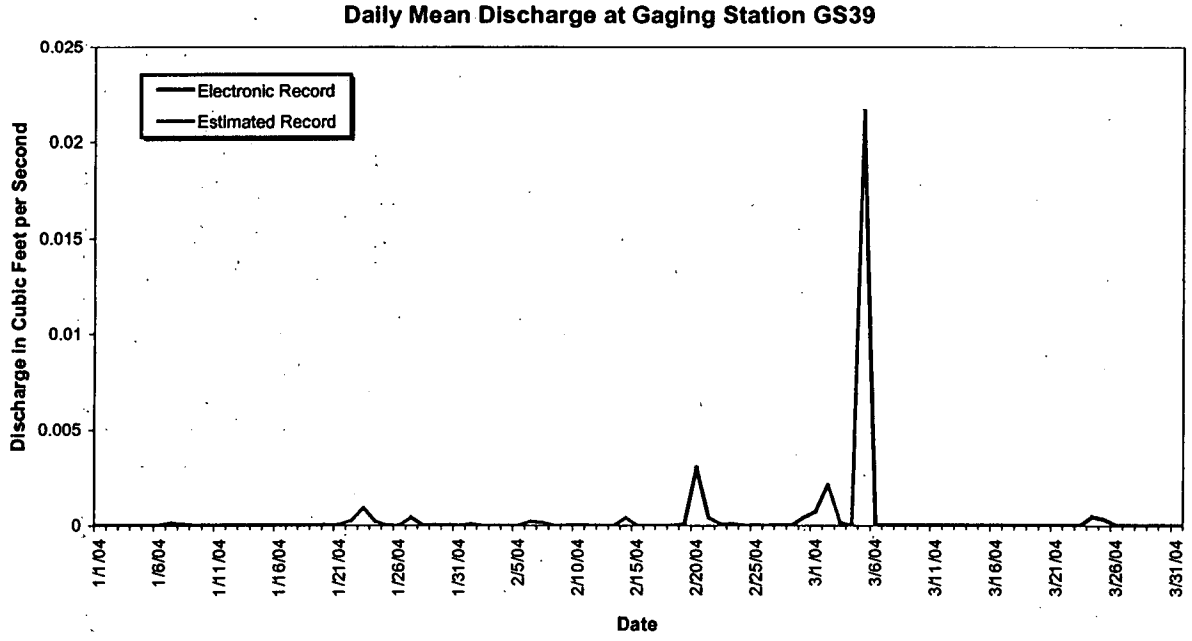

Figure 4-18. Mean Daily Discharge at GS39 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-18. Gaging Station GS40: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.014	*0.029*[a]	0.041
2	0.014	*0.020*[a]	0.042
3	0.032	0.019	*0.034*[a]
4	*0.018*[a]	0.027	0.061
5	*0.013*[a]	0.034	0.171
6	*0.013*[a]	*0.027*[a]	0.124
7	*0.044*	*0.019*[a]	0.039
8	*0.023*[a]	0.020	0.034
9	0.018	*0.024*[a]	0.030
10	0.013	*0.022*[a]	0.033
11	0.011	*0.027*[a]	0.031
12	0.012	*0.023*[a]	0.029
13	0.014	*0.029*[a]	0.032
14	0.015	*0.039*[a]	0.033
15	0.014	0.035	0.027
16	0.014	0.032	0.025
17	0.014	*0.058*[a]	0.026
18	0.015	0.041	0.019
19	0.017	0.067	0.018
20	0.033	0.139	0.017
21	0.029	0.068	0.038
22	*0.021*[a]	0.052	0.017
23	0.015	0.045	0.022
24	0.011	0.047	0.038
25	0.012	0.046	0.021
26	*0.020*[a]	0.049	0.025
27	*0.013*[a]	0.050	0.030
28	0.012	0.047	0.036
29	0.012	0.078	0.029
30	0.011	NA	0.030
31	*0.012*[a]	NA	0.030
Monthly Average (cfs)	0.017	0.042	0.038

Monthly Discharge

Cubic Feet	45664	104879	102141
Gallons	341589	784549	764066
Acre-Feet	1.05	2.41	2.34

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station GS40 is located on the concrete spillway east of Tenth Street, south of Building 997. This location is a RFCA Performance Monitoring Location monitoring water flowing from the 700 area to South Walnut Creek. This station samples for selected radionuclides using continuous, flow-paced sampling.

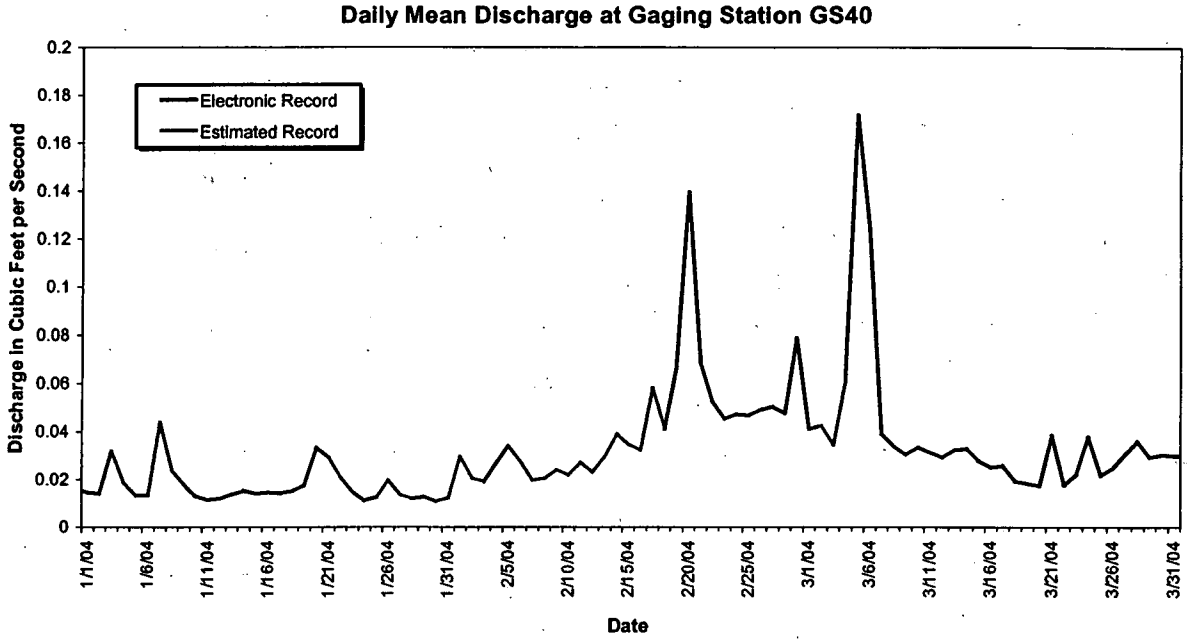

Figure 4-19. Mean Daily discharge at GS40 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-19. Gaging Station GS42: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	*0.000*[a]	0.000	0.000
6	*0.000*[a]	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	*0.000*[a]	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS42 was upgraded as a Performance monitoring location in support of characterization activities for the 903 Pad and Lip Area. GS42 is located at state plane 2088476, 748236 on a drainage swale immediately upstream from the SID north of Pond C-2. The GS42 drainage area is approximately 45.2 acres. This station collects samples for Pu, Am, uranium isotopes, and TSS using continuous flow-paced composite sampling.

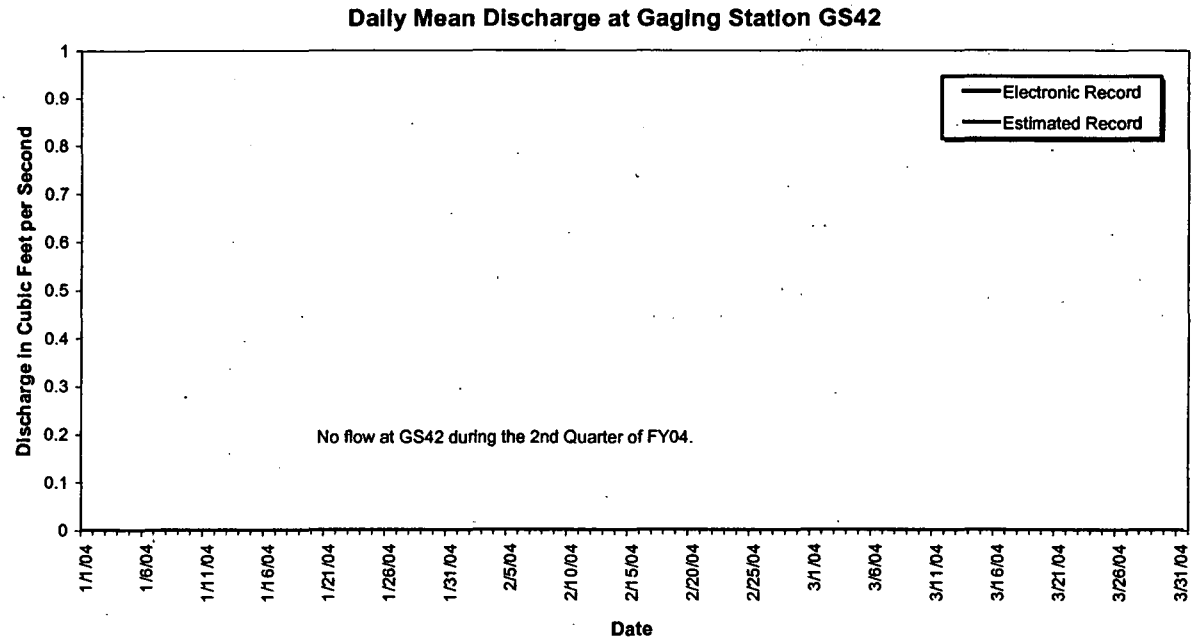

Figure 4-20. Mean Daily Discharge at GS42, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-20. Gaging Station GS43: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	*0.000*[a]
6	0.000	*0.000*[a]	*0.000*[a]
7	0.000	*0.000*[a]	*0.000*[a]
8	0.000	*0.000*[a]	0.000
9	0.000	*0.000*[a]	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	*0.000*[a]	0.000
14	0.000	*0.000*[a]	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	*0.000*[a]	0.000
21	*0.000*[a]	*0.000*[a]	0.000
22	*0.000*[a]	*0.000*[a]	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	18	63
Gallons	0	134	468
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS43 is located in the ditch at the northeast corner of T886A. This location is a RFCA Performance Monitoring Location monitoring runoff from the eastern portion of the 800 area including Building 875, T886A, and the eastern half of Building 886. Water passing this monitoring location continues to South Walnut Creek. This station samples for selected radionuclides and metals using continuous, flow-paced sampling.

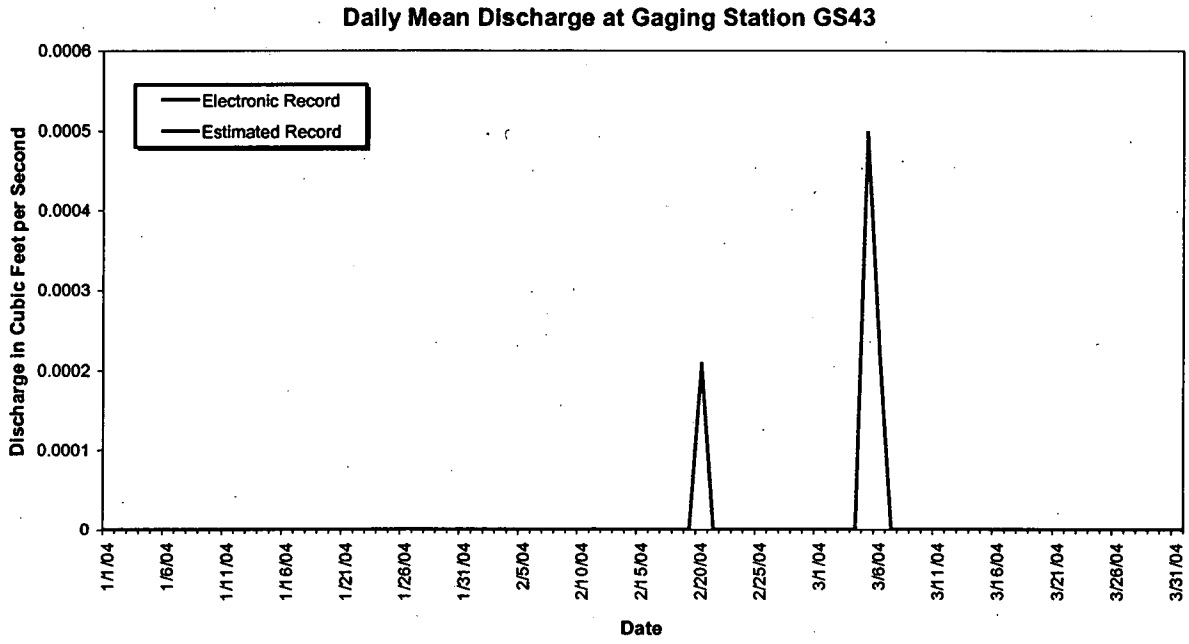

Figure 4-21. Mean Daily Discharge at GS43, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-21. Gaging Station GS44 Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.001*[a]	0.000
2	0.000	*0.000*[a]	0.000
3	0.000	*0.000*[a]	0.000
4	0.000	*0.000*[a]	*0.002*[a]
5	0.000	*0.001*[a]	*0.010*[a]
6	0.000	*0.000*[a]	*0.011*[a]
7	*0.001*[a]	*0.000*[a]	*0.002*[a]
8	*0.000*[a]	*0.000*[a]	0.002
9	0.000	*0.000*[a]	0.001
10	0.000	*0.000*[a]	*0.001*[a]
11	0.000	*0.000*[a]	*0.000*[a]
12	0.000	*0.000*[a]	*0.000*[a]
13	0.000	*0.000*[a]	0.000
14	0.000	*0.000*[a]	*0.000*[a]
15	0.000	*0.000*[a]	0.000
16	0.000	*0.000*[a]	0.000
17	0.000	*0.000*[a]	0.000
18	0.000	0.000	0.000
19	0.000	*0.001*[a]	0.000
20	*0.001*[a]	*0.005*[a]	0.000
21	*0.000*[a]	*0.000*[a]	0.000
22	*0.000*[a]	*0.001*[a]	0.000
23	0.000	*0.001*[a]	0.000
24	0.000	*0.001*[a]	0.000
25	0.000	*0.000*[a]	0.000
26	*0.000*[a]	*0.000*[a]	0.000
27	*0.000*[a]	*0.000*[a]	0.000
28	0.000	*0.000*[a]	0.000
29	0.000	*0.001*[a]	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0001	0.0005	0.0010

Monthly Discharge

Cubic Feet	245	1321	2614
Gallons	1830	9884	19553
Acre-Feet	0.01	0.03	0.06

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS44 is located at state plane 2083411, 751100 on a drainage ditch between T771F and T771L. This station is a Performance Monitoring Location and monitors runoff from the west side of B771 and includes B771 footing drain water. This station collects samples for selected radionuclides and water quality parameters using continuous flow-paced composite sampling.

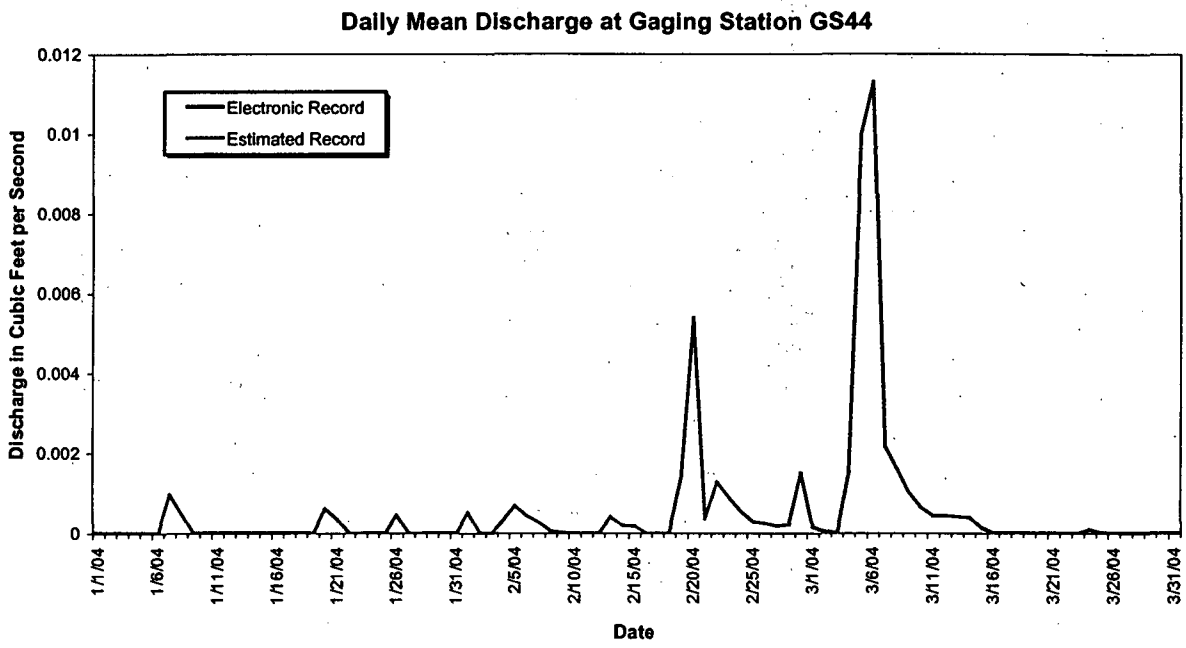

Figure 4-22. Mean Daily Discharge at GS44 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-22. Gaging Station GS49 Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0002
5	0.0000	0.0000	*0.0092*[a]
6	0.0000	*0.0001*[a]	*0.0017*[a]
7	0.0000	*0.0001*[a]	*0.0000*[a]
8	0.0000	*0.0001*[a]	0.0000
9	0.0000	*0.0000*[a]	0.0000
10	0.0000	*0.0000*[a]	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	*0.0000*[a]	0.0000
13	0.0000	*0.0000*[a]	0.0000
14	0.0000	*0.0000*[a]	0.0000
15	0.0000	*0.0000*[a]	0.0000
16	0.0000	*0.0000*[a]	0.0000
17	0.0000	*0.0015*[a]	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0010	0.0000
20	0.0000	*0.0042*[a]	0.0000
21	0.0000	*0.0006*[a]	0.0000
22	0.0000	*0.0013*[a]	0.0000
23	0.0000	*0.0003*[a]	0.0000
24	0.0000	*0.0000*[a]	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	*0.0000*[a]	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	0.0003	0.0004

Monthly Discharge

Cubic Feet	0	796	957
Gallons	0	5956	7158
Acre-Feet	0.00	0.02	0.02

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Gaging station GS49 is located at state plane 2083292, 750652 on a drainage ditch northwest of B566. This station is a Performance Monitoring location and has been installed in support of D&D activities for Building 776/777. This station monitors runoff from the west side of the B776/777 complex. The GS49 drainage area is approximately 3.3 acres. This station collects samples for selected isotopes, metals, tritium, and TSS using continuous flow-paced composite sampling.

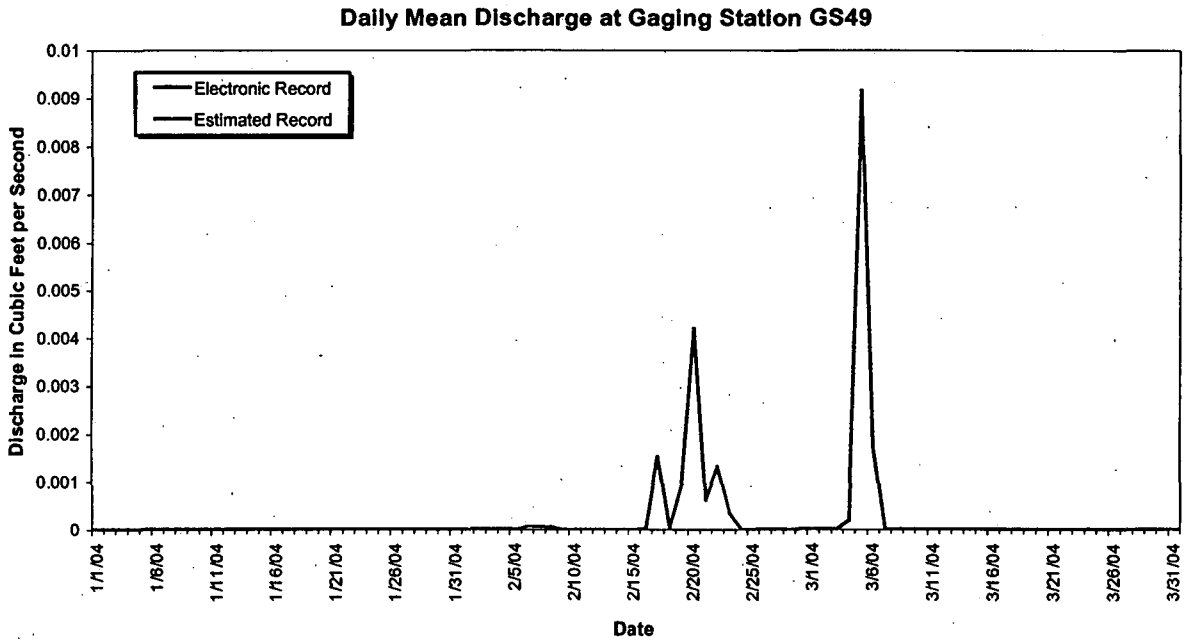

Figure 4-23. Mean Daily Discharge at GS49 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-23. Gaging Station GS50 Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS50 is located at state plane 2085760, 750441 on a drainage ditch northeast of B990. This station is a performance monitoring location that was installed in support of remediation activities for the Solar Ponds and the ongoing GS10 Source Evaluation effort.. This station monitors runoff from the south side of the Solar Ponds and Triangle Area. The GS50 drainage area is approximately 4.1 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

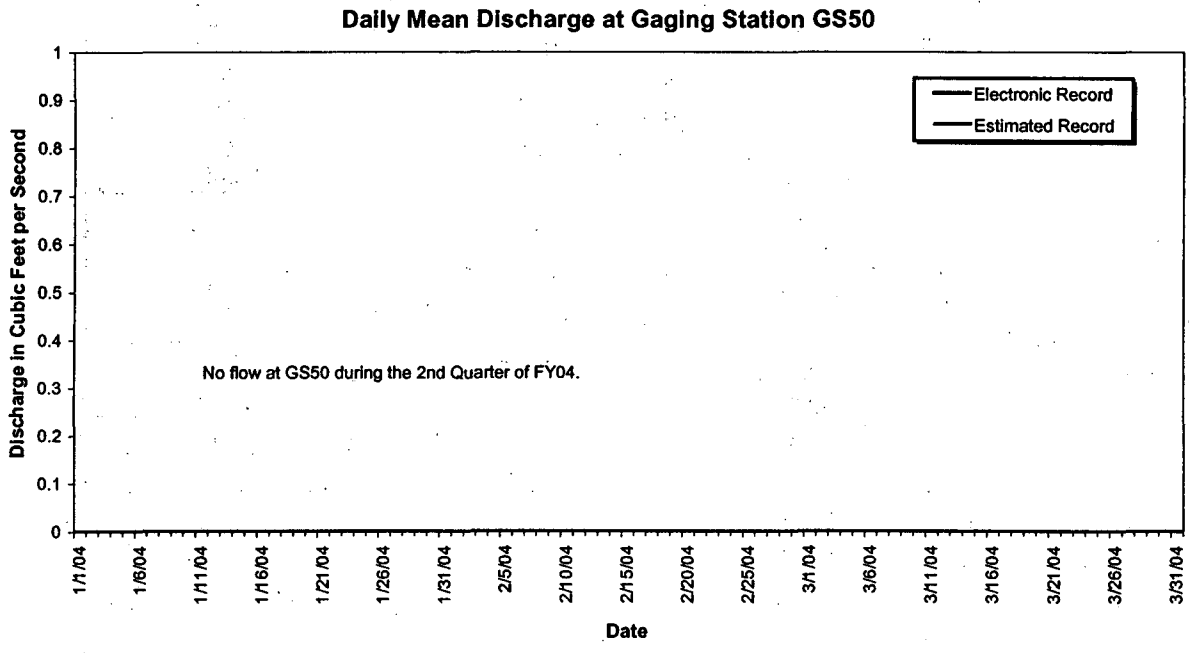

Figure 4-24. Mean Daily Discharge at GS50 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-24. Gaging Station GS51: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.000*[a]	0.000
2	0.000	*0.000*[a]	0.000
3	0.000	*0.000*[a]	0.000
4	0.000	*0.000*[a]	0.000
5	0.000	0.000	0.000
6	0.000	*0.000*[a]	0.001
7	0.000	*0.000*[a]	0.000
8	0.000	*0.000*[a]	0.000
9	0.000	*0.000*[a]	0.000
10	0.000	*0.000*[a]	0.000
	0.000	*0.000*[a]	0.000
12	0.000	*0.000*[a]	0.000
13	0.000	*0.000*[a]	0.000
14	0.000	*0.000*[a]	0.000
15	0.000	*0.000*[a]	0.000
16	0.000	*0.000*[a]	0.000
17	0.000	*0.000*[a]	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	*0.000*[a]	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	*0.000*[a]	0.000
25	0.000	0.000	0.000
26	0.000	*0.000*[a]	0.000
27	*0.000*[a]	0.000	0.000
28	0.000	0.000	0.000
29	0.000	NA	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	1	75
Gallons	0	4	558
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

A new Performance monitoring location was installed in support of characterization activities for the 903 Pad and Lip Area. Gaging station GS51 is located at state plane 2086295, 748107 on a drainage ditch southeast of the 903 Pad immediately upstream from the SID. The GS51 drainage area is approximately 3.9 acres. This station collects samples for Pu, Am, uranium isotopes, and TSS using continuous flow-paced composite sampling.

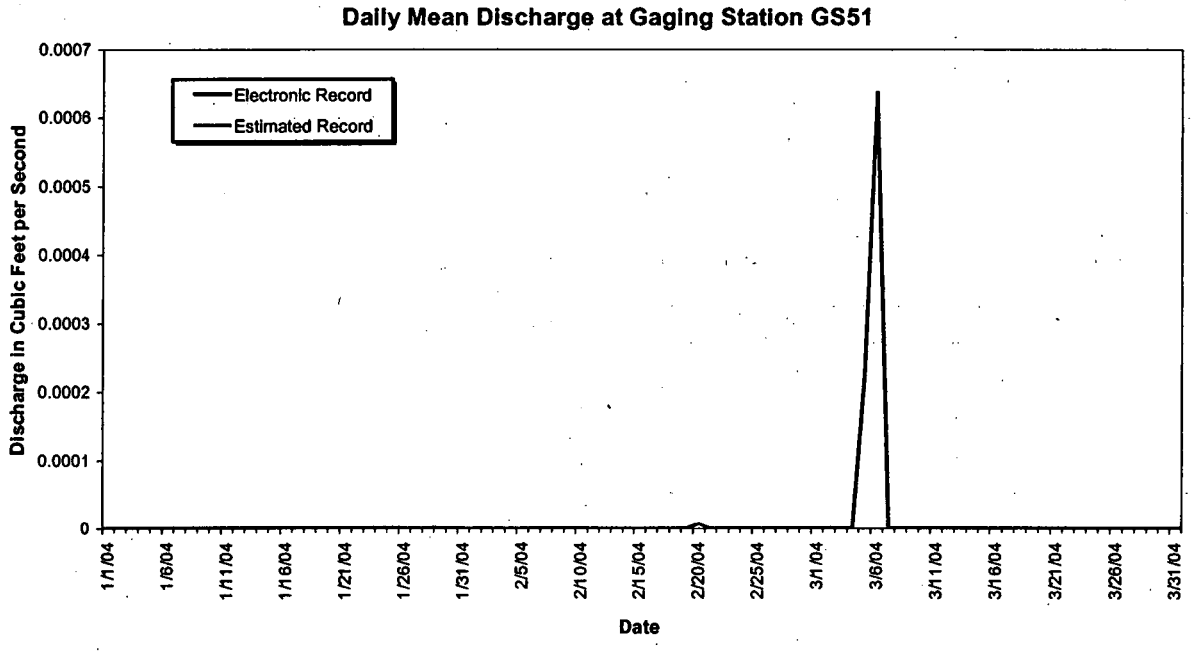

Figure 4-25. Mean Daily Discharge at GS51, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-25. Gaging Station GS52: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	*0.0000*[a]
3	0.0000	0.0000	*0.0000*[a]
4	0.0000	0.0000	0.0000
5	0.0000	*0.0000*[a]	0.0000
6	0.0000	0.0000	*0.0000*[a]
7	0.0000	*0.0000*[a]	*0.0000*[a]
8	0.0000	*0.0000*[a]	0.0000
9	0.0000	*0.0000*[a]	0.0000
10	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000
14	0.0000	*0.0000*[a]	0.0000
15	0.0000	*0.0000*[a]	0.0000
16	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	*0.0000*[a]	0.0000
21	*0.0000*[a]	*0.0000*[a]	0.0000
22	*0.0000*[a]	*0.0000*[a]	0.0000
23	0.0000	*0.0000*[a]	0.0000
24	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

A new Performance monitoring location was installed in support of characterization activities for the 903 Pad and Lip Area. Gaging station GS52 is located at state plane 2086715, 748043 on a gully southeast of the 903 Pad immediately upstream from the SID. The GS52 drainage area is approximately 4.3 acres. This station collects samples for Pu, Am, uranium isotopes, and TSS using continuous flow-paced composite sampling.

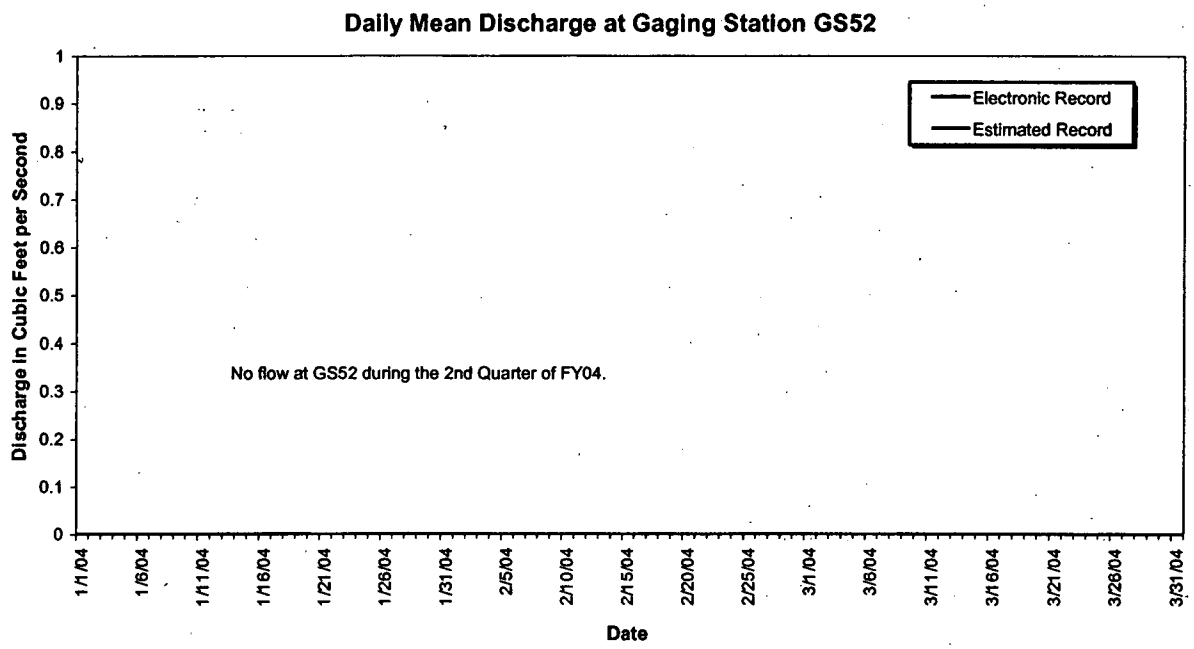

Figure 4-26. Mean Daily Discharge at GS52, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-26. Gaging Station GS53: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.000*[a]	0.000
2	0.000	*0.000*[a]	0.000
3	0.000	*0.000*[a]	0.000
4	0.000	*0.000*[a]	0.000
5	0.000	*0.000*[a]	0.000
6	0.000	*0.000*[a]	0.000
7	0.000	*0.000*[a]	0.000
8	0.000	*0.000*[a]	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	*0.000*[a]	0.000
14	0.000	*0.000*[a]	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	*0.000*[a]	0.000	0.000
22	*0.000*[a]	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

A new Performance monitoring location was installed in support of characterization activities for the 903 Pad and Lip Area. Gaging station GS53 is located at state plane 2087071, 748074 on a gully east-southeast of the 903 Pad immediately upstream from the SID. The GS53 drainage area is approximately 10.1 acres. This station collects samples for Pu, Am, uranium isotopes, and TSS using continuous flow-paced composite sampling.

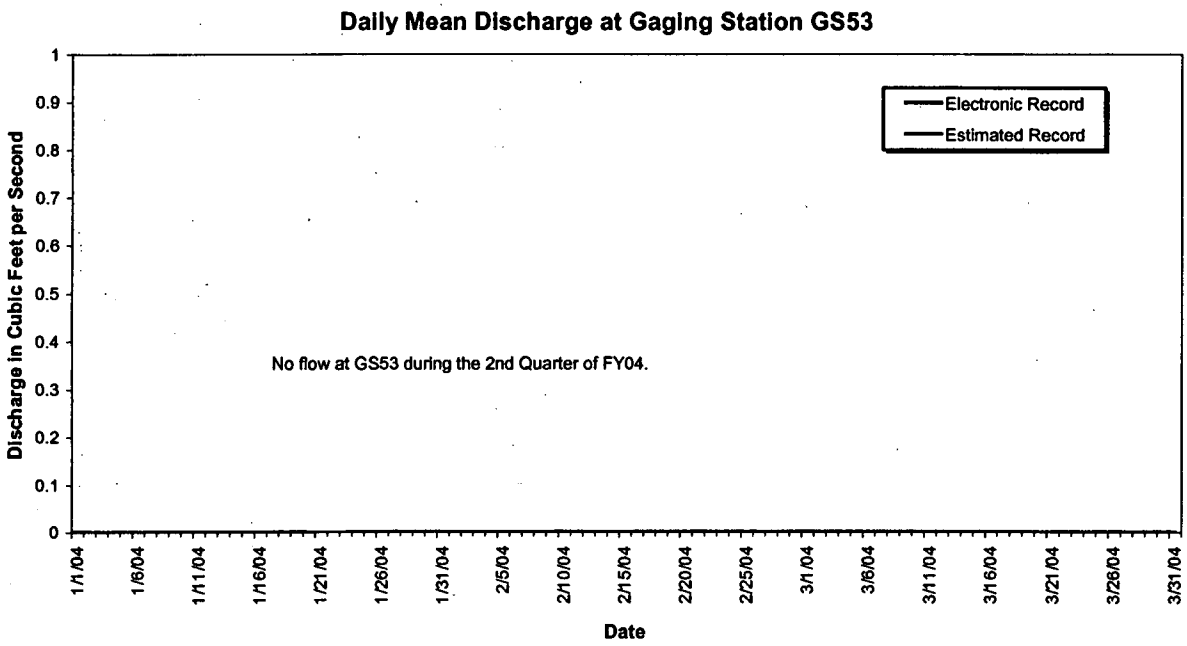

Figure 4-27. Mean Daily Discharge at GS53, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-27. Gaging Station GS54: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.000*[a]	0.000
2	0.000	*0.000*[a]	0.000
3	0.000	*0.000*[a]	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	*0.000*[a]	*0.000*[a]
7	0.000	*0.000*[a]	*0.000*[a]
8	0.000	*0.000*[a]	0.000
9	0.000	*0.000*[a]	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	0.000	*0.000*[a]	0.000
16	0.000	*0.000*[a]	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

A new Performance monitoring location was installed in support of characterization activities for the 903 Pad and Lip Area. Gaging station GS54 is located at state plane 2087476, 748188 on a gully east-southeast of the 903 Pad immediately upstream from the SID. The GS54 drainage area is approximately 9.5 acres. This station collects samples for Pu, Am, uranium isotopes, and TSS using continuous flow-paced composite sampling.

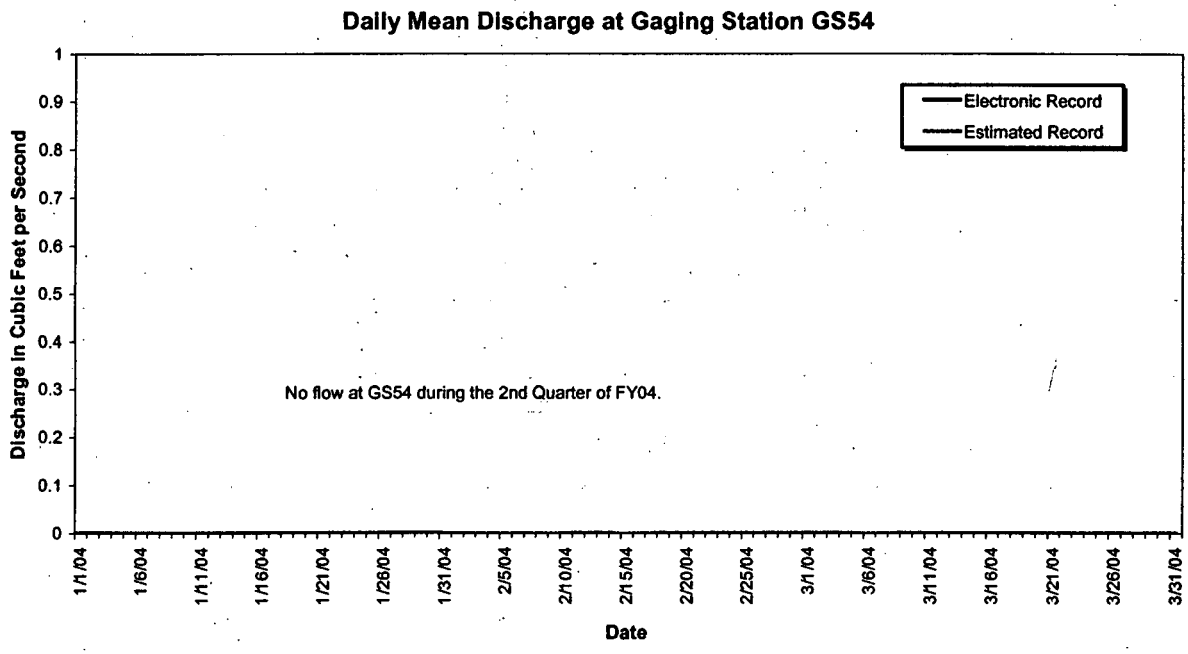

Figure 4-28. Mean Daily Discharge at GS54, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-28. Gaging Station GS55: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	WR	WR	0.004
2	WR	WR	0.004
3	WR	WR	0.004
4	WR	0.007	0.004
5	WR	0.008	0.041
6	WR	*0.011*[a]	0.056
7	WR	*0.014*[a]	0.015
8	WR	WR	0.004
9	WR	WR	0.004
10	WR	WR	0.005
11	WR	WR	0.012
12	WR	WR	0.005
13	WR	WR	0.004
14	WR	WR	0.004
15	WR	WR	0.009
16	WR	WR	0.006
17	WR	WR	0.006
18	WR	WR	0.006
19	WR	WR	0.004
20	WR	0.031	0.003
21	WR	0.013	0.004
22	WR	0.014	0.004
23	WR	0.025	0.004
24	WR	0.010	0.004
25	WR	0.004	0.004
26	WR	0.003	0.004
27	WR	0.003	0.002
28	WR	0.003	0.003
29	WR	0.006	0.004
30	0.007	NA	0.003
31	0.005	NA	0.002
Monthly Average (cfs)	0.0059	0.0109	0.0077

Monthly Discharge

Cubic Feet	1021	13204	20622
Gallons	7638	98769	154265
Acre-Feet	0.02	0.30	0.47

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS55 was installed as a Performance monitoring location in support of D&D activities for the B881 Area. GS55 is located at state plane 2084112, 747824 on the outlet of a small wetland area draining the B881 Area upstream from the SID south of B881. The GS55 drainage area is approximately 13.7 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

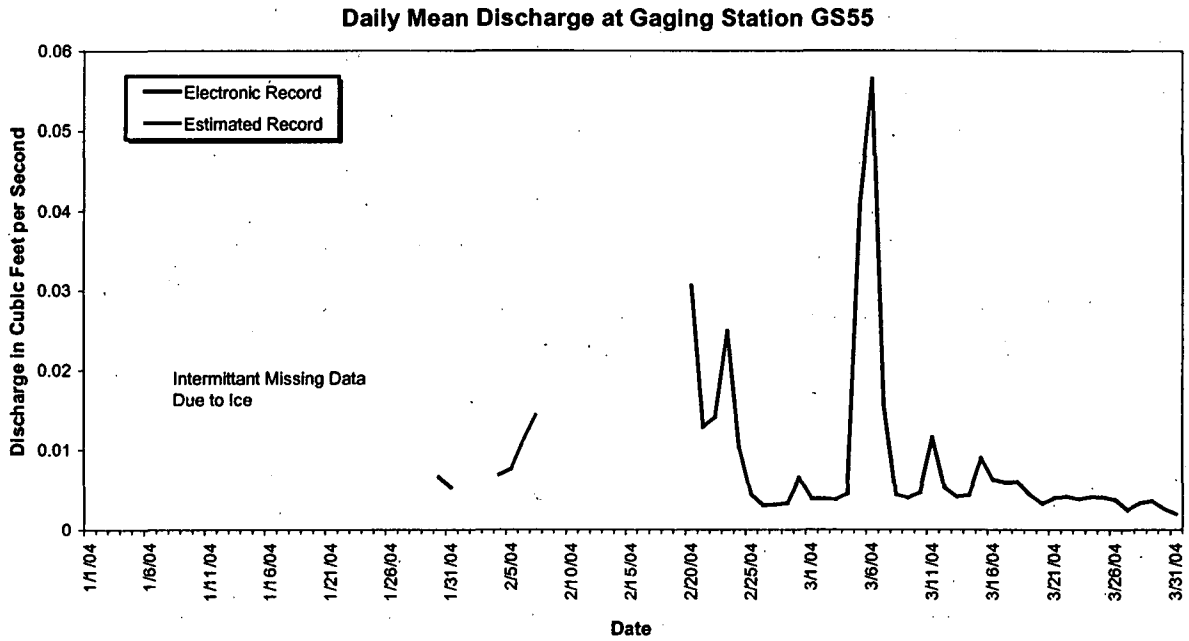

Figure 4-29. Mean Daily Discharge at GS55, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-29. Gaging Station GS56: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.008
9	0.000	0.000	0.005
10	0.000	0.000	0.001
11	0.000	0.000	0.001
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	*0.000*[a]	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0000	0.0005

Monthly Discharge

Cubic Feet	0	0	1362
Gallons	0	0	10186
Acre-Feet	0.00	0.00	0.03

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station GS56 was installed on 9/26/02 as a performance monitoring location in support of accelerated actions for the Present Landfill in No Name Gulch. GS56 is located at state plane 2085908, 753385 in No Name Gulch 1350 feet downstream of the Landfill Pond. The GS56 drainage area is approximately 130 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

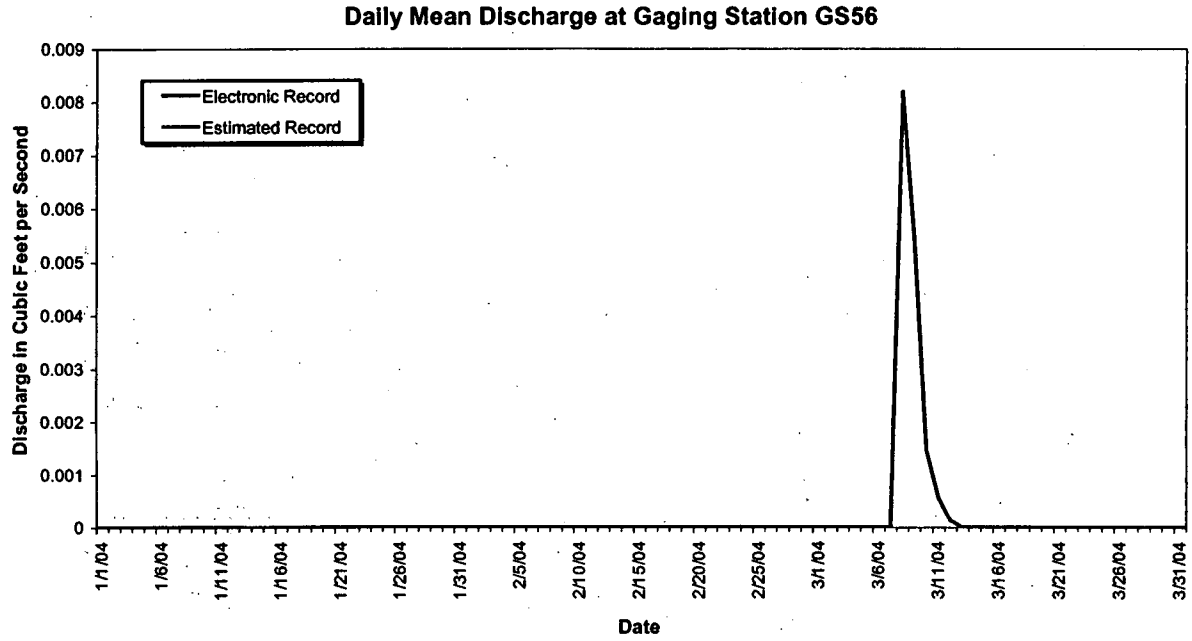

Figure 4-30. Mean Daily Discharge at GS56, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-30. Gaging Station GS57: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	*0.000*[a]
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	*0.002*[a]	0.004
5	0.000	*0.007*[a]	0.054
6	0.000	*0.000*[a]	0.038
7	0.004	*0.000*[a]	*0.006*[a]
8	*0.003*[a]	*0.000*[a]	0.000
9	*0.000*[a]	*0.000*[a]	0.000
10	*0.000*[a]	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	*0.000*[a]	0.000
15	0.000	*0.003*[a]	0.000
16	0.000	*0.001*[a]	0.000
17	0.000	*0.010*[a]	0.000
18	0.000	0.003	0.000
19	0.000	0.005	0.000
20	0.000	0.043	0.000
21	0.000	0.011	0.000
22	0.000	0.003	0.000
23	0.000	0.001	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	*0.002*[a]	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0002	0.0032	0.0033

Monthly Discharge

Cubic Feet	620	7985	8753
Gallons	4640	59733	65478
Acre-Feet	0.01	0.18	0.20

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Gaging station GS57 was installed as a Performance monitoring location in support of D&D activities for the 400 Area. GS57 is located at state plane 2082847, 749006 on a ditch NE of B444. The GS57 drainage area is approximately 8.6 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

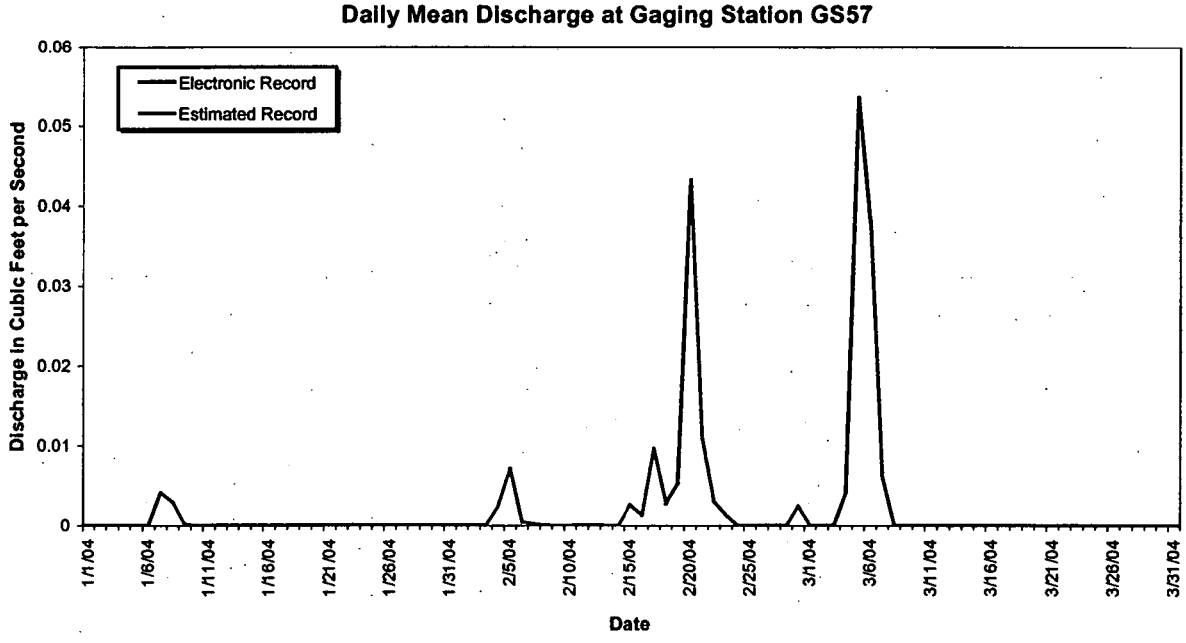

Figure 4-31. Mean Daily Discharge at GS57 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-31. Gaging Station GS59: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.074	0.097	0.094
2	0.085	WR	0.091
3	0.081	WR	0.084
4	WR	WR	0.090
5	WR	WR	0.129
6	WR	WR	0.324
7	WR	WR	0.323
8	WR	WR	0.271
9	WR	WR	0.206
10	0.120	WR	0.166
11	0.108	WR	0.139
12	0.094	WR	0.121
13	0.096	WR	0.097
14	0.095	WR	0.081
15	0.099	WR	0.073
16	0.096	WR	0.068
17	0.088	*0.224*[a]	0.060
18	0.084	0.197	0.055
19	0.086	0.152	0.051
20	0.081	0.208	0.051
21	0.107	0.200	0.055
22	*0.105*[a]	0.207	0.058
23	*0.122*[a]	0.194	0.055
24	0.102	0.146	0.051
25	0.095	0.127	0.052
26	WR	0.114	0.063
27	WR	0.106	0.063
28	WR	0.100	0.068
29	0.100	0.123	0.066
30	0.115	NA	0.057
31	0.091	NA	0.054
Monthly Average (cfs)	0.0965	0.1568	0.1038

Monthly Discharge

Cubic Feet	183442	189619	277963
Gallons	1372245	1418449	2079308
Acre-Feet	4.21	4.35	6.38

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Gaging station GS59 was installed on 11/19/02 as a Performance monitoring location in support of accelerated actions for the Original Landfill in Woman Creek. GS59 is located at state plane 2083231, 747137 in Woman Creek south of former B850. The GS59 drainage area includes undetermined areas west of Highway 93 and the total area is unknown. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

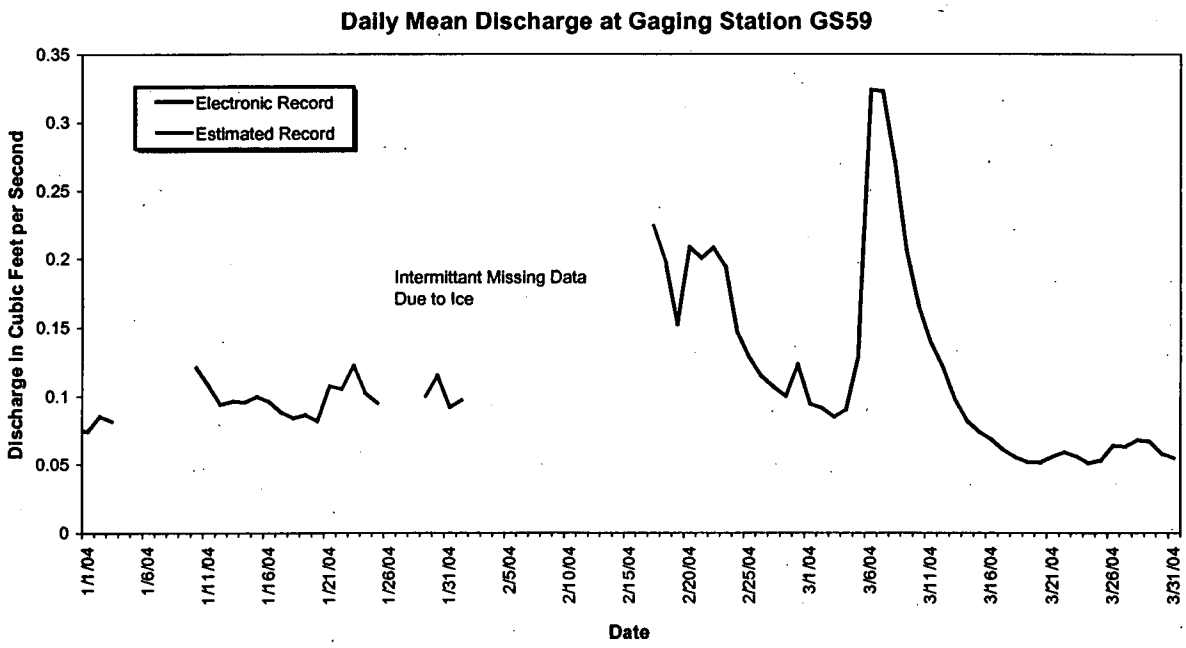

Figure 4-32. Mean Daily Discharge at GS59 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-32 Gaging Station GS60: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	*0.000*[a]	0.000	0.000
2	*0.000*[a]	*0.000*[a]	0.000
3	*0.000*[a]	*0.000*[a]	*0.000*[a]
4	*0.000*[a]	*0.000*[a]	0.000
5	*0.000*[a]	*0.000*[a]	*0.018*[a]
6	*0.000*[a]	*0.000*[a]	*0.007*[a]
7	*0.000*[a]	*0.000*[a]	*0.002*[a]
8	*0.000*[a]	*0.000*[a]	0.002
9	*0.000*[a]	*0.000*[a]	0.001
10	*0.000*[a]	*0.000*[a]	0.000
11	*0.000*[a]	*0.000*[a]	0.000
12	*0.000*[a]	*0.000*[a]	0.000
13	*0.000*[a]	*0.000*[a]	0.000
14	*0.000*[a]	*0.000*[a]	0.000
15	*0.000*[a]	*0.000*[a]	0.000
16	0.000	*0.000*[a]	0.000
17	*0.000*[a]	*0.000*[a]	0.000
18	*0.000*[a]	*0.002*[a]	0.000
19	*0.000*[a]	*0.004*[a]	0.000
20	*0.000*[a]	*0.013*[a]	0.000
21	*0.000*[a]	*0.000*[a]	0.000
22	*0.000*[a]	*0.001*[a]	0.000
23	*0.000*[a]	0.001	0.000
24	0.000	0.001	0.000
25	*0.000*[a]	0.001	0.000
26	*0.000*[a]	0.001	0.000
27	*0.000*[a]	0.000	0.000
28	*0.000*[a]	0.000	0.000
29	*0.000*[a]	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0009	0.0010

Monthly Discharge

Cubic Feet	0	2190	2559
Gallons	0	16385	19141
Acre-Feet	0.00	0.05	0.06

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Gaging station GS60 was installed on 8/13/03 as a Performance monitoring location in support of D&D activities for Building 3271/374. GS60 is located at state plane 2083015, 751226 in a ditch NE of B371/374 along the former PA perimeter road. The GS60 drainage area is approximately 9.7 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

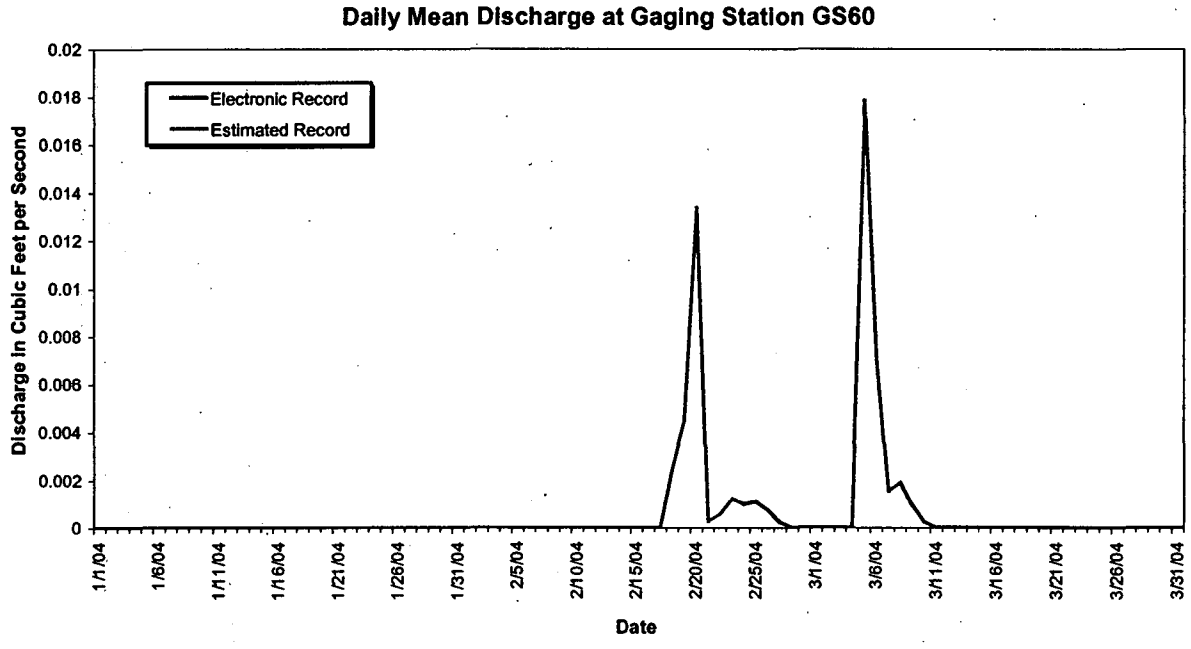

Figure 4-33 Mean Daily Discharge at GS60 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-33 Gaging Station GS61: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	*0.011*[a]	*0.000*[a]
2	0.000	*0.000*[a]	*0.001*[a]
3	0.000	*0.000*[a]	*0.000*[a]
4	*0.000*[a]	*0.011*[a]	*0.015*[a]
5	*0.000*[a]	*0.015*[a]	0.210
6	*0.000*[a]	*0.016*[a]	0.069
7	*0.023*[a]	*0.008*[a]	0.022
8	*0.012*[a]	*0.004*[a]	0.013
9	*0.002*[a]	*0.003*[a]	0.011
10	*0.002*[a]	*0.000*[a]	0.010
11	0.000	*0.000*[a]	0.006
12	0.000	*0.000*[a]	0.005
13	0.000	*0.000*[a]	0.004
14	0.000	0.000	0.004
15	0.000	0.003	0.004
16	0.000	0.001	0.004
17	0.000	0.007	0.004
18	0.000	0.004	0.004
19	0.000	0.015	0.007
20	0.013	0.104	0.003
21	*0.008*[a]	0.011	0.002
22	*0.000*[a]	0.007	0.002
23	*0.000*[a]	0.005	0.002
24	0.000	0.003	0.000
25	0.000	0.002	0.000
26	*0.000*[a]	0.001	0.000
27	*0.000*[a]	0.000	0.000
28	*0.000*[a]	*0.000*[a]	0.000
29	0.000	0.012	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0020	0.0084	0.0130

Monthly Discharge

Cubic Feet	5379	20955	34761
Gallons	40240	156755	260032
Acre-Feet	0.12	0.48	0.80

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Gaging station GS61 was installed on 10/29/03 as a Performance monitoring location in support of D&D activities for Building 3271/374. GS61 is located at state plane 2082612, 750033 at the confluence of two ditches west of the 231 tanks. The GS61 drainage area is approximately 50.5 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling. The purpose of this location is to establish a baseline for water quality upstream of B371 for comparison to downstream water quality at SW018.

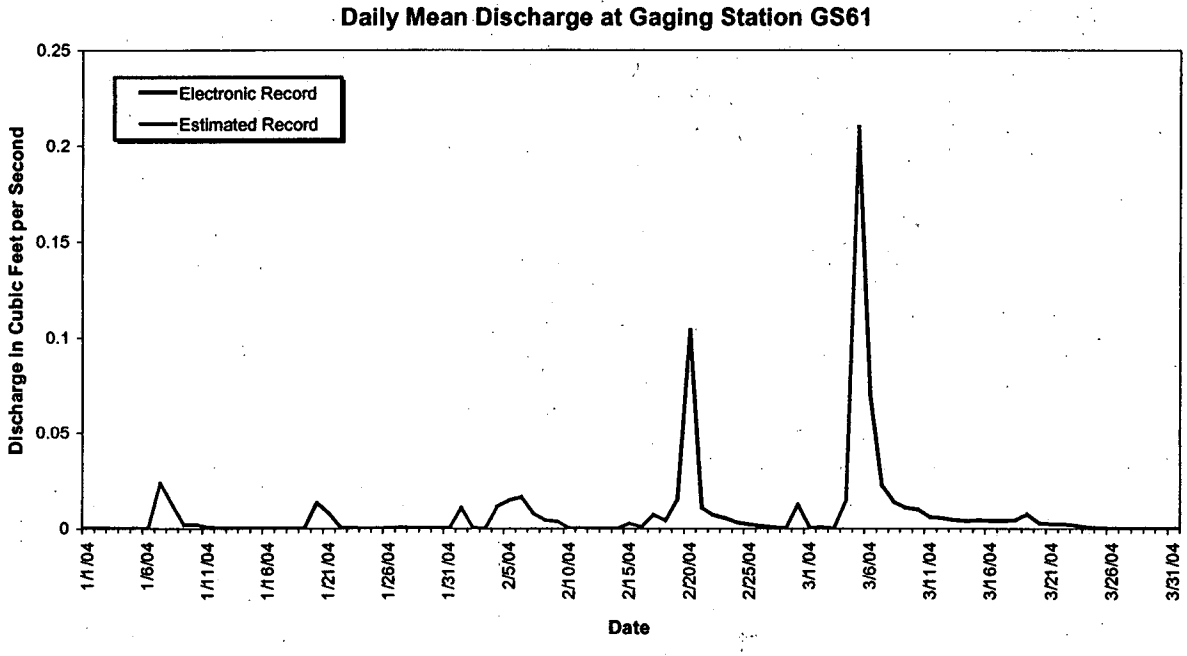

Figure 4-34 Mean Daily Discharge at GS61 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-34. Gaging Station 995 POE Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.078	0.076	0.110
2	0.073	0.072	0.106
3	0.075	0.078	0.102
4	0.073	0.086	0.103
5	0.077	0.083	0.110
6	0.082	0.072	0.074
7	0.107	0.069	0.116
8	0.109	0.077	0.109
9	0.084	0.073	0.159
10	0.080	0.076	0.107
11	0.095	0.075	0.104
12	0.111	0.063	0.121
13	0.117	0.060	0.110
14	0.106	0.076	0.031
15	0.177	0.076	0.016
16	0.150	0.068	0.063
17	0.132	0.057	0.072
18	0.109	0.070	0.073
19	0.088	0.091	0.054
20	0.091	0.111	0.059
21	0.080	0.108	0.058
22	0.073	0.106	0.072
23	0.091	0.111	0.098
24	0.113	0.106	0.113
25	0.072	0.104	0.084
26	0.085	0.087	0.074
27	0.074	0.081	0.079
28	0.070	0.112	0.065
29	0.079	0.109	0.066
30	0.079	NA	0.076
31	0.075	NA	0.122
Monthly Average (cfs)	0.094	0.084	0.087

Monthly Discharge

Cubic Feet	251132	210146	233807
Gallons	1878600	1572000	1749000
Acre-Feet	6	5	5

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
a – Flow data provided above for this location is measured using the totalizier at B995.

Gaging station 995POE is located on the Building 995 (WWTP) effluent flow stream at the V-notch weir immediately below the UV disinfection equipment. This station is a RFCA Action Level Framework Point of Evaluation and monitors effluent from the Site wastewater treatment plant. This station collects samples for selected radionuclides using continuous flow-paced composite sampling.

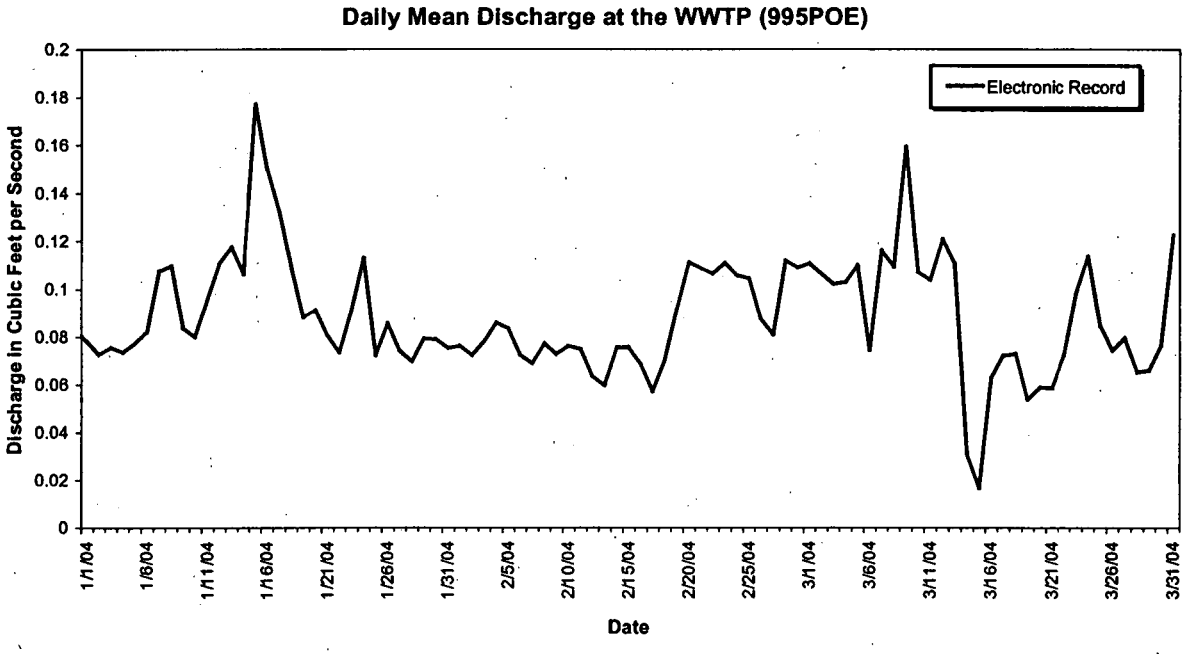

Figure 4-35. Mean Daily Discharge at 995 POE Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-35 Gaging Station SW018 Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.025	*0.048*[a]	0.036
2	0.024	*0.046*[a]	0.031
3	0.026	*0.050*[a]	0.031
4	*0.030*[a]	0.051	0.050
5	*0.026*[a]	*0.055*	0.364
6	*0.027*[a]	*0.052*[a]	0.188
7	*0.047*[a]	*0.046*[a]	0.077
8	*0.036*[a]	*0.042*[a]	0.055
9	*0.027*[a]	*0.039*[a]	0.047
10	0.027	*0.041*[a]	0.043
11	0.026	*0.046*[a]	0.037
12	*0.025*[a]	*0.046*[a]	0.035
13	*0.027*[a]	*0.048*[a]	0.033
14	0.027	*0.048*[a]	0.031
15	0.028	0.047	0.031
16	0.028	0.040	0.030
17	0.028	0.068	0.029
18	*0.029*[a]	0.048	0.029
19	*0.029*[a]	0.064	0.028
20	0.041	0.240	0.024
21	0.039	0.070	0.024
22	0.035	0.057	0.022
23	0.034	0.047	0.022
24	0.033	0.042	0.021
25	*0.033*[a]	0.039	0.018
26	*0.036*[a]	0.037	0.018
27	*0.033*[a]	0.035	0.019
28	*0.035*[a]	0.034	0.019
29	0.034	0.055	0.018
30	0.033	NA	0.017
31	*0.034*[a]	NA	0.017
Monthly Average (cfs)	0.0311	0.0545	0.0466

Monthly Discharge

Cubic Feet	83371	136620	124777
Gallons	623660	1021990	933396
Acre-Feet	1.91	3.14	2.86

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
a – Flow data provided above for this location is measured using the totalizier at B995.

Gaging station SW018 was installed on 10/9/03 as a Performance monitoring location in support of D&D activities for Building 3271/374. SW018 is located at state plane 2083351, 751006 on the N. Walnut Cr. tributary just south of the 771 trailers. The SW018 drainage area is approximately 80.2 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

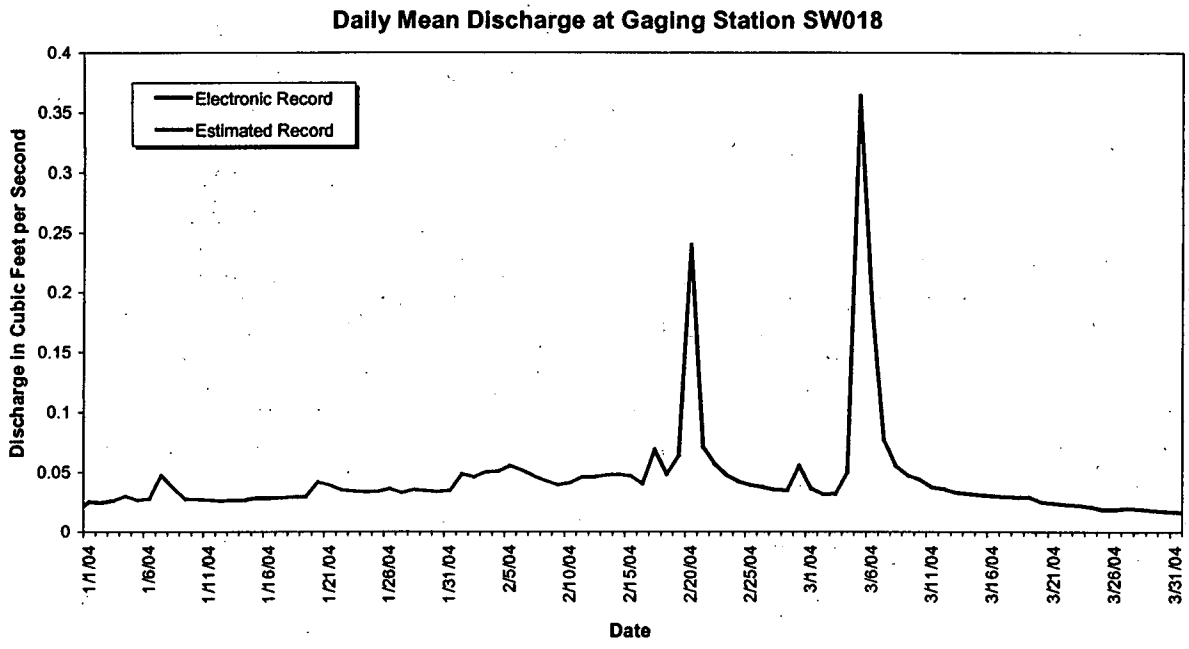

Figure 4-36. Mean Daily Discharge at SW018 Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-36. Gaging Station SW021: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	WR	WR	0.000
2	WR	WR	*0.000*[a]
3	WR	WR	*0.000*[a]
4	WR	WR	*0.000*[a]
5	WR	WR	0.003
6	WR	WR	0.003
7	WR	WR	0.000
8	WR	WR	0.000
9	WR	WR	0.000
10	WR	WR	0.000
11	WR	WR	*0.000*[a]
12	WR	WR	*0.000*[a]
13	WR	WR	0.000
14	WR	WR	0.000
15	WR	WR	0.001
16	WR	WR	0.001
17	WR	WR	0.001
18	WR	WR	0.001
19	WR	WR	0.001
20	WR	WR	0.001
21	WR	*0.000*[a]	0.001
22	WR	*0.000*[a]	0.001
23	WR	0.000	0.001
24	WR	*0.000*[a]	0.004
25	WR	0.000	0.006
26	WR	0.000	0.002
27	WR	0.000	0.001
28	WR	0.000	0.001
29	WR	0.000	0.001
30	WR	NA	0.001
31	WR	NA	0.001
Monthly Average (cfs)		0.000	0.001

Monthly Discharge

Cubic Feet		112	2627
Gallons		840	19652
Acre-Feet		0.00	0.06

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station SW021 was upgraded on 5/6/03 as a Performance monitoring location in support of closure activities for B991. SW021 is located at state plane 2086077, 750187 on a culvert east of B991 tributary to S. Walnut Cr. The SW021 drainage area is approximately 25 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

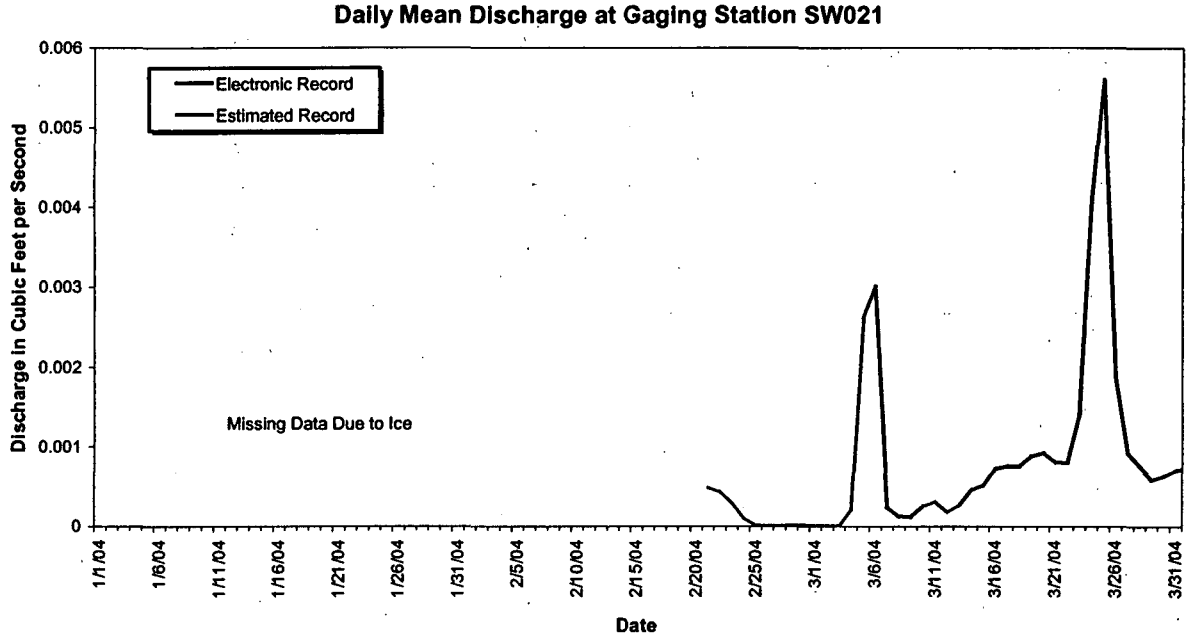

Figure 4-37. Mean Daily Discharge at SW021, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-37. Gaging Station SW022: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.286
6	0.000	0.000	0.071
7	*0.000*[a]	0.000	*0.001*[a]
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.017	0.000
18	0.000	0.000	0.000
19	0.000	0.003	0.000
20	0.000	0.158	0.000
21	0.000	*0.005*[a]	0.000
22	0.000	*0.000*[a]	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	*0.000*[a]	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.006	0.012

Monthly Discharge

Cubic Feet	0	15869	30943
Gallons	0	118712	231471
Acre-Feet	0.00	0.36	0.71

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station SW022 is located 39° 53' 30"N, 105° 11' 30"W, at the Central Avenue Ditch at the Inner East Gate (See Section 4 Map). This location is a RFCA New Source Detection Location and monitors water in the Central Avenue Ditch entering the B-Series Ponds and South Walnut Creek. Storm event samples are collected for selected radionuclides.

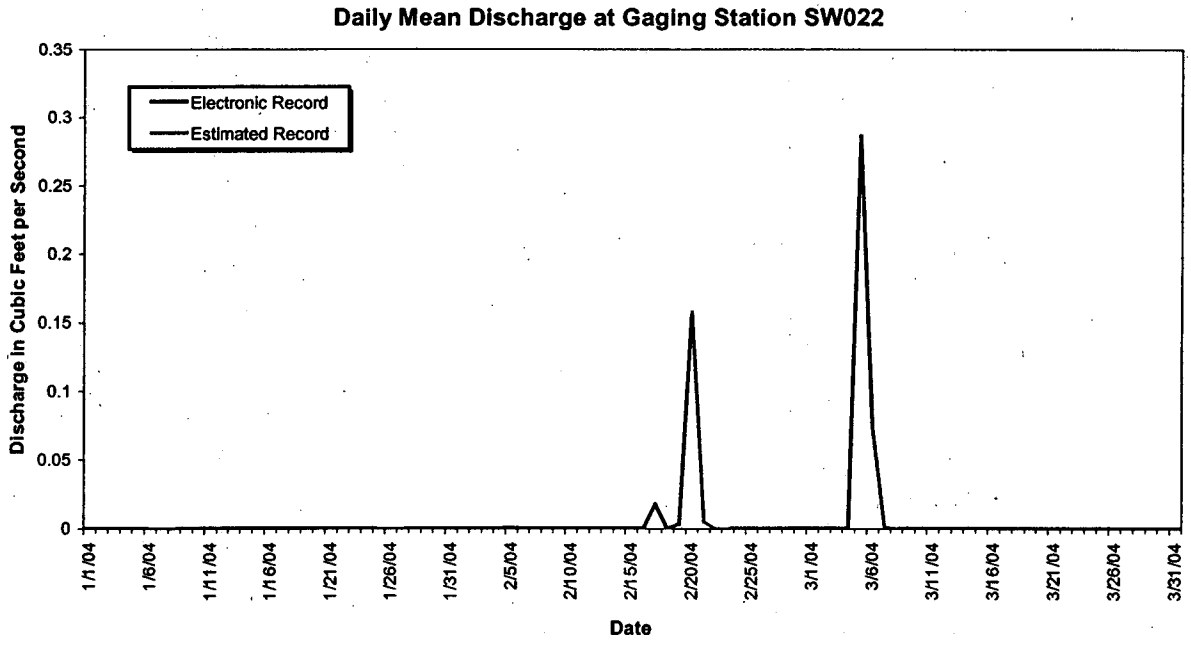

Figure 4-38. Mean Daily Discharge at SW022, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-38. Gaging Station SW027: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.005
7	0.000	0.000	0.051
8	0.000	0.000	0.004
9	0.000	0.000	0.001
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.002

Monthly Discharge

Cubic Feet	0	0	5203
Gallons	0	0	38921
Acre-Feet	0.00	0.00	0.12

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station SW027 is located 39° 53' 12" N, 105° 11' 4"W, at the South Interceptor Ditch above Pond C-2 (See Section 4 Map). This station is a RFCA Action Level Framework and a New Source Detection Location and monitors water in the South Interceptor Ditch entering Pond C-2. This station collects samples for selected radionuclides, metals, and water quality parameters using continuous flow-paced sampling.

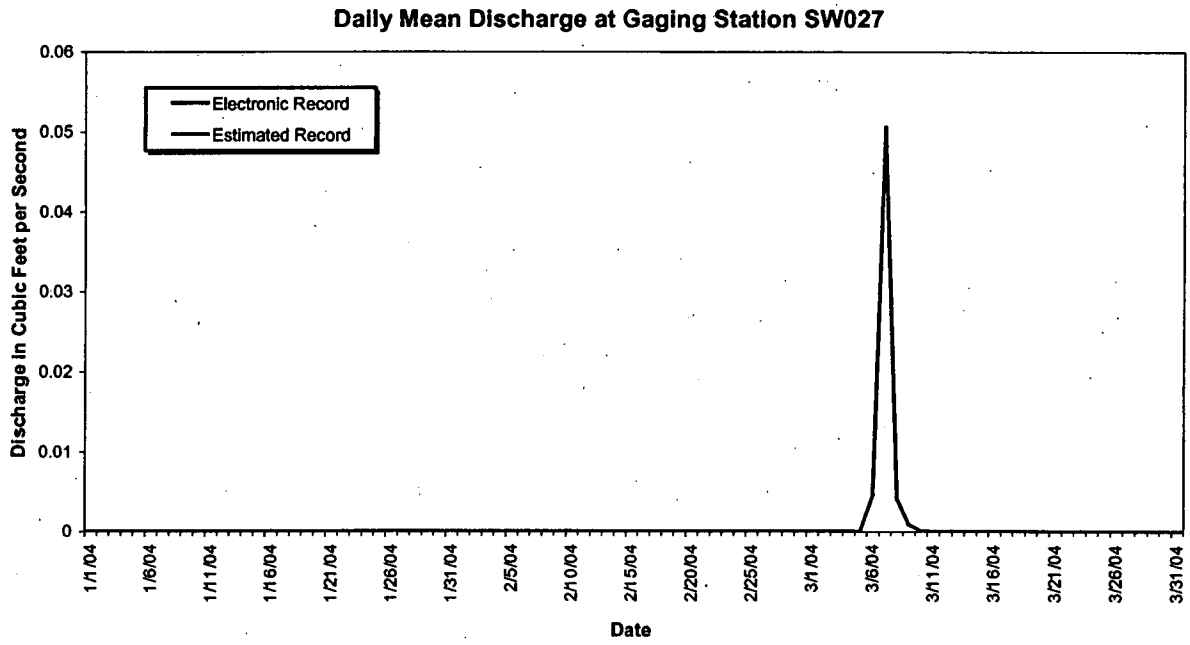

Figure 4-39. Mean Daily Discharge at SW027, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-39. Gaging Station SW036: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	*0.000*[a]	0.000	0.000
15	0.000	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	*0.000*[a]	0.000
21	0.000	*0.000*[a]	0.000
22	0.000	*0.000*[a]	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	NA	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station SW036 was installed as a Performance monitoring location in support of closure activities for the Old Lanfill adjacent to Woman Creek. SW036 is located at state plane 2082579, 747762 on the SID south of B664. The SW036 drainage area is approximately 16.4 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

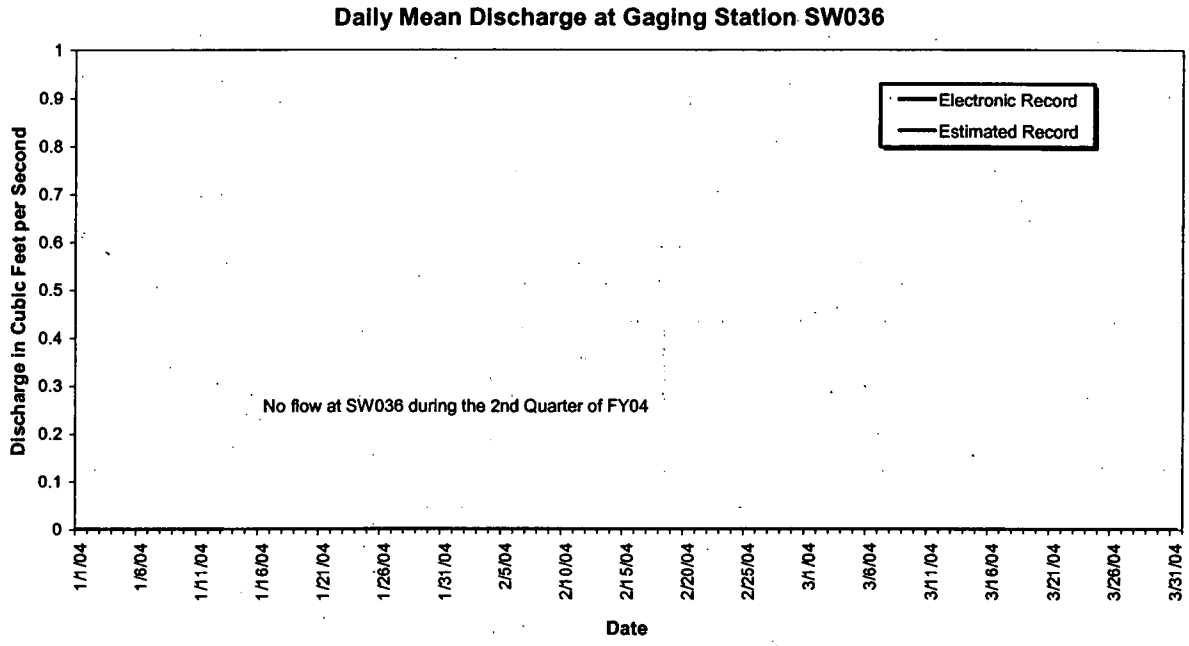

Figure 4-40. Mean Daily Discharge at SW036, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-40. Gaging Station SW055: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	*0.0000*[a]	0.0000
3	0.0000	*0.0000*[a]	0.0000
4	0.0000	*0.0000*[a]	0.0000
5	0.0000	*0.0000*[a]	0.0000
6	0.0000	*0.0000*[a]	0.0000
7	0.0000	*0.0000*[a]	0.0000
8	0.0000	*0.0000*[a]	0.0000
9	0.0000	*0.0000*[a]	0.0000
10	*0.0000*[a]	*0.0000*[a]	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	*0.0000*[a]	0.0000
14	0.0000	*0.0000*[a]	0.0000
15	0.0000	*0.0000*[a]	0.0000
16	0.0000	*0.0000*[a]	0.0000
17	0.0000	*0.0000*[a]	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	*0.0000*[a]	0.0000
21	*0.0000*[a]	*0.0000*[a]	0.0000
22	*0.0000*[a]	*0.0000*[a]	0.0000
23	*0.0000*[a]	0.0000	0.0000
24	*0.0000*[a]	0.0000	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.000	0.000	0.000

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

A new Performance monitoring location was installed in support of remediation activities for the 903 Pad and Lip Area. Gaging station SW055 is located at state plane 2086059, 748501 on a drainage ditch southeast of the 903 Pad just inside of the inner security fence. This station monitors runoff from the southeast side of the 903 Pad area. The SW055 drainage area is approximately 17.3 acres. This station collects samples for Pu, Am, and TSS using continuous flow-paced composite sampling.

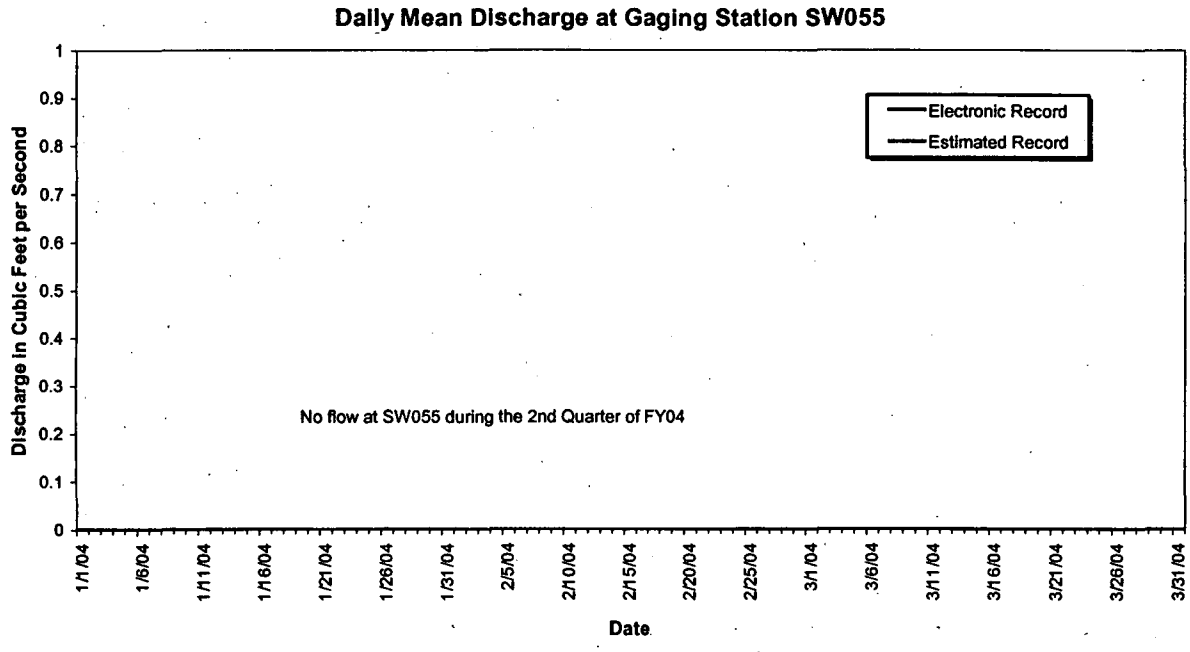

Figure 4-41. Mean Daily Discharge at SW055, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-41. Gaging Station SW091: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000
6	0.000	0.000	*0.000*[a]
7	0.000	0.000	*0.000*[a]
8	0.000	0.000	0.000
9	0.000	0.000	0.000
10	0.000	0.000	0.000
11	0.000	0.000	0.000
12	0.000	0.000	0.000
13	0.000	0.000	0.000
14	0.000	0.000	0.000
15	*0.000*[a]	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.000	0.000	0.000
23	0.000	0.000	0.000
24	0.000	0.000	0.000
25	0.000	0.000	0.000
26	0.000	0.000	0.000
27	0.000	0.000	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	0	8
Gallons	0	0	61
Acre-Feet	0.000	0.000	0.000

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

WR = No data or unacceptable data due to winter icing conditions.

Gaging Station SW091 is located at State Plane 2086064; 751322, along the drainage NE of the Solar Ponds draining to the A-Series Ponds (See Section 4 Map). This location is a RFCA New Source Detection Location and monitors water draining from the area NE of the Solar Ponds. Storm event samples are collected for selected radionuclides.

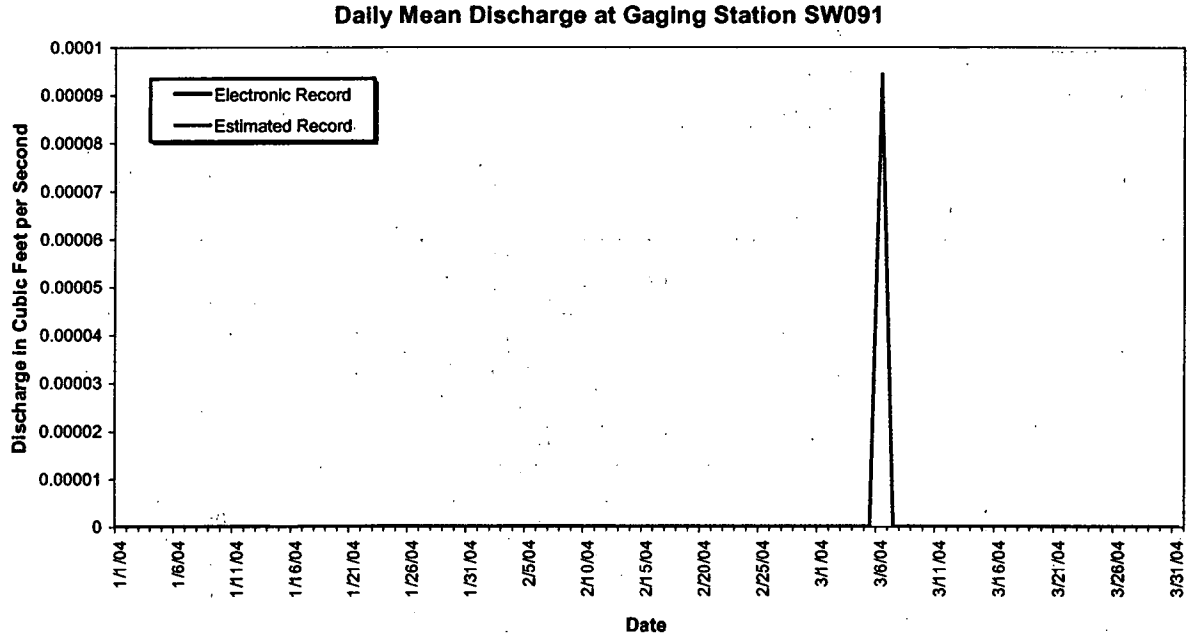

Figure 4-42. Mean Daily Discharge at SW091, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-42. Gaging Station SW093: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.015	0.030	0.034
2	0.018	0.019	0.032
3	0.021	0.017	0.028
4	*0.026*[a]	0.024	0.049
5	*0.022*[a]	0.039	0.495
6	*0.023*[a]	0.034	0.395
7	*0.049*[a]	0.031	0.193
8	*0.035*[a]	0.026	0.119
9	*0.027*[a]	0.022	0.086
10	0.027	*0.020*[a]	0.067
11	0.027	*0.023*[a]	*0.053*[a]
12	0.024	*0.022*[a]	0.044
13	0.023	0.025	0.038
14	0.025	0.026	0.034
15	0.027	0.032	0.036
16	0.026	0.033	0.030
17	0.024	0.103	0.028
18	0.023	0.063	0.028
19	0.022	0.067	0.029
20	0.034	0.353	0.026
21	0.031	0.092	0.026
22	0.024	0.070	0.027
23	0.026	0.057	0.026
24	0.025	0.047	0.026
25	0.023	0.042	0.026
26	0.024	0.039	0.024
27	0.019	0.033	0.022
28	0.020	0.031	0.022
29	0.021	0.058	0.022
30	0.023	NA	0.021
31	0.021	NA	0.022
Monthly Average (cfs)	0.025	0.051	0.068

Monthly Discharge

Cubic Feet	66778	127751	182330
Gallons	499534	955643	1363922
Acre-Feet	1.53	2.93	4.19

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station SW093 is located 39° 53' 51"N, 105° 11' 48"W, along North Walnut Creek at the 72" culvert 1000 feet above the Pond A-1 Bypass (See Section 4 Map). This station is a RFCA Action Level Framework and a New Source Detection Location and monitors water leaving the Site Industrial Area and entering the A-Series Ponds and North Walnut Creek. This station collects samples for selected radionuclides, metals, and water quality parameters using continuous flow-paced sampling.

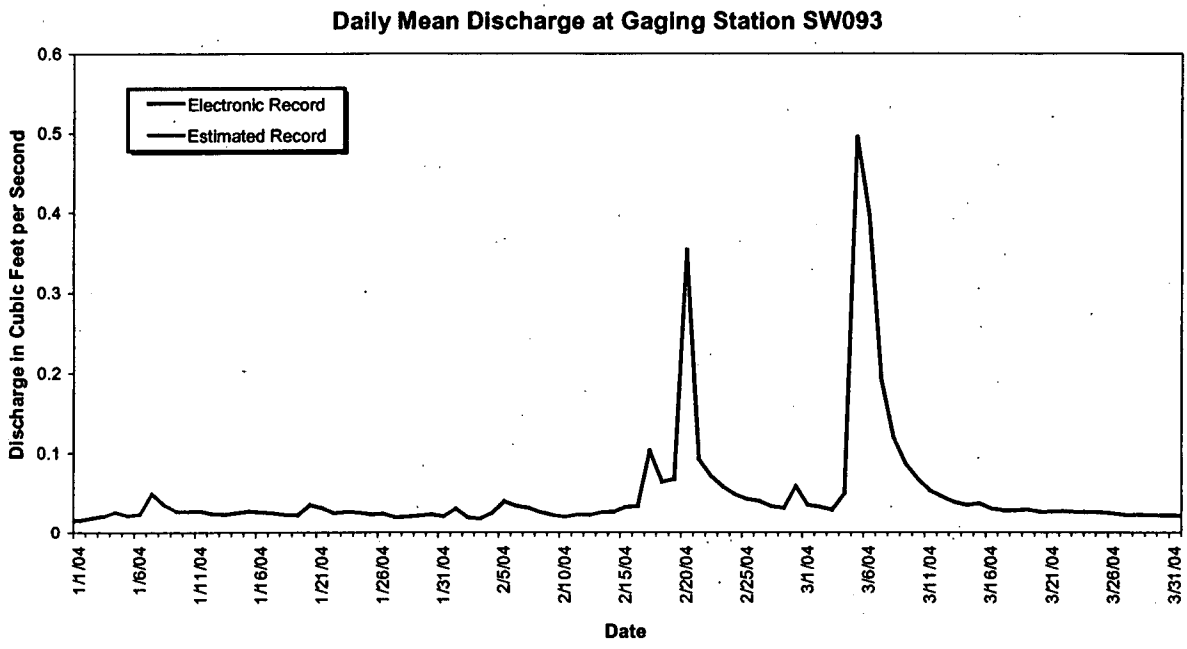

Figure 4-43. Mean Daily Discharge at SW093, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-43. Gaging Station SW118: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.004	WR	0.013
2	*0.013*[a]	WR	0.012
3	WR	WR	0.011
4	WR	WR	0.015
5	WR	WR	0.116
6	WR	WR	0.175
7	WR	WR	0.113
8	WR	WR	0.075
9	WR	WR	0.055
10	WR	WR	0.041
11	*0.008*[a]	WR	0.031
12	*0.004*[a]	WR	0.024
13	*0.003*[a]	WR	0.020
14	*0.010*[a]	WR	0.018
15	*0.009*[a]	WR	0.016
16	*0.009*[a]	WR	0.014
17	WR	WR	0.013
18	WR	WR	0.012
19	WR	WR	0.011
20	WR	WR	0.009
21	*0.007*[a]	0.036	0.010
22	*0.005*[a]	0.027	0.010
23	*0.016*[a]	0.022	0.009
24	WR	0.020	0.008
25	WR	0.016	0.008
26	WR	0.015	0.007
27	WR	0.013	0.006
28	0.012	0.012	0.006
29	*0.016*[a]	0.015	0.005
30	0.014	NA	0.005
31	0.009	NA	0.004
Monthly Average (cfs)	0.009	0.020	0.028

Monthly Discharge

Cubic Feet	11941	15456	75205
Gallons	89327	115619	562574
Acre-Feet	0.27	0.35	1.73

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Buffer Zone Hydrologic monitoring location SW118 is located at state plane 2082961, 751417 on North Walnut Creek northeast of B371 along the IA Perimeter Road. This station monitors runoff from the area northwest of the former PA. The SW118 drainage area is approximately 50 acres. This station collects flow data only.

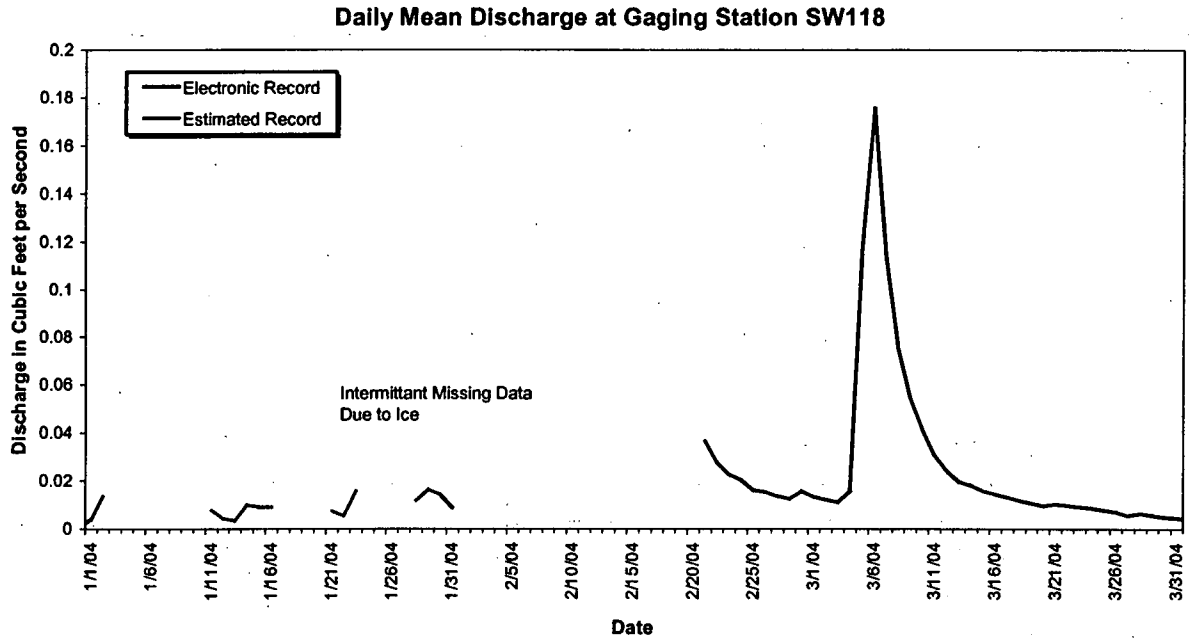

Figure 4-44. Mean Daily Discharge at SW118, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-44. Gaging Station SW119: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000
14	*0.0000*[a]	0.0000	0.0000
15	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	NA	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.0000	0.0000	0.0000

Monthly Discharge

Cubic Feet	0	0	0
Gallons	0	0	0
Acre-Feet	0.00	0.00	0.00

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging station SW119 is located at state plane 2084723, 751268 on a drainage ditch north of Solar Pond 207A along the PA perimeter road and was installed in support of remediation activities for the Solar Ponds. This performance monitoring station monitors runoff from the east and north sides of the Solar Ponds and Triangle Area. The SW119 drainage area is approximately 7.6 acres. This station collects samples for Pu, Am, uranium isotopes, CLP metals, and TSS using continuous flow-paced composite sampling.

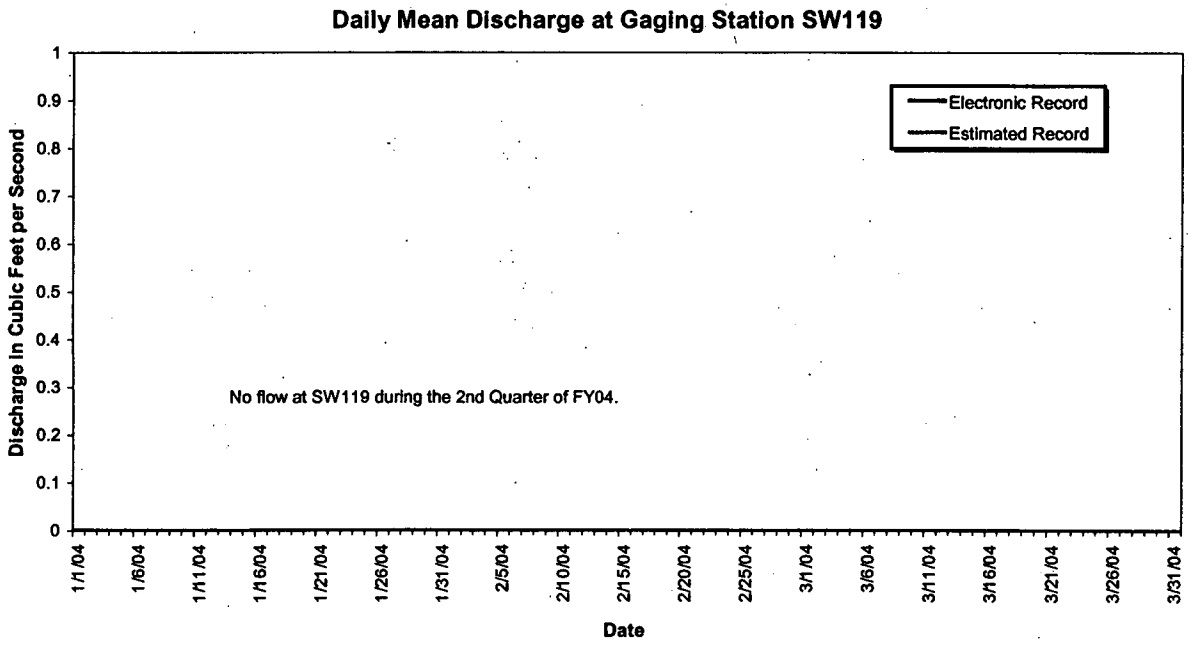

Figure 4-45. Mean Daily Discharge at SW119, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-45. Gaging Station SW120: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0049
6	0.0000	0.0000	0.0550
7	0.0000	0.0000	*0.0075*[a]
8	0.0000	0.0000	0.0014
9	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	0.0064	0.0000
21	0.0000	*0.0047*[a]	0.0000
22	0.0000	*0.0005*[a]	0.0000
23	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000
30	0.0000	NA	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.000	0.000	0.002

Monthly Discharge

Cubic Feet	0	1013	5939
Gallons	1	7577	44429
Acre-Feet	0.00	0.02	0.14

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.
[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.

Gaging Station SW120 is located at state plane 2084681.6 E 751269 N, in the drainage ditch north of the Solar Ponds along the south side of the PA Perimeter Road. This location is a Performance monitoring location in support of D&D activities for the B771/774 area. SW120 also serves as a Source Location monitoring point in support of Source Evaluation efforts for POE SW093. This location collects continuous flow-paced samples that are analyzed for Pu, U, Am, CLP metals, and TSS.

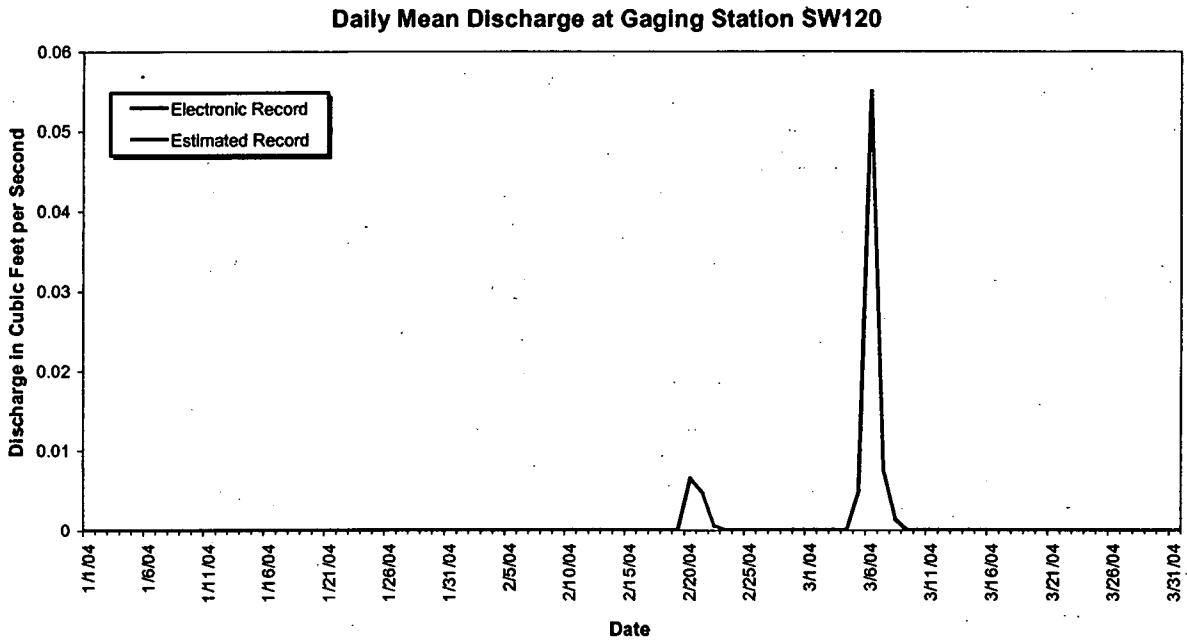

Figure 4-46. Mean Daily Discharge at SW120, Water Year 2004 (Jan, Feb, Mar 2004).

Table 4-46. Gaging Station SW134: Mean Daily Discharge (cubic feet per second).

Day	January-04	February-04	March-04
1	0.000	WR	0.000
2	0.000	WR	0.000
3	0.000	WR	0.000
4	WR	WR	0.000
5	WR	WR	0.014
6	WR	WR	0.030
7	WR	*0.026*[a]	0.001
8	WR	0.018	0.000
9	0.000	0.000	0.000
10	0.000	0.003	0.000
11	0.000	*0.001*[a]	0.000
12	0.000	WR	0.000
13	0.000	WR	0.000
14	0.000	WR	0.000
15	0.000	WR	0.000
16	0.000	0.000	0.000
17	0.000	0.003	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.031	0.000
21	0.052	0.001	0.000
22	WR	0.000	0.061
23	0.000	0.000	0.092
24	0.000	0.000	0.000
25	WR	0.000	0.000
26	WR	0.000	0.000
27	WR	0.000	0.000
28	WR	0.000	0.000
29	0.000	0.000	0.000
30	0.000	NA	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.002	0.004	0.006

Monthly Discharge

Cubic Feet	4474	7241	17031
Gallons	33470	54166	127400
Acre-Feet	0.10	0.17	0.39

Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.

[a] Contains data estimated from field observations and electronic record at adjacent or comparable gages.
WR = No data or unacceptable data due to winter icing conditions.

Buffer Zone Hydrologic monitoring location SW134 is located at state plane 2075942, 750049 on a tributary to Rock Creek at the northeast corner of the gravel pits north of the West Access Road. This station monitors runoff and pumped discharges from the gravel pits. This station collects samples for sediment/sand, Ca, Mg, Na, K, Cl, F, SO4, HCO3, and TSS using rising-limb, flow-paced composite sampling.

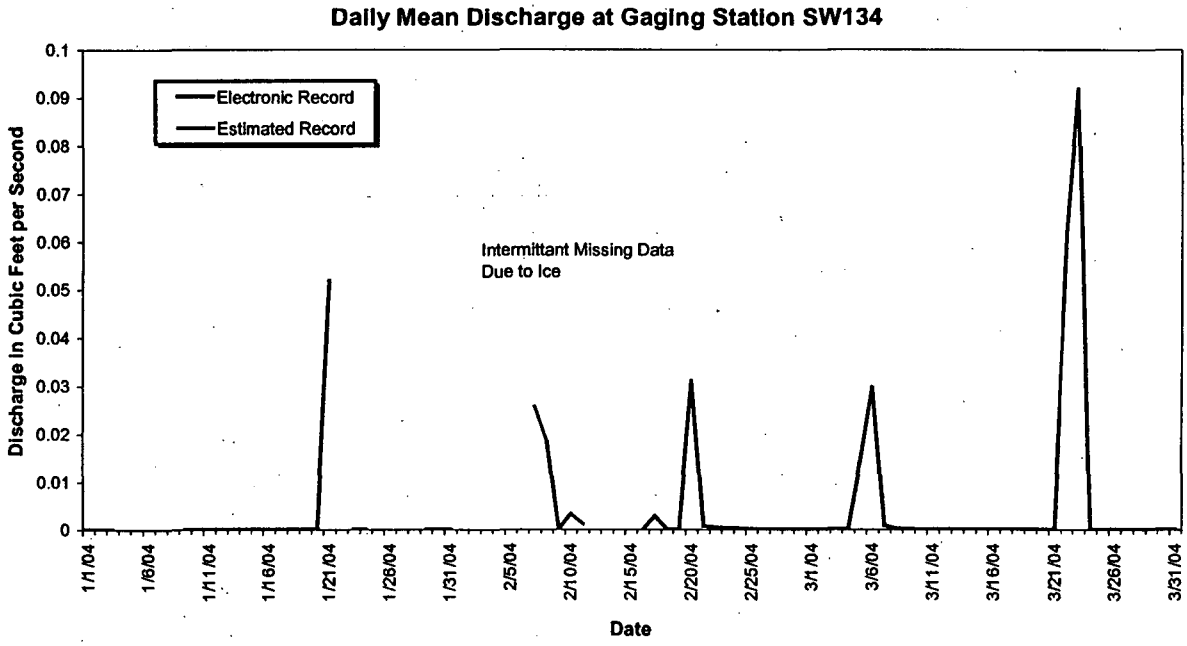

Figure 4-47. Mean Daily Discharge at SW134, Water Year 2004 (Jan, Feb, Mar 2004).

4.2 WATER QUALITY DATA

Table 4-47. Radionuclides, Water Year 2004 (Jan, Feb, Mar 2004).

Location	Sample Dates	Pu-239, -240 (pCi/L)	Am-241 (pCi/L)	Total Uranium (pCi/L)	Tritium (pCi/L)
GS01	6/19/03 - 1/9/04	0.001	0.002	3.150	199
GS01	1/9/04 - 1/21/04	0.005	0.002	3.264	A
GS01	1/21/04 - 2/2/04	0.301	0.054	3.695	A
GS01	2/2/04 - 2/12/04	0.007	-0.005	4.148	A
GS01	2/12/04 - 2/26/04	0.004	-0.002	3.936	A
GS01	2/26/04 - 3/15/04	0.004	-0.001	3.646	A
GS01	3/15/04 - 4/5/04	C	C	C	A
GS03	12/15/03 – 12/22/03	0.001	0.014	2.009	A
GS03	12/22/03 - 1/9/04	-0.001	0.023	2.166	A
GS03	1/9/04 - 3/9/04	D	D	D	A
GS03	3/9/04 - 3/15/04	0.002	0.022	1.677	A
GS03	3/15/04 - 3/23/04	-0.001	0.027	1.834	A
GS03	3/23/04 - 5/3/04	C	C	C	A
GS08	2/23/04 - 3/15/04	0.007	0.017	1.362	A
GS08	3/15/04 - 3/22/04	0.002	0.026	1.222	A
GS10	12/8/03 - 12/29/03	0.022	0.080	3.846	A
GS10	12/29/03 - 2/20/04	0.084	0.111	3.934	A
GS10	2/20/04 - 3/8/04	0.403	0.262	2.653	A
GS10	3/8/04 – 4/3/04	C	C	C	A
GS21	12/16/03 - 2/5/04	0.000	0.013	2.440	A
GS21	2/5/04 - 2/29/04	0.010	0.006	0.994	A
GS21	2/29/04 – 4/2/04	0.022	0.001	28.660	A
GS22	12/13/03 - 2/23/04	0.024	0.013	3.857	A
GS22	2/23/04 - 3/29/04	0.037	0.028	1.286	A
GS22	3/29/04 - 4/5/04	C	C	C	A
GS27	2/20/04	0.154	0.041	1.395	A
GS28	5/15/03 - 4/10/04	0.065	0.035	0.902	A

Location	Sample Dates	Pu-239, -240 (pCi/L)	Am-241 (pCi/L)	Total Uranium (pCi/L)	Tritium (pCi/L)
GS32	1/14/04	0.830	0.091	4.435	A
GS32	3/5/04	1.590	0.377	2.003	A
GS32	3/19/04	2.090	0.481	0.556	A
GS38	12/22/03 - 4/2/04	0.297	0.075	1.324	A
GS39	8/30/03 - 4/3/04	C	C	C	A
GS40	12/16/03 - 1/22/04	0.077	0.279	3.269	A
GS40	1/22/04 - 2/17/04	0.047	0.082	0.269	A
GS40	2/17/04 - 3/5/04	0.056	0.123	2.379	A
GS40	3/5/04 – 3/29/04	0.077	0.087	3.665	A
GS40	3/29/04 – 4/12/04	C	C	C	A
GS42	4/24/03 - *	0.811	0.093	0.195	A
GS43	8/7/03 - 4/2/04	0.037	0.025	1.170	A
GS44	12/12/03 - 3/2/04	0.064	0.052	3.295	A
GS44	3/2/04 - 4/2/04	0.426	0.201	5.174	A
GS49	9/2/03 - 3/5/04	0.007	0.009	2.483	49
GS49	3/5/04 – 4/2/04	0.189	0.099	1.315	A
GS50	4/24/03 - 4/9/04	0.080	0.114	0.334	A
GS51	6/17/03 - 4/12/04	C	C	C	A
GS52	4/24/03 - 4/11/04	0.303	0.040	0.665	A
GS53	6/20/03 -	E	E	E	A
GS55	10/1/03 - 2/20/04	0.004	-0.003	5.406	A
GS55	2/20/04 – 3/22/04	-0.001	0.006	6.639	A
GS55	3/22/04 - 4/5/04	C	C	C	A
GS56	5/11/03 - 3/8/04	0.001	0.004	3.702	A
GS56	3/8/04 - 4/13/04	C	C	C	A
GS57	12/23/03 – 2/6/04	0.003	0.000	5.014	A
GS57	2/6/04 - 2/29/04	0.029	0.016	0.718	A
GS57	2/29/04 - 4/2/04	0.007	-0.004	0.743	A
GS59	12/1/03 - 3/2/04	-0.003	0.004	1.529	A

Location	Sample Dates	Pu-239, -240 (pCi/L)	Am-241 (pCi/L)	Total Uranium (pCi/L)	Tritium (pCi/L)
GS59	3/2/04 – 4/13/04	C	C	C	A
GS60	12/14/03 - 3/5/04	0.001	0.013	0.444	A
GS60	3/5/04 - 4/3/04	C	C	C	A
GS61	10/30/03 – 3/2/04	0.024	0.005	0.551	A
GS61	3/2/04 - 4/3/04	C	C	C	A
SW018	12/18/03 - 3/8/04	0.006	0.007	2.371	A
SW018	3/8/04 - 4/12/04	C	C	C	A
SW021	11/10/03 - 12/15/03	0.001	0.000	0.983	A
SW021	12/15/03 - 2/20/04	0.000	-0.005	3.769	A
SW021	2/20/04 - 2/25/04	0.013	0.002	13.249	A
SW021	2/25/04 - 3/15/04	0.008	-0.003	0.837	A
SW021	3/15/04 - 4/11/04	C	C	C	A
SW022	11/3/03 - 4/2/04	0.083	0.007	1.520	A
SW027	5/11/03 - 3/6/04	0.036	0.005	2.428	A
SW027	3/6/04 - 4/3/04	C	C	C	A
SW036	7/18/03 - 4/26/04	C	C	C	A
SW055	6/5/03 - 4/12/04	C	C	C	A
SW093	11/26/03 – 1/19/04	0.011	0.011	0.226	A
SW093	1/19/04 - 2/20/04	0.032	0.000	3.817	A
SW093	2/20/04 - 3/9/04	0.059	0.067	3.058	A
SW093	3/9/04 – 4/3/04	C	C	C	A
SW119	5/15/03 - 4/12/04	C	C	C	A
SW120	6/6/03 - 3/8/04	0.264	3.130	7.645	193
SW120	3/8/04 - 4/8/04	C	C	C	A
995POE	12/8/03 - 1/19/04	0.011	0.061	0.734	A
995POE	1/19/04 - 3/2/04	-0.004	0.012	0.603	A
995POE	3/2/04 - 4/5/04	C	C	C	A

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Table 4-48. POE Metals, Water Year 2004 (Jan, Feb, Mar 2004).

Location	Sample Dates	Be ug/L	Dissolved Cd ug/L	Cr ug/L	Dissolved Ag ug/L
GS10	12/8/03 - 12/29/03	0.28	ND	5.30	ND
GS10	12/29/03 - 2/20/04	0.29	0.43	3.90	0.300
GS10	2/20/04 - 3/8/04	0.62	ND	15.50	0.180
GS10	3/8/04 - 4/3/2004	C	C	C	C
SW027	5/11/03 - 3/6/04	ND	ND	0.41	ND
SW027	3/6/04 - 4/3/04	C	C	C	C
SW093	11/26/03 - 1/19/04	0.10	ND	0.89	ND
SW093	1/19/04 - 2/20/04	0.24	0.28	3.80	ND
SW093	2/20/04 - 3/9/04	0.20	0.37	5.50	0.075
SW093	3/9/04 - 4/3/04	C	C	C	C

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Table 4-49. Other Metals, Water Year 2004 (Jan, Feb, Mar 2004).

Analyte (ug/L)	GS22 12/13/03 - 2/23/04	GS22 2/23/04 - 3/29/04	GS22 3/29/04 - 4/5/04	GS28 5/15/03 - 4/10/04	GS32 1/14/04
ALUMINUM	8350	8265	C	5630	9280
ANTIMONY	1.50	ND	C	1.20	16.00
ARSENIC	3.70	3.20	C	2.10	5.40
BARIUM	223.0	191.5	C	69.5	245.0
BERYLLIUM	0.43	0.36	C	0.11	0.43
CADMIUM	1.90	0.37	C	0.13	1.90
CALCIUM	82600	83300	C	25700	71200
CHROMIUM	17.70	11.40	C	6.30	13.00
COBALT	4.50	2.65	C	1.60	4.10
COPPER	88.00	21.30	C	13.80	38.10
IRON	10800	6870	C	4490	18400
LEAD	23.80	11.80	C	6.50	10.80
LITHIUM	64.10	30.00	C	7.40	43.90
MAGNESIUM	13000	13600	C	2520	8220
MANGANESE	188.00	108.00	C	75.80	571.00
MERCURY	0.17	ND	C	ND	ND
MOLYBDENUM	1.70	1.15	C	1.20	4.20
NICKEL	9.00	6.25	C	4.90	12.60
POTASSIUM	5410	5135	C	5330	34000
SELENIUM	0.96	ND	C	ND	ND
SILVER	1.50	0.36	C	ND	0.29
SODIUM	1430000	356500	C	6610	1620000
STRONTIUM	459.0	414.5	C	83.3	458.0
THALLIUM	ND	ND	C	ND	ND
TIN	1.80	ND	C	ND	ND
VANADIUM	20.50	17.35	C	13.20	20.00
ZINC	1280	472	C	146	5840

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

ANALYTE (UG/L)	GS32 3/5/04	GS32 3/19/04	GS38 12/22/03 - 4/2/04	GS40 12/16/03 - 1/22/04	GS40 1/22/04 - 2/17/04
ALUMINUM	3150.0	2750.0	5450.0	9900.0	6250.0
ANTIMONY	4.60	9.10	1.60	26.10	18.10
ARSENIC	2.30	2.00	3.90	8.80	6.10
BARIUM	25.3	77.5	194.0	724.0	786.0
BERYLLIUM	0.13	0.10	0.30	0.40	0.27
CADMIUM	ND	0.15	1.30	3.10	2.20
CALCIUM	24200	80500	59000	194000	209000
CHROMIUM	9.50	11.30	8.00	10.20	6.60
COBALT	0.83	0.84	1.70	2.70	2.70
COPPER	8.80	36.00	14.40	23.90	13.30
IRON	2240.0	1490.0	5110.0	21800.0	12200.0
LEAD	1.80	1.10	5.90	11.30	7.10
LITHIUM	11.80	10.10	45.20	39.90	40.20
MAGNESIUM	1620	378	7770	49600	55000
MANGANESE	27.20	21.20	118.00	2020.00	2200.00
MERCURY	ND	ND	ND	ND	ND
MOLYBDENUM	9.10	12.20	2.00	2.20	1.90
NICKEL	3.80	3.90	6.10	7.40	5.60
POTASSIUM	7220	52100	6600	26300	23200
SELENIUM	0.86	2.50	ND	ND	ND
SILVER	ND	0.22	0.23	0.73	0.28
SODIUM	79100	186000	1140000	1280000	1660000
STRONTIUM	150.0	2010.0	300.0	1540.0	1710.0
THALLIUM	ND	ND	ND	ND	ND
TIN	ND	ND	ND	ND	ND
VANADIUM	14.10	17.60	13.40	19.50	12.00
ZINC	56.30	205.00	212.00	599.00	477.00

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	GS40 2/17/04 - 3/5/04	GS40 3/5/04 - 3/29/04	GS40 3/29/04 - 4/12/04	GS43 8/7/03 - 4/2/04	GS44 12/12/03 - 3/2/04
ALUMINUM	5970.0	3970.0	C	11500.0	37200.0
ANTIMONY	17.60	15.90	C	4.30	2.30
ARSENIC	3.40	4.00	C	5.20	13.10
BARIUM	683.0	653.0	C	104.0	1140.0
BERYLLIUM	0.26	0.23	C	0.33	1.30
CADMIUM	2.00	1.30	C	0.41	4.00
CALCIUM	203000	210000	C	37900	303000
CHROMIUM	6.70	4.70	C	15.90	32.70
COBALT	2.30	1.70	C	2.70	15.10
COPPER	12.80	10.70	C	20.30	56.30
IRON	9290.0	11600.0	C	8830.0	28200.0
LEAD	7.40	4.70	C	10.50	28.80
LITHIUM	27.40	19.50	C	12.50	153.00
MAGNESIUM	53700	54100	C	3970	39000
MANGANESE	1970.00	1680.00	C	114.00	1120.00
MERCURY	ND	ND	C	ND	ND
MOLYBDENUM	1.30	2.10	C	2.90	3.70
NICKEL	6.50	3.80	C	9.30	26.30
POTASSIUM	17300	8340	C	11500	26400
SELENIUM	ND	ND	C	ND	ND
SILVER	ND	0.21	C	ND	0.17
SODIUM	866000	501000	C	21200	6460000
STRONTIUM	1520.0	1630.0	C	158.0	1550.0
THALLIUM	ND	ND	C	ND	ND
TIN	ND	ND	C	ND	ND
VANADIUM	12.70	8.50	C	25.30	74.50
ZINC	542.00	478.00	C	208.00	1820.00

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	GS44	GS49	GS49	GS50	GS55
	3/2 - 4/2/2004	9/2/2003 - 3/5/2004	3/5 - 4/2/2004	4/24/2003 - 4/9/04	10/1/2003 - 2/20/2004
ALUMINUM	51300.0	651.0	17600.0	3380.0	1610.0
ANTIMONY	2.70	ND	1.50	1.10	ND
ARSENIC	15.80	1.10	5.70	2.70	2.00
BARIUM	457.0	893.0	137.0	40.3	189.0
BERYLLIUM	2.20	0.10	0.81	0.40	0.11
CADMIUM	1.50	2.90	0.36	0.26	2.10
CALCIUM	85200	143000	38100	13400	92700
CHROMIUM	54.30	2.30	16.80	4.10	2.00
COBALT	14.80	1.10	4.30	0.77	2.80
COPPER	64.40	29.20	33.90	6.50	6.20
IRON	43100.0	551.0	14400.0	2340.0	5060.0
LEAD	33.20	1.00	11.10	4.50	2.30
LITHIUM	94.10	22.70	17.90	6.40	16.80
MAGNESIUM	20600	15300	5460	1560	24100
MANGANESE	610.00	197.00	187.00	32.70	1370.00
MERCURY	ND	ND	ND	ND	ND
MOLYBDENUM	3.90	0.70	2.80	1.40	1.40
NICKEL	37.80	3.40	13.00	2.80	3.20
POTASSIUM	15500	8780	7310	4260	4330
SELENIUM	5.30	1.10	1.10	ND	1.00
SILVER	ND	ND	0.49	ND	ND
SODIUM	776000	2100000	322000	11700	83900
STRONTIUM	485.0	763.0	141.0	48.5	662.0
THALLIUM	ND	ND	ND	ND	ND
TIN	ND	ND	ND	ND	ND
VANADIUM	114.00	1.20	33.70	7.00	3.90
ZINC	521.00	812.00	217.00	26.10	55.30

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	GS55 2/20/04 - 3/22/04	GS55 3/22/04 - 4/5/04	GS56 5/11/03 - 3/8/04	GS56 3/8/04 - 4/13/04	GS57 12/23/03 - 2/6/04
ALUMINUM	1030.0	C	589.0	C	216.0
ANTIMONY	ND	C	1.20	C	1.20
ARSENIC	1.40	C	ND	C	ND
BARIUM	243.0	C	134.0	C	310.0
BERYLLIUM	0.06	C	ND	C	0.11
CADMIUM	0.43	C	ND	C	4.30
CALCIUM	110000	C	51000	C	103000
CHROMIUM	1.90	C	0.80	C	0.89
COBALT	0.56	C	ND	C	0.69
COPPER	3.70	C	2.40	C	6.40
IRON	1360.0	C	358.0	C	240.0
LEAD	0.60	C	0.62	C	ND
LITHIUM	15.50	C	11.00	C	44.60
MAGNESIUM	24600	C	8600	C	10700
MANGANESE	133.00	C	5.30	C	138.00
MERCURY	ND	C	ND	C	ND
MOLYBDENUM	1.40	C	1.00	C	1.10
NICKEL	1.90	C	1.80	C	3.90
POTASSIUM	4110	C	2130	C	9310
SELENIUM	1.20	C	ND	C	ND
SILVER	0.16	C	ND	C	ND
SODIUM	161000	C	16400	C	1200000
STRONTIUM	691.0	C	284.0	C	610.0
THALLIUM	ND	C	ND	C	ND
TIN	ND	C	ND	C	ND
VANADIUM	2.30	C	2.30	C	1.10
ZINC	41.30	C	6.20	C	1900.00

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	GS57 2/6/04 - 2/29/04	GS57 2/29/04 - 4/2/04	GS59 12/1/03 - 3/2/04	GS59 3/2/04 - 4/13/04	GS60 12/14/03 - 3/5/04
ALUMINUM	4950.0	4440.0	21.3	C	5320.0
ANTIMONY	0.80	1.20	ND	C	ND
ARSENIC	3.90	3.40	ND	C	1.80
BARIUM	744.0	126.0	75.4	C	333.0
BERYLLIUM	0.31	0.21	ND	C	0.24
CADMIUM	13.50	1.50	ND	C	0.26
CALCIUM	221000	50400	48300	C	78700
CHROMIUM	7.50	5.80	0.59	C	16.40
COBALT	2.80	1.60	ND	C	1.50
COPPER	15.60	14.40	1.50	C	8.20
IRON	4940.0	3360.0	33.0	C	4100.0
LEAD	6.00	4.50	ND	C	2.60
LITHIUM	80.90	22.60	6.00	C	19.40
MAGNESIUM	19800	6150	9620	C	12200
MANGANESE	327.00	146.00	2.50	C	144.00
MERCURY	ND	ND	ND	C	ND
MOLYBDENUM	2.00	3.00	0.67	C	2.30
NICKEL	11.60	6.30	1.10	C	5.60
POTASSIUM	15500	6970	1000	C	6390
SELENIUM	ND	ND	ND	C	ND
SILVER	0.46	0.29	ND	C	ND
SODIUM	3240000	685000	20700	C	954000
STRONTIUM	1160.0	244.0	252.0	C	387.0
THALLIUM	1.30	ND	ND	C	1.00
TIN	ND	ND	ND	C	ND
VANADIUM	10.20	9.00	0.45	C	10.90
ZINC	3680.00	1070.00	3.90	C	422.00

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	GS60	GS61	GS61	SW018	SW018
	3/5/04 - 4/3/04	10/30/03 - 3/2/04	3/2/04 - 4/3/04	12/18/03 - 3/8/04	3/8/04 - 4/12/04
ALUMINUM	C	4200.0	C	3500.0	C
ANTIMONY	C	0.93	C	0.81	C
ARSENIC	C	2.30	C	1.60	C
BARIUM	C	441.0	C	276.0	C
BERYLLIUM	C	0.22	C	0.17	C
CADMIUM	C	2.10	C	0.31	C
CALCIUM	C	135000	C	125000	C
CHROMIUM	C	6.10	C	4.10	C
COBALT	C	2.50	C	1.20	C
COPPER	C	12.80	C	5.60	C
IRON	C	4150.0	C	4010.0	C
LEAD	C	5.50	C	2.60	C
LITHIUM	C	64.40	C	21.80	C
MAGNESIUM	C	21000	C	24300	C
MANGANESE	C	872.00	C	511.00	C
MERCURY	C	ND	C	ND	C
MOLYBDENUM	C	2.10	C	1.20	C
NICKEL	C	9.70	C	4.10	C
POTASSIUM	C	9330	C	5670	C
SELENIUM	C	ND	C	ND	C
SILVER	C	ND	C	ND	C
SODIUM	C	1950000	C	550000	C
STRONTIUM	C	835.0	C	711.0	C
THALLIUM	C	ND	C	ND	C
TIN	C	ND	C	ND	C
VANADIUM	C	7.70	C	6.80	C
ZINC	C	997.00	C	159.00	C

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis;
D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	SW021 11/10/03 - 12/15/03	SW021 12/15/03 - 2/20/04	SW021 2/20/04 - 2/25/04	SW021 2/25/04 - 3/15/04	SW021 3/15/04 - 4/11/04
ALUMINUM	32.8	11.2	33.9	83.8	C
ANTIMONY	ND	1.80	ND	ND	C
ARSENIC	ND	1.50	ND	0.96	C
BARIUM	66.3	126.0	400.5	584.0	C
BERYLLIUM	ND	0.07	0.12	ND	C
CADMIUM	0.14	0.14	0.28	0.24	C
CALCIUM	35400	123000	252500	296000	C
CHROMIUM	0.56	2.20	0.35	1.10	C
COBALT	ND	ND	ND	ND	C
COPPER	1.40	1.30	3.70	1.40	C
IRON	250.0	22.2	61.8	88.6	C
LEAD	ND	ND	ND	ND	C
LITHIUM	3.80	16.70	17.45	14.80	C
MAGNESIUM	6660	41200	45200	47400	C
MANGANESE	68.00	0.72	17.80	6.10	C
MERCURY	ND	ND	ND	ND	C
MOLYBDENUM	1.40	1.40	1.20	1.10	C
NICKEL	0.63	2.80	2.20	1.80	C
POTASSIUM	1010	1880	4035	3830	C
SELENIUM	ND	ND	ND	ND	C
SILVER	0.79	0.17	0.17	ND	C
SODIUM	18700	102000	198000	229000	C
STRONTIUM	219.0	1070.0	1360.0	1490.0	C
THALLIUM	ND	1.60	ND	ND	C
TIN	ND	1.80	ND	ND	C
VANADIUM	0.50	0.24	0.23	0.30	C
ZINC	99.20	3.10	24.45	10.90	C

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Analyte (ug/L)	SW036	SW119	SW120	SW120*	
	7/18/03 - 4/26/04	5/15/03 - 4/12/04	6/6/03 - 3/8/04	3/8/04 - 4/8/04	
ALUMINUM	C	C	842.0	C	
ANTIMONY	C	C	1.80	C	
ARSENIC	C	C	1.70	C	
BARIUM	C	C	172.0	C	
BERYLLIUM	C	C	0.06	C	
CADMIUM	C	C	0.22	C	
CALCIUM	C	C	120000	C	
CHROMIUM	C	C	4.90	C	
COBALT	C	C	0.74	C	
COPPER	C	C	6.90	C	
IRON	C	C	571.0	C	
LEAD	C	C	0.56	C	
LITHIUM	C	C	48.10	C	
MAGNESIUM	C	C	25300	C	
MANGANESE	C	C	35.10	C	
MERCURY	C	C	ND	C	
MOLYBDENUM	C	C	2.70	C	
NICKEL	C	C	4.30	C	
POTASSIUM	C	C	14900	C	
SELENIUM	C	C	ND	C	
SILVER	C	C	ND	C	
SODIUM	C	C	528000	C	
STRONTIUM	C	C	716.0	C	
THALLIUM	C	C	ND	C	
TIN	C	C	ND	C	
VANADIUM	C	C	2.50	C	
ZINC	C	C	30.90	C	

Table Notes: ND = not detected; R = rejected; A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Table 4-50. Water Quality Parameters, Water Year 2004 (Jan, Feb, Mar 2004).

Location	Sample Dates	Hardness mg/L
GS10	12/8/03 - 12/29/03	520
GS10	12/29/03 - 2/20/04	470
GS10	2/20/04 - 3/8/04	300
GS10	3/8/04 - 4/3/04	200
SW027	5/11/03 - 3/6/04	d
SW027	3/6/04 - 4/3/04	280
SW093	11/26/03 - 1/19/04	520
SW093	1/19/04 - 2/20/04	670
SW093	2/20/04 - 3/9/04	630
SW093	3/9/04 - 4/3/04	460

Table Notes: A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period

Table 4-51. Buffer Zone/Hydrologic Water Quality Parameters, Water Year 2004 (March 2004).

Location	Sample Date	Analytes (mg/L)								
		TSS	Ca	Mg	Na	K	Cl	F	SO_4	Total Alkalinity
SW134	3/22/04	210	20.0	5.09	13.2	3.37	7.7	0.41	21	61

Table Notes: A = not applicable; B = not collected; C = incomplete analysis; D = insufficient quantity; E = composite sample in progress; * = sampler waiting to trigger on next flow period.

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5.0 INCIDENTAL WATERS

5.1 INCIDENTAL WATERS DEFINITION AND ROUTING MATRIX

An incidental water is defined as precipitation, surface water, groundwater, utility water, process water, or waste water collecting in one or more of several types of containments. These containments can include excavation sites, foundation drains, secondary containment berms, electrical vaults, utility pits and manholes, or other natural or manmade depressions, which must be dewatered.

Water collected in this manner has the potential to become contaminated via contact with the surrounding containment material. Sampling and disposition of incidental waters is conducted per Site Procedure 1-C91-EPR-SW.01, *Control and Disposition of Incidental Waters.* Incidental waters are typically sampled for pH, nitrates, conductivity, and gross alpha and gross beta (when radionuclides are suspected). Additional testing for volatile organic compounds and metals is performed when a specific potential contaminant source is known to exist. Disposition depends on the analytical results. Routing options for incidental waters are outlined in the following table.

Table 5-1. Incidental Waters Routing Matrix.

Incidental Water Routing	Routing Criteria	Treatment Processes
Ground/Storm Drain	• Water meets discharge limits per Incidental Waters procedure	N/A
Building 995 Waste Water Treatment Plant (WWTP)	• Water above discharge to ground limits • Water meets Internal Waste Streams Program review criteria	Activated Sludge w/ tertiary clarifiers Dual media filtration UV disinfection
Building 891 Consolidated Water Treatment Facility (CWTF)	• Water above discharge to ground limits • Water not accepted by WWTP • Water meets CWTF acceptance criteria and has both radionuclide and organic constituents	Chemical precipitation Microfiltration UV/ peroxide oxidation Granular activated carbon Ion exchange
Aqueous Wast Treatment System (AWTS)	• Water above discharge to ground limits • Water not accepted by WWTP • Water may have radionuclides, organic, RCRA Permitted wastes	Liquids shipped offiste for treatment by approved vendor

5.2 QUARTERLY INCIDENTAL WATER DISPOSITIONS

Fourteen (14) incidental waters were sampled/dispositioned during the second quarter of FY04. Table 5-2 summarizes the location and route of disposal.

Table 5-2. Quarterly Incidental Water Dispositions FY2004 (Jan, Feb, Mar 2004).

Location Or Building	Location Type	Location Description	Number of Incidental Waters	Route of Disposal
100PAD	Excavation	Excavation to isolate water line	1	To Ground or Storm Drain
119	Excavation	Water line isolation	1	To Ground or Storm Drain
130	Excavation	Water line isolation	1	To Ground or Storm Drain
131	Excavation	Excavation to isolate water line	1	To Ground or Storm Drain
443	Excavation	Water line isolation SW corner of 443	1	To Ground or Storm Drain
705	Excavation	Water line isolation	1	To Ground or Storm Drain
706	Excavation	Water line isolation	1	To Ground or Storm Drain
779	Building Pit	Building pit	1	Cancelled
782	Building Pit	Building pit	1	Cancelled
783	Building Pit	Building pit	1	Cancelled
881	Excavation	"C" Riser Isolation southeast side of 881	1	To Ground or Storm Drain
881	Excavation	B-Riser Isolation north of B881	1	To Ground or Storm Drain
900PAD	Excavation	Excavation to isolate water line	1	To Ground or Storm Drain
T371C	Excavation	East of T371C	1	To Ground or Storm Drain

The 14 incidental waters requiring treatment were routed to the following Site treatment facilities:

- Building 995 – WWTP 0
- Building 891 – CWTF 0
- AWTS 0
- Ground 11
- Cancelled 3