ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
QUARTERLY
ENVIRONMENTAL MONITORING REPORT
OCTOBER – DECEMBER 2000

US Department of Energy, Rocky Flats Field Office
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PREPARED BY ROCKY MOUNTAIN REMEDIATION SERVICES, L.L.C.

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FEBRUARY 2001

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HIGHLIGHTS FOR OCTOBER - DECEMBER 2000

This report is produced and distributed quarterly as part of our 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 Meeting, the Site is consolidating its reporting for selected media. In an effort to provide a more meaningful interpretation of the data presented and to save some natural resources, namely trees, 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 1998, 1999, and 2000. Ambient air data are represented by two graphs – a summary of estimated off-site dose as compared to a 10 Mrem 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.

Compliance data in support of the Site National Pollutant Discharge Elimination System (NPDES) permit are presented for the reporting period. Analytical data collected in support of RFCA will include the following locations: GS01, GS03, GS08, GS10, GS11, GS31, GS43, SW022, SW027, SW091, and SW093. Data include the hydrograph, mean daily flow and available water quality measurements for each location during the reporting period. Additional surface water locations supporting the Industrial Area Interim Measures/Interim Remedial Action (IA IM/IRA) program are GS27, GS32, GS39 and GS40 and are presented in the same manner as RFCA locations. Other stations may appear or be deleted, as performance monitoring locations are added or dropped, as well as any new source detection locations that may be required. Some locations, like GS32, have no flow monitoring capabilities and only analytical data are provided. An additional section provides quarterly summary information for the Incidental Waters program.

1.1 Airborne Effluent

Complete isotopic analytical data through November 2000 are included in this report. All data are within the normally observed ranges of concentrations for their respective locations. Consistent with all other uses of these data, positive values only are included in the total release calculation (the negative values are treated as zeros). The uncertainty calculation reflects all data.

During the entire month of November, effluent flow rate in the Building 374-MAI stack was only about 75% of normal due to a clogged HEPA filter. Though HEPA integrity was never compromised and no release of radioactive material occurred which was attributable to this event, the change in effluent flow decreased the actual release rate for the affected period (release rate equals concentration multiplied by flow rate). Because of the wide range across which the shrouded probe sampler was designed to function, samples extracted during this period of reduced flow are still representative. It was decided to calculate release rate based on the normal flow rate, rather than the reduced flow rate, which provided a

conservatively-biased release calculation. Analytical results for the period of reduced stack flow were not out of the ordinary. Stack flow in 374-MAI returned to normal on December 11, 2000.

In November, the monitoring classification of several emissions points were changed as a result of Site operations. On November 6th, the effluent monitoring systems serving 374-SPD was taken out of service following a determination that planned spray dryer operations had insignificant release potential. Also on November 6th, the effluent tritium monitoring system serving Building 776 was taken out of service following a determination that the quantity of available tritium was insufficient to require monitoring. On November 13th, the effluent monitoring system in Building 440 was returned to service in anticipation of waste repackaging operations resuming in that building. Finally, on November 20th, four effluent sampling systems in building 776 were redesignated as "significant" sources in anticipation of decommissioning activities in that building and were reassigned from the monthly (insignificant source) to the weekly (significant source) filter exchange schedule.

1.2 Ambient Air

Complete isotopic analytical data through October 2000 for coarse (>10 micrometers) and fine (<10 micrometers) ambient air samples are included in this report. All data are within the normally observed ranges of concentrations for their respective locations.

During the quarterly sample flow verification in October, all ambient air samplers were observed to have acceptable (normal) sample flow.

1.3 Meteorology and Climatology

Meteorological data are routinely measured from instruments on a 61-meter tower located in the west buffer zone at an elevation of 1,870 meters (6,140 feet) above sea level. All meteorological data are collected on a real-time basis and are transmitted as 15-minute averaged values to the Computer Assisted Protective Action Recommendations System (CAPARS) model for emergency response purposes. The same data are logged at the tower and downloaded for air quality and surface water modeling purposes.

Climatic summaries and wind roses for October through December 2000 are included in this report.

As a result of the protocols used to validate the meteorological data, each 15-minute averaged observation is validated, rather than the entire observation record for the same time period (which might contain 70 different observations-i.e. temperature, wind speed, etc.). Missing data are reported with respect to the wind speed and wind direction values, for example, rather than recording all observations missing for the same 15 minute period. There was no missing wind speed and/or direction data during the quarter.

1.4 Surface Water

Surface water analytical data collected during first quarter of FY01 (October, November, and December) for NPDES/FFCA permit compliance are presented in this report. The renewal NPDES permit for the

Site became effective October 27, 2000, initiating a number of reporting changes. As a result of the renewal, the reporting period the October DMR, the last under the old permit, was October 1, 2000 through October 26, 2000. The reporting period for the November DMR, under the terms of the renewal permit, was October 27, 2000 through November 30, 2000. Two sets of tables are included in this report to reflect monitoring requirements and data under the terms of both the old and the renewal permit.

The Site reported an exceedance of the 7-day geometric mean for fecal coliform from the effluent of the Sewage Treatment Plant (Outfall STP 1) during the November reporting period. The calculated geometric mean for samples collected November 15th and 16th, 2000 was 620 colonies per 100 ml of sample. The limitation for this parameter is 400 colonies per 100 ml of sample. An investigation revealed that sample collection on November 16th was performed about 40 minutes after the routine weekly cleaning operation of the UV disinfection system. It is believed that the elevated results were caused by residual turbidity in the effluent after the UV cleaning operation. As a corrective measure, future samples will be collected either before the cleaning operation or significantly after the cleaning is complete.

The Novmeber DMR also included a one time exceedance of the daily effluent limitation for nitrite; on November 27th a level of 4.7 mg/l was measured where the limitation is 4.5 mg/l. It was noted in the Novmeber DMR that this is the first time that nitrite is being reported in the Discharge Monitoring Report, so it is not possible to compare this result with previous monitoring records. All other reported data not detailed above for the quarter were consistent with historical measurements and within permit limitations.

Included in this report are two surface water locations that monitor the Mound Site area. These locations are SW061 and SW132 and are sampled quarterly for isotopic Pu/Am, selected total and dissolved metals, and EPA VOA Method 8260.

1.5 Hydrologic Monitoring and Rocky Flats Cleanup Agreement (RFCA) Monitoring

All available analytical data collected during first quarter of FY01 (October, November, and December) from samples supporting RFCA and Hydrologic Monitoring programs are included in this report. Two new RFCA stations were included in the routine monitoring program during the quarter. A Point of Evaluation (POE) was established at the effluent of the Sewage Treatment Plant to comply with requirements in the recently revised Action Level Framework under RFCA. This location became operational to coincide with the implementation of the renewal NPDES permit, on October 27, 2000.

Gaging station GS44 became operational on October 5, 2000 and is located on a drainage ditch between T771F and T771L. This station is a Performance Monitoring Location and will monitor runoff from the west side of B771 and includes B771 footing drain water.

1.6 Incidental Water Monitoring

A summary of Incidental Waters dispositioned during first quarter of FY01 (October, November, and December) are presented in this report.

1.0 AIR DATA

1.1. EFFLUENT AIR DATA

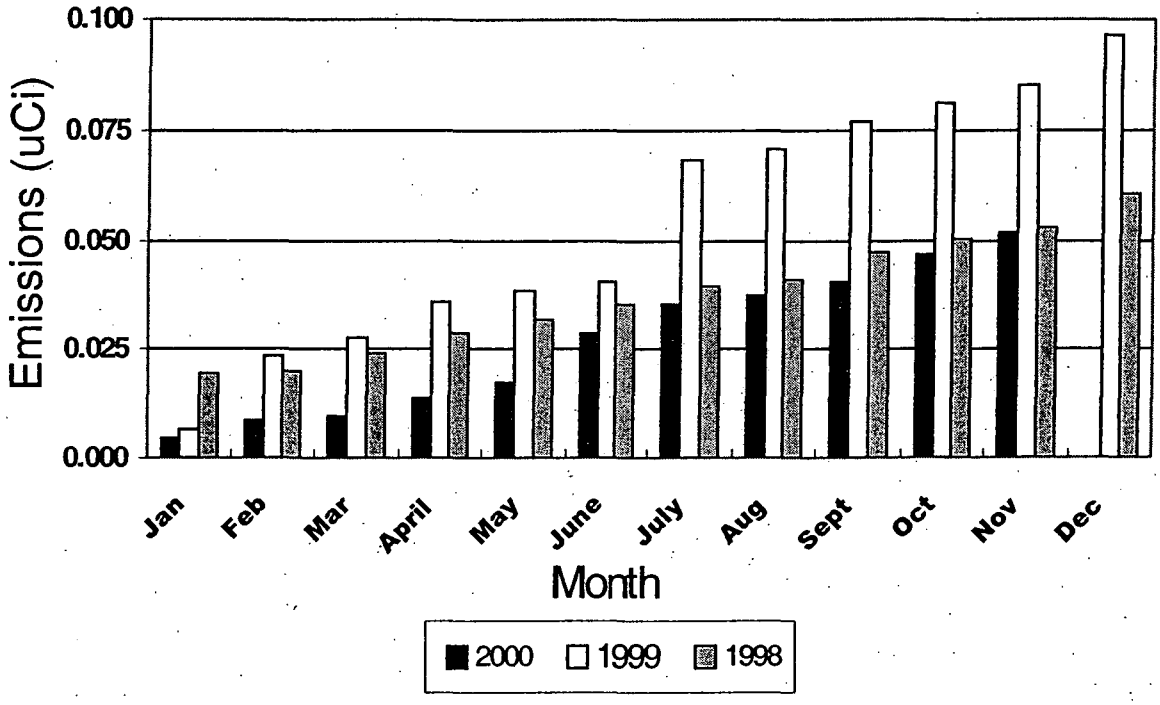
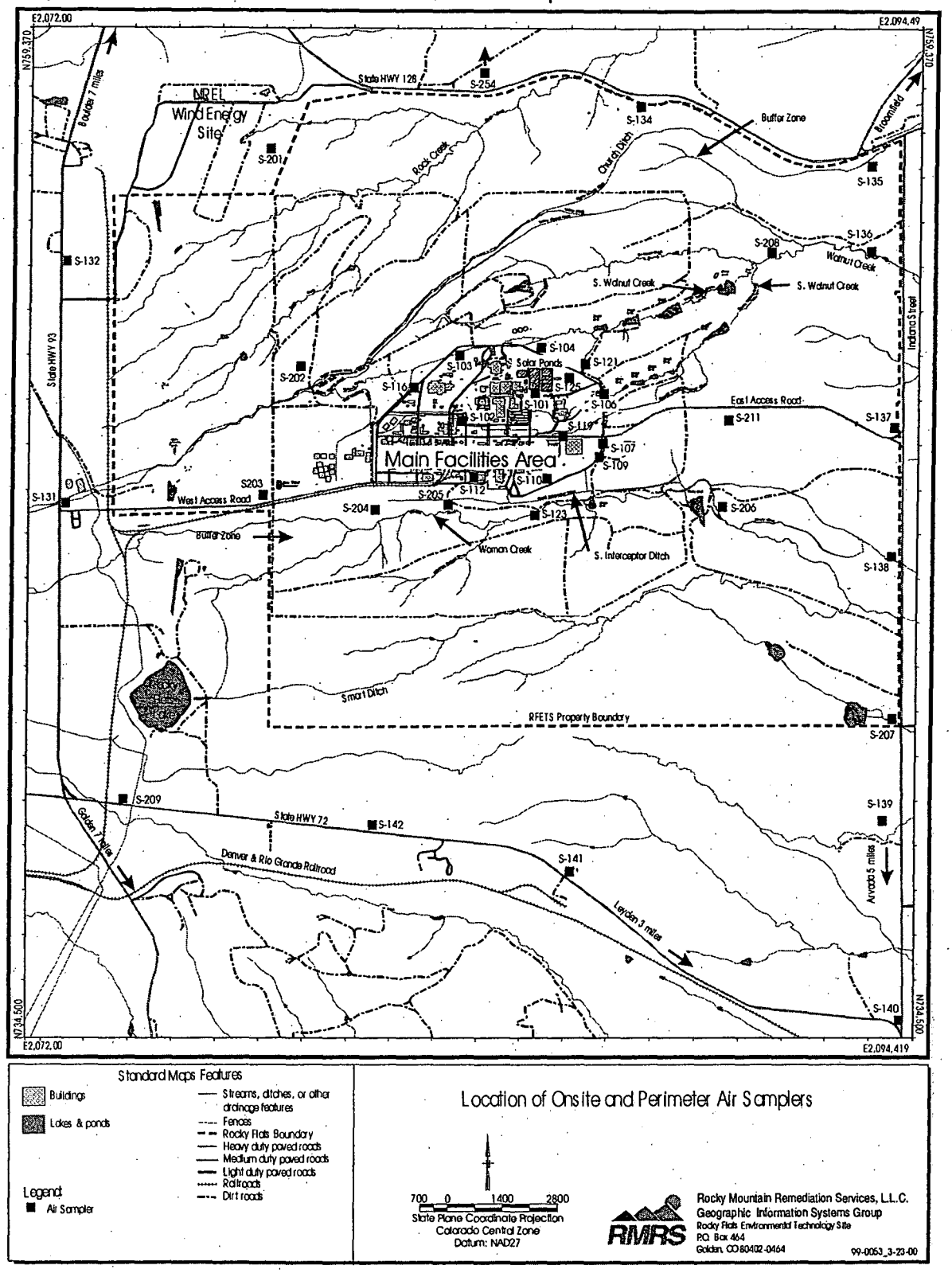


Figure 1-1. Cumulative Plutonium Airborne Effluent Emissions

The above graph shows the cumulative airborne effluent emissions of plutonium from building stacks. The results from the most recently analyzed effluent stack samples (September, October, and November 2000) were consistent with previously measured plutonium concentrations, with a cumulative, year-to-date (November 2000) plutonium emission of 0.052 microcuries (uCi).

Americium and uranium emissions for September, October, and November 2000 were also within the ranges seen in 1998 and 1999. Tritium emissions during September, October and part of November 2000 were similar to the emissions seen earlier in 2000 (tritium sampling was discontinued on November 6, 2000).

Map 1-1. Location of Onsite and Perimeter Air Samplers



1.2. AMBIENT AIR DATA

1.2.1. Perimeter Sampler Locations

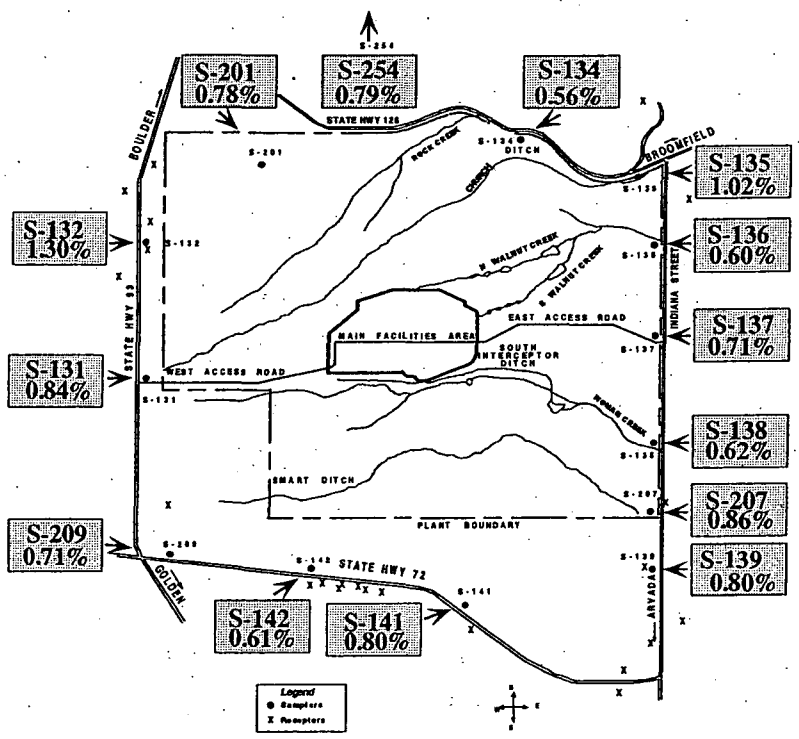


Figure 1-2. Perimeter Samplers Dose Map

The above map illustrates the perimeter Radioactive Ambient Air Monitoring Program (RAAMP) sampler locations and the twelve-month rolling-average maximum potential dose through October 2000, expressed as a percentage of EPA's air concentration-based dose limit for members of the public.

The percentages include the naturally occurring uranium isotopes as well as the isotopes from site contributions. The average concentration observed at location S-132 is projected to equate to the highest potential dose, which is consistent with the previously reported results.

The percentage values are based on the measured air concentrations, averaged over the year, converted as a percent of the Rad NESHAP concentration limits.

Perimeter Sampler Locations – Dose Rate Graphs

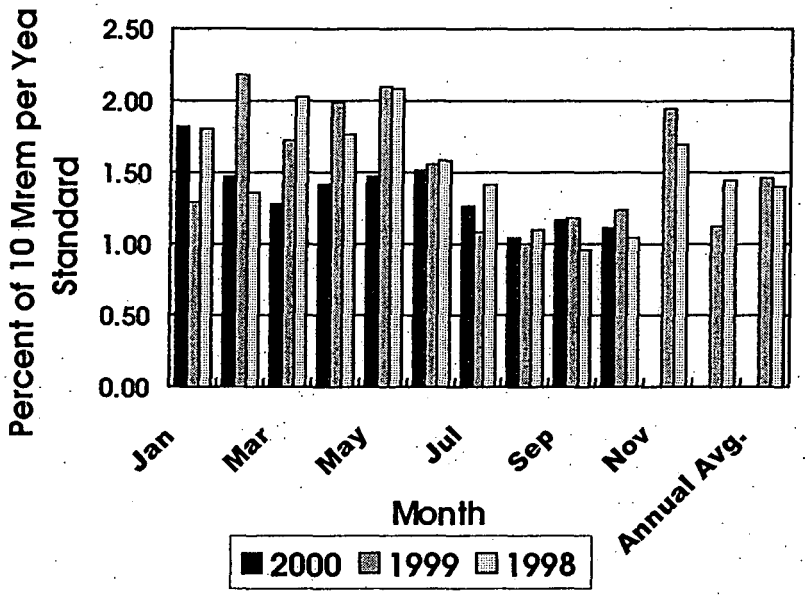


Figure 1-3. Offsite Dose Rate Summary

The above graph illustrates the monthly estimated maximum potential dose rates at the perimeter sampler showing highest total radionuclide concentrations, including contributions from naturally occurring uranium isotopes. The highest dose rates for September and October 2000 were seen at location S-132. The maximum offsite dose rate remains below 2.5 percent of the 10 mrem standard.

1.2.2 Perimeter Sampler Locations – Dose Rate Graphs, continued

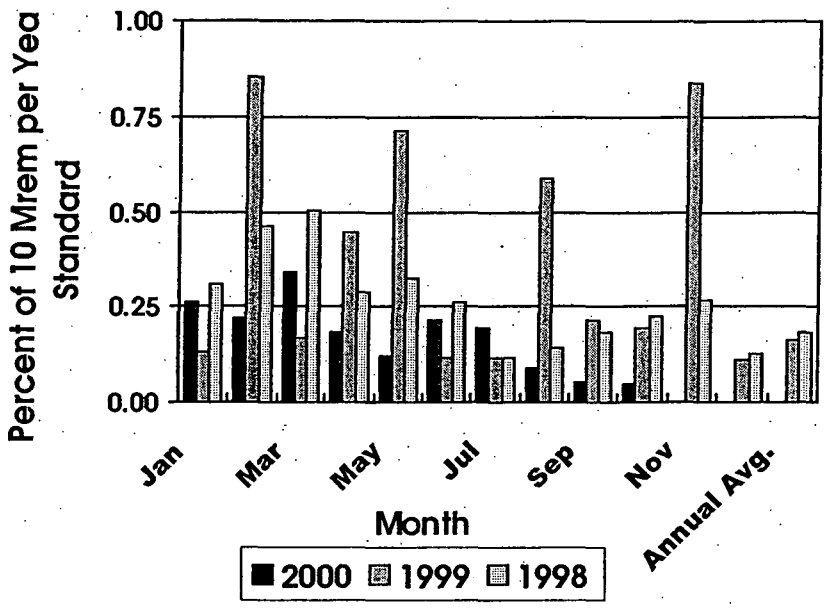


Figure 1-4. Offsite Dose Rate Summary Without U-234 and U-238

Omitting the dose contributions from uranium 234 and 238 may better reflect the contribution from Site operations at the same sampling location. This view shows the maximum offsite dose rate, resulting from Site activities, to be less than 0.9 percent of the 10 mrem standard.

Ambient concentrations and dose rates for 2000 are similar to the rates observed in 1998 and 1999.

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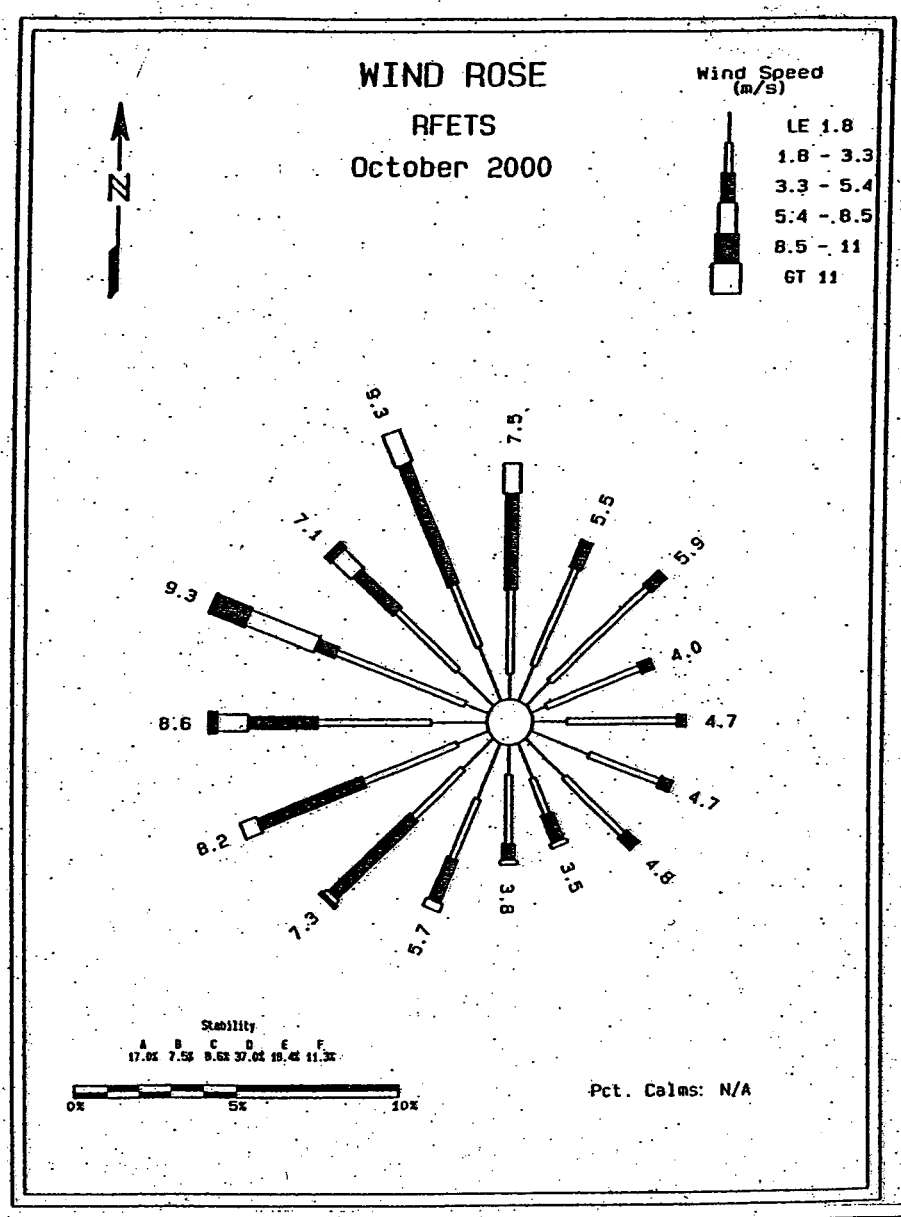
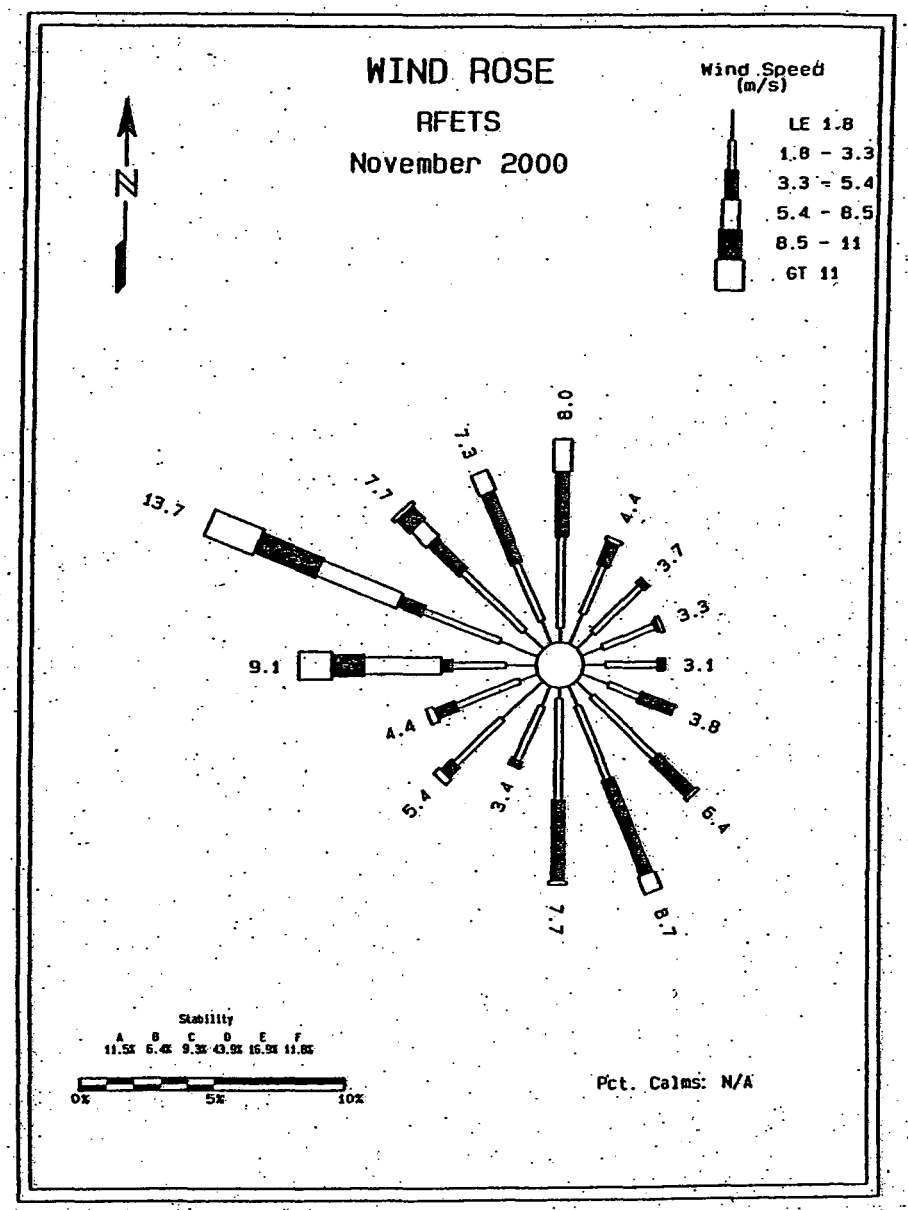
2.0 METEOROLOGY AND CLIMATOLOGY

2.1. WIND ROSES FOR OCTOBER, NOVEMBER, AND DECEMBER 2000



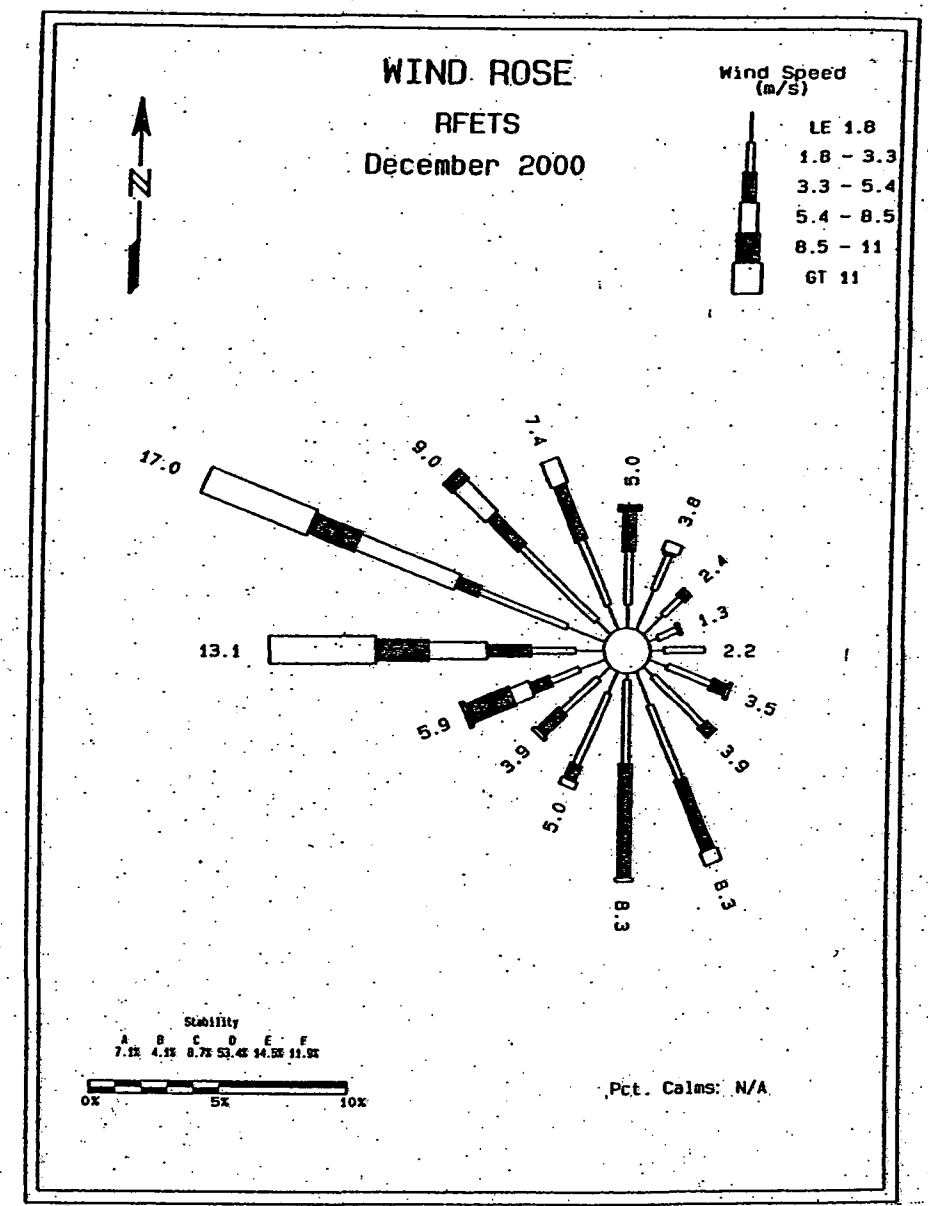
Summary	Temperature (deg F)			Dew Point (deg F)	Humidity (%)	Windspeed (mph)		Pressure (mb)	Solar (kW-h/m^2)	Precipitation (in)	
	Mean High	Mean Low	Mean	Mean	Mean	Mean	Max	Mean	Total	Total	Max
	41.93	19.05	30.43	18.73	68.55	10.73	83.44	813.26	70.50	0.31	0.03

Figure 2-1. Wind Rose for Rocky Flats Environmental Technology Site for October 2000



Summary	Temperature (deg F)			Dew Point (deg F)	Humidity (%)	Windspeed (mph)		Pressure (mb)	Solar (kW-h/m^2)	Precipitation (in)	
	Mean High	Mean Low	Mean	Mean	Mean	Mean	Max	Mean	Total	Total	Max
	40.22	21.31	30.66	19.43	68.46	8.99	65.68	811.39	77.60	0.28	0.03

Figure 2-2. Windrose for Rocky Flats Environmental Technology Site for November 2000



Summary	Temperature (deg F)			Dew Point (deg F)	Humidity (%)	Windspeed (mph)		Pressure (mb)	Solar (KW-h/m^2)	Precipitation (in)	
	Mean High	Mean Low	Mean	Mean	Mean	Mean	Max	Mean	Total	Total	Max
	57.78	40.91	49.12	36.81	71.16	6.96	44.45	814.71	103.21	0.65	0.03

Figure 2-3. Windrose for Rocky Flats Environmental Technology Site for December 2000

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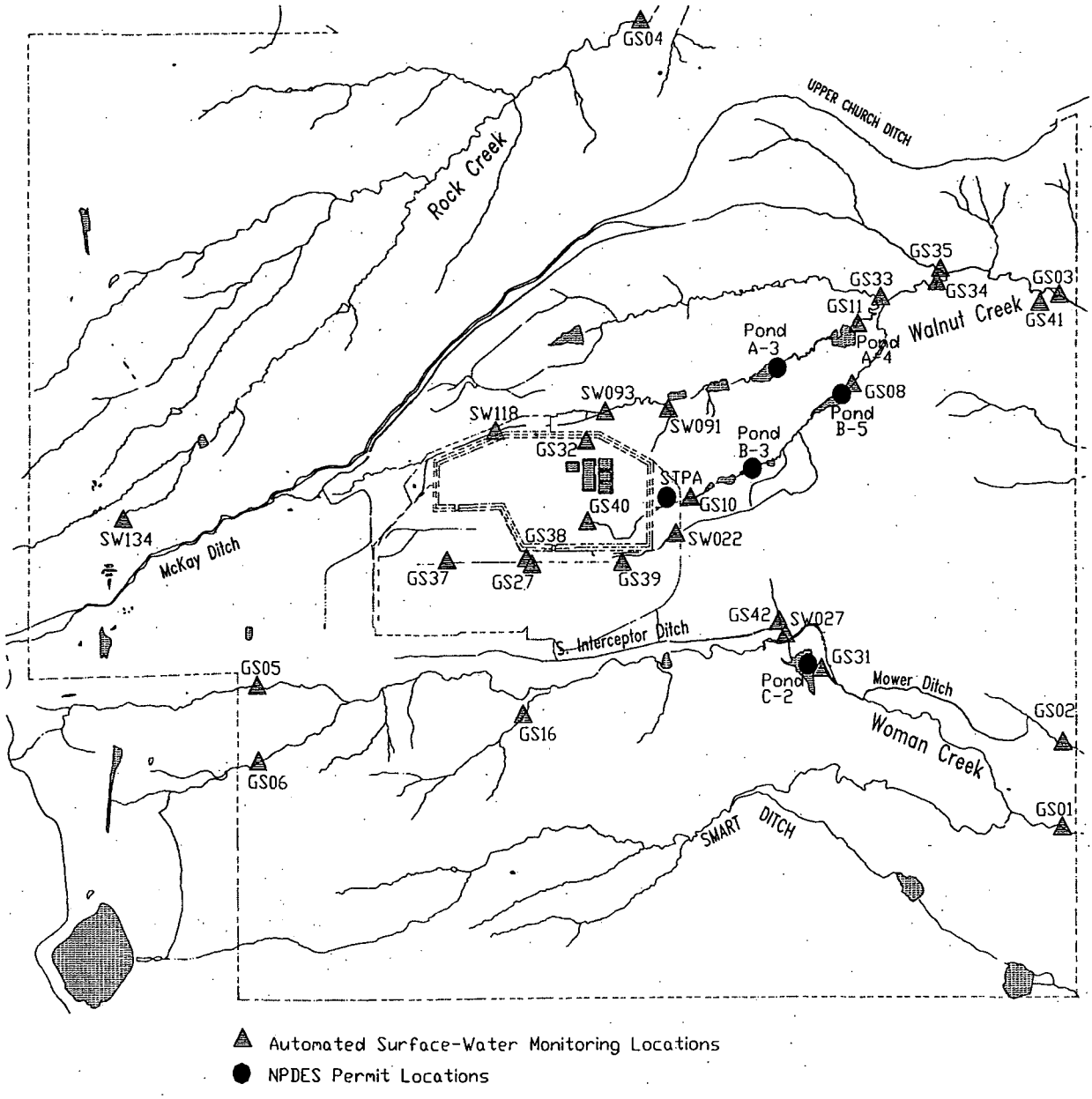
3.0 SURFACE WATER DATA

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



3.1. NPDES SUMMARY DATA

Table 3-1. Pond B-3 (Outfall 001A)

Dates of discharge 10/01/00 – 10/26/00 10/27 new permit

Parameter & Units	Measured 30-day Average	Limit 30-Day Average	Measured 7-Day Average	Limit 7-Day Average	Measured Daily Maximum	Limit Daily Maximum
NO3/NO2, mg/l	5	10	6	20	N/A	N/A
TRC, mg/l	N/A	N/A	N/A	N/A	0.05	0.5
BOD5, mg/l	6	a	N/A	N/A	12	a
CBOD5, mg/l	3	a	N/A	N/A	6	a
TSS, mg/l	<6	a	N/A	N/A	11	a

a Report Only
N/A Not Applicable
TRC Total Residual Chlorine
TSS Total Suspended Solids
BOD5 Biochemical Oxygen Demand, 5-Day Test
CBOD5 Carbonaceous Biochemical Oxygen Demand, 5-Day Test

Note: Results are the range of value measured during the reporting period

New permit 10/87

Table 3-2. Sewage Treatment Plant (Outfall STP A)

Dates of Discharge 10/01/00 – 10/26/00. Metal and VOA sample collected 10/04/00.

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	Observed Sheen	Measured Result
pH, SU	N/A	N/A	N/A	N/A	6.9	6.0	7.9	9.0	N/A	N/A
TSS, mg/l	<5	30	<5	45	N/A	N/A	N/A	N/A	N/A	N/A
Total Phos., mg/l	3	8	N/A	N/A	N/A	N/A	10	12	N/A	N/A
TRC, mg/l	<0.01	a	<0.01	a	N/A	N/A	N/A	N/A	N/A	N/A
Total Cr., ug/l	<1.0	50	N/A	N/A	N/A	N/A	2.0	100	N/A	N/A
F. Coliform, #/100ml	<4	200b	<15	400b	N/A	N/A	N/A	N/A	N/A	N/A
CBOD5, mg/l	<3	10	N/A	N/A	N/A	N/A	8	25	N/A	N/A
Oil & Grease	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	c	N/A
WET										
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Antimony, ug/l	<0.79	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, ug/l	1.8	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, ug/l	0.03	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, ug/l	<0.08	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, ug/l	1.5	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iron, ug/l	29.2	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead, ug/l	<0.52	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manganese, ug/l	11.5	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, ug/l	<0.10	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, ug/l	1.6	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silver, ug/l	<0.28	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, ug/l	42.7	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VOC's, ug/l	d	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

a	Report Only	TRC	Total Residual Chlorine
b	Geometric Mean	CBOD5	Carbonaceous Biochemical Oxygen Demand, 5-Day Test
c	No Sheen Observed	PQL	Practical Quantitation Limit
d	None Detected Above PQL	WET	Whole Effluent Toxicity
N/A	Not Applicable	SU	Standard Units
TSS	Total Suspended Solids		

Table 3-3. Ponds – Interior and Terminal

Pond A-3 discharged 10/02/00 – 10/05/00. Ponds A-4, B-5, or C-2 did not discharge during the reporting period.

Location, Parameter and 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
Pond A-3 (Outfall 002) pH, SU	N/A	N/A	N/A	N/A	8.2	6.0	8.4	9.0	N/A
NO3/NO2, mg/l	2	10	N/A	N/A	N/A	N/A	3	20	N/A
Pond A-4 (Outfall 005A) Total Cr., ug/l	N/A	N/A	N/A	N/A	N/A	N/A		50	N/A
WET									
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pond B-5 (Outfall 006A) Total Cr., ug/l	N/A	N/A	N/A	N/A	N/A	N/A	<1	50	N/A
WET									
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
NO3/NO2, mg/l*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pond C-2 (Outfall 007A) Total Cr., ug/l	N/A	N/A	N/A	N/A	N/A	N/A		50	N/A
WET									
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

* Sample and analysis required only if Pond B-3 is bypassed
N/A Not applicable
SU Standard units
TRC Total residual chlorine
WET Whole Effluent Toxicity

Table 3-4 Sewage Treatment Plant (Outfall STP1)
Dates of discharge: 10/27/00 – 12/31/00.

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	6.7 – 6.8	6.5	8.4	9.0	N/A	N/A	N/A
TSS, mg/l	<5	15	N/A	N/A	N/A	N/A	<6	25	N/A	N/A	N/A
TSS (Influent), mg/l	86 - 92	a	N/A	N/A	N/A	N/A	220 - 350	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%	85%
Total Phos., mg/l	2 - 4	8	N/A	N/A	N/A	N/A	5 - 8	12	N/A	N/A	N/A
Total Cr., ug/l	N/A	N/A	N/A	N/A	N/A	N/A	<1	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, #/100ml	<24	200b	<18 - 620	400b	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CBOD5, mg/l	<3	8	N/A	N/A	N/A	N/A	6 - 8	20	N/A	N/A	N/A
CBOD5 (Influent), mg/l	63 - 72	a	N/A	N/A	N/A	N/A	140	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	96%	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	8 - 9	a	N/A	N/A	N/A
NO2 as N, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	4.4 – 4.7	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	9	a	N/A	N/A	N/A
Alkalinity, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	140 - 160	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 3-4. 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	7	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	>100 pass	N/A	N/A
Fathead Minnows Acute test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100 pass	N/A	N/A
Ceriodaphnia Chronic test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NS	N/A	N/A
Fathead Minnows Chronic test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NS	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 (total), 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

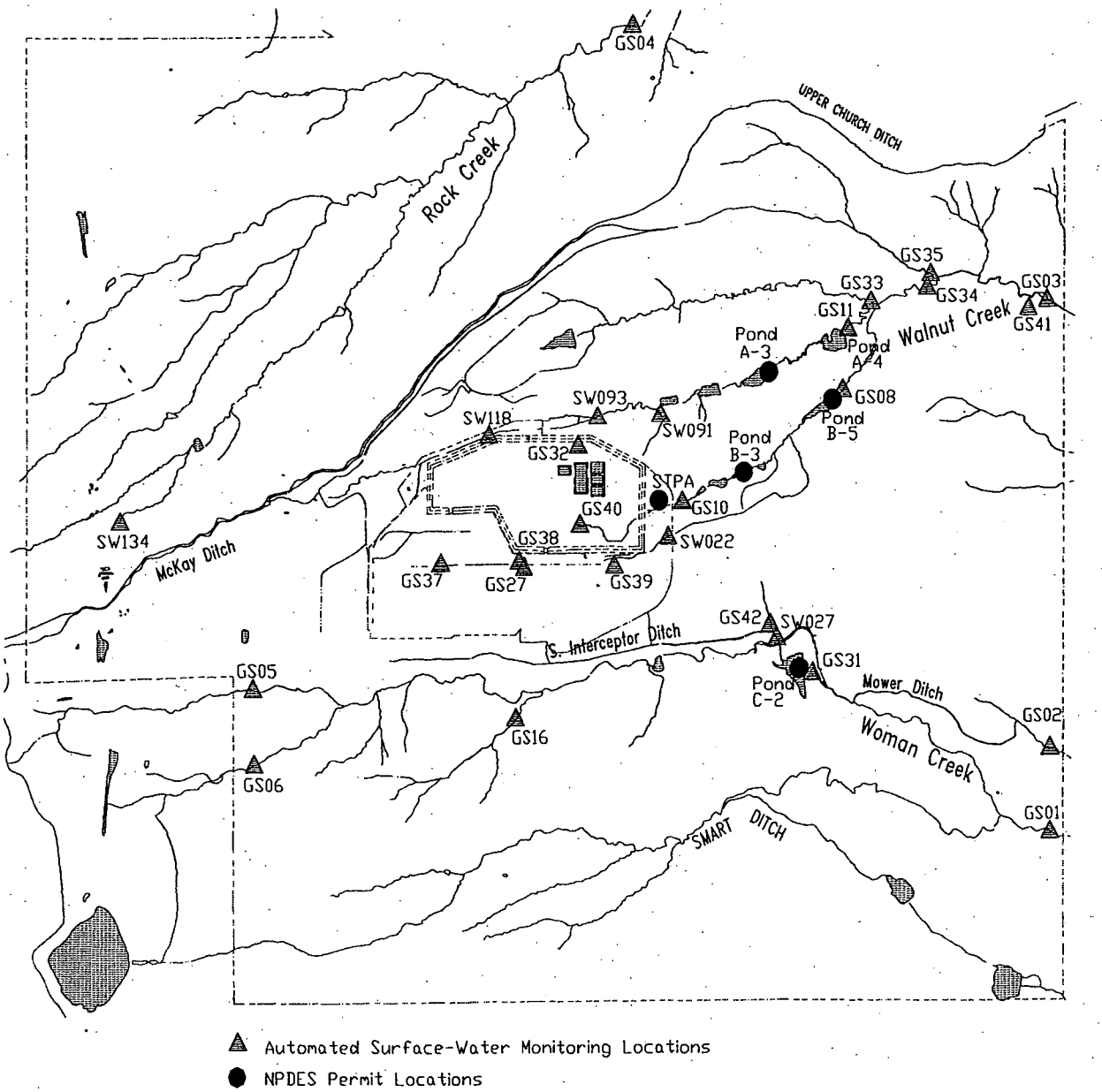
3.2. MOUND PLUME SUMMARY DATA

Table 3-4. Mound Plume Locations SW061 and SW132

Analyte	SW061	SW132
	12/26/00	12/26/00
Pu 239/240, pCi/l	0.011 +/- 0.015	0.022 +/- 0.023
Am 241, pCi/l	-0.001 +/- 0.011	-0.001 +/- 0.012
Silver, dissolved, ug/l	<1.0	<1.0
Aluminum, total, ug/l	965	87.2
Arsenic, total, ug/l	<3.0	<3.0
Barium, total, ug/l	323	367
Beryllium, total, ug/l	<0.50	0.55
Cadmium, dissolved, ug/l	<0.50	1.5
Copper, dissolved, ug/l	<1.0	<1.0
Iron, total, ug/l	2000	1160
Mercury, total, ug/l	0.10	<0.10
Manganese, total, ug/l	41.5	119
Nickel, dissolved, ug/l	<1.5	2.3
Lead, dissolved, ug/l	<1.5	<1.5
Antimony, total, ug/l	<2.5	<2.5
Selenium, dissolved, ug/l	<2.5	<2.5
Zinc, dissolved, ug/l	62.1	138
EPA VOA Method 8260, compounds found >RFCA Seg 5 Action Level	None detected	None detected

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

Map 4-1. Gaging Station Locations



4.1. FLOW MONITORING

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

Day	Oct-00	Nov-00	Dec-00
1	0.000	0.075a	0.127
2	0.000	0.097a	0.107
3	0.000	0.105	0.098
4	0.000	0.142	0.123
5	0.000	0.159	0.120
6	0.000	0.170	0.153
7	0.000	0.155	0.272
8	0.000	0.154	0.243
9	0.000	0.147	0.196
10	0.000	0.137	0.191a
11	0.000	0.134	0.143a
12	0.000	0.122	0.122a
13	0.000	0.112	0.060a
14	0.000	0.106	0.085a
15	0.000	0.110	0.150
16	0.000	0.097	0.159a
17	0.000	0.093	0.111a
18	0.000	0.101a	0.115a
19	0.000	0.129	0.100a
20	0.000	0.163	0.081a
21	0.000	0.163	0.082a
22	0.000	0.193	0.086a
23	0.000	0.194	0.071a
24	0.000	0.175	0.071a
25	0.000	0.177	0.080
26	0.000	0.168	0.065a
27	0.000	0.165	0.070a
28	0.000	0.170	0.098
29	0.044	0.145	0.126
30	0.082	0.132	0.118a
31	0.104a	NA	0.095
Monthly Average (cfs)	0.007	0.140	0.120

Monthly Discharge

Cubic Feet	19907	362039	320970
Gallons	148915	2708237	2401019
Acre-Feet	0.46	8.31	7.37

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.

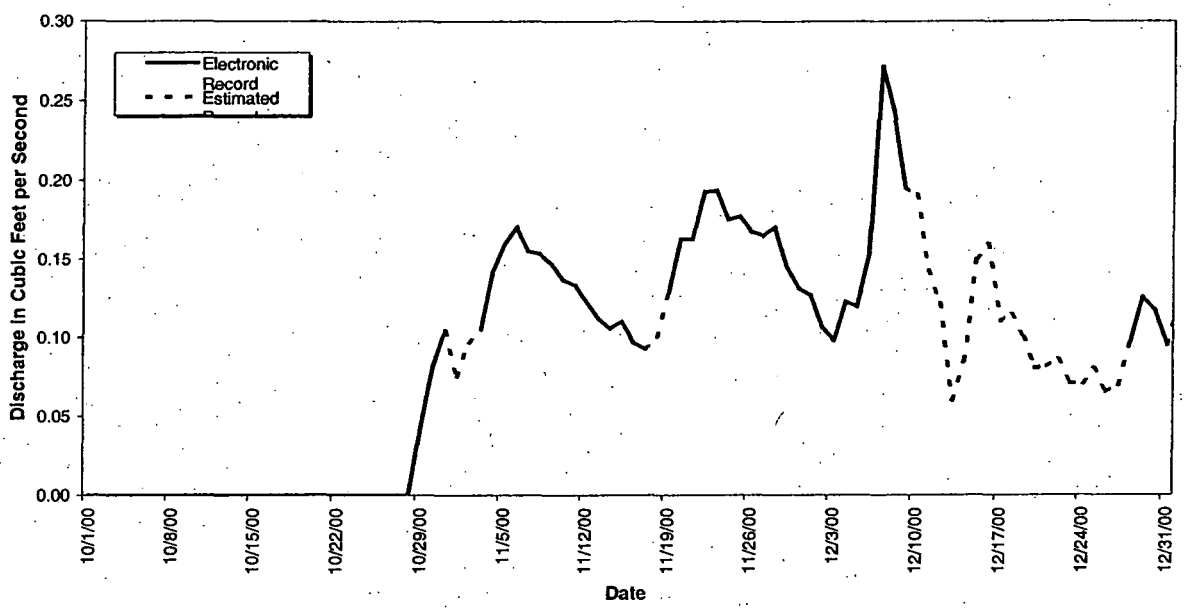


Figure 4-1. Mean Daily Discharge at GS01, Water Year 2001 (October, November, and December)

Table 4-2. Gaging Station GS03: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	0.011	0.000	0.000a
2	0.015	0.000	0.001a
3	0.011	0.000	0.001a
4	0.002	0.000	0.002a
5	0.005	0.000	0.003
6	0.003	0.000	0.003
7	0.003	0.000	0.004
8	0.003	0.000	0.005
9	0.003	0.000	0.005
10	0.002	0.000	0.004
11	0.002	0.000	0.004
12	0.002	0.000	0.004
13	0.002	1.309	0.003
14	0.002	2.939	0.004
15	0.002	2.594	0.003
16	0.002	2.436	0.003
17	0.002	2.353	0.002
18	0.001	1.139	0.001
19	0.001	1.018	0.001
20	0.000	1.493	0.000
21	0.000	2.254	0.000
22	0.003	2.254	0.000
23	0.004	2.027	0.000
24	0.002	1.709	0.000
25	0.001	1.447	0.000
26	0.000	1.151	0.000
27	0.000	1.055	0.000
28	0.000	1.193	0.000
29	0.000	0.412	0.000a
30	0.000	0.007	0.000a
31	0.000	NA	0.000a
Monthly Average (cfs)	0.003	0.960	0.002

Monthly Discharge

Cubic Feet	7228	2487516	4634
Gallons	54070	18607914	34661
Acre-Feet	0.17	57.11	0.11

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.

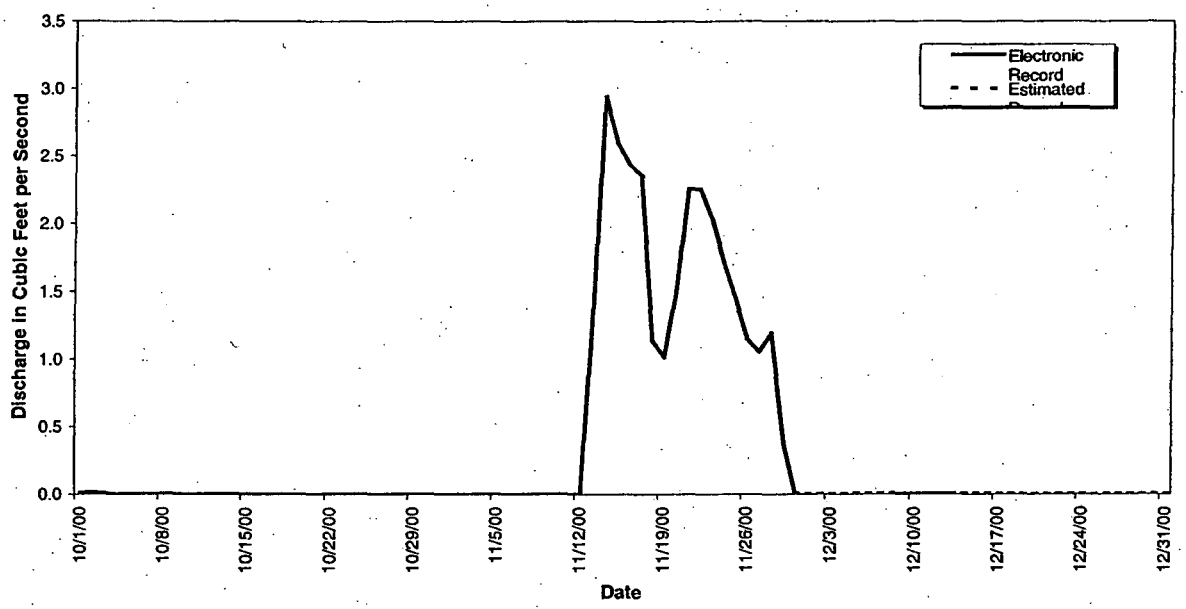


Figure 4-2. Mean Daily Discharge at GS03, Water Year 2001 (October, November, and December)

Table 4-3. Gaging Station GS08: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	1.247	0.000
14	0.000	1.752	0.000
15	0.000	1.555	0.000
16	0.000	1.526	0.000
17	0.000	1.293	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.799	0.000
21	0.000	1.484	0.000
22	0.000	1.506	0.000
23	0.000	1.404	0.000
24	0.000	1.266	0.000
25	0.000	1.208	0.000
26	0.000	1.130	0.000
27	0.000	1.344	0.000
28	0.000	1.688	0.000
29	0.000	0.355	0.000
30	0.000	0.000	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.652	0.000

Monthly Discharge

Cubic Feet	0	1689712	0
Gallons	0	12639928	0
Acre-Feet	0.00	38.79	0.00

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

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.

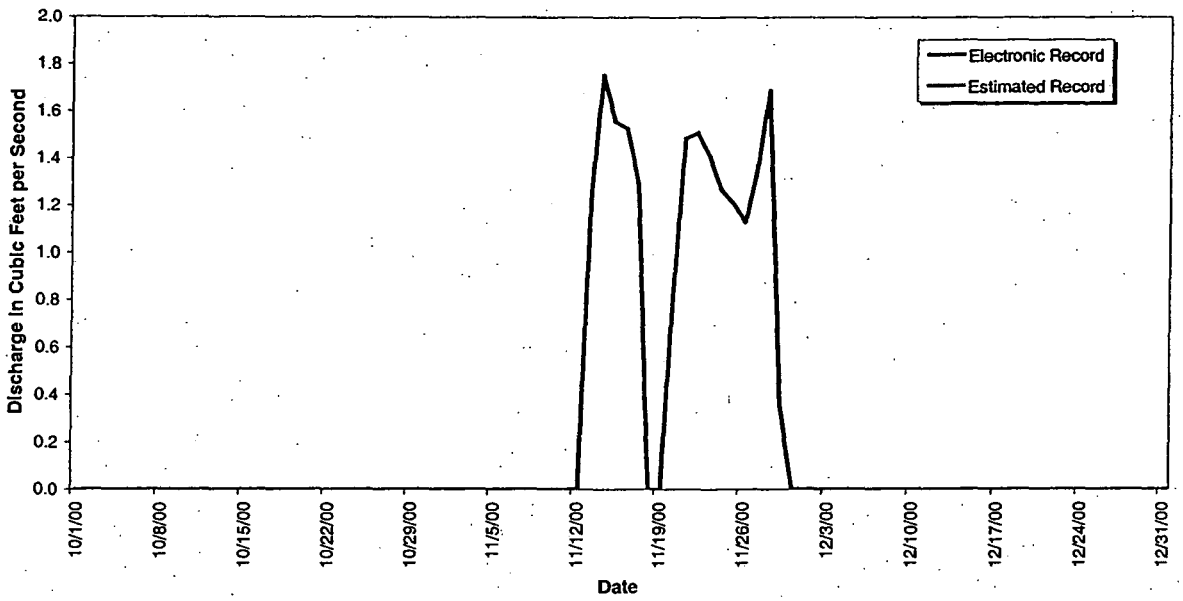


Figure 4-3. Mean Daily Discharge at GS08, Water Year 2001 (October, November, and December)

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

Day	Oct-00	Nov-00	Dec-00
1	0.071	0.048	0.046
2	0.072	0.047	0.046
3	0.105	0.064	0.048
4	0.075	0.049	0.047
5	0.321	0.094	0.047
6	0.211	0.054	0.075
7	0.119	0.051	0.057
8	0.080	0.051	0.047
9	0.077	0.051	0.050
10	0.072	0.050	0.048
11	0.066	0.068	0.054
12	0.073	0.056	0.052
13	0.105	0.050	0.034
14	0.052	0.050	0.046
15	0.049	0.052	0.051
16	0.045	0.047	0.049
17	0.044	0.045	0.051
18	0.043	0.067	0.049
19	0.043	0.054	0.050
20	0.042	0.049	0.058
21	0.045	0.049	0.049
22	0.481	0.050	0.055
23	0.086	0.051	0.049
24	0.056	0.050	0.049
25	0.051	0.049	0.051
26	0.049	0.048	0.057
27	0.048	0.049	0.050
28	0.047	0.049	0.048
29	0.049	0.049	0.049
30	0.049	0.048	0.049
31	0.066	NA	0.050
Monthly Average (cfs)	0.090	0.053	0.050

Monthly Discharge

Cubic Feet	241393	137049	134899
Gallons	1805748	1025197	1009112
Acre-Feet	5.54	3.15	3.10

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

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.

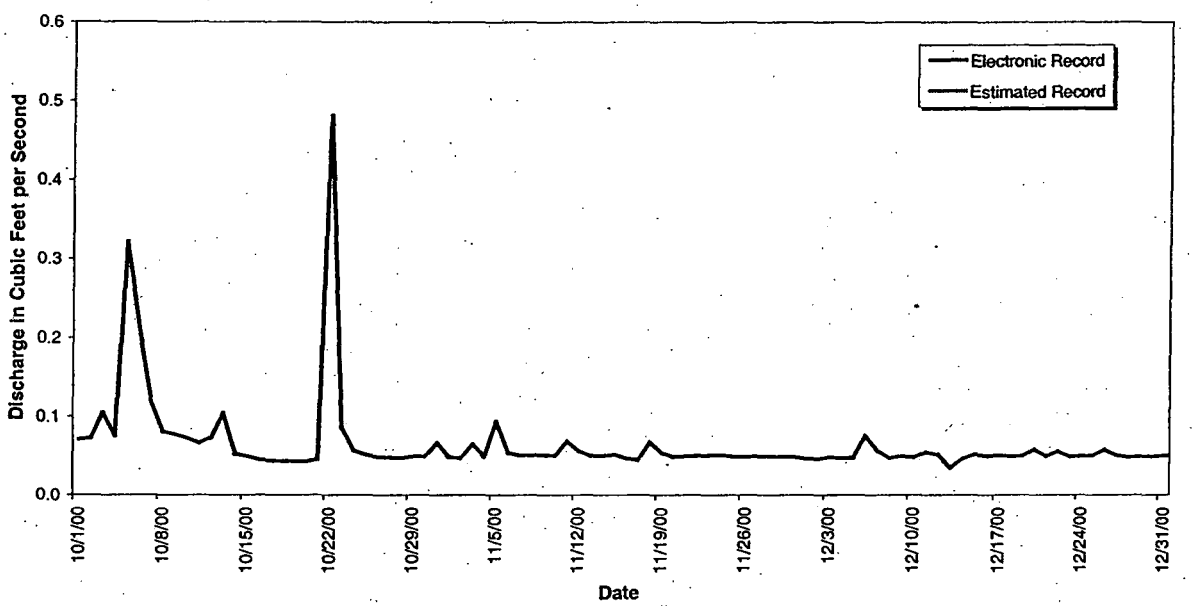


Figure 4-4. Mean Daily Discharge at GS10, Water Year 2001 (October, November, and December)

Table 4-5. Gaging Station GS11: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	1.264	0.000
14	0.000	1.946	0.000
15	0.000	1.688	0.000
16	0.000	1.504	0.000
17	0.000	1.483	0.000
18	0.000	1.397	0.000
19	0.000	1.246	0.000
20	0.000	1.151	0.000
21	0.000	1.269	0.000
22	0.000	1.247	0.000
23	0.000	1.077	0.000
24	0.000	0.857	0.000
25	0.000	0.643	0.000
26	0.000	0.389	0.000
27	0.000	0.115	0.000
28	0.000	0.000	0.000
29	0.000	0.000	0.000
30	0.000	0.000	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.000	0.576	0.000

Monthly Discharge

Cubic Feet	0	1492682	0
Gallons	0	11166039	0
Acre-Feet	0.00	34.27	0.00

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

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.

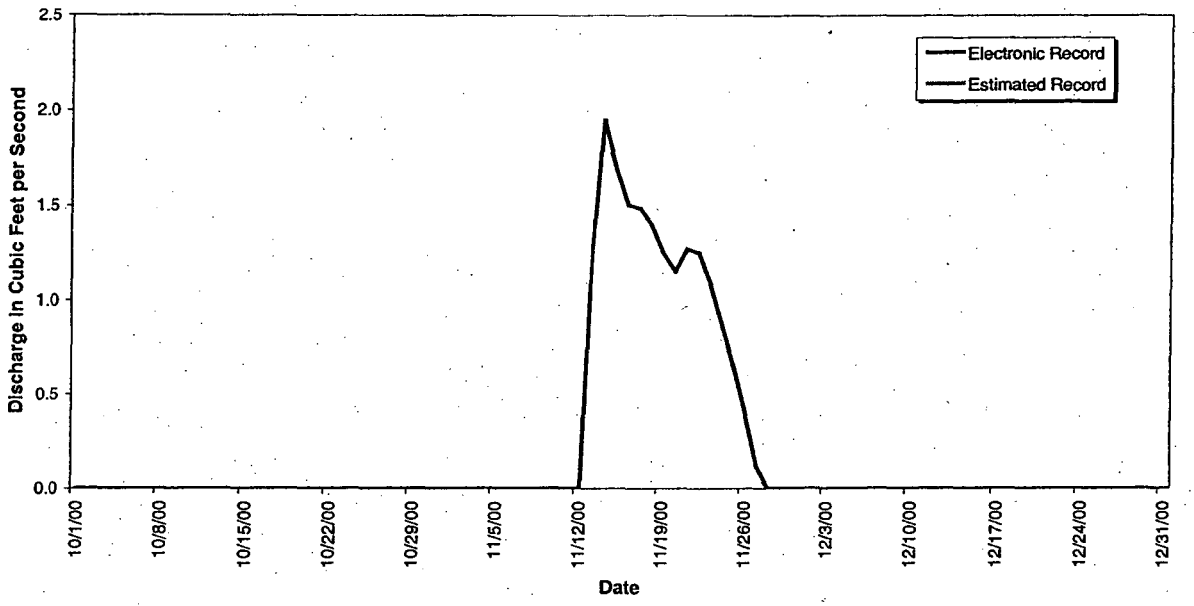


Figure 4-5. Mean Daily Discharge at GS11 Water Year 2001 (October, November, and December)

Table 4-6. Gaging Station GS27: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	0.0006	0.0000	0.0000
6	0.0004	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	0.0009	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	0.0000	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	168	0	0
Gallons	1256	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.

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.

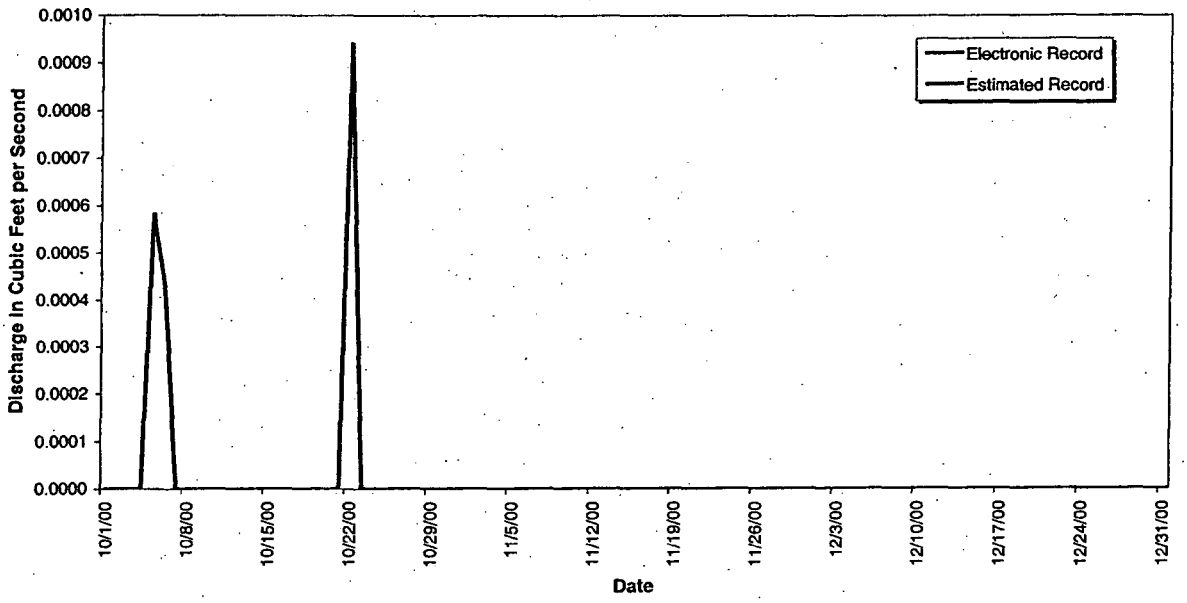


Figure 4-6. Mean Daily Discharge at GS27 Water Year 2001 (October, November, and December)

Table 4-7. Gaging Station GS31: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	0.000	0.000
31	0.000	NA	NA
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.

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.

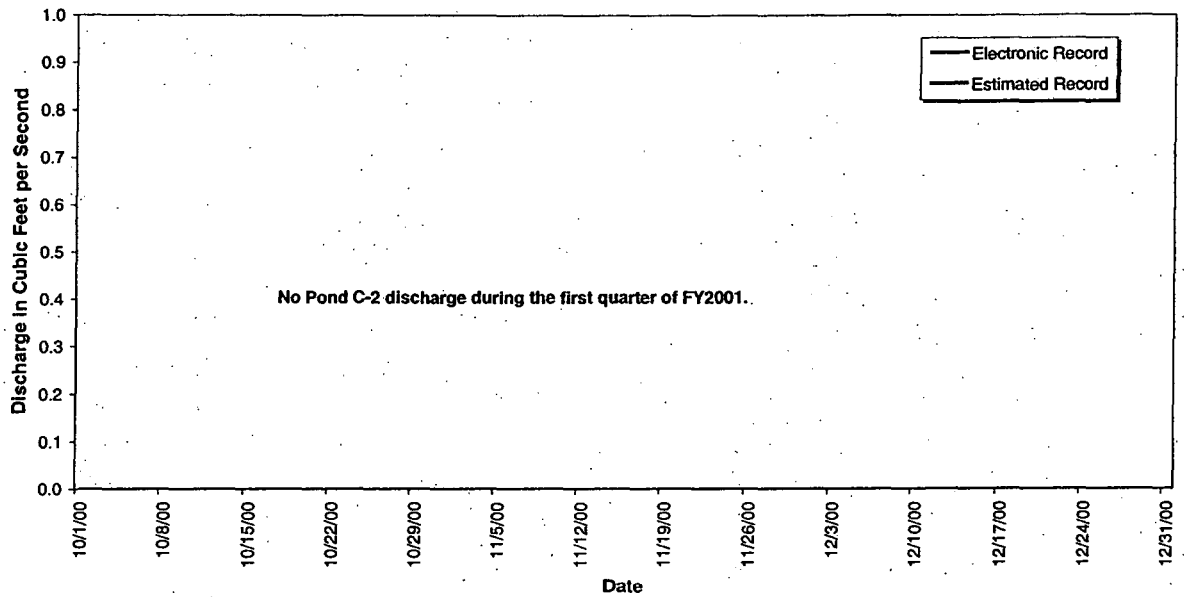


Figure 4-7. Mean Daily Discharge at GS31 Water Year 2001 (October, November, and December)

Table 4-8. Gaging Station GS39: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	0.0139	0.0014	0.0000
6	0.0072	0.0000	0.0000
7	0.0023	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	0.0219	0.0000	0.0000
23	0.0003	0.0000	0.0000
24	0.0000	0.0000	0.0004a
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	0.0000	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.001	0.000	0.000

Monthly Discharge

Cubic Feet	3937	122	33
Gallons	29448	909	247
Acre-Feet	0.09	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 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.

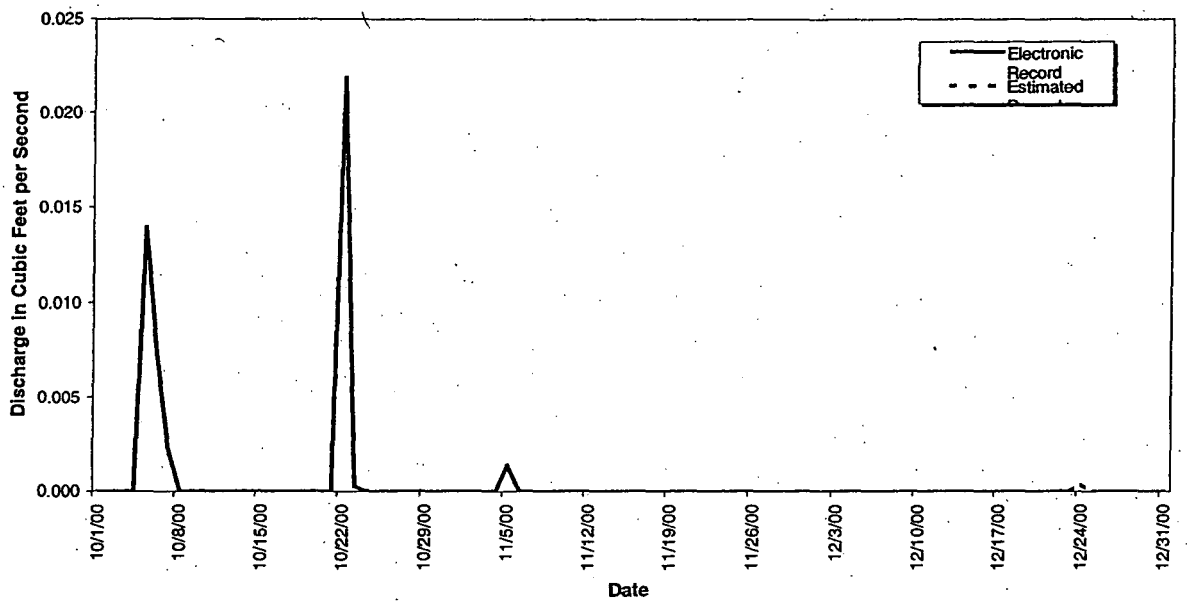


Figure 4-8. Mean Daily Discharge at GS39 Water Year 2001 (October, November, and December)

Table 4-9. Gaging Station GS40: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	0.041	0.022	0.026
2	0.044	0.024	0.025
3	0.074	0.031	0.023
4	0.046	0.023	0.023
5	0.204	0.056	0.023
6	0.125	0.024	0.051
7	0.067	0.024	0.028
8	0.056	0.024	0.020
9	0.058	0.024	0.019
10	0.059	0.025	0.020a
11	0.060	0.041	0.024a
12	0.082	0.037a	0.022a
13	0.123	0.026	0.018a
14	0.053	0.028	0.026a
15	0.054	0.028	0.021a
16	0.055	0.029	0.024a
17	0.054	0.029	0.023a
18	0.051	0.052a	0.020a
19	0.048	0.036	0.015a
20	0.051	0.029	0.019a
21	0.054	0.028	0.021a
22	0.287	0.029	0.022a
23	0.050	0.029	0.014
24	0.042	0.029	0.015
25	0.038	0.030	0.016
26	0.036	0.028	0.026
27	0.034	0.028	0.016
28	0.032	0.029	0.015
29	0.027	0.029	0.015a
30	0.026	0.027	0.012a
31	0.041	NA	0.013a
Monthly Average (cfs)	0.067	0.030	0.021

Monthly Discharge

Cubic Feet	178938	77468	56403
Gallons	1338551	579500	421921
Acre-Feet	4.11	1.78	1.29

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.

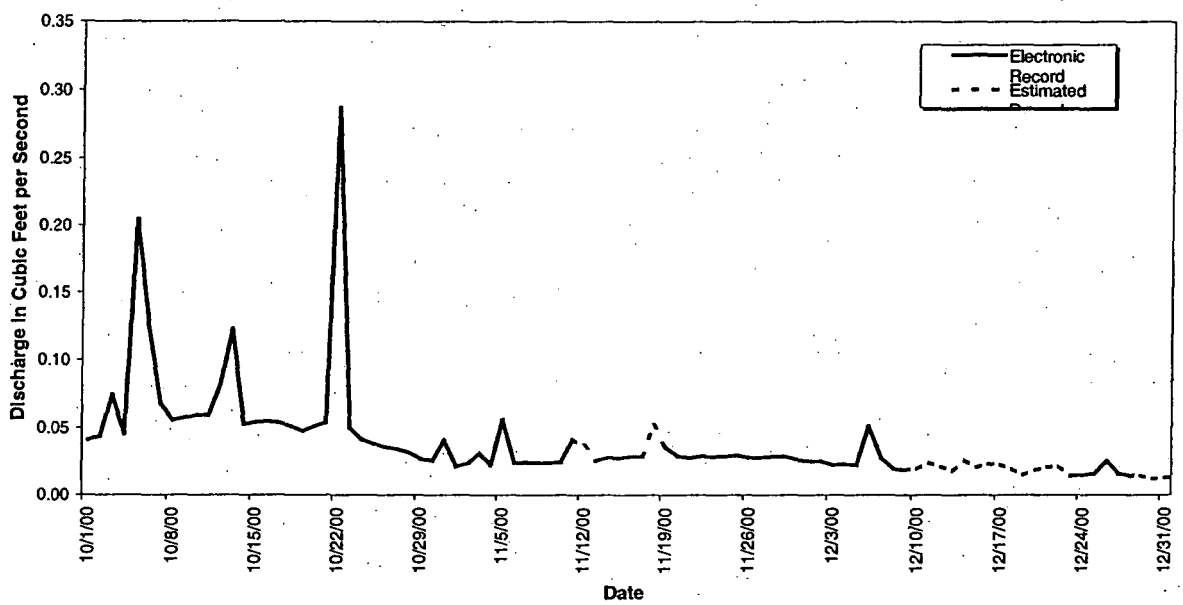


Figure 4-9. Mean Daily discharge at GS40 Water Year 2001 (October, November, and December)

Table 4-10. Gaging Station GS43: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	0.0000	0.0000	0.0000
2	0.0000	0.0000a	0.0000
3	0.0000	0.0000a	0.0000
4	0.0000	0.0000a	0.0000
5	0.0001	0.0000a	0.0000
6	0.0000	0.0000a	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	0.0027	0.0000	0.0000
17	0.0001	0.0000	0.0000
18	0.0000	0.0000a	0.0000
19	0.0000	0.0000a	0.0000
20	0.0000	0.0000a	0.0000
21	0.0000	0.0000a	0.0000
22	0.0001	0.0000a	0.0000
23	0.0000	0.0000a	0.0000
24	0.0000	0.0000a	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	0.0000	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	262	3	0
Gallons	1957	21	4
Acre-Feet	0.01	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.

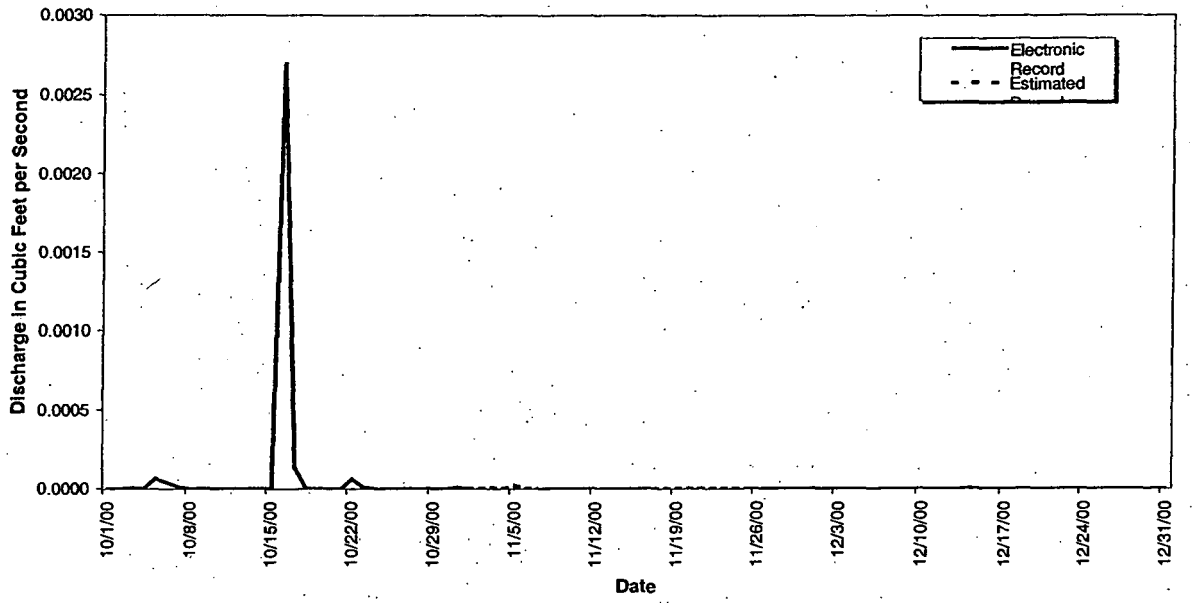


Figure 4-10. Mean Daily Discharge at GS43, Water Year 2001 (October, November, and December)

Table 4-11.Gaging Station GS44 Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	No Data	0.0019	0.0017a
2	No Data	0.0020	0.0016a
3	No Data	0.0020	0.0016a
4	No Data	0.0016	0.0017a
5	0.0129	0.0025	0.0018a
6	0.0054	0.0017a	0.0026
7	0.0032	0.0015a	0.0015
8	0.0023	0.0015a	0.0018
9	0.0022	0.0014a	0.0015
10	0.0022	0.0013a	0.0018a
11	0.0021	0.0018a	0.0018a
12	0.0021	0.0016a	0.0016a
13	0.0021	0.0013a	0.0015a
14	0.0026	0.0013a	0.0017a
15	0.0025	0.0014a	0.0015a
16	0.0024	0.0014a	0.0018a
17	0.0022	0.0014a	0.0015a
18	0.0022	0.0021a	0.0015a
19	0.0021	0.0016a	0.0014a
20	0.0021	0.0014a	0.0015a
21	0.0020	0.0014a	0.0011a
22	0.0233	0.0014a	0.0012a
23	0.0026	0.0014a	0.0013a
24	0.0023	0.0014a	0.0011a
25	0.0022	0.0014a	0.0011a
26	0.0022	0.0014a	0.0014a
27	0.0021	0.0014a	0.0013a
28	0.0021	0.0014a	0.0011a
29	0.0019	0.0014a	0.0012a
30	0.0021	0.0014a	0.0012a
31	0.0021	NA	0.0013a
Monthly Average (cfs)	0.004	0.002	0.002

Monthly Discharge

Cubic Feet	8232	4005	4029
Gallons	61578	29956	30137
Acre-Feet	0.19	0.09	0.09

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.

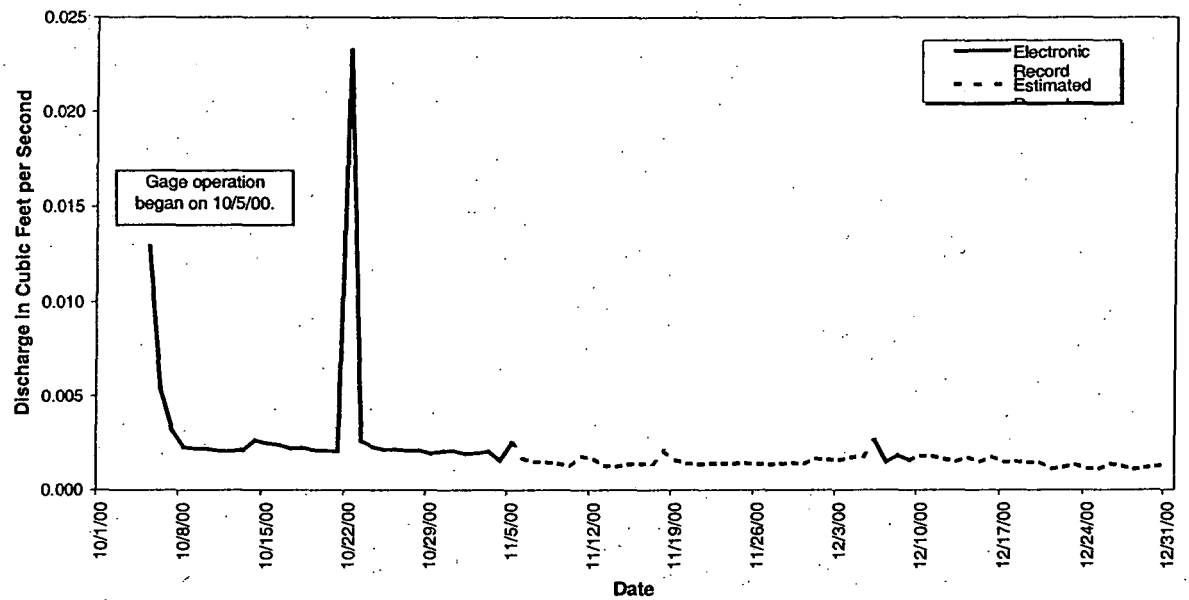


Figure 4-11. Mean Daily Discharge at GS44 Water Year 2001 (October, November, and December)

Table 4-12. Gaging Station GS995 POE Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	No Data	0.211	0.265
2	No Data	0.233	0.399
3	No Data	0.171	0.347
4	No Data	0.217	0.366
5	No Data	0.146	0.298
6	No Data	0.161	0.207
7	No Data	0.242	0.125
8	No Data	0.263	0.141
9	No Data	0.203	0.232
10	No Data	0.151	0.107
11	No Data	0.150	0.179
12	No Data	0.193	0.206
13	No Data	0.170	0.233
14	No Data	0.275	0.221
15	No Data	0.192	0.183
16	No Data	0.173	0.146
17	No Data	0.178	0.194
18	No Data	0.206	0.157
19	No Data	0.147	0.253
20	No Data	0.145	0.309
21	No Data	0.141	0.116
22	No Data	0.237	0.106
23	No Data	0.191	0.151
24	No Data	0.151	0.168
25	No Data	0.164	0.220
26	No Data	0.160	0.178
27	0.161	0.130	0.196
28	0.151	0.309	0.144
29	0.107	0.207	0.110
30	0.121	0.260	0.126
31	0.199	NA	0.138
Monthly Average (cfs)	0.148	0.193	0.201

Monthly Discharge

Cubic Feet	63926	498976	537436
Gallons	478200	3732600	4020300
Acre-Feet	1.47	11.45	12.34

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

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.

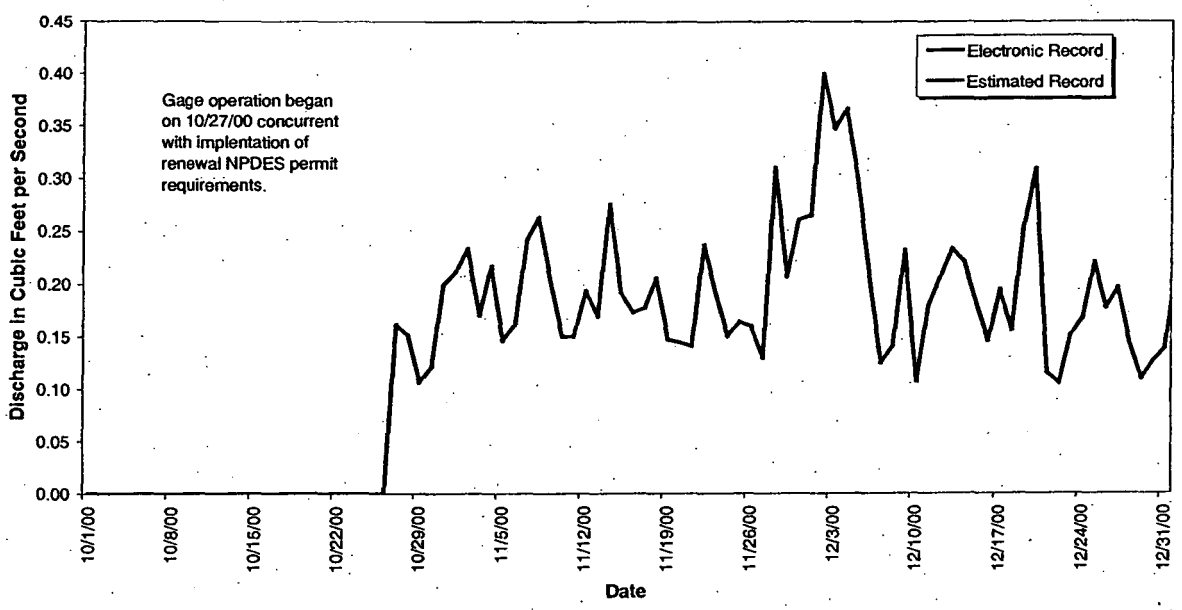


Figure 4-12. Mean Daily Discharge at GS995 POE Water Year 2001 (October, November, and December)

Table 4-13. Gaging Station SW022: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	0.070	0.000	0.000
6	0.032a	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	0.000a	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
21	0.000	0.000	0.000
22	0.141	0.000	0.000
23	0.006a	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	0.000	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.008	0.000	0.000

Monthly Discharge

Cubic Feet	21475	0	0
Gallons	160644	0	0
Acre-Feet	0.49	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 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.

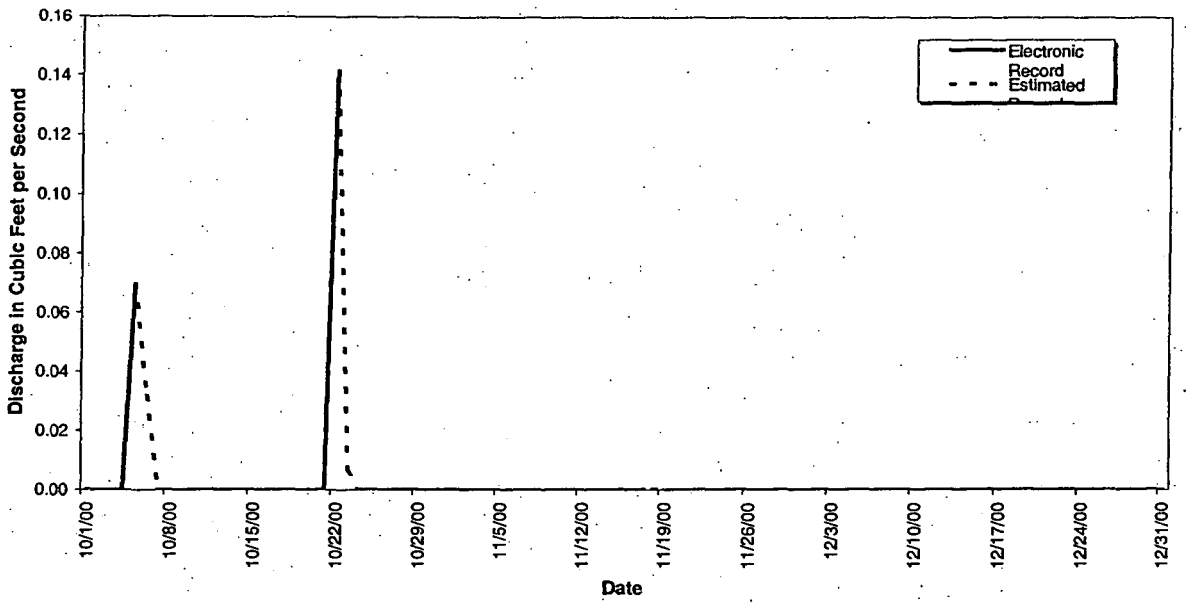


Figure 4-13. Mean Daily Discharge at SW022, Water Year 2001 (October, November, and December)

Table 4-14. Gaging Station SW027: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	0.013	0.000	0.000
8	0.006	0.000	0.000
9	0.004	0.000	0.000
10	0.002	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	0.043	0.000	0.000
24	0.005	0.000	0.000
25	0.003	0.000	0.000
26	0.001	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	0.000	0.000
31	0.000	NA	0.000
Monthly Average (cfs)	0.003	0.000	0.000

Monthly Discharge

Cubic Feet	6815	0	0
Gallons	50980	0	0
Acre-Feet	0.16	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.

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.

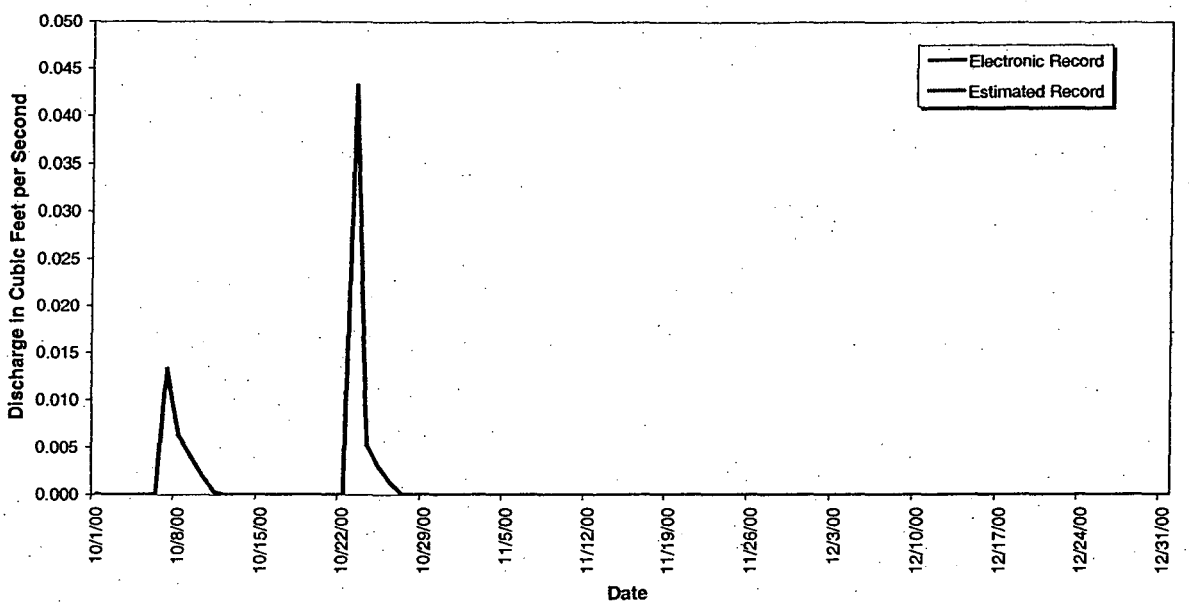


Figure 4-14. Mean Daily Discharge at SW027, Water Year 2001 (October, November, and December)

Table 4-15. Gaging Station SW091: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
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	0.0000	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.000	0.000	0.000

Monthly Discharge

Cubic Feet	0	0	2
Gallons	0	2	17
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.

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.

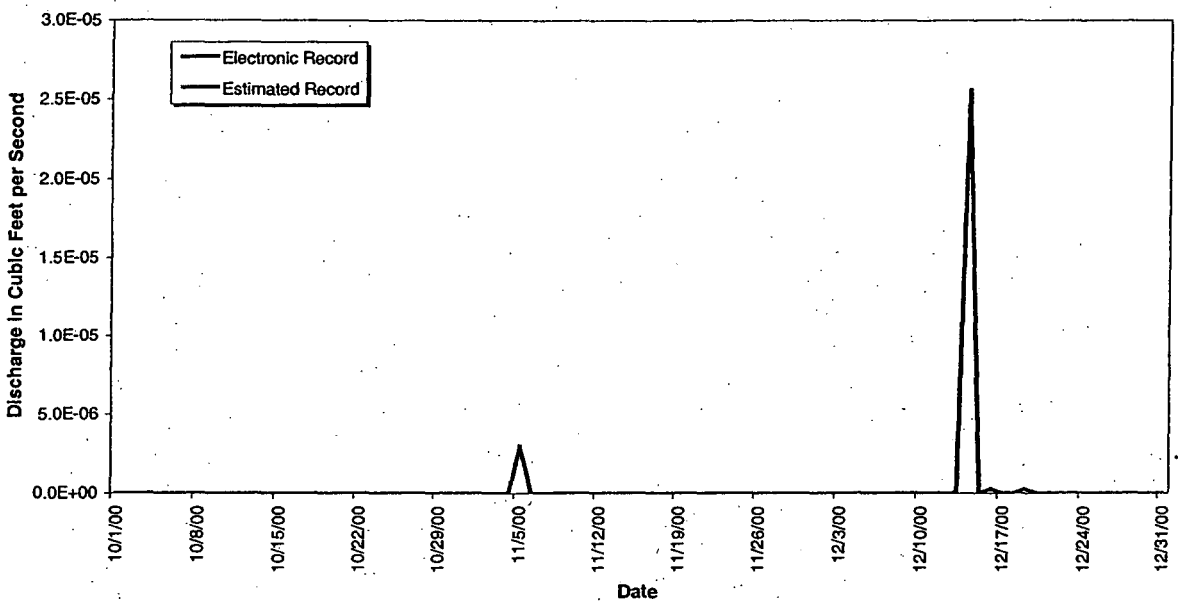


Figure 4-15. Mean Daily Discharge at SW091, Water Year 2001 (October, November, and December)

Table 4-16. Gaging Station SW093: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	0.085	0.104	0.116
2	0.085	0.101	0.104
3	0.114	0.119	0.101
4	0.098	0.100	0.097
5	0.312	0.135	0.096
6	0.262	0.100	0.131
7	0.165	0.096	0.122
8	0.114	0.099	0.107
9	0.099	0.098	0.112
10	0.094	0.096	0.098
11	0.094	0.111	0.082
12	0.085	0.093	0.079
13	0.086	0.088	0.083
14	0.090	0.074	0.097
15	0.087	0.076	0.105
16	0.087	0.073	0.091
17	0.094	0.069	0.103
18	0.099	0.086	0.089
19	0.094	0.087	0.087
20	0.097	0.079	0.095
21	0.102	0.090	0.079
22	0.535	0.092	0.091
23	0.184	0.086	0.092
24	0.138	0.086	0.090
25	0.124	0.088	0.087
26	0.115	0.089	0.085
27	0.109	0.093	0.086
28	0.120	0.091	0.089
29	0.117	0.086	0.077
30	0.118	0.094	0.072
31	0.129	NA	0.072
Monthly Average (cfs)	0.133	0.093	0.094

Monthly Discharge

Cubic Feet	356943	240248	252175
Gallons	2670122	1797182	1886399
Acre-Feet	8.19	5.52	5.79

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

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.

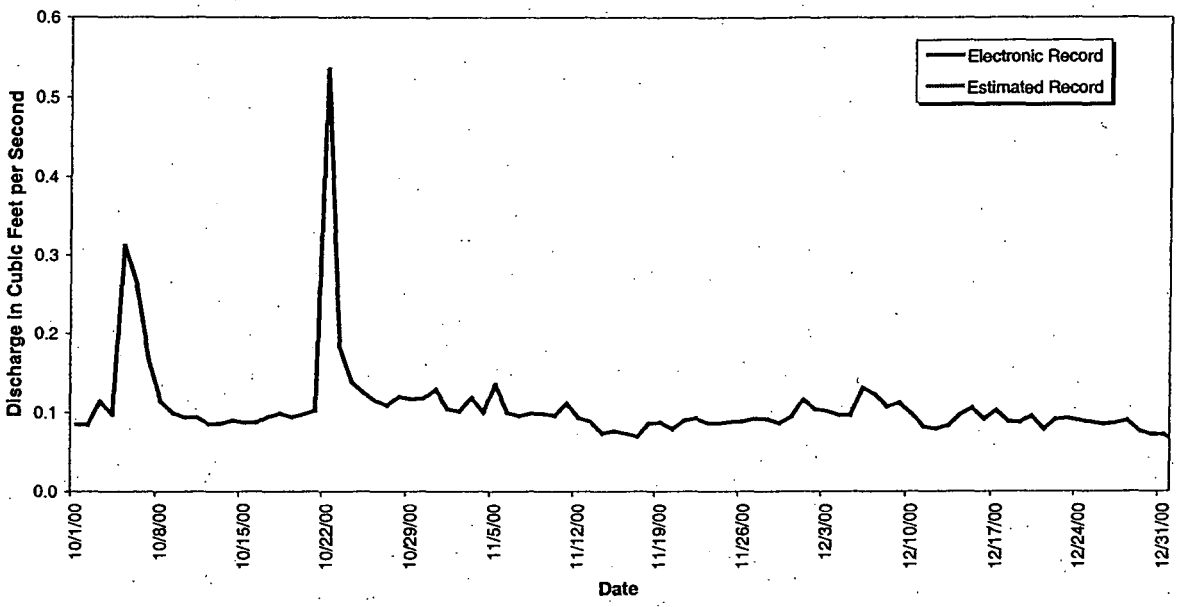


Figure 4-16. Mean Daily Discharge at SW093, Water Year 2001 (October, November, and December)

Table 4-17. Gaging Station SW120: Mean Daily Discharge (cubic feet per second)

Day	Oct-00	Nov-00	Dec-00
1	0.0000	0.0000	0.0000a
2	0.0000	0.0000	0.0000a
3	0.0000	0.0000	0.0000a
4	0.0000	0.0000	0.0000a
5	0.0032	0.0000	0.0000a
6	0.0065	0.0000	0.0000
7	0.0028	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	0.0003	0.0000a	0.0000
12	0.0000	0.0000a	0.0000
13	0.0000	0.0000a	0.0000
14	0.0000	0.0000a	0.0000
15	0.0000	0.0000a	0.0000
16	0.0000	0.0000a	0.0000
17	0.0000	0.0000a	0.0000
18	0.0000	0.0000a	0.0000
19	0.0000	0.0000a	0.0000
20	0.0000	0.0000a	0.0000
21	0.0000	0.0000	0.0000
22	0.0146	0.0000	0.0000
23	0.0028	0.0000a	0.0000
24	0.0000	0.0000	0.0000
25	0.0000	0.0000a	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000a	0.0000
28	0.0000	0.0000a	0.0000
29	0.0000	0.0000a	0.0000
30	0.0000	0.0000a	0.0000
31	0.0000	NA	0.0000
Monthly Average (cfs)	0.001	0.000	0.000

Monthly Discharge

Cubic Feet	2613	0	0
Gallons	19545	0	0
Acre-Feet	0.06	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 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.

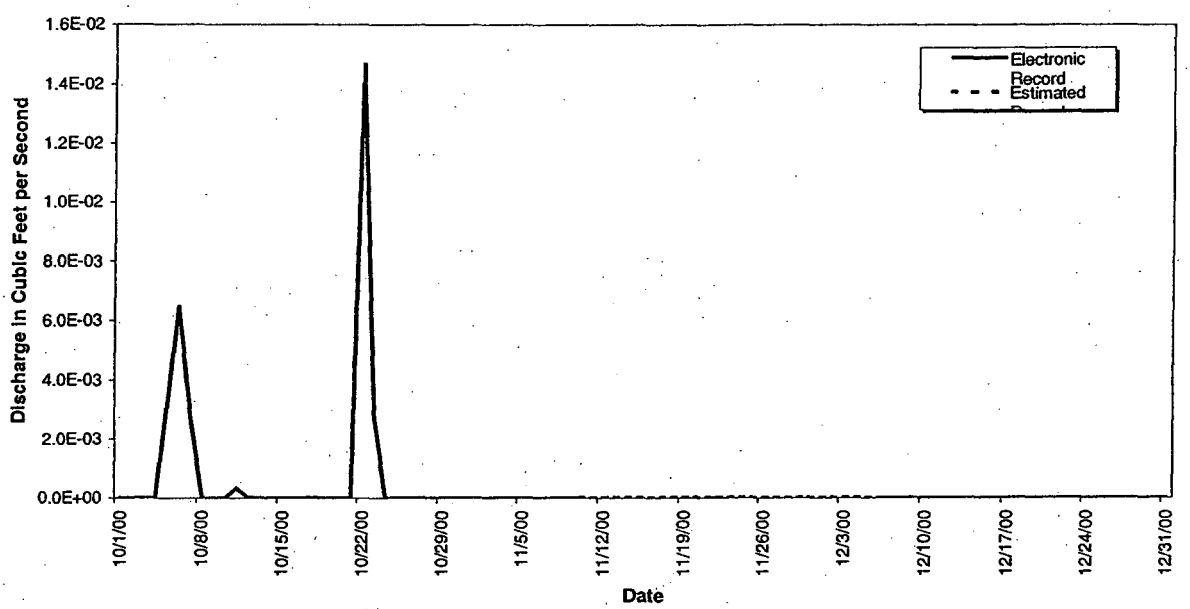


Figure 4-17. Mean Daily Discharge at SW120, Water Year 2001 (October, November, and December)

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4.2. WATER QUALITY DATA

Table 4-11. Radionuclides, Water Year 2001 (October, November, and December)

Location	Sample Dates	Result (MDA) Pu-239, -240 [pCi/l]	Result (MDA) Am-241 [pCi/l]	Result (MDA) Total Uranium [pCi/l]	Result (MDA) Tritium [pCi/l]
GS01	5/2 - 11/6/00	0.004 (0.007)	0.005 (0.009)	a	51 (280)
GS01	11/6 - 11/17/00	0.005 (0.007)	-0.001 (0.009)	a	130 (250)
GS01	11/17 - 11/20/00	0.008 (0.007)	-0.001 (0.009)	a	360 (190)
GS01	11/20 - 12/1/00	-0.003 (0.007)	0.003 (0.009)	a	-27 (270)
GS01	12/1 - 12/14/00	c	c	a	-84 (270)
GS01	12/14/00 - 1/2/01	0.016 (0.019)	0.008 (0.022)	a	c
GS03	8/17 - 8/31/00	-0.002 (0.012)	0.006 (0.016)	a	-77 (251)
GS03	8/31 - 9/14/00	d	d	a	d
GS03	9/14 - 9/19/00	-0.005 (0.016)	0.001 (0.017)	a	110 (260)
GS03	9/19 - 9/27/00	0.002 (0.008)	0.007 (0.007)	a	95 (260)
GS03	9/27 - 11/13/00	d	d	a	d
GS03	11/13 - 11/16/00	0.008 (0.008)	-0.002 (0.009)	a	c
GS03	11/16 - 11/18/00	0.023 (0.007)	0.006 (0.010)	a	b
GS03	11/18 - 11/24/00	-0.003 (0.007)	-0.005 0.009)	a	176 (200)
GS03	11/24 - 11/30/00	0.007 (0.007)	0.003 (0.010)	a	140 (190)
GS03	11/30/00 - 1/11/01	d	d	a	d
GS08	8/11 - 8/17/00	0.864 (0.23)	0.043 (0.014)	0.156 (0.041)	a
GS08	9/14 - 9/19/00	-0.002 (0.017)	-0.001 (0.027)	0.507 (0.020)	a
GS08	9/19 - 9/26/00	-0.007 (0.021)	-0.007 (0.026)	0.566 (0.021)	a
GS08	11/13 - 11/20/00	0.007 (0.007)	0.006 (0.010)	0.776 (0.010)	a
GS08	11/20 - 11/29/00	0.007 (0.008)	0.003 (0.010)	0.866 (0.010)	a
GS10	9/24 - 10/5/00	0.004 (0.015)	0.021 (0.025)	3.086 (0.020)	a
GS10	10/5 - 10/9/00	0.004 (0.015)	0.007 (0.024)	2.294 (0.021)	a
GS10	10/9 - 10/18/00	0.004 (0.017)	0.029 (0.025)	3.774 (0.021)	a
GS10	10/18 - 10/26/00	0.007 (0.006)	0.017 (0.009)	2.138 (0.010)	a
GS10	10/26 - 11/17/00	0.005 (0.007)	0.006 (0.009)	4.293 (0.010)	a
GS10	11/17 - 12/15/00	c	c	c	a
GS10	12/15/00 - 1/8/01	0.054 (0.014)	0.022 (0.022)	4.677 (0.020)	a
GS11	11/13 - 11/18/00	0.002 (0.007)	-0.004 (0.009)	1.172 (0.010)	a
GS11	11/18 - 11/27/00	-0.004 (0.007)	-0.006 (0.010)	1.232 (0.010)	a

a Not applicable
b Analysis lost in lab
c Incomplete analysis
d Non-sufficient quantity
e Composite sample in progress

Table 4-15. Radionuclides, Water Year 2001 (October, Novmeber, and December), continued

Location	Sample Dates	Result (MDA) Pu-239, -240 [pCi/l]	Result (MDA) Am-241 [pCi/l]	Result (MDA) Total Uranium [pCi/l]	Result (MDA) Tritium [pCi/l]
GS32	10/22/00	0.410 (0.007)	0.730 (0.009)	0.848 (0.006)	c
GS39	10/5/00 - 2/15/01	c	c	a	a
GS40	9/29 - 10/21/00	0.005 (0.008)	0.003 (0.007)	3.137 (0.006)	49 (270)
GS40	10/21 - 11/29/00	0.001 (0.007)	0.002 (0.011)	2.955 (0.005)	220 (210)
GS40	11/29/00 - 1/9/01	0.013 (0.015)	0.020 (0.024)	3.805 (0.020)	c
GS43	8/28 - 10/16/00	0.005 (0.019)	0.001 (0.024)	15.383 (0.021)	a
GS43	10/16/00 -	e	e	e	a
GS44	10/4 - 10/30/00	0.010 (0.007)	0.010 (0.008)	2.545 (0.010)	c
GS44	10/30 - 12/5/00	-0.008 (0.007)	-0.002 (0.010)	3.669 (0.010)	33(260)
GS44	12/5/00 -	e	e	e	e
SW022	9/20 - 10/5/00	0.019 (0.016)	0.013 (0.023)	0.325 (0.021)	a
SW022	10/5/00 -	e	e	e	a
SW027	9/28/2000 -	e	e	e	a
SW093	10/2 - 10/18/00	0.011 (0.017)	0.003 (0.028)	2.655 (0.021)	a
SW093	10/18 - 10/31/00	0.007 (0.007)	0.010 (0.008)	2.413 (0.010)	a
SW093	10/31 - 11/17/00	-0.008 (0.007)	0.003 (0.009)	3.034 (0.010)	a
SW093	11/17 - 12/4/00	0.000 (0.007)	-0.003 (0.009)	3.042 (0.012)	a
SW093	12/4 - 12/19/00	c	c	c	a
SW093	12/19/00 - 1/8/01	-0.002 (0.016)	-0.007 (0.026)	3.709 (0.021)	a
SW120	10/5/00 - 2/7/01	c	c	c	c
995POE	10/27 - 11/28/00	-0.003 (0.007)	0.005 (0.009)	0.423 (0.010)	-120 (310)
995POE	11/28 - 12/29/00	0.000 (0.017)	-0.006 (0.023)	0.331 (0.020)	c

a Not applicable
b Not collected
c Incomplete analysis
d Non-sufficient quantity
e Composite sample in progress

Table 4-12. POE Metals, Water Year 2001 (October, November, and December)

Location	Sample Dates	Analyte Be ug/L	Analyte Dissolved Cd ug/L	Analyte Cr ug/L	Analyte Dissolved Ag ug/L
GS10	8/28 - 9/12/00	0.04	a	0.44	a
GS10	9/12 - 9/20/00	0.07	a	1.7	a
GS10	9/20 - 9/24/00	0.05	b	1.15	a
GS10	9/24 - 10/5/00	0.05	0.17	0.185	<0.28
GS10	10/5 - 10/9/00	0.06	0.14	0.255	<0.28
GS10	10/9 - 10/18/00	<0.02	<0.08	0.307	<0.28
GS10	10/18 - 10/26/00	0.05	<0.08	1.4	<0.28
GS10	10/26 - 11/17/00	<0.02	0.08	0.63	<0.28
GS10	11/17 - 12/15/00	0.09	0.13	0.92	<0.28
GS10	12/15/00 - 1/8/01	0.08	<0.08	1.1	<0.28
SW027	9/28/2000 -	b	b	b	b
SW093	10/2 - 10/18/00	0.03	<0.08	0.96	<0.28
SW093	10/18 - 10/31/00	0.18	<0.08	1.2	<0.28
SW093	10/31 - 11/17/00	<0.02	<0.08	0.45	<0.28
SW093	11/17 - 12/4/00	0.03	<0.08	0.45	<0.28
SW093	12/4 - 12/19/00	0.03	0.09	0.25	<0.28
SW093	12/19/00 - 1/8/01	0.03	<0.08	0.56	<0.28

a Not collected

b Composite sample in progress

Table 4-13. Other Metals, Water Year 2001 (October, November, and December)

Analyte ug/l	Result GS32 10/22/00	Result GS40 9/29/00 – 10/21/00	Result GS40 10/21/00 – 11/29/00	Result GS40 11/29/00 – 1/9/01
Aluminum	3060	2160	272	a
Antimony	6.1	8.8	12.9	a
Arsenic	2	2	<1.0	a
Barium	72	155	208	a
Beryllium	0.17	0.12	<0.02	a
Cadmium	0.29	0.21	0.43	a
Calcium	33300	64500	83600	a
Chromium	4.5	2.5	0.43	a
Cobalt	1.3	0.85	<0.22	a
Copper	13.9	6.6	3.2	a
Iron	2900	2660	976	a
Lead	8	3.3	<0.52	a
Lithium	8.3	9.5	10.4	a
Magnesium	5700	16900	21900	a
Manganese	117	245	293	a
Mercury	<0.10	<0.10	<0.10	a
Molybdenum	1.7	1.7	1.6	a
Nickel	3.8	2.4	1.2	a
Potassium	7200	6680	23600	a
Selenium	<1.1	<1.1	<1.1	a
Silver	<0.12	<0.12	<0.12	a
Sodium	37400	89800	198000	a
Strontium	199	496	645	a
Thallium	<0.95	<0.95	<0.95	a
Tin	<0.85	<0.85	<0.85	a
Vanadium	9	5.4	1.0	a
Zinc	284	165	104	a

a Incomplete analysis

Table 4-14. Other Metals, Water Year 2001 (October, November, and December) continued

Analyte ug/l	Result GS43, 10/16/00	Result GS44, 10/4/00 - 10/30/00	Result GS44, 10/30/00 - 12/5/00	Result GS44, 12/5/00
Aluminum	a	1480	149	a
Antimony	a	1.1	0.68	a
Arsenic	a	0.99	1.2	a
Barium	a	95.1	325	a
Beryllium	a	0.09	<0.02	a
Cadmium	a	<0.2	0.38	a
Calcium	a	53200	135000	a
Chromium	a	2.1	2.6	a
Cobalt	a	0.58	0.31	a
Copper	a	4.5	4.1	a
Iron	a	1370	225	a
Lead	a	2.0	<0.52	a
Lithium	a	49.5	106	a
Magnesium	a	9410	17700	a
Manganese	a	21.2	38.8	a
Mercury	a	<0.10	<0.10	a
Molybdenum	a	1.6	2.1	a
Nickel	a	2.3	1.4	a
Potassium	a	9850	13500	a
Selenium	a	2.2	1.9	a
Silver	a	<0.12	<0.12	a
Sodium	a	24300	821000	a
Strontium	a	288	674	a
Thallium	a	<0.95	<0.95	a
Tin	a	<0.85	<0.85	a
Vanadium	a	4.5	1.3	a
Zinc	a	84.7	384	a

a Composite sample in progress

Table 4-15. Other Metals, Water Year 2001 (October, November, and December) continued

Analyte ug/l	Result SW120, 7/17/00 – 9/28/00	Result SW120, 9/28/00 – 10/5/00	Result SW120, 10/5/00 – 2/7/01
Aluminum	8701	a	a
Antimony	2.9	a	a
Arsenic	4.95	a	a
Barium	91.5	a	a
Beryllium	0.43	a	a
Cadmium	0.33	a	a
Calcium	25697	a	a
Chromium	8.98	a	a
Cobalt	2.5	a	a
Copper	16.3	a	a
Iron	6891	a	a
Lead	7.6	a	a
Lithium	14.6	a	a
Magnesium	5680	a	a
Manganese	108.5	a	a
Mercury	<0.10	a	a
Molybdenum	1.5	a	a
Nickel	7.2	a	a
Potassium	7880	a	a
Selenium	0.93	a	a
Silver	<0.12	a	a
Sodium	35876	a	a
Strontium	142.1	a	a
Thallium	<0.95	a	a
Tin	0.55	a	a
Vanadium	20.3	a	a
Zinc	84.9	a	a

a Incomplete analysis

Table 4-16. Water Quality Parameters, Water Year 2001 (October, November, and December)

Location	Sample Dates	Analyte Hardness mg/L
GS10	9/24 - 10/5/00	220
GS10	10/5 - 10/9/00	170
GS10	10/9 - 10/18/00	290
GS10	10/18 - 10/26/00	180
GS10	10/26 - 11/17/00	280
GS10	11/17 - 12/15/00	370
GS10	12/15/00 - 1/8/01	390
SW027	9/28/2000 -	a
SW093	10/2 - 10/18/00	280
SW093	10/18 - 10/31/00	260
SW093	10/31 - 11/17/00	350
SW093	11/17 - 12/4/00	340
SW093	12/4 - 12/19/00	520
SW093	12/19/00 - 1/8/01	310

a Composite sample in progress

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
Building 374	• Water above discharge to ground limits • Water not accepted by WWTP • Water has radionuclides, but no organic constituents	Flash evaporation (Steam-heated reactor with spray evaporation)

5.2. QUARTERLY INCIDENTAL WATER DISPOSITIONS

Twenty-three incidental waters were sampled/dispositioned during the first quarter of FY01. The following table summarizes the location and route of disposal.

Table 5-2. Quarterly Incidental Water Dispositions FY2001 (October, November, and December)

Location/ Building	Location Type	Location Description	# of Incidental Waters	Route of Disposal
112	Excavation	New potable water line (not in IHSS/plume area)	1	Discharge to ground
280 Complex	Lined Pond	Cell No. 1 of 280 Complex	1	Discharge to ground
308B	Tank	Modular Storage Tank 308B	3	Treatment (B374)
371	Manhole	Manhole SE of T371 H	1	Treatment (B374)
373	Cooling Tower	Potable water discharge from testing of new cooling tower. No rad contamination.	1	Discharge to ground
440	Steam Line	Water from steam condensate line.	1	Discharge to ground
559	Excavation	Portable tank containing water from excavation	2	Discharge to ground
559	Excavation	Water in tank moved from 557	1	Treatment (B374)
559	Excavation	Excavation north of 559	1	Treatment (B374)
774	Fire Suppression System	About 100 ft of FSS line	2	Treatment (B995)
774	Secondary Containment	Bermed area around steam condensate tank	1	Treatment (B374)
774	Utility Pit	Tank 207, Valve Pit No. 2 & 3	2	Discharge to ground
776	Oil-Water Separator	22 drums of wastewater from oil-water separator	1	Treatment (B891)
778	Fire Suppression System	Water (no anti-freeze) from draining of FSS	1	Discharge to ground
875	Foundation Drain	"French" drain	1	Discharge to ground

Location/ Building	Location Type	Location Description	# of Incidental Waters	Route of Disposal
886	Foundation Drain	"French" drains	1	Discharge to ground
886	Utility Pit	828 Pit	1	Treatment (B374)
Manhole 14	Manhole	Water in manhole	1	Treatment (B995)

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

- Building 995 – WWTP 3
- Building 891 – CWTF 1
- Building 374 8