RAINFALL AND RUNOFF QUANTITY AND QUALITY DATA COLLECTED AT FOUR URBAN LAND-USE CATCHMENTS IN FRESNO, CALIFORNIA OCTOBER 1981-APRIL 1983

By Richard N. Oltmann, Joel R. Guay, and Johnevan M. Shay

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DONALD PAUL HODEL, Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to:

District Chief
U.S. Geological Survey
Federal Building, Room W-2234
2800 Cottage Way
Sacramento, CA 95825

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CONVERSION FACTORS

For readers who prefer to use the International System of Units (SI) rather than inch-pound units, the conversion factors for the terms used in this report are listed below:

Multiply	By	To obtain
acre	4,047	square meter
acre-foot (acre-ft)	1,233	cubic meter
foot (ft)	0.3048	meter
foot per mile (ft/mi)	0.18948	meter per kilometer
square foot (ft^2)	9.290	square meter
cubic foot (ft^3)	0.02832	cubic meter
cubic foot per second (ft^3/s)	0.02832	cubic meter per second
gallon (gal)	3.785	liter
inch (in.)	2.54	centimeter
inch per mile (in/mi)	1.579	centimeter per kilometer
mile (mi)	1.609	kilometer
square mile (mi^2)	2.590	square kilometer

Water temperature is given in degrees Celsius (°C) which can be converted to degrees Fahrenheit (°F) by the following equation:

$$°F = 1.8\ (°C) + 32.$$

Explanation of abbreviations:

g	gram
µg/g	microgram per gram
µg/kg	microgram per kilogram
µg/L	microgram per liter
mg	milligram
mg/kg	milligram per kilogram
mg/L	milligram per liter
mL	milliliter
mm	millimeter
µm	micrometer

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ABSTRACT

This report presents data collected as part of the National Urban Runoff Program to characterize urban runoff in Fresno, California. Rainfall and runoff quantity and quality data are included along with atmospheric dry-deposition and street-surface particulate quality data. The data are presented in figures and tables that reflect four types of land use: industrial, single-dwelling residential, multiple-dwelling residential, and commercial. A total of 255 storms were monitored for rainfall and runoff quantity. Runoff samples from 104 of these storms were analyzed for inorganic, biological, physical, and organic constituents. Runoff samples for the majority of the remaining storms were analyzed for specific conductance and pH only. Ninety-one composite rain samples were collected. Of these, 62 were analyzed for inorganic, physical, and organic constituents. The remaining rainfall samples were analyzed for specific conductance and pH only. Nineteen atmospheric dry-deposition and 21 street-surface particulate samples were collected and analyzed for inorganic and organic constituents. The report also details equipment use and operation, and data-collection methods.

INTRODUCTION

Background

The Fresno Metropolitan Flood Control District received a National Urban Runoff Program (NURP) grant from the U.S. Environmental Protection Agency through the California State Water Resources Control Board to investigate the potential environmental effects associated with the retention and recharge of urban stormwater runoff using manmade basins in Fresno, California. The data contained in this report were collected and analyzed by the U.S. Geological Survey as part of the Fresno National Urban Runoff Program.

Objectives and Scope

The objectives for collecting and analyzing data for the Fresno NURP study are to:

1. Determine the rate of runoff for four land-use types: industrial, single-dwelling residential, multiple-dwelling residential, and commercial.
2. Identify the type and volume of constituents transported by the runoff water from the four different land-use types.
3. Determine the concentrations of nonpoint source constituents (rainfall, atmospheric dry deposition, street-surface particulate) transported by the runoff water.
4. Determine time relations of runoff quantity and quality.

The scope of the study included monitoring the rate, quantity, and quality of both rainfall and stormwater runoff from four selected land-use catchment areas during the 1981-82 and 1982-83 rain seasons. Rainfall and runoff samples were analyzed for physical, chemical (organic and inorganic), and biological constituents. Atmospheric dry-deposition and street-surface particulate samples also were collected and analyzed.

This report documents the instrumentation and the data collection and laboratory procedures used to collect the data necessary to achieve the project objectives. Also included in this report are the data collected for the study. The data analysis and interpretation segments of the study are reported in Oltmann and Shulters (1987).

Acknowledgments

The authors would like to thank the Fresno Metropolitan Flood Control District staff for their assistance in this study, and the personnel of the U.S. Geological Survey's Hydrologic Data Section for their tireless work throughout many long days and nights. Without them, this report would not have been possible.

DESCRIPTION OF STUDY AREA

The city of Fresno is about 160 miles southeast of San Francisco, California (fig. 1), within the predominantly agricultural San Joaquin Valley. The valley is bounded by the Coast Ranges on the west and Sierra Nevada on the east. Fresno is subject to winter storms that move onshore from the Pacific Ocean, over the Coast Ranges, and into the valley. The average annual rainfall for the study area is about 10 inches, nearly all of which falls during October to April.

The topography of the study area is virtually flat with an average gradient of about 8 ft/mi. Because of the flat terrain and lack of adequate watercourses through the city, manmade stormwater retention basins were constructed. The basins average 10 to 15 acres in size, each serving about 1 mi^2 of urbanized area. Most of the basins are designed for multiple use, such as parks, athletic fields (fig. 2), and ground-water recharge facilities during the dry season.

FIGURE 1. – Index map of California showing Fresno study area.

FIGURE 2. – Multiple-use stormwater retention basin with inundated baseball diamond.

CATCHMENT AREA SELECTION AND DESCRIPTION

An industrial, single-dwelling residential, multiple-dwelling residential, and commercial land-use catchment area were selected for monitoring runoff using the following criteria:

1. Catchment land-use area had to be about 80 to 90 percent homogeneous.
2. Catchment area had to be 80 percent developed to avoid substantial construction activity during the period of data collection.
3. Catchment area had to have suitable location for equipment shelter and storm drainpipe access.

All the selected catchment areas met the above criteria except the industrial catchment area. Of the few industrial catchment areas from which to choose, a catchment area could not be found that met the 80-percent-developed criteria. As shown in table 1, which is a summary of catchment area characteristics, the selected industrial catchment area was only 65.8 percent developed. Locations of the four catchment areas monitored throughout the study period are shown in figure 3.

TABLE 1.--Characteristics of the four monitored urban-runoff catchments

Catchment characteristic	Catchment			
	Industrial	Single-dwelling residential	Multiple-dwelling residential	Commercial
Contributing drainage area (acres)	278	94.0	46.1	61.8
Impervious area (percentage of drainage area)	52.5	43.4	57.0	98.9
Average basin slope (ft/mi)	8.00	7.90	7.03	13.8
Main conveyance slope (ft/mi)	8.00	28.6	9.96	5.70
Permeability of a horizon of soil profile (inches/hour)	2.70	3.75	7.50	.
Soil-water capacity (inch of water/inch of soil)	0.12	0.12	0.07	.
Soil-water pH of the A horizon	6.7	6.7	6.7	.
Hydrologic soil group, SCS methodology[1]	B	B	A	.
Population density (person/mi^2)	0	7,700	16,400	0
Street density (lanes/mi^2)	16	47	39	11
Land use, percentage of drainage area:				
Low-density residential	0	9.0	0	0
Medium-density residential	0	87.3	0	0
High-density residential	0	0	87.0	0
Commercial	0	0	0	100.0
Industrial	65.8	0	0	0
Idle or vacant	34.2	3.7	13.0	0
Detention storage, within catchment associated with storage facilities (acre-feet of storage)	0	0	0	0
Percentage of area drained by storm-sewer system	100.0	100.0	100.0	100.0
Percentage of streets with curb and gutter drainage	47.0	100.0	96.3	100.0
Percentage of streets with ditch and swale drainage	53.0	0	3.7	0

[1]Soil Conservation Service (SCS) designations: A, soils having a high infiltration rate; B, soils having a moderate infiltration rate.

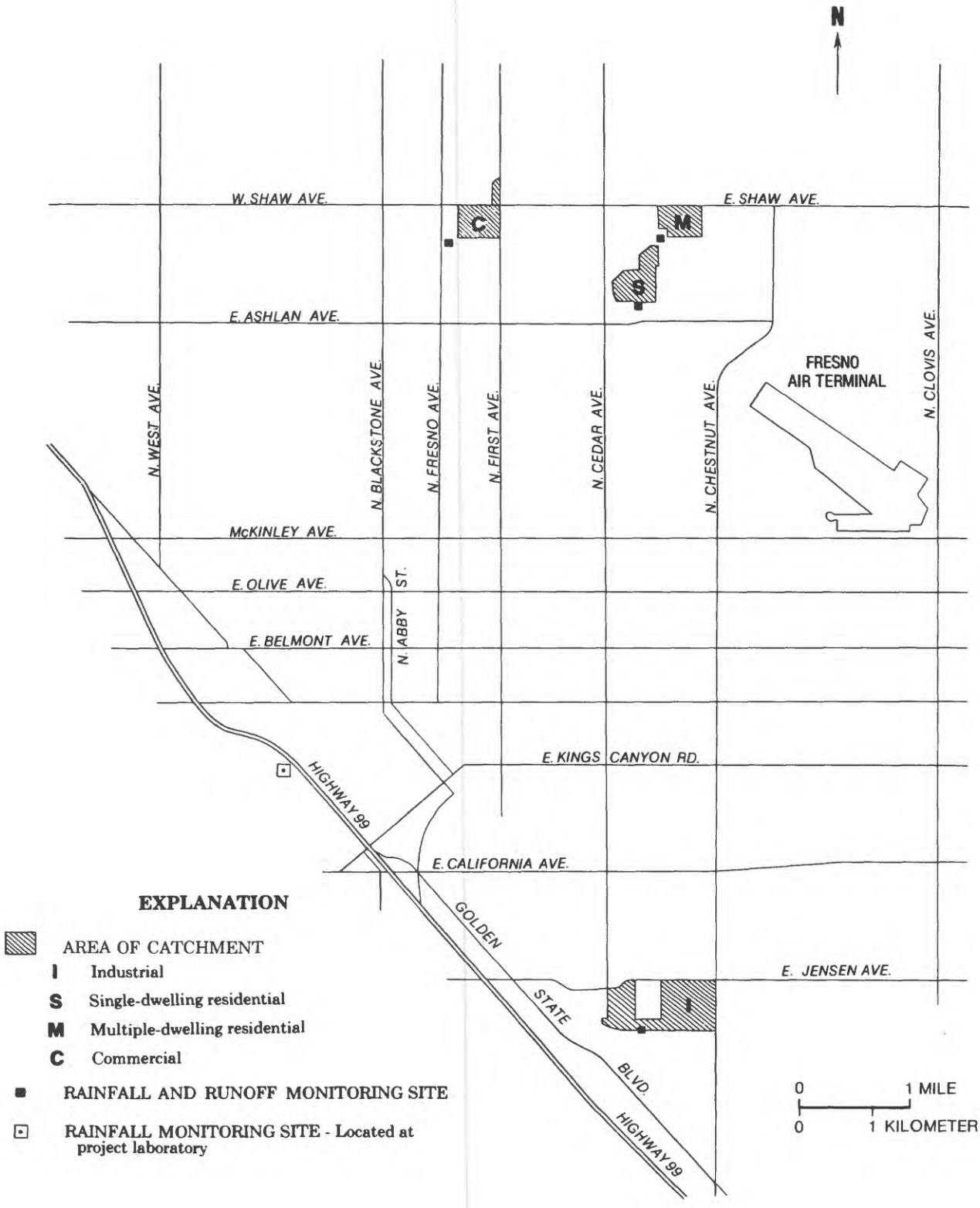

FIGURE 3. Location of catchments and rainfall and runoff monitoring sites.

INSTRUMENTATION

Equipment Used

Wood shelters, 8 feet by 10 feet, with recessed roofs (fig. 4) were constructed over storm-drainpipe access manholes, and in one case, over an existing drop inlet (runoff from all four catchment areas was monitored in storm drainpipes). Construction of the shelters and installation of the manholes were contracted by Fresno Metropolitan Flood Control District. The shelters were connected to AC power sources and were equipped with the following instruments:

1. Manning S-4051 3-liter Discrete Sampler.
2. Schneider Instruments Microprocessor System Control Unit (SCU).
3. 12-volt battery and AC/DC voltage converter for AC power outages.
4. 19-cubic foot freezer.
5. Marsh-McBirney model 250 electromagnetic flowmeter.
6. Leopold-Stevens model 7000 analog digital recorder.
7. Tipping bucket rain gage.
8. N-con atmospheric deposition sampler (two sites only).

FIGURE 4. – Instrumentation shelter with recessed roof, located over storm drainpipe access.

The Manning sampler, SCU, and backup power are all part of the U.S. Geological Survey's Urban Hydrological Monitoring System and were assembled and provided by the U.S. Geological Survey's Hydrologic Instrumentation Facility in Mississippi.

Operation of Equipment

Rain gage, system control unit (SCU), and sample collection.--As rain fell on the catchment area, the volume was recorded by the tipping bucket rain gage located on the shelter roof (fig. 5). Each time the gage collected 0.01 inch of rain, an impulse was transmitted to the SCU (fig. 6). At the next data-record interval, or hydrologic-time interval, the SCU activated the digital recorder (fig. 6) and the date, time, flow rate, stage (flow depth), rainfall total, and sampler status were recorded on paper tape. The hydrologic-time interval is a user-specified interval that initially was selected to be 5 minutes but was changed to 2 minutes after a few storms. The digital recorder was continually activated at the hydrologic-time interval as long as the stage exceeded the specified stage threshold (runoff flow rate also could be used as the control variable). Data were continually recorded until the stage receded below the stage threshold.

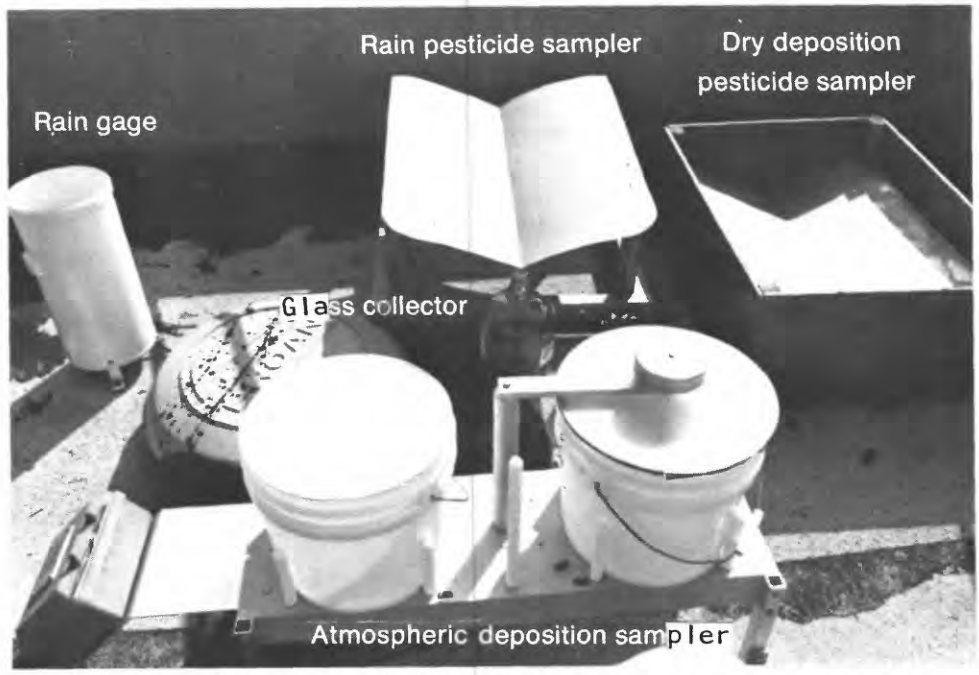

FIGURE 5. – Recessed roof of instrumentation shelter and monitoring equipment.

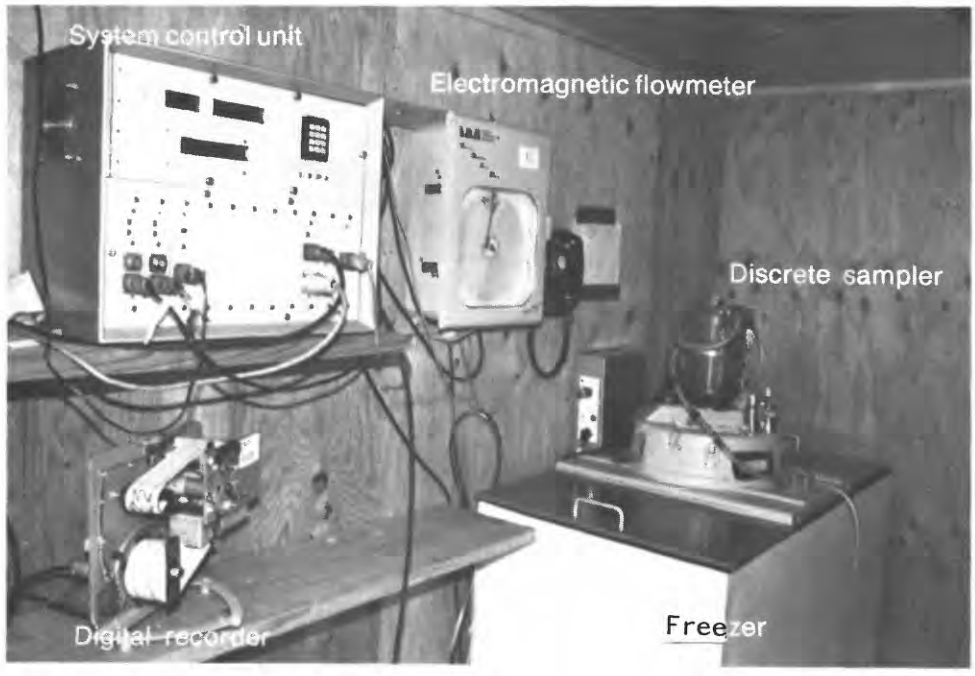

FIGURE 6. – Interior of instrumentation shelter and monitoring equipment.

The sampler (fig. 6) was activated at the next hydrologic-time interval after the stage exceeded the specified sampling-stage threshold. After that, the sampler was activated at a specified time interval, or when the stage increased by a specified amount after the last sample. There also was an upper-stage sampling threshold that allowed samples to be collected at a different time interval. Samples were collected at this second time interval until the stage receded below the upper threshold. Each time a sample was collected, the number of the sample was output to the digital recorder, along with the date, time, flow rate, stage, and rainfall total. The sampler volume was set to collect 3,100-mL samples. Before collecting a sample, the sampler purged the intake hose using storm-drainpipe water. The time necessary to purge the line, collect a sample, discharge the sample, and prepare for collection of the next sample was 2.5 to 3 minutes depending on the height of sample lift. Sampler intakes were mounted to the storm-drainpipe walls approximately 0.1 foot above the pipe-invert elevation. The sampling-stage threshold was set to the stage when the sampler intake was submerged.

The collection of samples used for composite sampling is the same as described above for discrete samples except that the SCU accumulated the flow volume for each hydrologic-time interval, and when the accumulated volume exceeded a specified volume, a sample was collected. Therefore, samples were collected on a flow-weighted basis; each individual sample represented the same volume of runoff. Samples were discharged from the sampler into 1 gallon polyethylene milk bottles stored in the freezer (fig. 6). The freezer, which was converted to a refrigerator, stored samples at 4°C.

Flowmeter.--The flow rate and stage data were fed into the SCU from the electromagnetic flowmeter (fig. 6). The flowmeter determined the flow depth, or stage, by pumping air to an orifice mounted in the storm-drainpipe invert (fig. 7). The pressure required to pump the air is proportional to the flow depth and was measured by a transducer within the flowmeter. The flow cross-sectional area was computed by the flowmeter using the storm-drainpipe diameter, which was programmed into the flowmeter, and the measured flow depth. The storm-drainpipe diameters were 2 feet for the single- and multiple-dwelling residential sites, 3 feet for the commercial site, and 5 feet for the industrial site.

A point velocity was recorded by the electromagnetic velocity sensor (fig. 7) mounted on the wall of the pipe near the invert. The point velocity was adjusted by a velocity coefficient input by the user to provide an average cross-sectional velocity (the velocity coefficients used were field determined averaged values provided by Marsh-McBirney). The flowmeter then computed the flow rate using the area and average velocity.

Atmospheric deposition sampler.--Atmospheric deposition samplers (fig. 5) were located on the recessed roof of two of the shelters. The samplers consisted of two 12-inch diameter polyethylene buckets, a bucket lid attached to a mechanical arm, and a rainfall sensor. One bucket was used for rainfall collection and the other for atmospheric dry-deposition collection. When there was no rainfall, the mechanical arm-lid assembly was positioned so that the rainfall collector bucket was covered and the dry-deposition collector bucket was open to the atmosphere. When rainfall began, the rainfall sensor activated the mechanical arm-lid assembly so that the rainfall collection bucket was uncovered and the dry-deposition collection bucket was covered.

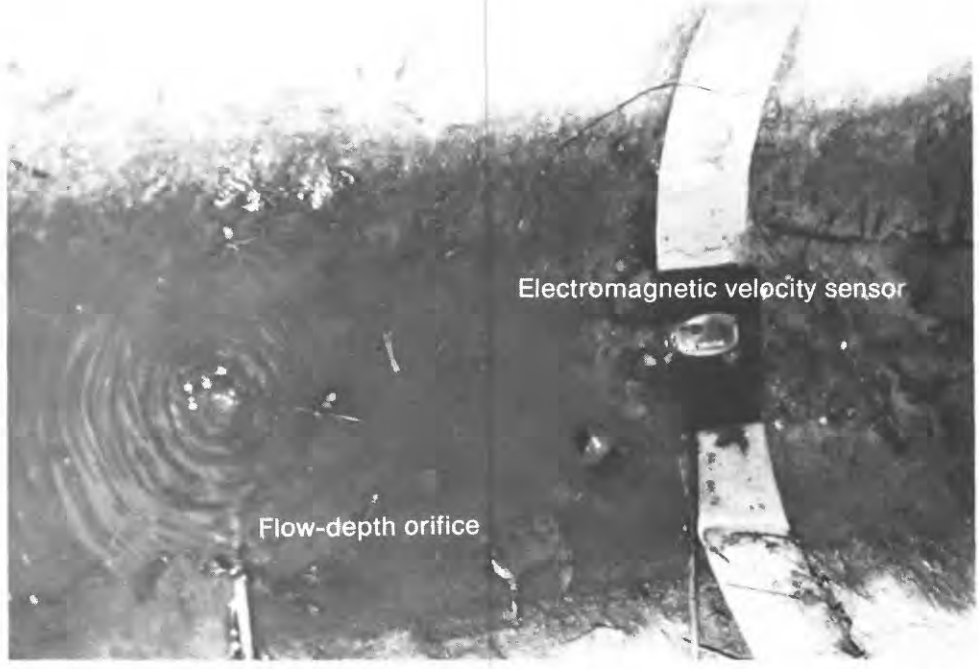

FIGURE 7. – Electromagnetic velocity sensor and flow depth orifice mounted on the wall of the drainpipe.

DATA COLLECTION

Data-collection activities began with the first storm of the 1981-82 rain season (October 28, 1981) and ended with the storm on March 23, 1983. The frequency of data collected, and the methods used to collect and compute the data varied with the type of data collected and are discussed separately (rainfall and runoff quantity, rainfall and runoff quality, atmospheric dry-deposition, street-surface particulates, and dry-weather runoff quality).

Rainfall and Runoff Quantity Data

All storms throughout the two rain seasons were monitored for rainfall and runoff rates from all four land-use catchment areas (except when equipment malfunctioned). Stage, flow rate, and rainfall data were recorded at 5-minute intervals for the October 28-29, 1981 storm, 4-minute intervals throughout November 1981, and 2-minute intervals for the remainder of the study.

Rainfall was monitored in 0.01-inch increments. Because of the small catchment areas and the flat terrain, only one rain gage per catchment area was used.

The runoff monitoring sites for all catchment areas were located within storm drainpipes underneath the instrument shelters. The Fresno storm drainpipes are designed to flow full for storms having or exceeding a 2-year recurrence interval; thus, it was necessary for full-pipe-flow measuring equipment. However, during the first rain season, which was an average rain season, only the storm drainpipe for the single-dwelling residential site flowed full. This pipe flowed full about 99 percent of the time because of backwater from an adjacent retention basin.

During the first rain season, the flowmeters did not provide reliable flow records consistently, but did produce good stage records. Therefore, for most storms the flow record was computed using the stage record and a stage-discharge relation. Stage-discharge relations were defined by discharging different rates of fire-hydrant water through the pipes and measuring the stage and the flow using standard current-meter techniques. The stage-discharge relation also was used for the second rain season; however, this was not an average season and occasional periods of full-pipe flow occurred, which prevented the use of the stage-discharge relation.

Storms monitored during the study that have rainfall and runoff data stored on computer data base are given in table 2. Because of various complications in computing flow records (discussed in following paragraphs), the quality of the data record (rating of flow data) also is included in table 2. A complete listing of storm characteristics for each catchment area is given in Oltmann and Shulters (1987).

TABLE 2.--1981 to 1983 storms in Fresno that have rainfall and runoff data stored in WATSTORE

[WATSTORE is the U.S. Geological Survey's National Water Data Storage and Retrieval system (WATSTORE). Data in WATSTORE are stored by station number in the unit values file. Station number is a unique number for each site based on the latitude and longitude of the site. First six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. Beginning date and beginning time is the start of rainfall. End date and end time is the end of runoff. Beginning time and end time are in hours. Rainfall total is in inches. Flow-data rating: B, backwater adjusted; I, flow output affected by external electromagnetic field; O, reliable flow data computed using open-water rating; S, unreliable stage data; V, variable backwater, data are not reliable; E, estimated peak because of (1) exceedence of Marsh-McBirney scale, (2) incomplete stage record, (3) exceedence of applicable range of open-water rating]

Beginning of rainfall		End of runoff		Rainfall total	Flow-data rating	Beginning of rainfall		End of runoff		Rainfall total	Flow-data rating
Date	Time	Date	Time			Date	Time	Date	Time		
Station 364155119445000, Industrial site											
10/28/81	0350	10/28/81	1200	0.30	O	03/18/82	1312	03/18/82	1712	0.05	B
11/12/81	2000	11/13/81	1232	0.58	O	03/18/82	1746	03/19/82	0238	0.18	B
11/17/81	0404	11/17/81	0856	0.25	O	03/25/82	2054	03/26/82	0422	0.24	O
11/28/81	1044	11/28/81	1840	0.15	O	03/28/82	0808	03/28/82	1208	0.09	O
12/29/81	1440	12/29/81	2230	0.18	O	03/28/82	1300	03/28/82	1616	0.17	O
01/01/82	2342	01/02/82	0140	0.10	O	03/28/82	1616	03/28/82	2200	0.47	B
01/04/82	0718	01/04/82	2114	0.62	O	03/28/82	2154	03/29/82	0118	0.06	B
01/04/82	2116	01/05/82	0320	0.16	O	03/29/82	1112	03/29/82	1738	0.23	B
01/19/82	2154	01/20/82	0144	0.11	O	03/31/82	1636	04/01/82	0826	1.01	B
01/20/82	0710	01/20/82	1942	0.17	O	04/10/82	0430	04/10/82	0902	0.23	B
01/21/82	0228	01/21/82	0640	0.06	O	04/10/82	1122	04/10/82	1508	0.16	B
01/26/82	1310	01/26/82	1736	0.04	O	04/10/82	1834	04/10/82	2340	0.22	B
02/13/82	1454	02/14/82	0208	0.06	O	09/24/82	0138	09/24/82	0800	0.20	O
02/14/82	1742	02/15/82	0930	0.28	O	10/25/82	0038	10/25/82	0556	0.19	O
02/15/82	1942	02/16/82	1006	0.25	O	10/26/82	0200	10/26/82	1202	0.59	O
03/01/82	0924	03/01/82	1610	0.21	O	10/30/82	0038	10/30/82	1134	0.67	O
03/01/82	2026	03/02/82	0326	0.13	O	11/09/82	1134	11/09/82	1828	0.45	O
03/09/82	1900	03/10/82	0946	0.33	O	11/18/82	0540	11/18/82	1248	0.17	O
03/10/82	2004	03/11/82	0714	0.20	O	11/18/82	1640	11/19/82	0130	0.52	O
03/11/82	0708	03/11/82	1654	0.09	B	11/29/82	1416	11/29/82	2154	0.50	O
03/11/82	1654	03/11/82	2332	0.06	B	12/22/82	0141	12/22/82	1436	0.64	O
03/14/82	0458	03/14/82	1828	0.73	B	01/18/83	1642	01/19/83	0328	0.78	B
03/16/82	0508	03/16/82	1426	0.22	B	01/22/83	1608	01/22/83	2236	0.84	B
03/16/82	1926	03/17/82	0646	0.25	B	01/23/83	2216	01/24/83	1228	0.70	B
03/17/82	2148	03/18/82	1200	0.13	B						
Station 364746119445400, Single-dwelling residential site											
10/28/81	0650	10/28/81	1015	0.30	I	01/24/83	0006	01/24/83	0710	0.27	O
11/12/81	1944	11/13/81	0040	0.27	I	01/24/83	0830	01/24/83	1136	0.47	E
11/13/81	0100	11/13/81	1004	0.30	I	01/26/83	1938	01/27/83	1138	1.39	O
11/17/81	0400	11/17/81	0756	0.25	I	01/28/83	2124	01/29/83	0418	0.39	O
03/25/82	2056	03/26/82	0240	0.20	I	02/06/83	0530	02/06/83	2400	0.85	O
03/28/82	1254	03/28/82	1412	0.09	I	02/07/83	2142	02/08/83	0104	0.44	O
03/28/82	1556	03/28/82	1714	0.16	I	02/12/83	1114	02/12/83	2124	0.33	O
03/29/82	1122	03/29/82	1606	0.17	I	02/25/83	1340	02/25/83	1802	0.22	O
03/29/82	1704	03/29/82	1828	0.03	I	02/28/83	1610	03/01/83	0438	1.11	E
03/31/82	1628	03/31/82	2320	0.95	I	03/01/83	1806	03/01/83	2018	0.11	O
04/10/82	0446	04/10/82	0834	0.16	I	03/07/83	0038	03/07/83	0420	0.14	O
09/24/82	0120	09/24/82	0550	0.22	I	03/10/83	1932	03/10/83	2348	0.19	O
09/25/82	0948	09/25/82	2220	0.91	I	03/13/83	0554	03/13/83	1700	0.70	O
10/25/82	0220	10/25/82	0432	0.09	I	03/16/83	1640	03/16/83	2040	0.40	O
10/26/82	0148	10/26/82	0512	0.69	I	03/17/83	1836	03/18/83	0028	0.46	O
12/21/82	1238	12/21/82	1606	0.10	I	03/20/83	1908	03/20/83	2352	0.29	O
12/21/82	1748	12/21/82	2340	0.17	I	03/22/83	0844	03/22/83	1252	0.14	O
12/22/82	1446	12/22/82	1732	0.37	I	03/22/83	1634	03/22/83	1818	0.08	O
01/18/83	1734	01/19/83	0106	0.85	O	03/23/83	1924	03/23/83	2346	0.57	O
01/21/83	2100	01/22/83	0110	0.10	O	03/24/83	0750	03/24/83	1010	0.30	O
01/22/83	0450	01/22/83	1354	0.73	O	03/24/83	1358	03/24/83	1808	0.16	O

TABLE 2.--1981 to 1983 storms in Fresno that have rainfall and runoff data stored in WATSTORE--Continued

Beginning of rainfall		End of runoff		Rainfall total	Flow-data rating	Beginning of rainfall		End of runoff		Rainfall total	Flow-data rating
Date	Time	Date	Time			Date	Time	Date	Time		
Station 364818119443800, Multiple-dwelling residential site											
10/28/81	0650	10/28/81	1105	0.34	0	04/10/82	1056	04/10/82	0144	0.19	0
10/28/81	2005	10/28/81	2250	0.05	0	04/10/82	1834	04/10/82	2332	0.25	0
10/29/81	0140	10/29/81	0400	0.04	0	04/11/82	0108	04/11/82	0258	0.04	0
11/12/81	1944	11/13/81	0100	0.27	0	04/11/82	0516	04/11/82	0810	0.10	0
11/13/81	0104	11/13/81	0940	0.33	0	09/24/82	0144	09/24/82	0658	0.23	0
11/13/81	2228	11/14/81	0036	0.13	0	09/24/82	0658	09/24/82	1022	0.05	0
11/17/81	0400	11/17/81	0800	0.29	0	09/25/82	1024	09/25/82	1150	0.02	0
11/26/81	1300	11/26/81	1624	0.11	0	09/25/82	1200	09/26/82	0232	0.99	0
11/27/81	0704	11/27/81	1056	0.09	0	10/25/82	0146	10/25/82	0458	0.09	0
12/20/81	0332	12/20/81	0958	0.09	0	10/26/82	0150	10/26/82	0602	0.71	E
12/20/81	1350	12/20/81	1630	0.06	0	10/30/82	0032	10/30/82	0956	0.65	0
12/21/81	0552	12/21/81	0908	0.06	0	10/30/82	1416	10/30/82	1732	0.27	0
12/29/81	1354	12/29/81	2042	0.24	0	11/09/82	1028	11/09/82	1744	0.45	0
12/30/81	0146	12/30/81	0408	0.14	0	11/18/82	0508	11/18/82	1212	0.37	0
01/01/82	0114	01/01/82	0354	0.08	0	11/28/82	1704	11/28/82	2328	0.51	0
01/01/82	2330	01/02/82	0202	0.08	0	11/29/82	1410	11/29/82	2238	0.76	0
01/04/82	0656	01/04/82	2008	0.83	0	11/30/82	0002	11/30/82	0250	0.09	0
01/04/82	2110	01/05/82	0304	0.33	0	11/30/82	0356	11/30/82	0910	0.45	0
01/19/82	2202	01/20/82	0052	0.14	0	12/21/82	1238	12/21/82	1538	0.11	0
01/20/82	0752	01/20/82	1306	0.18	0	12/21/82	1750	12/22/82	0006	0.21	0
01/21/82	0232	01/21/82	0456	0.06	0	12/22/82	0124	12/22/82	1404	0.71	0
01/21/82	1336	01/21/82	1622	0.27	0	01/18/83	1814	01/19/83	0204	0.95	0
02/14/82	1740	02/14/82	2012	0.11	0	01/21/83	1444	01/21/83	1802	0.04	0
02/14/82	2028	02/15/82	0130	0.17	0	01/21/83	2054	01/22/83	0132	0.11	0
02/15/82	2000	02/16/82	0102	0.26	0	01/22/83	0320	01/22/83	1628	0.86	0
02/16/82	0338	02/16/82	0710	0.11	0	01/22/83	1616	01/22/83	2400	0.78	E
03/09/82	1846	03/09/82	2320	0.16	0	01/23/83	2230	01/24/83	0840	0.34	0
03/10/82	0100	03/10/82	0700	0.31	0	01/24/83	0832	01/24/83	1422	0.47	E
03/10/82	2306	03/11/82	0330	0.25	0	01/26/83	1946	01/27/83	1600	1.69	S
03/11/82	0626	03/11/82	0900	0.05	0	01/28/83	2138	01/29/83	0552	0.47	0
03/11/82	1320	03/11/82	1910	0.19	0	02/07/83	1526	02/08/83	0320	0.48	0
03/14/82	0146	03/14/82	1550	0.92	0	02/12/83	1016	02/13/83	0006	0.40	0
03/16/82	0456	03/16/82	1316	0.44	0	02/13/83	0156	02/13/83	0438	0.11	0
03/16/82	1948	03/17/82	0248	0.31	0	02/18/83	0718	02/18/83	1018	0.24	0
03/18/82	0350	03/18/82	0910	0.20	0	02/25/83	1328	02/25/83	2158	0.35	0
03/18/82	1308	03/18/82	1600	0.17	0	02/28/83	0652	02/28/83	1018	0.04	0
03/18/82	1836	03/18/82	2220	0.10	0	02/28/83	1624	02/28/83	2224	0.21	0
03/25/82	2100	03/26/82	0348	0.26	0	02/28/83	2204	03/01/83	0626	0.92	E
03/28/82	0818	03/28/82	1152	0.06	0	03/16/83	1642	03/16/83	2218	0.40	0
03/28/82	1246	03/28/82	1510	0.06	0	03/17/83	1552	03/18/83	0532	0.57	0
03/29/82	1104	03/29/82	1700	0.27	0	03/20/83	1918	03/21/83	0128	0.33	0
03/29/82	1702	03/29/82	2024	0.10	0	03/23/83	1918	03/24/83	0052	0.57	0
03/31/82	1630	04/01/82	1030	1.07	0	03/24/83	0610	03/24/83	1124	0.22	0
04/01/82	1602	04/01/82	1844	0.15	0	03/24/83	1406	03/24/83	1914	0.22	0
04/10/82	0448	04/10/82	0920	0.17	0	03/24/83	2048	03/24/83	2332	0.07	0

TABLE 2.--1981 to 1983 storms in Fresno that have rainfall and runoff data stored in WATSTORE--Continued

Beginning of rainfall		End of runoff		Rainfall total	Flow-data rating	Beginning of rainfall		End of runoff		Rainfall total	Flow-data rating
Date	Time	Date	Time			Date	Time	Date	Time		
Station 364818119464700, Commercial site											
10/28/81	0650	10/28/81	1250	0.27	0	03/18/82	0348	03/18/82	0956	0.22	0
11/17/81	0356	11/17/81	0816	0.25	0	03/18/82	1308	03/18/82	1600	0.14	0
11/26/81	1236	11/26/81	1700	0.11	0	03/18/82	1834	03/18/82	2328	0.09	0
11/27/81	0752	11/27/81	1236	0.09	0	03/25/82	2208	03/26/82	0250	0.19	0
11/27/81	1408	11/27/81	1640	0.03	0	03/28/82	0836	03/28/82	1108	0.06	0
11/27/81	1752	11/27/81	2036	0.06	0	03/28/82	1232	03/28/82	1430	0.07	0
11/28/81	1152	11/28/81	1548	0.07	0	03/28/82	1548	03/28/82	1724	0.11	0
12/20/81	0326	12/20/81	1718	0.14	0	03/29/82	1140	03/29/82	1702	0.17	0
12/21/81	0710	12/21/81	1020	0.03	0	03/29/82	1700	03/29/82	1910	0.07	0
12/29/81	1414	12/29/81	2150	0.21	0	03/31/82	1630	04/01/82	0920	1.05	0
12/30/81	0142	12/30/81	0444	0.13	0	04/01/82	1544	04/01/82	1908	0.27	E
01/01/82	0128	01/01/82	0420	0.09	0	04/10/82	0444	04/10/82	0934	0.18	0
01/01/82	2344	01/02/82	0238	0.07	0	04/10/82	1112	04/10/82	1434	0.17	0
01/02/82	0558	01/02/82	0820	0.02	0	04/10/82	1846	04/11/82	0020	0.22	0
01/02/82	1312	01/02/82	1520	0.04	0	04/11/82	0106	04/11/82	0320	0.04	0
01/04/82	0732	01/04/82	2100	0.71	0	04/11/82	0516	04/11/82	0836	0.12	0
01/04/82	2112	01/05/82	0450	0.26	0	09/24/82	0132	09/24/28	1124	0.28	V
01/05/82	1356	01/05/82	1600	0.02	0	10/24/82	0548	10/24/82	0902	0.02	V
01/19/82	2202	01/20/82	0100	0.09	0	10/25/82	0244	10/25/82	0518	0.05	V
01/20/82	0754	01/20/82	1300	0.13	0	10/26/82	0146	10/26/82	0916	0.64	V
01/20/82	1632	01/20/82	1800	0.02	0	11/08/82	1710	11/08/82	2028	0.14	V
01/21/82	1326	01/21/82	1718	0.20	0	11/09/82	1020	11/09/82	1850	0.47	V
01/26/82	1418	01/26/82	1630	0.06	0	12/21/82	1222	12/21/82	1632	0.09	V
02/14/82	1744	02/14/82	2046	0.10	0	12/21/82	1744	12/22/82	0136	0.18	V
02/14/82	2032	02/15/82	0248	0.18	0	12/22/82	0134	12/22/82	1850	1.05	V
02/15/82	0812	02/15/82	1032	0.05	0	01/18/83	1614	01/19/83	0134	0.88	V
02/15/82	1958	02/16/82	0140	0.22	0	01/24/83	0002	01/24/83	0824	0.30	V
02/16/82	0314	02/16/82	1002	0.15	0	01/24/83	0816	01/24/83	1336	0.48	V
03/09/82	1838	03/09/82	2354	0.17	0	02/28/83	0646	02/28/83	1040	0.05	V
03/09/82	2350	03/10/82	0640	0.26	0	02/28/83	1636	03/01/83	0832	1.10	V
03/10/82	2258	03/11/82	0330	0.28	0	03/01/83	1806	03/02/83	0048	0.07	V
03/11/82	0624	03/11/82	1024	0.06	0	03/02/83	0204	03/02/83	0806	0.08	V
03/11/82	1008	03/11/82	2040	0.26	0	03/16/83	1640	03/16/83	2110	0.40	V
03/14/82	0312	03/14/82	1630	0.89	0	03/22/83	1630	03/22/83	1944	0.07	V
03/16/82	0512	03/16/82	1338	0.41	0	03/22/83	2104	03/23/83	0038	0.03	V
03/16/82	1946	03/17/82	0222	0.29	0	03/23/83	1934	03/24/83	0308	0.57	V
03/17/82	2202	03/18/82	0028	0.03	0	03/24/83	0652	03/24/83	1116	0.30	V

Periods when runoff records were not produced using a stage-discharge relation are discussed, by catchment area as follows:

Industrial site.--The second year above-average rainfall and resulting runoff prevented use of the stage-discharge relation at the industrial site for January 1983 because an adjacent retention basin filled up and caused backwater at the monitoring point. The basin eventually submerged the drainpipe producing a full-pipe flow. In the first season, there were a few occasions during the last months of monitoring that the water level in the basin had an effect on the flow at the monitoring site. For these backwater periods, the flowmeter record was used to provide the runoff record. There was no flow record from January 26, 1983 to the end of the study period because of a faulty velocity probe that could not be replaced due to pipe submergence.

Single-dwelling residential site.--Because the storm drain flowed full most of the time, the flowmeter record was used exclusively. However, flow records before December 1982 are questionable because of an intermittent and variable unknown external electromagnetic field that was picked up by the stainless steel velocity-probe mounting ring and affected the velocity determination. The problem was corrected by remounting the probe without using the mounting ring.

Multiple-dwelling residential site.--There were a few high rainfall intensity storms during the second season that caused the storm drain to flow full (January 22 and 24, and February 28, 1983), which excluded the use of the flow rating. Because there was no flowmeter record for that period, the flows for these 40- to 70-minute periods were estimated based on the hydraulic elements of a circular section as shown in Clark and Viessman (1965, fig. 6-3).

Commercial site.--During the dry season between the two monitored rain seasons, construction activities altered the commercial site's drainage area, and also hampered the use of the stage-discharge relation. During construction of an adjoining shopping area and parking lot, a few of the catchment area's contributing drop inlets were removed, causing a loss of approximately 10 percent of the catchment area's drainage area. This problem was corrected by installing new drop inlets in late December 1982. The most adverse effect of the construction activity was the connection of a new storm drainpipe to the monitored drainpipe. The new drainpipe, which drained the newly constructed parking lot, was connected approximately 100-feet down pipe from the monitoring site and the runoff from the parking lot created a variable backwater situation at the monitoring site.

Rainfall and Runoff Quality Data

Rainfall Quality Samples

Rainfall samples for quality analysis were collected using the atmospheric deposition samplers at the industrial and single-dwelling residential sites during the 1981-82 and 1982-83 rain seasons. In addition, a third rainfall quality monitoring site, located at the project laboratory (fig. 3), was used during the 1982-83 rain season. A total of 91 storm-composite rainfall samples were collected during the two rain seasons. Specific conductance and pH were determined for all but a few samples. Sixty-two of the 91 samples were sent to the U.S. Geological Survey's Central Laboratory in Arvada, Colorado, for analysis of the inorganic, physical, and organic constituents given in table 3. Generally, rainfall samples were sent to the laboratory for analysis only if runoff samples for the same storm also were being analyzed. In addition, some rainfall samples were sent to the laboratory for organic determination only. Rainfall samples for organic determination were obtained using a sheet metal collector (fig. 5) which drained into a glass bottle. All rainfall samples were chilled as soon as possible after the conclusion of the storms and during shipment to the laboratory. The laboratory results for rainfall quality are given in tables 4-7 at the back of this report.

Runoff Quality Samples

For all four land-use catchment areas, runoff samples were collected with automatic samplers for most storms throughout the two rain seasons. This totaled 255 storms with 5 to 35 samples collected per storm per catchment area. Specific conductance readings were taken on all samples, and pH readings were taken on about 75 percent of the samples. To study the variation in constituent concentrations throughout a storm, selected samples--a minimum of two of the four catchment areas for 16 storms--were processed and sent to the laboratory for analysis. In addition, composite samples were prepared and analyzed for at least two of the four catchment areas for 12 storms to provide event mean concentrations for use in computing constituent loads. Runoff samples were analyzed for the inorganic, biological, physical, and organic constituents given in table 3.

All runoff samples analyzed for organics, except for organic carbon, were collected as grab samples in glass containers at the automatic sampler location. Usually one or two samples were collected per catchment area per storm for storms that had samples analyzed for nonorganic runoff. If two samples were collected, one would be collected on the rising limb of the hydrograph and the other on the recession. Samples were chilled immediately after collection and sent chilled to the laboratory for analysis. The laboratory results for runoff quality are given in tables 8-13 at the back of this report. The specific conductance, pH, and flow for samples collected during storms that were not sent for laboratory analysis are given in table 14 at the back of this report.

TABLE 3.--Quality constituents analyzed for in rainfall, runoff, atmospheric dry-deposition, and street-surface particulate samples

[Type of sample: x, analyzed for during both rain seasons; 1, analyzed for during 1981-82 rain season only; 2, analyzed for during 1982-83 rain season only; 3, analyzed for September 3, 1982; ., no data available. Atmospheric dry deposition: Material was washed from a collection bucket with deionized water and then analyzed as a water sample. Street-surface particulate: All constituents are total recoverable from dry samples. Atmospheric-dry deposition and street-surface particulate samples are reported in mass concentration units]

Property or constituent	Type of sample				
	Rainfall	Runoff	Atmospheric dry deposition	Street-surface particulate	Dry-weather runoff
INORGANICS					
Specific conductance	x	x	.	.	3
pH	x	x	.	.	3
Major ions					
Hardness, total (as $CaCO_3$)[1]	.	x	.	.	3
Calcium, dissolved	x	x	x	x	3
Magnesium, dissolved	x	x	x	x	3
Sodium, dissolved	x	x	x	x	3
Potassium, dissolved	x	x	x	x	3
Alkalinity, total (as $CaCO_3$)	x	x	.	.	3
Sulfate, dissolved	x	x	x	.	3
Chloride, dissolved	x	x	x	.	3
Silica, dissolved	x	x	x	.	3
Nutrients					
Nitrogen, nitrate, dissolved (as N)	.	1	.	.	.
Nitrogen, nitrite, dissolved (as N)	x	.	.	x	.
Nitrogen, nitrite plus nitrate, dissolved (as N)	x	x	x	x	3
Nitrogen, ammonia, total (as N)	.	.	x	x	.
Nitrogen, ammonia, dissolved (as N)	x	x	.	.	3
Nitrogen, ammonia plus organic, total (as N)	.	x	x	x	3
Nitrogen, ammonia plus organic, dissolved (as N)	x	x	.	.	3
Nitrogen, organic, total (as N)[1]	.	.	x	.	.
Nitrogen, organic, dissolved (as N)[1]	x	x	.	.	3
Nitrogen, total (as N)	.	.	.	x	.
Nitrogen, dissolved (as N)[1]	x	x	.	.	3
Phosphorus, total (as P)	.	x	x	x	3
Phosphorus, dissolved (as P)	x	x	.	.	3
Phosphorus, orthophosphate, total (as P)	.	x	x	.	3
Phosphorus, orthophosphate, dissolved (as P)	x	x	.	.	3
Metals					
Aluminum, total recoverable and dissolved	2	2	2	2	.
Arsenic, total	2	x	2	x	3
Arsenic, dissolved	.	x	.	.	3
Cadmium, total recoverable and dissolved	.	1	.	1	3
Chromium, total recoverable	2	x	2	1	3
Chromium, dissolved	.	x	.	.	3
Copper, total recoverable and dissolved	2	x	2	x	3
Iron, total recoverable and dissolved	2	x	2	x	3
Lead, total recoverable and dissolved	x	x	x	x	3
Manganese, total recoverable and dissolved	2	2	2	2	.
Mercury, total recoverable	2	x	2	x	3
Mercury, dissolved	.	x	.	.	3
Nickel, total recoverable and dissolved	2	x	2	x	3
Zinc, total recoverable and dissolved	2	x	2	x	3
BIOLOGICAL					
Coliform, fecal, 0.7 µm-MF	.	x	.	.	3
OXYGEN DEMAND					
Oxygen demand, chemical, 0.25 N dichromate	x	x	.	x	3

[1]Calculated

TABLE 3.--Quality constituents analyzed for in rainfall, runoff, atmospheric dry-deposition, and street-surface particulate samples--Continued

Property or constituent	Type of sample				
	Rainfall	Runoff	Atmospheric dry deposition	Street-surface particulate	Dry-weather runoff
OXYGEN DEMAND--Continued					
Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	.	x	.	.	.
Oxygen demand, biochemical, carbonaceous, 20-day	.	x	.	.	.
PHYSICAL PROPERTIES					
Turbidity, NTU	.	x	.	.	3
Solids, residue at 180°C, dissolved	.	x	.	.	3
Solids, residue at 105°C, total	.	.	x	x	.
Solids, sum of constituents, dissolved[1]	.	x	x	.	3
Sediment, suspended	.	x	.	.	3
Particle-size analysis	.	1	.	.	.
ORGANICS					
Carbon, organic, dissolved	x	x	x	.	3
Carbon, organic, suspended	.	x	.	.	.
Carbon, inorganic plus organic, total	.	.	.	x	.
Carbon, inorganic, total	.	.	.	x	.
Cyanide, total and dissolved	.	2	.	.	.
Oil and grease, total recoverable, gravimetric	.	x	.	.	.
Phenols, total recoverable	2	2	.	.	.
Polychlorinated biphenyls, total recoverable	x	x	2	x	3
Polychlorinated naphthalenes, total recoverable	x	x	2	x	3
Dibromochloropropane, total recoverable	.	1	.	.	.
Volatile organics					
Benzene, total recoverable	.	2	.	.	.
Chlorobenzene, total recoverable	.	2	.	.	.
Ethylbenzene, total recoverable	.	2	.	.	.
Organochlorine compounds					
Aldrin, total recoverable	x	x	2	x	3
Chlordane, total recoverable	x	x	2	x	3
DDD, total recoverable	x	x	2	x	3
DDE, total recoverable	x	x	2	x	3
DDT, total recoverable	x	x	2	x	3
Dieldrin, total recoverable	x	x	2	x	3
Endosulfan, total recoverable	x	x	2	x	3
Endrin, total recoverable	x	x	2	x	3
Heptachlor, total recoverable	x	x	2	x	3
Heptachlor epoxide, total recoverable	x	x	2	x	3
Lindane, total recoverable	x	x	2	x	3
Methoxychlor, total recoverable	x	x	2	x	3
Mirex, total recoverable	x	x	2	x	3
Perthane, total recoverable	x	x	2	x	3
Toxaphene, total recoverable	x	x	2	x	3
Organophosphorus compounds					
Diazinon, total recoverable	x	x	2	x	3
Ethion, total recoverable	x	x	2	x	3
Malathion, total recoverable	x	x	2	x	3
Methyl parathion, total recoverable	x	x	2	x	3
Methyl trithion, total recoverable	x	x	2	x	3
Parathion, total recoverable	x	x	2	x	3
Trithion, total recoverable	x	x	2	x	3
Carbamate insecticides					
Methomyl, total recoverable	1	1	.	.	.
Propham, total recoverable	1	1	.	.	.
Sevin, total recoverable	1	1	.	.	.
Chlorophenoxy acid herbicides					
Silvex, total recoverable	x	x	2	.	3
2,4-D, total recoverable	x	x	2	x	3
2,4-DP, total recoverable	x	x	2	.	3
2,4,5-T, total recoverable	x	x	2	.	3

EPA 129 priority pollutants study

The U.S. Environmental Protection Agency (EPA), Office of Water Regulation and Standards (OWRS), has been conducting a program to evaluate exposure and associated risk from the presence of toxic pollutants in the Nation's aquatic environment. This program addresses the goals of the Clean Water Act of 1977 by developing exposure profiles for the 129 priority pollutants. The Fresno NURP study was required to participate in this program as an add-on-element to the study. Grab samples were collected in glass containers during four storms at all four catchment areas during March 1982. Samples were chilled and shipped to the designated EPA contract laboratories for analysis.

EPA NURP special metals study

Grab samples for an EPA NURP special metals study were collected during the January 4, 1982, storm. Two samples per catchment area were collected and sent to an EPA contract laboratory for analysis of three metal concentration phases--dissolved, total recoverable, and total. The following 29 metals were analyzed:

aluminum
arsenic
barium
beryllium
boron
cadmium
calcium
chromium
cobalt
copper
iron
lead
lithium
magnesium
manganese
mercury
molybdenum
nickel
potassium
selenium
silver
sodium
strontium
thallium
tin
titanium
vanadium
yttrium
zinc

Atmospheric Dry-Deposition Samples

Atmospheric dry-deposition samples were collected over an approximate 2-month period at the industrial and single-dwelling residential monitoring sites. From November 1981 through April 1983, 19 samples were collected, processed, and sent to the laboratory for analysis of the inorganic, physical, and organic constituents shown in table 3. The laboratory results for atmospheric dry-deposition samples are given in table 15 at the back of this report. The constituent results of the bucket-washed sample received from the Survey's Central Laboratory were reported in the conventional water analysis concentration units of milligrams or micrograms per liter. The constituent concentrations were converted to mass-concentration units (for example, milligrams per kilogram) by dividing each constituent concentration by the samples total solids concentration (reported in milligrams per liter) and multiplying by 10^6.

Street-Surface Particulate Samples

Seven street-surface particulate samples were collected periodically from each of the four catchment areas during the 2-year data-collection period. The initial intent of collecting the samples was to develop particulate build-up curves for each of the catchment areas; however, this was not possible because of sampling inaccuracies (Oltmann and Shulters, 1987). Nevertheless, samples were collected before a few selected storms to determine what constituent concentrations were present on the street surface before washoff.

A total of 21 samples were sent to the laboratory and analyzed for the inorganic and organic constituents given in table 3. Some samples were collected just for the purpose of defining a particulate mass build-up curve and not for quality analysis. Samples were collected using a large stainless steel cannister shop vacuum and a random-stratified collection network. The network was developed by marking off approximately 200-foot lengths of street on 1:2400 scale maps of the catchment areas. The lengths of street were then designated as acceleration/braking area, or light or heavy traffic volume areas. The lengths for each of the designated groups were then numbered and a proportionate number of each designation were randomly selected so as to total 20 to 25 lengths. The vacuum was used to collect street width curb-to-curb samples using a 6-inch wide wand attachment. The 20 to 25 curb-to-curb samples were composited, passed through a 2-mm sieve, weighed, and sent to the laboratory. The commercial catchment parking lot was divided into approximately 4,500-ft^2 rectangles and then randomly selected and sampled as described above. The commercial catchment area was the only catchment to have any streetsweeping during the study period. The parking lot was swept daily by a commercial sweeping service that removed larger nonesthetic and gravel-sized material but not the fine-grained material. The laboratory results for quality of street-surface particulate samples are given in table 16 at the back of this report.

Dry-Weather Runoff Quality Samples

Grab samples to determine the quality of dry-weather runoff (lawn watering, car washing) were collected on September 3, 1982, at the two residential monitoring sites. The samples were processed and sent to the laboratory for analysis of inorganic, biological, physical, and organic constituents given in table 3. These samples were collected to estimate constituent loads from residential catchment areas during the dry season. The laboratory results for quality of dry-weather runoff samples are given in tables 8-12.

PROJECT LABORATORY PROCEDURES

Runoff Samples

As soon as possible after each storm, runoff samples were removed from the automatic samplers and brought to the project laboratory for processing and field measurements. Because of sample volume limitations in the automatic sampler, one sample alone did not have the necessary volume for a complete analysis, therefore, two routes for processing samples were used. The two routes included analyzing samples for:

1. Major ions, nutrients, trace metals, chemical oxygen demand, suspended sediment, and organic carbon.
2. Fecal coliform bacteria, biochemical oxygen demand (BOD), and particle size.

For route one, specific conductance was measured and recorded for all the 3,100-mL automatic sampler samples; pH was measured on selected samples. Meter calibrations on equipment in the project laboratory, using buffers and standards that covered the expected range of values, were made prior to each new set of samples. If unusual readings were encountered, meters were rechecked.

Next, the sample water was put through a double-cone sample splitter (fig. 8), which subdivided the sample proportionally. Before each sample, the cone splitter was rinsed with a 10 percent acetone-distilled water mixture followed by a second rinse of distilled water. The splitter was taken apart for a complete cleaning before processing samples from a different site. After subdividing, water samples to be analyzed for dissolved constituents were filtered through a 0.45-µm membrane filter. Nutrient samples were preserved by chilling to 4°C and adding HgCl. Samples for metal analysis were placed in acid-rinsed polyethylene bottles and acidified with nitric acid to a pH less than 2. Chemical determinations were made at the U.S. Geological Survey Central Laboratory in Arvada, Colorado. Suspended-sediment samples were brought back to the U.S. Geological Survey Sediment Laboratory in Sacramento, California.

For route two, specific conductance and pH were measured after a 50-mL subsample was removed for fecal coliform bacteria analysis. The water was then poured into a churn sample splitter where 500 mL was removed for biochemical oxygen demand analysis. The remaining water was used on selected samples for particle-size analysis. Fecal coliform bacteria samples were analyzed within

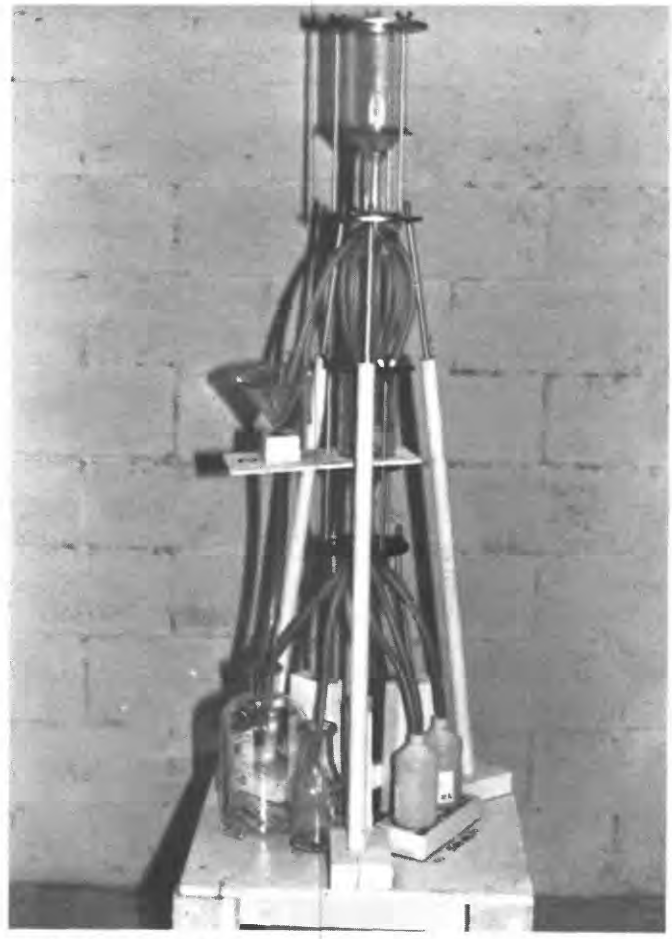

FIGURE 8. – Multiple cone sample splitter apparatus used in processing runoff samples.

6 hours of collection, using membrane-filter techniques (Greeson and others, 1977, p. 53-57). Samples were not analyzed if this specific time requirement could not be met as was often the case because of logistics problems. Biochemical oxygen demand samples were analyzed under contract by BSK Laboratories in Fresno, California.

Grab samples for organics were not processed using either route one or two. They were collected in glass jars, thoroughly shaken, and subdivided by pouring off sample aliquots for analysis. Pesticide samples were chilled to 4°C and stored in glass bottles that had been pretreated by baking at 350°C. Samples for phenols were preserved with 1-g $CuSO_4$ and 1-mL H_3PO_4 to pH less than 4 and then chilled to 4°C. Organic carbon samples were chilled to 4°C. After treatment, samples were packaged in coolers and sent to the Central Laboratory.

Rainfall Samples

Processing rainfall samples followed the same general procedures as runoff samples, however, the double cone splitter was not used for subsampling. Subsampling was performed by thoroughly shaking the sample and then pouring off sample aliquots for analysis. An Orion model 399 pH meter and Sargent-Welch glass electrode (S-30072-25) were used to measure pH as soon as possible after the sample was collected.

Atmospheric Dry-Deposition Samples

The accumulated dry-deposition sample was scraped with a rubber spatula and washed from the collection bucket using a known volume of deionized water. The sample was then processed using the same procedures as for rainfall samples.

Analytical Methods

The laboratory methodologies used for this study can be found in Skougstad and others, 1979 (inorganic); Goerlitz and Brown, 1972 (organic); Greeson and others, 1977 (microbiological); and Guy, 1969 (sediment). Biochemical oxygen demand was determined according to U.S. Geological Survey Quality of Water Branch Technical Memorandum No. 80.28. This method departs from customary methods for determining biochemical oxygen demand in its use of a chemical inhibitor to block nitrification, thus preventing the nitrogenous biochemical oxygen demand from being consumed.

Quality Assurance

In addition to ongoing District quality assurance and review, the following procedures were followed at the project laboratory:

1. All personnel involved in sample processing were trained in each procedure and in equipment calibration.
2. Detailed explanations of the proper techniques for each procedure were documented and provided to each individual.
3. All personnel and field meters were tested using unknowns for pH and specific conductance under the proficiency testing program conducted biannually by the U.S. Geological Survey.
4. Periodically, a distilled water "sample" was put through the double cone sample splitter and sent to the central laboratory to check for contamination. The sample was processed through the laboratory exactly as an actual field sample.

EPA 129 Priority Pollutants Study

The analytical procedures used for the sample collection for the priority pollutant study are found in U.S. Environmental Protection Agency (1980). Samples were sent to EPA specified laboratories.

EPA NURP Special Metals Study

Grab samples for the EPA NURP special metals study were collected in EPA provided polyethylene containers in accordance with instructions outlined in the February 24, 1981, EPA document "Special Metals Sample Collection Document for the Nationwide Urban Runoff Program." Samples were sent to EPA specified laboratories.

DATA STORAGE

Rainfall and runoff quantity data are stored by station number in the unit values file of the U.S. Geological Survey's National Water Data Storage and Retrieval system (WATSTORE). Rainfall, runoff, atmospheric dry-deposition, and street-particulate quality data are stored by station number in the quality of water files of WATSTORE and are differentiated by a source code. Sample results of the EPA special metals and priority pollutant studies are stored only in EPA's STORET data base, and are not listed in this report. All the data stored in WATSTORE also are in the STORET system.

REFERENCES CITED

Clark, J.W., and Viessman, Warren, Jr., 1965, Water supply and pollution control: Scranton, Pennsylvania, International Textbook Co., 575 p.

Goerlitz, D.F., and Brown, Eugene, 1972, Methods for analysis of organic substances in water: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A3, 40 p.

Greeson, P.E., Ehlke, T.A., Irwin, G.A., Lium, B.W., and Slack, K.V., 1977, Methods for collection and analysis of aquatic biological and microbiological samples: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A4, 332 p.

Guy, H.P., 1969, Laboratory theory and methods for sediment analyses: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter C1, 58 p.

Oltmann, R.N. and Shulters, M.V., 1987, Rainfall and runoff quantity and quality characteristics of four urban land-use catchments in Fresno, California: October 1981-April 1983: U.S. Geological Survey Open-File Report 84-710.

Skougstad, M.J., Fishman, L.C., Friedman, L.C., Erdmann, D.E., and Duncan, S.S., 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 626 p.

U.S. Environmental Protection Agency, 1980, Monitoring of toxic pollutants in urban runoff: A guidance manual: Interim Final Report, 85 p.

_____1981, Special metals sample collection document for the Nationwide Urban Runoff Program (NURP): Instruction Manual, 10 p.

TABLES 4 - 16

TABLE 4.--Rainfall data: Specific conductance, pH, and other constituents

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. ., no data available. <, actual value is less than value shown. Specific conductance is in microsiemens per centimeter at 25°C. pH is in units. Other constituents are in milligrams per liter. Rainfall quantity data were not collected at the laboratory site]

Station 364155119445000, Industrial site

Beginning date	Ending date	Rainfall total (inches)	Specific conductance	pH	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
81-12-29	81-12-29	0.18	21	6.3	0.28	0.11	0.2	0.3
82-01-04	82-01-04	0.62	52	6.0	0.30	0.10	1.2	0.1
82-01-04	82-01-05	0.16	34	6.3	.	.	.	.
82-01-19	82-01-21	0.34	25	6.2	.	.	.	.
82-02-14	82-02-15	0.28	10	6.2	.	.	.	.
82-02-14	82-02-16	0.53	.	6.2	0.90	0.10	0.7	0.4
82-02-15	82-02-16	0.25	5	6.2	.	.	.	.
82-03-01	82-03-01	0.21	12	6.6	.	.	.	.
82-03-09	82-03-10	0.33	6	6.3	1.5	0.10	0.9	0.2
82-03-10	82-03-11	0.29	8	6.3	0.50	0.10	0.4	0.3
82-03-14	82-03-14	0.73	10	5.5	.	.	.	.
82-03-16	82-03-17	0.47	17	6.1	.	.	.	.
82-03-25	82-03-26	0.24	11	6.0	0.88	0.17	0.2	0.4
82-03-28	82-03-29	1.02	9	6.4	0.30	0.12	0.4	0.2
82-03-31	82-04-01	1.01	3	6.1	.	.	.	.
82-04-10	82-04-10	0.61	19	6.8	.	.	.	.
82-09-24	82-09-24	0.20	29	5.5	1.1	0.24	0.5	0.6
82-09-25	82-09-25	0.16	12	5.7	.	.	.	.
82-10-25	82-10-25	0.19	26	7.2	.	.	.	.
82-10-26	82-10-26	0.59	7	6.3	0.27	<0.01	0.3	0.2
82-10-30	82-10-30	0.67	8	5.9	.	.	.	.
82-11-09	82-11-09	0.45	13	5.6	0.60	0.14	0.4	0.2
82-11-18	82-11-19	0.69	10	7.0	.	.	.	.
82-11-29	82-11-29	0.50	19	7.3	.	.	.	.
82-12-22	82-12-22	0.64	8	6.9	.	.	.	.
83-01-18	83-01-19	0.78	6	6.0	0.21	<0.01	0.4	0.1
83-01-22	83-01-22	0.84	3	6.4	.	.	.	.
83-01-24	83-01-24	.	11	6.3	0.10	0.10	0.6	0.1
83-01-26	83-01-27	.	5	7.4	.	.	.	.
83-01-28	83-01-29	.	23	7.1	.	.	.	.
83-02-06	83-02-06	.	22	6.9	.	.	.	.
83-02-07	83-02-07	.	14	7.7	.	.	.	.
83-02-12	83-02-13	.	12	7.7	.	.	.	.
83-02-18	83-02-18	.	14	7.5	.	.	.	.
83-02-28	83-03-01	.	4	6.1	0.33	<0.01	0.2	0.2
83-03-16	83-03-16	.	9	5.0	1.20	0.10	0.5	<0.2
83-03-23	83-03-23	.	4	5.9	0.26	<0.01	0.6	0.1

Beginning date	Ending date	Alkalinity, dissolved (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Oxygen demand, chemical, 0.25 N dichromate	Carbon, organic, dissolved (as C)
81-12-29	81-12-29	7	.	0.5	0.01	18	3.1
82-01-04	82-01-04	8	.	0.6	0.40	<12	5.2
82-01-04	82-01-05	.	.	.	.	.	.
82-01-19	82-01-21	.	.	.	.	.	.
82-02-14	82-02-15	.	.	.	.	.	.
82-02-14	82-02-16	9	<5.0	0.5	0.40	12	5.7

TABLE 4.--Rainfall data: Specific conductance, pH, and other constituents--Continued

Station 364155119445000, Industrial site--Continued

Beginning date	Ending date	Alkalinity, dissolved (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Oxygen demand, chemical, 0.25 N dichromate	Carbon, organic, dissolved (as C)
82-02-15	82-02-16	.	.	.	.	.	.
82-03-01	82-03-01	.	.	.	.	.	.
82-03-09	82-03-10	8	5.0	0.6	0.60	19	3.3
82-03-10	82-03-11	9	<5.0	0.3	0.50	22	6.2
82-03-14	82-03-14	.	.	.	.	.	.
82-03-16	82-03-17	.	.	.	.	.	.
82-03-25	82-03-26	8	<5.0	0.3	0.03	26	4.0
82-03-28	82-03-29	9	.	0.8	0.06	15	4.6
82-03-31	82-04-01	.	.	.	.	.	.
82-04-10	82-04-10	.	.	.	.	.	.
82-09-24	82-09-24	4	<5.0	0.6	.	.	.
82-09-25	82-09-25	.	.	.	.	.	.
82-10-25	82-10-25	.	.	.	.	.	.
82-10-26	82-10-26	10	<5.0	0.3	.	27	4.5
82-10-30	82-10-30	.	.	.	.	.	.
82-11-09	82-11-09	10	<5.0	0.5	.	<10	2.7
82-11-18	82-11-19	.	.	.	.	.	.
82-11-29	82-11-29	.	.	.	.	.	.
82-12-22	82-12-22	.	.	.	.	.	.
83-01-18	83-01-19	7	0.8	0.2	.	<10	2.7
83-01-22	83-01-22	.	.	.	.	.	.
83-01-24	83-01-24	5	1.1	1.0	.	<10	4.0
83-01-26	83-01-27	.	.	.	.	.	.
83-01-28	83-01-29	.	.	.	.	.	.
83-02-06	83-02-06	.	.	.	.	.	.
83-02-07	83-02-07	.	.	.	.	.	.
83-02-12	83-02-13	.	.	.	.	.	.
83-02-18	83-02-18	.	.	.	.	.	.
83-02-28	83-03-01	6	0.6	0.3	.	<10	0.8
83-03-16	83-03-16	7	0.7	0.4	.	20	4.4
83-03-23	83-03-23	6	0.8	1.0	.	13	2.6

Station 364746119445400, Single-dwelling residential site

Beginning date	Ending date	Rainfall total (inches)	Specific conductance	pH	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
81-12-29	81-12-30	.	57	5.8	0.73	<0.03	0.2	0.2
82-01-04	82-01-04	.	33	5.2	0.40	0.10	1.1	0.1
82-01-04	82-01-05	.	34	6.0	.	.	.	.
82-02-14	82-02-15	.	6	6.3	.	.	.	.
82-02-14	82-02-16	.	.	6.2	0.20	0.10	0.7	0.1
82-02-15	82-02-16	.	4	6.2	.	.	.	.
82-03-09	82-03-10	.	5	5.5	0.60	0.10	0.7	0.1
82-03-10	82-03-11	.	5	5.3	0.20	0.10	0.3	0.1
82-03-14	82-03-14	.	12	4.8	.	.	.	.
82-03-16	82-03-17	.	17	5.1	.	.	.	.
82-03-25	82-03-26	0.20	12	5.1	0.51	0.07	<0.2	0.2
82-03-28	82-03-29	0.45	10	6.1	0.60	0.08	0.7	0.2
82-03-31	82-03-31	0.95	2	5.7	0.29	0.12	<0.6	<0.1
82-04-10	82-04-10	0.16	12	7.0	.	.	.	.
82-09-24	82-09-24	0.22	25	4.7	1.3	0.18	0.3	0.2

TABLE 4.--Rainfall data: Specific conductance, pH, and other constituents--Continued

Station 364746119445400, Single-dwelling residential site--Continued

Beginning date	Ending date	Rainfall total (inches)	Specific conductance	pH	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
82-09-25	82-09-25	0.91	12	5.2	.	.	.	.
82-10-25	82-10-25	0.09	46	6.4	.	.	.	.
82-10-26	82-10-26	0.69	7	6.2	0.43	0.14	0.6	0.1
82-10-30	82-10-30	.	6	5.8	.	.	.	.
82-11-09	82-11-09	.	10	5.6	0.48	<0.04	0.5	0.1
82-11-28	82-11-28	.	11	5.6	.	.	.	.
82-12-21	82-12-22	0.54	7	5.3	.	.	.	.
83-01-18	83-01-19	0.85	4	5.6	0.19	<0.02	0.2	0.1
83-01-21	83-01-22	0.83	4	5.8	.	.	.	.
83-01-24	83-01-24	0.74	6	5.4	0.60	0.10	0.4	0.1
83-01-28	83-01-29	0.39	19	6.8	.	.	.	.
83-02-06	83-02-06	0.85	14	6.5	.	.	.	.
83-02-07	83-02-07	0.44	12	7.7	.	.	.	.
83-02-12	83-02-12	0.33	24	7.7	.	.	.	.
83-02-18	83-02-18	.	8	7.3	.	.	.	.
83-02-28	83-03-01	1.11	4	6.1	0.14	<0.01	0.2	0.3
83-03-16	83-03-16	0.40	11	5.0	0.81	0.11	0.5	0.1
83-03-23	83-03-23	0.57	4	5.9	0.14	<0.01	0.3	0.2

Beginning date	Ending date	Alkalinity, dissolved (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Oxygen demand, chemical, 0.25 N dichromate	Carbon, organic, dissolved (as C)
81-12-29	81-12-30	6	.	0.5	<0.01	16	3.2
82-01-04	82-01-04	7	.	0.6	0.40	<12	2.1
82-01-04	82-01-05	.	.	.	.	.	.
82-02-14	82-02-15	.	.	.	.	.	.
82-02-14	82-02-16	8	<5.0	0.4	0.50	<7	5.5
82-02-15	82-02-16	.	.	.	.	.	.
82-03-09	82-03-10	7	<5.0	0.4	0.60	<12	2.4
82-03-10	82-03-11	8	<5.0	0.2	0.40	20	5.1
82-03-14	82-03-14	.	.	.	.	.	.
82-03-16	82-03-17	.	.	.	.	.	.
82-03-25	82-03-26	7	<5.0	0.2	<0.01	30	6.2
82-03-28	82-03-29	8	5.0	1.2	0.08	11	3.5
82-03-31	82-03-31	9	<5.0	0.1	0.03	12	.
82-04-10	82-04-10	.	.	.	.	.	.
82-09-24	82-09-24	9	<5.0	0.5	.	.	.
82-09-25	82-09-25	.	.	.	.	.	.
82-10-25	82-10-25	.	.	.	.	.	.
82-10-26	82-10-26	9	<5.0	0.8	.	<10	2.3
82-10-30	82-10-30	.	.	.	.	.	.
82-11-09	82-11-09	9	<5.0	0.5	.	13	4.9
82-11-28	82-11-28	.	.	.	.	.	.
82-12-21	82-12-22	.	.	.	.	.	.
83-01-18	83-01-19	7	0.5	0.2	.	17	.
83-01-21	83-01-22	.	.	.	.	.	.
83-01-24	83-01-24	3	0.5	0.7	.	10	2.1
83-01-28	83-01-29	.	.	.	.	.	.
83-02-06	83-02-06	.	.	.	.	.	.
83-02-07	83-02-07	.	.	.	.	.	.
83-02-12	83-02-12	.	.	.	.	.	.
83-02-18	83-02-18	.	.	.	.	.	.
83-02-28	83-03-01	6	0.6	0.3	.	<10	2.4
83-03-16	83-03-16	7	0.8	0.4	.	20	3.3
83-03-23	83-03-23	5	0.6	0.4	.	17	3.9

TABLE 4.--Rainfall data: Specific conductance, pH, and other constituents--Continued

Station 354818119464700, Laboratory site

Beginning date	Ending date	Rainfall total (inches)	Specific conductance	pH	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
82-09-24	82-09-24	.	22	4.7	.	.	.	.
82-10-26	82-10-26	.	6	6.3	.	.	.	.
82-11-09	82-11-09	.	11	5.6	.	.	.	.
82-12-21	82-12-22	.	9	5.7	.	.	.	.
83-01-18	83-01-19	.	6	5.0	0.23	0.08	0.2	0.2
83-01-21	83-01-22	.	4	6.1	.	.	.	.
83-01-24	83-01-24	.	12	5.1	.	.	.	.
83-01-26	83-01-27	.	4	6.0	.	.	.	.
83-01-28	83-01-29	.	30	6.5	.	.	.	.
83-02-06	83-02-06	.	11	7.2	.	.	.	.
83-02-07	83-02-07	.	23	7.4	.	.	.	.
83-02-12	83-02-13	.	16	6.6	.	.	.	.
83-02-18	83-02-18	.	11	6.9	.	.	.	.
83-02-28	83-03-01	.	4	6.1	0.92	0.07	0.4	0.3
83-03-16	83-03-16	.	15	5.1	.	.	.	.
83-03-23	83-03-23	.	4	5.9	0.25	<0.02	0.7	0.2

Beginning date	Ending date	Alkalinity, dissolved (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Oxygen demand, chemical, 0.25 N dichromate	Carbon, organic, dissolved (as C)
82-09-24	82-09-24	.	.	.	.	.	.
82-10-26	82-10-26	.	.	.	.	.	5.3
82-11-09	82-11-09	.	.	.	.	.	16.0
82-12-21	82-12-22	.	.	.	.	.	.
83-01-18	83-01-19	7	1.1	0.3	.	16	6.4
83-01-21	83-01-22	.	.	.	.	.	.
83-01-24	83-01-24	.	.	.	.	13	5.9
83-01-26	83-01-27	.	.	.	.	.	.
83-01-28	83-01-29	.	.	.	.	.	.
83-02-06	83-02-06	.	.	.	.	.	.
83-02-07	83-02-07	.	.	.	.	.	.
83-02-12	83-02-13	.	.	.	.	.	.
83-02-18	83-02-18	.	.	.	.	.	.
83-02-28	83-03-01	7	1.1	0.3	.	<10	1.8
83-03-16	83-03-16	.	.	.	.	23	7.6
83-03-23	83-03-23	5	1.4	1.2	.	20	5.3

TABLE 5.--Rainfall data: Nutrients

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. ., no data available. <, actual value is less than value shown. All nutrient values are dissolved and in milligrams per liter. Rainfall quantity data were not collected at laboratory site]

Beginning date	Ending date	Rainfall total (inches)	Nitrogen nitrite (as N)	Nitrogen nitrite plus nitrate (as N)	Nitrogen, ammonia (as N)	Nitrogen, ammonia plus organic (as N)	Nitrogen, organic (as N)	Nitrogen (as N)	Phosphorus (as P)	Phosphorus, ortho-phosphate (as P)
Station 364155119445000, Industrial site										
81-12-29	81-12-29	0.18	0.02	0.16	0.82	0.90	0.08	1.1	0.08	0.02
82-01-04	82-01-04	0.62	<0.02	<0.09	0.35	0.59	0.24	.	0.05	<0.01
82-02-14	82-02-16	0.53	0.02	0.23	1.3	4.0	2.7	4.2	0.09	0.02
82-03-09	82-03-10	0.33	.	0.37	.	.	.	.	0.18	.
82-03-10	82-03-11	0.20	.	0.31	.	1.6	.	1.9	0.13	.
82-03-25	82-03-26	0.24	0.02	0.43	1.0	1.7	0.73	2.1	0.13	0.04
82-03-28	82-03-29	1.02	<0.02	0.11	0.61	0.87	0.26	0.98	0.04	0.02
82-09-24	82-09-24	0.20	.	0.96	.	3.2	.	4.2	0.28	.
82-10-26	82-10-26	0.59	<0.02	0.13	0.58	1.1	0.52	1.2	0.06	0.01
82-11-09	82-11-09	0.45	0.04	<0.10	0.83	1.3	0.47	.	0.01	0.01
83-01-18	83-01-19	0.78	<0.02	<0.10	0.19	1.2	1.0	.	0.03	0.01
83-01-23	83-01-24	0.70	<0.02	0.10	0.83	1.1	0.27	1.2	0.01	<0.01
83-02-28	83-03-01	.	<0.02	<0.10	0.32	0.80	.	.	0.02	0.01
83-03-16	83-03-16	.	<0.02	0.37	0.63	1.1	.	1.5	0.03	0.06
83-03-23	83-03-23	.	<0.02	0.13	0.41	0.80	.	0.93	0.01	0.01
Station 364746119445400, Single-dwelling residential site										
81-12-29	81-12-30	0.38	<0.02	0.14	0.35	0.68	0.33	0.82	0.02	0.01
82-01-04	82-01-04	0.83	<0.02	<0.09	0.21	0.53	0.32	.	0.01	<0.01
82-02-14	82-02-16	0.65	0.02	0.17	0.71	1.7	0.99	1.9	0.08	<0.01
82-03-09	82-03-10	0.47	.	0.46	.	.	.	.	<0.01	.
82-03-10	82-03-11	0.30	.	0.25	.	9.7	.	10	0.01	.
82-03-25	82-03-26	0.20	0.02	0.45	0.74	1.3	0.56	1.8	0.04	0.02
82-03-28	82-03-29	0.45	0.02	0.17	0.57	0.92	0.35	1.1	<0.01	0.02
82-03-31	82-03-31	0.95	<0.02	0.04	0.11	0.36	0.25	0.40	<0.01	<0.01
82-09-24	82-09-24	0.22	.	0.60	.	.	.	.	0.14	.
82-10-26	82-10-26	0.69	0.02	0.10	0.53	1.0	0.47	1.1	<0.01	<0.01
82-11-09	82-11-09	0.45	0.04	0.12	0.55	0.90	0.35	1.0	0.01	0.01
83-01-18	83-01-19	0.85	0.02	<0.10	0.15	0.70	0.55	.	0.02	<0.01
83-01-24	83-01-24	0.74	<0.02	<0.10	0.20	0.30	0.10	.	0.01	<0.01
83-02-28	83-03-01	1.11	<0.02	<0.10	0.19	0.50	.	.	0.01	0.01
83-03-16	83-03-16	0.40	<0.02	0.46	0.35	0.70	.	1.2	0.03	0.04
83-03-23	83-03-23	0.57	<0.02	0.10	0.21	0.60	.	0.70	0.01	0.01
Station 364818119464700, Laboratory site										
82-09-24	82-09-24	.	.	0.53	.	2.1	.	2.6	.	0.07
82-10-26	82-10-26	.	<0.02	<0.10	0.52	1.0	0.48	.	<0.01	0.01
82-11-09	82-11-09	.	0.05	0.15	0.76	1.5	0.74	1.7	0.01	0.02
83-01-18	83-01-19	.	0.02	<0.10	0.27	0.90	0.63	.	<0.01	<0.01
83-01-24	83-01-24	.	0.02	0.15	0.48	0.60	0.12	0.75	0.02	<0.01
83-02-28	83-03-01	.	<0.02	0.14	0.31	0.60	.	0.74	0.01	0.01
83-03-16	83-03-16	.	<0.02	0.56	0.42	0.70	.	1.3	0.04	0.02
83-03-23	83-03-23	.	0.02	0.14	0.43	0.70	.	0.84	0.01	0.04

TABLE 6.-- Rainfall data: Metals

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence numbers to uniquely identify each site. ., no data available. <, actual value is less than value shown. All metal values are in micrograms per liter. Rainfall quantity data were not collected at the laboratory site]

Station 364155119445000, Industrial site

Beginning date	Ending date	Rainfall total (inches)	Aluminum, dissolved	Aluminum, total recoverable	Arsenic, total	Chromium, total recoverable	Copper, dissolved
82-01-04	82-01-04	0.62	.	.	.	.	.
82-02-14	82-02-16	0.53	.	.	.	.	.
82-03-09	82-03-10	0.33	.	.	.	.	.
82-03-10	82-03-11	0.29	.	.	.	.	.
82-03-25	82-03-26	0.24	.	.	.	.	.
82-03-28	82-03-29	1.02	.	.	.	.	.
82-09-24	82-09-24	0.20	.	.	.	.	.
82-10-25	82-10-25	0.19	.	580	.	1	.
82-10-26	82-10-26	0.59	.	.	<1	.	.
82-11-09	82-11-09	0.45	10	140	<1	<1	1
83-01-18	83-01-19	0.78	10	60	<1	<1	1
83-01-24	83-01-24	0.70	.	.	<1	.	.
83-02-28	83-03-01	.	<10	60	<1	<1	<1
83-03-16	83-03-16	.	.	.	<1	.	.
83-03-23	83-03-23	.	.	.	<1	.	.

Beginning date	Ending date	Copper, total recoverable	Iron, dissolved	Iron, total recoverable	Lead, dissolved	Lead, total recoverable	Manganese, dissolved
82-01-04	82-01-04	.	.	.	<1	7	.
82-02-14	82-02-16	.	.	.	1	20	.
82-03-09	82-03-10	.	.	.	3	8	.
82-03-10	82-03-11	.	.	.	4	5	.
82-03-25	82-03-26	.	.	.	4	13	.
82-03-28	82-03-29	.	.	.	.	10	.
82-09-24	82-09-24	.	18	2,800	<1	51	21
82-10-25	82-10-25	12	.	830	.	16	.
82-10-26	82-10-26	.	10	40	1	4	2
82-11-09	82-11-09	6	14	350	2	8	6
83-01-18	83-01-19	6	12	60	<1	2	2
83-01-24	83-01-24	.	<3	10	<1	2	<1
83-02-28	83-03-01	1	<3	30	<1	<1	2
83-03-16	83-03-16	.	4	130	<1	7	3
83-03-23	83-03-23	.	5	190	1	7	2

Beginning date	Ending date	Manganese, total recoverable	Mercury, total recoverable	Nickel, dissolved	Nickel, total recoverable	Zinc, dissolved	Zinc, total recoverable
82-01-04	82-01-04	.	.	.	.	.	.
82-02-14	82-02-16	.	.	.	.	.	.
82-03-09	82-03-10	.	.	.	.	.	.
82-03-10	82-03-11	.	.	.	.	.	.
82-03-25	82-03-26	.	.	.	.	.	.
82-03-28	82-03-29	.	.	.	.	.	.
82-09-24	82-09-24	80	.	4	11	.	.
82-10-25	82-10-25	40	.	.	3	.	90
82-10-26	82-10-26	<10	<0.1	3	5	.	.
82-11-09	82-11-09	10	0.1	<1	10	34	70
83-01-18	83-01-19	<10	0.2	5	<1	22	40
83-01-24	83-01-24	<10	<0.1	<1	1	.	.
83-02-28	83-03-01	<10	<0.1	2	3	17	30
83-03-16	83-03-16	10	0.1	<1	7	.	.
83-03-23	83-03-23	10	<0.1	2	5	.	.

TABLE 6.--Rainfall data: Metals--Continued

Station 364746119445400, Single-dwelling residential site

Beginning date	Ending date	Rainfall total (inches)	Aluminum, dissolved	Aluminum, total recoverable	Arsenic, total	Chromium, total recoverable	Copper, dissolved
82-01-04	82-01-04	.	.	.	.	.	.
82-02-14	82-02-16	.	.	.	.	.	.
82-03-09	82-03-10	.	.	.	.	.	.
82-03-10	82-03-11	.	.	.	.	.	.
82-03-25	82-03-26	0.20	.	.	.	.	.
82-03-28	82-03-29	0.45	.	.	.	.	.
82-03-31	82-03-31	0.95	.	.	.	.	.
82-09-24	82-09-24	0.22	.	.	.	.	.
82-10-25	82-10-25	0.09	.	.	.	.	.
82-10-26	82-10-26	0.69	.	.	<1	.	.
82-11-09	82-11-09	.	<10	30	<1	<1	3
83-01-18	83-01-19	0.85	10	80	<1	<1	1
83-01-24	83-01-24	0.74	.	.	<1	.	.
83-02-28	83-03-01	1.11	30	50	<1	<1	1
83-03-16	83-03-16	0.04	.	.	<1	.	.
83-03-23	83-03-23	0.57	.	.	<1	.	.

Beginning date	Ending date	Copper, total recoverable	Iron, dissolved	Iron, total recoverable	Lead, dissolved	Lead, total recoverable	Manganese, dissolved
82-01-04	82-01-04	.	.	.	1	3	.
82-02-14	82-02-16	.	.	.	1	15	.
82-03-09	82-03-10	.	.	.	2	8	.
82-03-10	82-03-11	.	.	.	4	10	.
82-03-25	82-03-26	.	.	.	5	25	.
82-03-28	82-03-29	.	.	.	.	9	.
82-03-31	82-03-31	.	.	.	1	<4	.
82-09-24	82-09-24	.	18	770	11	15	17
82-10-25	82-10-25	.	.	1,400	.	61	.
82-10-26	82-10-26	.	<3	90	1	4	1
82-11-09	82-11-09	4	7	360	3	5	3
83-01-18	83-01-19	6	4	90	1	4	<1
83-01-24	83-01-24	.	4	40	<1	4	2
83-02-28	83-03-01	<1	<3	10	1	<1	2
83-03-16	83-03-16	.	24	170	1	12	5
83-03-23	83-03-23	.	4	60	1	8	2

Beginning date	Ending date	Manganese, total recoverable	Mercury, total recoverable	Nickel, dissolved	Nickel, total recoverable	Zinc, dissolved	Zinc, total recoverable
82-01-04	82-01-04	.	.	.	.	.	.
82-02-14	82-02-16	.	.	.	.	.	.
82-03-09	82-03-10	.	.	.	.	.	.
82-03-10	82-03-11	.	.	.	.	.	.
82-03-25	82-03-26	.	.	.	.	.	.
82-03-28	82-03-29	.	.	.	.	.	.
82-03-31	82-03-31	.	.	.	.	.	.
82-09-24	82-09-24	30	.	3	5	.	.
82-10-25	82-10-25	60	.	.	12	.	.
82-10-26	82-10-26	10	0.1	2	9	.	.
82-11-09	82-11-09	10	0.1	1	5	31	60
83-01-18	83-01-19	<10	0.1	3	<1	34	60
83-01-24	83-01-24	<10	<0.1	1	10	.	.
83-02-28	83-03-01	<10	0.1	2	4	30	30
83-03-16	83-03-16	10	0.1	<1	10	.	.
83-03-23	83-03-23	<10	<0.1	<1	4	.	.

TABLE 6.--Rainfall data: Metals--Continued

Station 364818119464700, Laboratory site

Beginning date	Ending date	Rainfall total (inches)	Aluminum, dissolved	Aluminum, total recoverable	Arsenic, total	Chromium, total recoverable	Copper, dissolved
82-09-24	82-09-24	.	.	.	.	.	.
82-10-26	82-10-26	.	.	.	<1	.	.
82-11-09	82-11-09	.	<10	80	<1	<1	1
83-01-18	83-01-19	.	20	60	<1	<1	2
83-01-23	83-01-24	.	.	.	<1	.	.
83-02-28	83-03-01	.	<10	90	1	<1	1

Beginning date	Ending date	Copper, total recoverable	Iron, dissolved	Iron, total recoverable	Lead, dissolved	Lead, total recoverable	Manganese, dissolved
82-09-24	82-09-24	.	30	1,300	1	44	10
82-10-26	82-10-26	.	<10	70	6	3	10
82-11-09	82-11-09	2	16	1,200	1	6	3
83-01-18	83-01-19	8	5	40	1	3	1
83-01-23	83-01-24	.	10	50	1	8	<10
83-02-28	83-03-01	<2	<3	90	<1	2	2

Beginning date	Ending date	Manganese, total recoverable	Mercury, total recoverable	Nickel, dissolved	Nickel, total recoverable	Zinc, dissolved	Zinc, total recoverable
82-09-24	82-09-24	40	.	4	8	.	.
82-10-26	82-10-26	10	<0.1	2	9	.	.
82-11-09	82-11-09	10	0.1	3	4	17	20
83-01-18	83-01-19	<10	0.1	3	2	26	30
83-01-23	83-01-24	<10	<0.1	1	2	.	.
83-02-28	83-03-01	<10	<0.1	2	6	14	20

TABLE 7.--Rainfall data: Organics

[Station number is a unique number for each site based on the latitude and longitude of the site. First six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. ., no data available. <, actual value is less than value shown. All organic values are total recoverable in micrograms per liter. Other organics also were analyzed for but not detected and are given at the end of this table. Rainfall quantity data were not collected at laboratory site]

Station 364155119445000, Industrial site

Beginning date	Ending date	Rainfall total (inches)	Phenols	Chlordane	DDE	Diazinon	Dieldrin
81-12-29	81-12-29	0.18	.	<0.10	<0.01	0.14	<0.01
82-01-04	82-01-04	0.62	.	<0.10	<0.01	0.03	<0.01
82-01-19	82-01-21	0.34	.	0.40	<0.01	0.93	<0.01
82-02-14	82-02-16	0.53	.	<0.10	<0.01	0.50	0.01
82-03-10	82-03-11	0.20	.	0.10	0.02	0.14	0.02
82-03-25	82-03-26	0.24	.	<0.10	0.01	0.24	0.01
82-03-28	82-03-29	1.02	.	<0.10	0.01	0.14	0.01
82-09-24	82-09-24	0.20	.	0.20	<0.01	0.12	<0.01
82-10-30	82-10-30	0.67	.	<0.10	<0.01	0.01	0.01
82-11-09	82-11-09	0.45	6	<0.10	<0.01	0.03	<0.01
83-01-18	83-01-19	0.69	3	<0.10	<0.01	0.17	<0.01
83-01-22	83-01-22	0.84	.	<0.10	<0.01	0.18	0.01
83-01-23	83-01-24	0.70	.	<0.10	<0.01	0.06	<0.01
83-01-24	83-01-24	.	2	<0.10	0.01	0.30	<0.01
83-01-28	83-01-29	.	2	<0.10	<0.01	0.09	<0.01
83-02-07	83-02-07	.	3	<0.10	<0.01	0.13	<0.01
83-02-18	83-02-18	.	6	.	.	0.22	.
83-02-25	83-02-26	.	15	<0.10	<0.01	0.04	<0.01
83-02-28	83-03-01	.	4	<0.10	0.01	0.03	<0.01
83-03-16	83-03-16	.	3	<0.10	<0.01	0.09	<0.01
83-03-23	83-03-23	.	5	<0.10	<0.01	0.24	<0.01

Beginning date	Ending date	Endosulfan	Lindane	Malathion	Methyl parathion	Methoxy-chlor	Parathion	2,4-D
81-12-29	81-12-29	<0.01	0.01	<0.01	<0.01	<0.01	0.37	<0.01
82-01-04	82-01-04	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01
82-01-19	82-01-21	<0.01	0.04	0.04	<0.01	<0.01	1.0	0.04
82-02-14	82-02-16	0.01	0.02	0.04	<0.01	<0.01	0.70	.
82-03-10	82-03-11	<0.01	0.02	0.02	<0.01	<0.01	0.08	.
82-03-25	82-03-26	0.02	0.04	0.08	<0.01	0.12	0.79	0.08
82-03-28	82-03-29	0.03	0.02	0.01	<0.01	0.05	0.16	<0.01
82-09-24	82-09-24	<0.01	0.01	0.08	<0.01	<0.01	0.02	.
82-10-30	82-10-30	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01
82-11-09	82-11-09	<0.01	0.01	0.04	<0.01	<0.01	<0.01	<0.01
83-01-18	83-01-19	<0.01	<0.01	0.02	<0.01	<0.01	0.41	0.03
83-01-22	83-01-22	<0.01	0.02	0.03	<0.01	<0.01	0.22	.
83-01-23	83-01-24	<0.01	<0.01	0.01	<0.01	<0.01	0.12	<0.01
83-01-24	83-01-24	<0.01	0.01	0.01	<0.01	<0.01	0.37	.
83-01-28	83-01-29	<0.01	0.01	0.01	<0.01	<0.01	0.14	<0.01
83-02-07	83-02-07	<0.01	0.02	0.01	<0.01	<0.01	0.18	<0.01
83-02-18	83-02-18	.	.	0.11	<0.01	.	0.53	.
83-02-25	83-02-26	0.01	0.01	0.02	<0.01	<0.01	0.46	<0.01
83-02-28	83-03-01	<0.01	0.01	0.01	<0.01	<0.01	0.15	<0.01
83-03-16	83-03-16	0.01	0.01	0.02	<0.01	<0.01	0.04	0.04
83-03-23	83-03-23	0.08	0.01	<0.01	<0.01	0.02	0.14	<0.01

TABLE 7.--Rainfall data: Organics--Continued

Station 364746119445400, Single-dwelling residential site

Beginning date	Ending date	Rainfall total (inches)	Phenols	Chlordane	DDE	Diazinon	Dieldrin
81-12-29	81-12-30	.	.	<0.10	<0.01	0.17	<0.01
82-01-04	82-01-04	.	.	<0.10	<0.01	0.02	<0.01
82-01-19	82-01-21	.	.	0.40	<0.01	0.42	<0.01
82-02-14	82-02-16	.	.	<0.10	<0.01	0.35	<0.01
82-03-10	82-03-11	.	.	<0.10	<0.01	0.04	<0.01
82-03-25	82-03-26	0.20	.	<0.10	<0.01	0.11	<0.01
82-03-28	82-03-29	0.45	.	<0.10	<0.01	0.07	0.01
82-09-24	82-09-24	0.22	.	0.10	<0.01	0.06	<0.01
82-10-30	82-10-30	.	.	<0.10	<0.01	0.02	<0.01
82-11-09	82-11-09	.	25	<0.10	<0.01	0.04	<0.01
83-01-18	83-01-19	0.85	4	<0.10	<0.01	0.14	<0.01
83-01-21	83-01-22	0.83	8	0.10	<0.01	0.08	<0.01
83-01-24	83-01-24	0.74	1	<0.10	<0.01	0.08	<0.01
83-01-28	83-01-29	0.39	4	<0.10	0.01	0.06	<0.01
83-02-07	83-02-08	0.44	8	<0.10	<0.01	0.12	<0.01
83-02-18	83-02-18	.	10	0.10	0.01	0.22	<0.01
83-02-25	83-02-26	0.22	8	<0.10	<0.01	0.03	<0.01
83-02-28	83-03-01	1.11	8	0.10	0.01	0.02	<0.01
83-03-16	83-03-16	0.40	9	<0.10	<0.01	0.06	<0.01
83-03-23	83-03-23	0.57	6	<0.10	<0.01	0.22	<0.01

Beginning date	Ending date	Endosulfan	Lindane	Malathion	Methyl parathion	Methoxy-chlor	Parathion	2,4-D
81-12-29	81-12-30	<0.01	<0.01	0.03	<0.01	<0.01	0.31	<0.01
82-01-04	82-01-04	<0.01	<0.01	0.01	<0.01	<0.01	0.05	<0.01
82-01-19	82-01-21	<0.01	0.01	0.04	<0.01	<0.01	0.86	0.02
82-02-14	82-02-16	<0.01	0.01	0.04	<0.01	<0.01	0.22	0.03
82-03-10	82-03-11	0.01	0.01	0.03	<0.01	<0.01	0.05	0.04
82-03-25	82-03-26	0.01	0.01	0.04	0.01	0.04	0.82	<0.01
82-03-28	82-03-29	0.01	0.01	0.02	<0.01	0.05	0.07	<0.01
82-09-24	82-09-24	<0.01	0.02	0.07	<0.01	<0.01	0.01	<0.01
82-10-30	82-10-30	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
82-11-09	82-11-09	<0.01	<0.01	0.11	<0.01	<0.01	<0.01	<0.01
83-01-18	83-01-19	<0.01	<0.01	0.02	<0.01	<0.01	0.63	0.04
83-01-21	83-01-22	<0.01	0.01	0.01	<0.01	<0.01	0.22	<0.01
83-01-24	83-01-24	<0.01	<0.01	0.03	<0.01	<0.01	0.36	<0.01
83-01-28	83-01-29	<0.01	<0.01	0.01	<0.01	<0.01	0.25	<0.01
83-02-07	83-02-07	<0.01	0.01	0.01	<0.01	<0.01	0.21	<0.01
83-02-18	83-02-18	<0.01	<0.01	0.05	<0.01	<0.01	0.19	<0.01
83-02-25	83-02-25	<0.01	0.01	0.03	<0.01	<0.01	0.13	<0.01
83-02-28	83-03-01	0.01	0.01	0.01	<0.01	<0.01	0.06	<0.01
83-03-16	83-03-16	0.04	0.01	0.01	<0.01	<0.01	0.01	0.04
83-03-23	83-03-23	<0.01	0.01	<0.01	<0.01	0.02	0.20	<0.01

TABLE 7.--Rainfall data: Organics--Continued

Station 364818119464700, Laboratory site

Beginning date	Ending date	Rainfall total (inches)	Phenols	Chlordane	DDE	Diazinon	Dieldrin
82-10-30	82-10-30	.	.	<0.10	<0.01	0.03	<0.01
82-11-09	82-11-09	.	12	<0.10	<0.01	0.07	<0.01
83-01-18	83-01-19	.	.	<0.10	<0.01	0.22	<0.01
83-01-21	83-01-22	.	5	<0.10	<0.01	0.11	<0.01
83-01-23	83-01-24	.	2	<0.10	<0.01	0.15	<0.01
83-01-26	83-01-27	.	5	<0.10	0.02	0.10	0.01
83-01-28	83-01-29	.	5	.	.	0.11	.
83-02-07	83-02-07	.	5	<0.10	<0.01	0.21	<0.01
83-02-18	83-02-18	.	.	.	.	0.11	.
83-02-25	83-02-26	.	14	.	.	0.12	.
83-02-28	83-03-01	.	6	<0.10	<0.01	0.05	<0.01
83-03-16	83-03-16	.	7	<0.10	<0.01	0.12	<0.01
83-03-23	83-03-23	.	6	<0.10	<0.01	0.26	<0.01

Beginning date	Ending date	Endosulfan	Lindane	Malathion	Methyl parathion	Methoxy-chlor	Parathion	2,4-D
82-10-30	82-10-30	<0.01	0.01	0.02	<0.01	<0.01	0.01	<0.01
82-11-09	82-11-09	<0.01	0.01	0.03	<0.01	<0.01	<0.01	<0.01
83-01-18	83-01-19	<0.01	<0.01	0.06	<0.01	<0.01	0.66	<0.04
83-01-21	83-01-22	<0.01	0.01	0.01	<0.01	<0.01	0.12	.
83-01-23	83-01-24	<0.01	<0.01	0.02	<0.01	<0.01	0.22	<0.01
83-01-26	83-01-27	<0.01	0.01	0.03	<0.01	<0.01	0.17	<0.01
83-01-28	83-01-29	.	.	0.03	<0.01	.	0.19	.
83-02-07	83-02-07	<0.01	0.01	0.02	<0.01	<0.01	0.20	<0.01
83-02-18	83-02-18	.	.	0.10	<0.01	.	0.09	.
83-02-25	83-02-26	.	.	0.08	<0.01	.	0.47	.
83-02-28	83-03-01	<0.01	0.01	0.04	<0.01	<0.01	0.08	<0.01
83-03-16	83-03-16	0.07	0.01	0.01	<0.01	<0.01	0.03	<0.02
83-03-23	83-03-23	0.05	0.01	0.01	<0.01	0.04	0.16	<0.01

Other organics analyzed but not detected

Organic (total recoverable)	Detection limit (µg/L)	Number of samples per site: Industrial	Single	Laboratory
Aldrin	0.01	20	20	10
DDD	0.01	20	20	10
DDT	0.01	20	20	10
Endrin	0.01	20	20	10
Ethion	0.01	21	20	[1]13
Gross polychlorinated biphenyls	0.1	20	20	10
Gross polychlorinated naphthalenes	0.1	20	20	10
Heptachlor	0.01	20	20	10
Heptachlor epoxide	0.01	20	20	10
Methomyl	2	5	5	.
Methyl trithion	0.01	21	20	13
Mirex	0.01	20	20	10
Perthane	0.1	20	20	10
Propham	2	5	5	.
Sevin	2	5	5	.
Silvex	0.01	15	20	9
Toxaphene	1	21	20	10
Trithion	0.01	21	20	13
2,4-DP	0.01	15	20	9
2,4,5-T	0.01	15	20	9

[1]Ethion had one sample with a concentration equal to the detection limit.

TABLE 8.--Stormwater runoff data:

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are a sequence number to uniquely identify each site. Specific conductance is in microsiemens per centimeter at 25°C. pH is in units. Turbidity is in Nephelometric turbidity units. All other chemical values are in milligrams per liter.

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364155119445000, Industrial catchment								
				November 12-13, 1981				
*2056	0.6	1,653	5.8	210	48	21	260	34
2112	0.6	439	6.6	.	.	.	.	.
2128	0.7	387	6.8	61	16	5.0	44	22
2144	0.7	460	6.7	.	.	.	.	.
2200	0.7	494	6.5	73	19	6.2	57	22
2216	0.7	439	6.5	.	.	.	.	.
2232	0.8	414	6.4	61	15	5.8	34	32
2248	0.9	388	6.3	.	.	.	.	.
2304	0.7	417	6.6	70	15	8.0	30	50
2320	0.5	358	6.7	.	.	.	.	.
2336	0.4	358	6.7	68	16	6.7	28	32
2352	0.5	389	6.6	.	.	.	.	.
0008	0.4	416	6.6	.	.	.	.	.
0328	0.4	484	6.5	.	.	.	.	.
0344	0.5	431	6.5	.	.	.	21	.
0400	0.5	395	6.5	.	.	.	.	.
0416	0.4	393	6.6	.	.	.	.	.
0444	0.4	396	6.6	.	.	.	.	.
0500	0.4	395	6.6	.	.	.	.	.
0516	0.5	375	.	.	.	.	.	.
0532	0.5	368	.	.	.	.	.	.
0548	0.5	368	6.6	63	14	6.9	19	45
0604	0.5	350	.	.	.	.	.	.
0620	0.6	366	6.6	.	.	.	.	.
0636	0.4	368	.	.	.	.	.	.
0704	0.5	320	6.7	.	.	.	.	.
0720	1.1	356	6.7	63	14	6.8	20	40
0736	2.2	359	6.7	.	.	.	.	.
0748	3.3	348	6.7	57	11	7.2	20	.
0800	4.3	326	6.7	.	.	.	.	.
0812	4.8	322	6.7	53	11	6.1	19	.
0824	4.8	316	6.8	.	.	.	.	.
0836	4.4	288	6.7	46	9.9	5.2	18	35
0848	4.0	284	6.7	.	.	.	.	.
0904	3.5	292	6.7	50	11	5.4	17	35
				November 17, 1981				
*0500	0.4	807	.	110	26	10	110	18
0516	0.6	248	.	.	.	.	.	.
0532	0.6	311	.	.	.	.	.	.
0548	0.6	368	.	.	.	.	.	.
0604	0.4	353	.	.	.	.	.	.
0620	0.4	304	.	47	11	4.8	23	25
0632	1.2	306	.	.	.	.	.	.
0644	2.9	361	.	.	.	.	.	.
0700	3.3	279	.	49	9.9	5.8	14	34
0716	2.7	262	.	.	.	.	.	.
0732	2.1	255	.	.	.	.	.	.
0748	1.6	266	.	.	.	.	.	.
0804	1.1	280	.	.	.	.	.	.
0820	0.6	442	.	64	13	7.7	20	36
0836	0.3	284	.	.	.	.	.	.

Field measurements, major ions, and physical properties

<, actual value is less than value shown. ., no data available. Particle size: P, particle size data given in table 13 for indicated samples. Asterisk (*) indicates the first sample of a storm. No data given for time and discharge indicates composite sample for dates shown]

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364155119445000, Industrial catchment--Continued								
				November 12-13, 1981				
150	27	430	27	38	1,340	955	1,020	.
.	.	.	.	.	.	.	.	P
120	11	62	5.2	64	325	251	248	.
.	.	.	.	.	.	.	.	.
65	38	94	4.4	88	394	293	217	.
.	.	.	.	.	.	.	.	.
74	24	57	4.0	80	355	230	244	.
.	.	.	.	.	.	.	.	.
120	16	44	5.2	130	444	253	292	.
.	.	.	.	.	.	.	.	.
85	41	43	3.8	75	309	231	128	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
140	29	30	8.9	260	385	.	549	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
120	10	21	6.8	110	227	204	108	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
110	10	22	7.1	100	287	197	203	.
.	.	.	.	.	.	.	.	P
110	39	28	7.6	.	388	190	1,050	.
.	.	.	.	.	.	.	.	.
110	9.0	17	8.7	320	254	152	1,130	.
.	.	.	.	.	.	.	.	.
97	9.0	17	6.7	220	232	168	948	.
.	.	.	.	.	.	.	.	.
93	9.0	16	7.4	230	237	165	769	.
				November 17, 1981				
190	8.0	110	30	20	544	429	270	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
72	8.0	32	3.7	54	238	154	131	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
100	10	14	4.7	170	244	156	877	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
140	47	27	8.5	.	440	247	887	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364155119445000, Industrial catchment--Continued								
				December 29-30, 1981				
* .	.	.	.	45	9.8	4.9	16	32
				January 4, 1982				
*0932	0.8	276	7.2	48	10	5.6	17	23
0940	1.2	254	7.2	.	.	.	.	.
0948	2.1	242	7.0	39	7.7	4.9	13	26
1002	3.0	216	7.0	.	.	.	.	.
1030	4.4	230	7.0	.	.	.	.	.
1100	6.0	183	7.0	.	.	.	.	.
1130	5.5	200	7.1	.	.	.	.	.
1200	4.5	204	7.0	.	.	.	.	.
1230	3.8	200	7.1	42	8.9	4.9	11	24
1300	4.7	208	7.1	.	.	.	.	.
1330	4.4	188	7.1	39	8.4	4.4	9.5	19
1400	4.4	155	6.9	.	.	.	.	.
1422	5.9	164	6.9	31	6.3	3.6	8.5	19
1452	6.7	167	6.9	.	.	.	.	.
1522	7.3	160	6.9	.	.	.	.	.
1552	6.9	167	6.9	.	.	.	.	.
1622	7.3	174	6.9	30	6.7	3.1	7.2	20
1652	5.1	173	6.9	.	.	.	.	.
1722	4.5	175	6.9	33	7.5	3.5	7.5	19
1752	3.6	140	6.9	.	.	.	.	.
1922	1.7	148	6.9	.	.	.	.	.
				January 4-5, 1982				
*2154	0.7	210	7.0	36	8.3	3.7	10	27
2200	1.2	220	7.0	.	.	.	.	.
2210	3.2	203	6.9	39	8.4	4.3	8.0	23
2232	4.1	160	6.9	.	.	.	.	.
0002	1.7	146	6.9	.	.	.	.	.
0024	3.0	171	6.9	28	6.1	3.1	6.8	19
0154	0.9	167	7.0	.	.	.	.	.
				February 13, 1982				
*2238	0.4	2,270	6.7	95	26	7.3	310	27
				February 14-15, 1982				
* .	.	323	6.7	48	9.7	5.7	25	38
				February 15-16, 1982				
* .	.	263	7.0	53	10	6.9	15	30
				March 9-10, 1982				
*2000	0.3	1,253	7.5	.	.	.	.	.
2020	0.7	298	5.9	66	21	3.4	31	6.2
2050	0.6	215	6.8	.	.	.	.	.
2106	1.2	231	6.8	49	14	3.3	17	14
2122	1.8	243	6.9	.	.	.	.	.
2152	2.4	203	6.8	38	9.1	3.7	10	24
2222	1.8	246	6.6	.	.	.	.	.
2252	1.1	251	6.6	42	10	4.1	14	26
2322	0.5	317	6.7	.	.	.	.	.
2352	0.3	369	6.7	52	11	5.9	18	36
0022	0.3	413	6.7	.	.	.	.	.
0052	0.2	468	.	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364155119445000, Industrial catchment--Continued								
			December 29-30, 1981					
12	36	30	6.1	320	.	148	.	.
			January 4, 1982					
9	54	30	7.4	250	.	160	.	.
.	.	.	.	.	.	.	.	P
14	9.0	50	5.3	270	252	131	494	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
93	16	13	3.6	240	120	144	484	.
.	.	.	.	.	.	.	.	.
91	10	9.5	3.5	220	101	124	514	.
.	.	.	.	.	.	.	.	.
44	8.0	12	3.9	300	.	93	723	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
42	14	7.9	2.0	340	127	90	806	.
.	.	.	.	.	.	.	.	.
85	14	7.6	1.9	300	152	116	531	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
			January 4-5, 1982					
80	14	10	2.4	350	147	132	542	.
.	.	.	.	.	.	.	.	P
110	12	7.8	2.3	350	163	136	625	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
74	12	6.4	1.8	170	102	104	310	.
.	.	.	.	.	.	.	.	.
			February 13, 1982					
130	24	440	18	52	.	933	84	.
			February 14-15, 1982					
87	9.0	36	4.8	96	.	183	231	P
			February 15-16, 1982					
85	8.0	17	4.5	90	.	145	366	P
			March 9-10, 1982					
.	.	.	.	.	.	.	.	.
.	22	26	12	110	461	133	183	.
.	.	.	.	.	.	.	.	.
69	12	25	2.7	56	214	136	186	.
.	.	.	.	.	.	.	.	.
61	8.0	11	<1.9	40	187	.	275	.
.	.	.	.	.	.	.	.	P
70	9.0	14	2.4	33	203	124	75	.
.	.	.	.	.	.	.	.	.
110	9.0	23	<1.9	44	251	.	66	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364155119445000, Industrial catchment--Continued								
				March 9-10, 1982--Continued				
0122	0.2	471	6.9	.	.	.	.	.
0152	0.1	483	6.9	66	12	8.8	22	49
0222	0.1	445	6.9	.	.	.	.	.
0252	0.3	199	.	.	.	.	.	.
0322	0.5	270	7.0	53	13	5.1	12	25
0342	1.1	297	6.9	.	.	.	.	.
0358	1.8	319	6.8	52	9.4	6.9	15	37
0428	1.6	306	6.8	.	.	.	.	.
0458	1.4	291	7.0	44	7.5	6.2	13	36
0528	1.2	308	.	.	.	.	.	.
0558	0.7	313	7.0	46	8.3	6.1	13	36
0628	0.4	345	.	.	.	.	.	.
0658	0.3	385	7.0	.	.	.	.	.
0728	0.2	414	.	.	.	.	.	.
0758	0.2	449	7.0	73	11	11	21	62
0828	0.1	476	7.1	.	.	.	.	.
0858	0.1	499	7.1	.	.	.	.	.
0928	0.1	519	7.0	69	12	9.4	19	53
				March 11, 1982				
*0004	0.1	140	6.9	.	.	.	.	.
0022	0.8	175	6.8	.	.	.	.	.
0032	2.4	222	6.5	.	.	.	.	.
0038	3.5	187	6.8	.	.	.	.	.
0046	4.9	216	6.7	.	.	.	.	.
0054	5.8	242	6.7	.	.	.	.	.
0124	5.1	242	6.5	.	.	.	.	.
0154	3.6	223	6.7	.	.	.	.	.
0224	2.4	240	6.7	.	.	.	.	.
0254	1.1	332	.	.	.	.	.	.
0324	1.7	345	6.9	.	.	.	.	.
0354	1.9	323	.	.	.	.	.	.
0424	1.2	300	6.8	.	.	.	.	.
0454	0.9	330	.	.	.	.	.	.
0524	0.7	373	6.8	.	.	.	.	.
*0744	0.6	315	.	.	.	.	.	.
0810	0.8	320	6.9	57	12	6.6	13	30
0836	1.1	346	6.9	64	14	7.1	14	29
				March 14, 1982				
*0554	0.1	176	6.7	.	.	.	.	.
0652	1.1	163	6.6	.	.	.	.	.
0726	1.3	338	6.6	.	.	.	.	.
0758	2.1	300	.	.	.	.	.	.
0820	4.5	273	6.5	.	.	.	.	.
0836	7.1	255	.	.	.	.	.	.
0852	4.7	249	6.5	.	.	.	.	.
0910	3.9	239	.	.	.	.	.	.
0930	2.9	259	6.5	.	.	.	.	.
0954	2.7	267	.	.	.	.	.	.
1014	4.3	236	6.5	.	.	.	.	.
1030	6.5	215	.	.	.	.	.	.
1042	9.5	204	6.5	31	5.8	4.1	11	20
1054	10	195	.	.	.	.	.	.
1104	11	194	6.5	32	6.6	3.7	12	17
1114	11	189	.	.	.	.	.	.
1124	13	186	6.5	31	6.3	3.8	12	18
1134	14	185	6.5	32	6.9	3.5	11	17

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364155119445000, Industrial catchment--Continued								
March 9-10, 1982--Continued								
.	.	.	.	.	.	.	.	.
160	26	32	6.3	220	432	253	129	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
90	9.0	13	3.3	36	204	135	51	.
.	.	.	.	.	.	.	.	.
120	11	16	2.2	180	261	170	455	.
.	.	.	.	.	.	.	.	.
100	9.0	14	2.2	96	233	149	155	P
.	.	.	.	.	.	.	.	.
110	18	12	2.1	62	230	163	95	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
150	13	23	4.7	60	495	237	93	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
180	9.0	19	2.5	160	310	233	247	.
March 11, 1982								
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.	.	.	.	.	.	.	.	.
110	31	11	6.4	120	.	178	149	.
130	<5.0	13	5.9	140	251	195	197	.
March 14, 1982								
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.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
51	15	11	<1.9	200	187	.	920	.
.	.	.	.	.	.	.	.	.
51	7.0	11	<1.9	100	146	.	1,080	.
.	.	.	.	.	.	.	.	P
49	7.0	11	<1.9	96	146	90	1,350	.
46	8.0	10	3.7	150	152	.	1,720	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364155119445000, Industrial catchment--Continued								
				March 14, 1982--Continued				
1144	15	176	6.5	30	6.5	3.3	11	15
1154	13	137	.	.	.	.	.	.
1204	13	147	.	.	.	.	.	.
1214	11	161	.	.	.	.	.	.
1224	10	162	.	.	.	.	.	.
				March 25-26, 1982				
*2230	0.5	394	7.0	88	25	6.3	33	10
2258	2.4	256	7.3	44	12	3.5	24	13
2314	2.3	375	6.7	.	.	.	.	.
2344	1.8	563	6.7	41	12	2.7	84	10
0014	2.9	334	6.8	.	.	.	.	.
0030	4.1	279	6.8	35	7.3	4.0	19	23
0100	3.0	263	6.8	.	.	.	.	.
0130	1.8	278	6.9	.	.	.	.	.
0200	0.8	271	6.9	36	7.5	4.2	24	21
0230	0.5	284	7.0	.	.	.	.	.
0300	0.3	285	7.0	44	8.2	5.8	19	28
0330	0.1	303	7.0	.	.	.	.	.
0400	0.1	296	7.0	47	8.8	6.1	14	32
				March 28, 1982				
*0926	0.1	257	6.6	.	.	.	.	.
1016	1.0	126	6.5	.	.	.	.	.
1104	0.5	304	6.6	.	.	.	.	.
*1316	1.1	155	6.6	38	12	2.0	14	7.1
1338	4.1	139	6.6	28	6.0	3.2	9.3	12
1356	2.4	138	.	.	.	.	.	.
1418	1.8	248	6.5	.	.	.	.	.
1530	0.2	212	6.8	.	.	.	.	.
*1636	12	182	6.7	46	11	4.4	10	17
1644	18	162	6.6	36	7.4	4.3	8.4	18
1652	16	166	7.0	.	.	.	.	.
1702	14	138	7.0	39	10	3.5	5.7	16
1712	9.7	141	6.9	.	.	.	.	.
1724	6.9	166	6.7	.	.	.	.	.
1740	5.0	176	6.6	34	9.0	2.7	13	13
1758	7.3	150	6.6	.	.	.	.	.
1810	15	156	6.6	31	6.8	3.5	8.7	17
1820	14	156	6.6	.	.	.	.	.
1830	11	144	6.6	33	8.3	3.0	7.0	14
1842	8.8	130	6.6	.	.	.	.	.
				March 29, 1982				
* .	.	125	.	27	5.5	3.2	12	14
				September 24, 1982				
*0432	0.1	785	7.4	160	31	19	97	29
0440	0.2	1,138	6.5	160	34	17	130	31
0448	0.3	1,052	6.5	160	32	19	110	56
0456	0.4	1,072	6.2	150	33	16	140	35
0504	0.5	1,126	6.0	140	33	14	160	27
0512	0.6	1,043	6.5	130	32	13	140	27
0520	0.7	1,014	6.7	120	30	11	140	25
0528	0.7	739	6.8	94	23	8.9	99	22
0536	0.6	709	6.8	.	.	.	.	.
0544	0.6	682	6.8	.	.	.	.	.
0552	0.6	787	6.7	81	21	7.0	110	16

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364155119445000, Industrial catchment--Continued								
				March 14, 1982--Continued				
43	8.0	10	<1.9	170	139	.	1,450	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 25-26, 1982				
100	26	39	13	19	266	219	148	.
79	13	20	9.5	30	193	150	179	.
.	.	.	.	.	.	.	.	P
49	13	120	2.7	56	306	279	161	.
.	.	.	.	.	.	.	.	.
76	7.0	25	2.1	54	169	139	265	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
67	6.0	30	2.9	34	193	140	95	.
.	.	.	.	.	.	.	.	.
96	9.0	15	4.1	62	192	151	110	.
.	.	.	.	.	.	.	.	.
86	10	15	5.0	64	223	147	122	.
				March 28, 1982				
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
40	10	16	5.0	560	115	91	1,610	.
45	9.0	8.5	3.1	260	141	79	2,230	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
66	8.0	7.9	4.0	480	151	102	2,770	.
66	7.0	6.8	3.8	350	145	96	2,130	.
.	.	.	.	.	.	.	.	P
58	9.0	4.8	8.6	800	130	93	2,710	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
31	18	19	3.2	300	131	97	429	.
.	.	.	.	.	.	.	.	P
18	9.0	9.9	2.7	200	126	69	1,160	.
.	.	.	.	.	.	.	.	.
46	8.0	8.1	4.1	360	120	81	1,490	.
.	.	.	.	.	.	.	.	.
				March 29, 1982				
46	9.0	13	5.2	300	108	92	848	.
				September 24, 1982				
164	50	120	.	.	601	.	626	.
113	41	220	.	27	834	.	653	.
221	38	160	.	.	764	.	1,520	.
167	36	230	.	160	744	.	1,620	.
92	41	250	.	.	760	.	1,240	.
190	37	220	.	.	786	.	1,110	.
140	47	220	.	200	682	.	1,430	.
121	33	140	.	.	547	.	611	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
91	31	170	.	.	538	.	494	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364155119445000, Industrial catchment--Continued								
				September 24, 1982--Continued				
0600	0.6	915	6.8	.	.	.	.	.
0614	0.5	1,440	6.7	88	25	6.2	250	14
0628	0.4	1,468	6.7	.	.	.	.	.
0642	0.3	1,485	6.7	93	27	6.3	250	19
0656	0.2	1,532	6.7	.	.	.	.	.
0710	0.2	1,400	6.6	92	25	7.2	230	28
				October 25, 1982				
*0248	0.1	198	7.5	45	10	4.9	18	5.2
0256	0.1	443	7.5	120	25	15	32	11
0304	0.1	320	7.1	.	.	.	.	.
0312	0.1	666	7.2	170	35	21	38	40
0320	0.2	9,960	5.2	410	120	26	1,800	41
0328	0.4	3,360	5.7	160	45	12	630	24
0334	0.5	1,565	6.4	100	25	9.1	240	33
0344	0.3	1,025	6.5	.	.	.	.	.
0352	0.3	889	6.5	54	14	4.5	130	22
0400	0.2	1,005	6.6	.	.	.	.	.
0408	0.2	1,113	6.6	50	14	3.7	180	17
0416	0.1	1,218	6.6	.	.	.	.	.
0424	0.1	1,280	.	.	.	.	.	.
0432	0.1	1,282	6.5	57	17	3.5	210	13
0446	0.1	1,220	.	.	.	.	.	.
0500	0.1	1,167	6.6	.	.	.	.	.
0514	0.1	1,004	6.7	55	17	3.0	170	9.6
0528	0.1	940	6.8	.	.	.	.	.
0542	0.1	934	6.7	.	.	.	.	.
0556	0.0	986	6.7	.	.	.	.	.
				October 26, 1982				
*0448	2.6	266	6.6	29	7.6	2.3	25	14
0456	3.2	274	6.6	.	.	.	.	.
0504	2.8	276	6.6	.	.	.	.	.
0512	2.6	303	.	.	.	.	.	.
0520	1.5	321	6.6	.	.	.	.	.
0528	2.3	339	.	.	.	.	.	.
0536	1.9	343	6.7	.	.	.	.	.
0544	2.1	345	6.7	42	11	3.6	36	15
0552	2.2	351	6.7	.	.	.	.	.
0600	2.0	356	.	.	.	.	.	.
0720	3.9	213	6.8	33	7.9	3.3	15	16
0728	3.9	206	6.8	.	.	.	.	.
0736	1.9	205	6.8	.	.	.	.	.
0744	2.3	215	.	.	.	.	.	.
0752	2.2	255	6.7	27	6.4	2.6	25	15
0824	2.0	307	6.7	.	.	.	.	.
0832	1.8	345	.	.	.	.	.	.
0840	0.8	359	.	.	.	.	.	.
0848	0.9	431	.	.	.	.	.	.
0856	0.8	486	.	.	.	.	.	.
0904	0.7	497	6.7	.	.	.	.	.
0912	0.7	396	.	.	.	.	.	.
0920	0.7	449	.	.	.	.	.	.
0928	0.7	617	6.6	.	.	.	.	.
0936	1.0	415	.	.	.	.	.	.
0944	0.7	528	.	.	.	.	.	.
0952	0.7	730	6.6	.	.	.	.	.
1000	0.2	323	.	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364155119445000, Industrial catchment--Continued								
				September 24, 1982--Continued				
.	.	.	.	.	.	.	.	.
31	44	400	.	32	906	.	184	.
.	.	.	.	.	.	.	.	.
17	60	400	.	.	904	.	93	.
.	.	.	.	.	.	.	.	.
91	62	370	.	.	940	.	87	.
				October 25, 1982				
56	5.0	16	.	.	195	.	923	.
71	68	40	.	60	326	.	410	.
.	.	.	.	.	.	.	.	.
156	110	64	.	.	635	.	1,710	.
197	100	3,000	.	500	5,870	.	2,250	.
131	63	990	.	.	1,930	.	1,050	.
113	65	370	.	110	1,080	.	737	.
.	.	.	.	.	.	.	.	.
68	46	200	.	.	632	.	456	.
.	.	.	.	.	.	.	.	.
51	42	280	.	.	653	.	243	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
36	62	320	.	.	851	.	177	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
34	43	260	.	.	593	.	89	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				October 26, 1982				
5	38	37	.	150	238	.	679	.
.	.	.	.	.	.	.	.	.
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42	47	50	.	.	.	.	222	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
49	43	20	.	78	242	.	614	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
43	40	32	.	.	210	.	286	.
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.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364155119445000, Industrial catchment--Continued								
				October 26, 1982--Continued				
1008	0.1	303	.	.	.	.	.	.
1016	0.2	652	.	.	.	.	.	.
1024	0.2	674	.	.	.	.	.	.
1032	0.3	215	6.8	.	.	.	.	.
1040	0.2	216	.	.	.	.	.	.
1048	0.2	694	6.7	.	.	.	.	.
1056	0.2	226	6.7	.	.	.	.	.
1108	0.2	1,456	5.6	.	.	.	.	.
1116	0.2	562	5.5	.	.	.	.	.
1132	0.3	2,510	5.0	.	.	.	.	.
1140	0.1	2,940	4.9	.	.	.	.	.
				November 9, 1982				
* .	.	270	6.9	32	7.3	3.3	22	18
				December 22, 1982				
* .	.	96	6.7	29	6.5	3.1	6.8	13
				January 18-19, 1983				
*1916	0.4	1,224	6.8	120	29	11	180	16
1922	2.7	444	6.7	.	.	.	.	.
1938	5.5	407	6.5	45	10	4.9	40	25
1956	5.7	437	6.6	.	.	.	.	.
2002	7.8	369	6.5	.	.	.	.	.
2018	7.3	304	6.4	.	.	.	.	.
2026	7.8	283	6.5	29	7.1	2.8	28	18
2040	8.0	248	6.5	.	.	.	.	.
2046	8.6	243	.	.	.	.	.	.
2100	9.5	197	6.5	.	.	.	.	.
2112	11	190	6.5	27	6.3	2.8	16	15
2224	14	125	6.3	21	4.9	2.2	9.2	13
2304	25	103	6.6	17	4.0	1.6	7.2	11
2334	18	128	6.6	21	5.3	1.9	8.7	15
0004	12	142	6.7	.	.	.	.	.
0026	10	133	.	.	.	.	.	.
0056	6.0	127	6.7	.	.	.	.	.
0126	2.6	135	.	.	.	.	.	.
0156	1.7	151	6.7	.	.	.	.	.
0226	1.3	145	.	.	.	.	.	.
				January 23-24, 1983				
* .	.	180	7.1	52	16	2.9	9.4	9.3
Station 364746119445400, Single-dwelling residential catchment								
				November 12, 1981				
*2016	0.3	204	7.3	70	18	6.2	18	9.8
2032	0.7	95	7.0	44	11	4.1	9.0	5.9
2048	0.4	116	7.0	.	.	.	.	.
2104	0.6	100	6.9	40	10	3.6	8.7	5.3
2120	0.8	91	6.8	.	.	.	.	.
2124	0.8	90	6.8	33	7.9	3.2	7.5	5.4
2140	0.9	89	7.0	.	.	.	.	.
2156	0.9	86	7.0	.	.	.	.	.
2212	0.7	82	6.8	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364155119445000, Industrial catchment--Continued								
October 26, 1982--Continued								
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
November 9, 1982								
57	31	33	.	170	179	.	636	.
December 22, 1982								
26	14	6.7	.	28	111	.	490	.
January 18-19, 1983								
117	42	280	14	1.0	689	648	1,920	.
.	.	.	.	.	.	.	.	.
65	29	60	4.6	35	261	219	1,050	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
47	34	39	2.3	65	210	164	542	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
37	25	22	2.6	66	122	116	505	.
43	17	12	1.6	78	.	89	584	.
34	11	8.1	1.8	75	77	68	1,420	.
31	21	11	2.3	80	98	87	1,170	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
January 23-24, 1983								
12	60	12	4.3	82	133	123	409	.
Station 364746119445400, Single-dwelling residential catchment--Continued								
November 12, 1981								
73	8.0	14	27	300	198	155	196	.
17	11	4.7	5.3	900	104	71	560	.
.	.	.	.	.	.	.	.	.
22	8.0	4.2	4.0	180	110	66	102	.
.	.	.	.	.	.	.	.	.
17	11	3.7	3.5	160	89	61	53	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364746119445400, Single-dwelling residential catchment--Continued								
				November 12, 1981--Continued				
2228	0.8	82	6.8	36	9.2	3.2	6.2	5.5
2244	0.8	79	7.0	.	.	.	.	.
2300	0.6	78	6.9	.	.	.	.	.
2316	0.3	79	7.0	24	6.6	1.8	3.9	5.4
2332	0.3	81	7.0	.	.	.	.	.
2352	0.3	79	7.0	.	.	.	.	.
				November 17, 1981				
*0444	0.4	110	.	31	9.1	1.9	9.2	4.5
0500	0.9	87	.	.	.	.	.	.
0520	0.9	60	.	.	.	.	.	.
0532	0.8	54	.	.	.	.	.	.
0548	0.7	51	.	.	.	.	.	.
0604	0.6	48	.	25	5.9	2.5	5.7	2.8
0620	1.0	47	.	.	.	.	.	.
0632	1.4	38	.	13	3.9	0.8	3.1	2.3
0644	1.8	37	.	.	.	.	.	.
0656	1.7	34	.	.	.	.	.	.
0700	1.7	34	.	.	.	.	.	.
0712	1.2	35	.	.	.	.	.	.
				March 9, 1982				
*2040	.	82	6.8	22	7.0	1.2	6.7	4.0
2050	.	80	7.0	23	7.2	1.1	6.1	3.9
				March 11, 1982				
*0716	.	43	7.1	15	4.7	0.7	2.4	1.7
0722	.	44	7.0	16	5.1	0.8	2.4	1.8
				March 25-26, 1982				
*2320	0.8	87	7.8	25	8.5	1.0	5.3	3.6
2324	0.8	80	7.5	22	7.2	1.0	4.7	3.7
2354	0.7	61	7.5	.	.	.	.	.
0014	0.8	53	7.3	13	4.4	0.6	3.2	2.6
0044	0.9	41	7.5	.	.	.	.	.
0114	0.7	45	7.3	11	3.4	0.6	2.4	1.8
0144	0.6	40	7.1	10	3.4	0.4	2.1	1.7
0214	0.3	40	7.5	.	.	.	.	.
0240	0.1	39	7.4	11	3.7	0.5	2.0	1.8
0244	0.1	39	.	.	.	.	.	.
				March 29, 1982				
*1332	0.3	73	7.0	21	7.0	0.8	5.1	2.6
1356	0.7	44	7.1	12	4.0	0.5	3.8	1.9
1408	0.9	36	7.0	8	2.8	0.3	2.5	1.4
1420	1.3	28	7.0	.	.	.	.	.
1428	1.5	24	7.1	.	.	.	.	.
				March 31, 1982				
*1652	0.8	49	7.5	15	4.8	0.7	3.9	2.8
1658	1.7	29	7.5	7	2.5	0.3	2.5	1.7
1708	2.3	27	7.7	.	.	.	.	.
1718	2.8	23	7.8	7	2.2	0.3	1.8	1.3
1748	2.7	22	7.8	.	.	.	.	.
1818	1.2	21	7.9	6	2.1	0.3	1.4	1.3
1848	1.3	20	7.9	.	.	.	.	.
1918	1.4	19	7.9	6	2.1	0.3	1.1	1.0

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364746119445400, Single-dwelling residential catchment--Continued								
				November 12, 1981--Continued				
15	10	3.8	3.2	150	81	56	45	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
21	8.0	3.3	2.6	110	78	50	32	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				November 17, 1981				
21	7.0	13	7.1	.	.	68	926	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
10	6.0	2.5	3.1	3.5	43	37	16	.
.	.	.	.	.	.	.	.	.
8	8.0	1.6	2.5	6.5	32	29	62	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 9, 1982				
30	7.0	3.2	4.0	17	84	56	112	.
27	7.0	2.8	3.0	14	65	52	63	.
				March 11, 1982				
21	5.0	0.9	4.6	3.5	42	34	35	.
22	6.0	1.1	5.2	3.1	36	37	13	.
				March 25-26, 1982				
30	7.0	4.5	3.8	9.0	79	56	34	.
29	6.0	3.6	3.4	8.5	79	51	36	.
.	.	.	.	.	.	.	.	.
16	6.0	2.2	2.3	7.4	46	33	16	.
.	.	.	.	.	.	.	.	P
11	5.0	1.7	1.9	6.4	39	25	18	.
10	6.0	1.5	1.8	3.5	36	25	13	.
.	.	.	.	.	.	.	.	.
12	6.0	1.4	1.8	4.3	34	27	9	.
.	.	.	.	.	.	.	.	.
				March 29, 1982				
28	6.0	4.1	4.8	11	71	50	47	.
22	<5.0	2.7	3.0	10	42	31	43	.
17	<5.0	1.8	2.0	15	32	22	61	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 31, 1982				
21	6.0	3.1	2.5	14	45	38	120	.
15	.	.	1.4	14	30	19	118	.
.	.	.	.	.	.	.	.	.
9	7.0	1.5	1.0	11	25	22	70	.
.	.	.	.	.	.	.	.	.
13	.	1.1	1.0	6.8	23	16	21	.
.	.	.	.	.	.	.	.	.
10	5.0	0.7	1.1	6.0	20	18	19	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364746119445400, Single-dwelling residential catchment--Continued								
				March 31, 1982--Continued				
1948	1.1	18	7.9	.	.	.	.	.
2006	1.6	16	7.8	8	2.9	0.3	0.9	0.9
2036	1.6	15	7.8	.	.	.	.	.
2046	2.0	15	7.6	6	1.8	0.3	0.8	0.9
2116	1.7	15	8.0	.	.	.	.	.
2136	1.6	15	7.9	5	1.7	0.3	0.7	0.8
2206	1.1	16	8.0	.	.	.	.	.
2236	0.5	16	8.0	6	1.8	0.3	0.7	0.9
2306	0.3	18	8.0	.	.	.	.	.
				September 3, 1982				
0715	0.1	286	7.7	85	21	8.0	16	6.8
				September 24, 1982				
*0404	0.5	222	7.0	68	18	5.6	10	9.8
0412	0.8	180	6.5	56	16	3.9	7.8	9.3
0420	1.0	178	6.5	45	13	3.1	5.6	7.1
0428	1.1	140	6.5	37	11	2.2	4.4	6.5
0436	0.9	130	6.6	31	8.7	2.3	4.4	6.3
0444	1.0	136	6.7	.	.	.	.	.
0452	0.9	133	6.7	36	10	2.6	4.4	6.5
0500	0.5	129	6.7	.	.	.	.	.
0508	0.5	115	6.7	34	9.0	2.7	4.0	6.6
0516	0.4	106	6.7	.	.	.	.	.
				October 25, 1982				
*0300	0.2	111	7.1	34	9.1	2.8	5.8	6.4
0308	0.1	83	7.1	26	7.4	1.7	4.0	4.3
0324	0.2	92	7.1	28	8.1	1.8	4.9	4.7
0332	0.4	113	7.2	35	10	2.4	6.8	5.1
0340	0.4	79	7.0	23	6.4	1.7	4.7	3.8
0348	0.4	70	7.0	.	.	.	.	.
0356	0.3	73	7.0	19	5.7	1.1	3.8	4.4
				October 26, 1982				
*0220	0.2	161	7.2	52	14	4.2	8.2	7.5
0246	0.4	65	7.1	21	6.3	1.2	3.6	3.8
0256	1.1	44	7.0	14	4.6	0.7	2.4	2.6
0304	1.1	49	.	.	.	.	.	.
0308	2.0	42	7.0	10	3.0	0.7	2.0	2.3
0316	4.8	32	.	.	.	.	.	.
0326	5.8	28	7.1	9	2.8	0.6	1.4	1.9
0330	6.4	26	7.1	.	.	.	.	.
0344	6.8	24	7.1	5	1.8	0.1	1.0	1.7
0350	6.3	25	7.1	.	.	.	.	.
0404	5.8	22	7.1	.	1.6	0.0	0.8	1.6
0418	2.5	22	7.1	.	.	.	.	.
0432	0.7	24	.	.	.	.	.	.
0440	0.3	25	.	.	.	.	.	.
				December 22, 1982				
* .	.	15	6.9	7	2.2	0.5	1.0	1.6
				January 18, 1983				
*1934	2.6	41	6.9	8	2.3	0.5	3.2	2.0
1944	3.2	31	6.9	7	2.3	0.4	2.4	1.8
1956	2.7	31	6.9	10	3.6	0.3	2.1	1.8
2032	2.4	25	7.0	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364746119445400, Single-dwelling residential catchment--Continued								
				March 31, 1982--Continued				
.	.	.	.	.	.	.	.	.
13	.	0.8	1.2	5.8	22	16	15	.
.	.	.	.	.	.	.	.	.
9	6.0	0.6	1.1	6.4	17	18	17	.
.	.	.	.	.	.	.	.	.
8	8.0	0.9	1.1	9.5	17	19	33	.
.	.	.	.	.	.	.	.	.
12	.	0.6	1.2	5.4	20	13	18	.
.	.	.	.	.	.	.	.	.
				September 3, 1982				
97	13	18	66	10	243	212	78	.
				September 24, 1982				
57	27	10	.	110	224	.	515	.
40	23	9.1	.	.	214	.	743	.
30	17	6.0	.	7.0	171	.	938	.
30	7.0	5.1	.	130	116	.	1,540	.
40	6.0	5.2	.	.	122	.	425	.
.	.	.	.	.	.	.	.	.
30	8.0	5.6	.	.	108	.	132	.
.	.	.	.	.	.	.	.	.
19	24	4.7	.	.	109	.	72	.
.	.	.	.	.	.	.	.	.
				October 25, 1982				
37	10	5.3	.	190	90	.	1,480	.
20	10	2.9	.	.	63	.	1,030	.
24	10	5.4	.	.	76	.	472	.
38	10	6.1	.	55	98	.	226	.
23	10	5.0	.	.	71	.	169	.
.	.	.	.	.	.	.	.	.
15	16	4.8	.	.	91	.	137	.
				October 26, 1982				
69	10	4.9	.	65	145	.	385	.
16	13	2.5	.	75	57	.	571	.
13	<5.0	1.7	.	.	37	.	1,070	.
.	.	.	.	.	.	.	.	.
12	9.0	1.5	.	.	31	.	1,340	.
.	.	.	.	.	.	.	.	.
10	7.0	1.1	.	60	23	.	563	.
.	.	.	.	.	.	.	.	.
9	<5.0	1.3	.	.	18	.	236	.
.	.	.	.	.	.	.	.	.
9	<5.0	1.0	.	.	25	.	83	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				December 22, 1982				
7	<5.0	0.8	.	.	38	.	136	.
				January 18, 1983				
10	7.0	1.7	2.4	13	47	28	79	.
9	9.0	1.4	1.6	15	26	26	49	.
10	8.0	1.2	1.4	14	36	26	44	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364746119445400, Single-dwelling residential catchment--Continued								
				January 18, 1983--Continued				
2046	2.4	23	7.0	10	3.6	0.3	1.4	1.3
2118	2.3	22	7.0	.	.	.	.	.
2130	2.5	21	7.0	5	1.5	0.3	1.1	1.2
2142	2.7	19	6.9	.	.	.	.	.
2156	3.5	18	.	.	.	.	.	.
2202	5.2	17	7.0	4	1.3	0.2	0.9	1.2
2210	4.9	17	.	.	.	.	.	.
2218	4.6	17	7.0	.	.	.	.	.
2226	4.1	17	7.0	5	1.4	0.3	0.8	1.1
2232	4.5	19	7.0	.	.	.	.	.
2238	4.9	17	.	.	.	.	.	.
2246	5.4	18	7.0	7	2.1	0.4	1.0	1.3
2252	5.5	18	7.0	.	.	.	.	.
2258	5.1	17	7.0	.	.	.	.	.
2304	4.7	17	.	.	.	.	.	.
2312	3.9	18	7.0	.	.	.	.	.
2320	3.4	19	.	.	.	.	.	.
2330	3.0	19	7.0	5	1.6	0.2	0.8	1.1
				January 23-24, 1983				
* .	.	60	7.0	17	5.3	0.8	5.8	1.5
				February 28-March 1, 1983				
* .	.	40	.	6	1.8	0.3	1.1	0.9
				March 16, 1983				
* .	.	.	.	.	4.7	0.6	5.1	1.5
				March 23, 1983				
* .	.	25	8.3	.	2.7	0.3	1.6	1.1
Station 364818119443800, Multiple-dwelling residential catchment								
				October 28, 1981				
*0720	0.5	606	6.6	230	65	16	49	19
0740	0.4	409	6.4	180	53	11	31	15
0810	0.6	312	6.6	.	.	.	.	.
0820	1.8	216	6.5	.	.	.	.	.
0825	4.5	143	6.8	45	13	3.0	8.9	6.7
0845	7.9	99	6.9	.	.	.	.	.
0855	5.3	83	.	.	.	.	.	.
0900	4.1	80	6.7	25	7.2	1.7	4.1	3.8
0905	3.3	94	6.8	.	.	.	.	.
0910	2.7	82	.	.	.	.	.	.
0920	1.7	80	.	.	.	.	.	.
0925	1.3	75	6.8	30	8.3	2.3	5.1	4.3
0930	1.0	75	.	.	.	.	.	.
0935	0.8	75	7.0	.	.	.	.	.
0945	0.5	75	7.2	29	8.1	2.1	4.9	4.4
				November 12, 1981				
*2016	0.6	330	7.2	55	15	4.2	45	7.4
2020	0.8	149	7.0	.	.	.	.	.
2036	1.0	100	7.1	.	.	.	.	.
2052	0.8	96	7.1	37	9.4	3.3	9.0	4.2

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364746119445400, Single-dwelling residential catchment--Continued								
			January 18, 1983--Continued					
10	6.0	0.8	1.0	1.7	10	21	23	.
.	.	.	.	.	.	.	.	.
11	6.0	0.7	0.91	.	65	19	20	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	<5.0	0.7	0.89	10	22	18	37	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	7.0	0.7	0.84	8.0	65	18	18	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	7.0	0.7	1.3	12	9	20	87	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
11	7.0	0.7	1.0	.	43	20	28	.
			January 23-24, 1983					
11	6.0	12	4.4	13	48	44	71	.
			February 28-March 1, 1983					
10	4.2	0.7	1.40	17.0	15	17	70	.
			March 16, 1983					
9	5.9	9.4	2.5	2.2	48	.	.	.
			March 23, 1983					
10	5.3	2.7	1.6	2.7	20	.	30	.
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
			October 28, 1981					
150	76	36	22	320	775	407	2,420	.
75	38	32	13	200	566	266	517	.
.	.	.	.	.	.	.	.	.
54	24	12	9.3	250	469	.	1,980	.
35	14	5.7	8.2	.	.	91	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
13	8.0	3.2	3.5	.	.	46	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	16	6.0	3.4	33	73	58	465	.
.	.	.	.	.	.	.	.	.
13	8.0	3.5	.	69	.	.	210	.
11	11	3.5	3.7	15	84	52	130	.
			November 12, 1981					
50	9.0	65	25	200	274	210	1,350	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
18	10	5.9	3.6	39	94	63	242	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				November 12, 1981--Continued				
2108	0.6	102	7.0	.	.	.	.	.
2124	0.6	88	7.0	.	.	.	.	.
2140	0.6	73	7.0	29	7.2	2.6	5.8	3.5
2156	0.6	68	7.0	.	.	.	.	.
2212	0.6	65	7.0	.	.	.	.	.
2228	0.4	65	7.0	30	7.4	2.8	5.6	3.1
2244	0.3	65	7.0	.	.	.	.	.
2300	0.3	65	7.0	.	.	.	.	.
2316	0.2	67	7.2	.	.	.	.	.
2336	0.2	71	7.1	35	8.9	3.0	6.0	3.1
				November 17, 1981				
*0424	0.2	118	.	45	12	3.7	10	3.5
0444	0.8	68	.	23	6.7	1.4	5.1	2.4
0500	0.9	50	.	.	.	.	.	.
0516	0.9	49	.	.	.	.	.	.
0532	0.6	44	.	.	.	.	.	.
0548	0.5	45	.	.	.	.	.	.
0604	0.3	41	.	22	5.2	2.2	5.0	1.9
0620	1.0	36	.	.	.	.	.	.
0628	2.2	31	.	19	4.9	1.7	3.8	1.6
0640	2.2	30	.	.	.	.	.	.
0652	1.4	30	.	.	.	.	.	.
0708	0.7	33	.	.	.	.	.	.
0724	0.3	35	.	.	.	.	.	.
0740	0.2	36	.	.	.	.	.	.
				December 29-30, 1981				
* .	.	.	.	12	3.6	0.7	3.9	1.9
				January 4, 1982				
*0810	0.2	78	7.5	24	7.5	1.2	6.5	2.2
0912	0.2	48	8.0	.	.	.	.	.
0932	0.5	44	7.5	12	3.7	0.7	3.4	1.2
0946	0.8	38	8.8	.	.	.	.	.
1016	1.1	28	7.4	11	3.0	0.9	3.7	1.2
1046	1.3	24	7.5	.	.	.	.	.
1116	1.4	26	7.2	10	2.5	0.8	2.9	1.2
1146	1.3	27	7.8	.	.	.	.	.
1216	1.1	31	7.1	15	4.2	1.2	4.6	1.3
1246	1.4	24	6.8	.	.	.	.	.
1316	1.4	27	6.9	9	2.6	0.7	2.9	1.6
1346	1.2	30	6.9	.	.	.	.	.
1416	1.3	28	6.9	9	2.6	0.7	2.7	1.5
1422	1.3	28	6.9	.	.	.	.	.
1452	1.5	27	6.8	.	.	.	.	.
1522	2.0	26	6.8	9	2.5	0.6	2.5	1.4
1552	1.8	27	6.8	.	.	.	.	.
1622	1.6	28	6.8	.	.	.	.	.
1652	1.7	27	6.8	9	2.6	0.7	2.6	1.3
1722	1.8	26	6.8	.	.	.	.	.
1752	1.5	26	6.8	.	.	.	.	.
1822	0.9	28	6.8	11	2.9	0.8	2.6	1.5
1852	0.5	28	7.0	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				November 12, 1981--Continued				
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
14	10	3.2	2.8	2.0	70	48	173	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
11	9.0	2.2	2.8	22	60	43	106	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
11	9.0	2.5	3.6	3.8	64	46	48	.
				November 17, 1981				
28	8.0	5.3	25	54	114	90	137	.
15	7.0	11	6.3	34	73	52	584	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
6	6.0	11	4.7	10	37	41	156	.
.	.	.	.	.	.	.	.	.
10	6.0	0.9	3.1	78	33	29	1,720	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				December 29-30, 1981				
14	7.0	5.0	2.5	28	40	35	485	.
				January 4, 1982				
26	8.0	4.3	5.2	9.7	.	54	50	.
.	.	.	.	.	.	.	.	P
15	6.0	2.0	1.8	100	40	30	352	.
.	.	.	.	.	.	.	.	.
11	6.0	1.3	1.6	56	30	25	443	.
.	.	.	.	.	.	.	.	.
11	7.0	1.4	2.1	38	24	25	497	.
.	.	.	.	.	.	.	.	.
13	7.0	1.6	3.2	64	26	32	483	.
.	.	.	.	.	.	.	.	.
12	7.0	1.4	2.2	30	25	27	52	.
.	.	.	.	.	.	.	.	.
13	6.0	1.3	2.2	33	23	26	556	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
13	6.0	1.0	2.0	30	18	25	1,240	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
14	6.0	1.2	2.0	36	19	26	1,090	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
15	6.0	1.0	2.2	24	21	27	455	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				January 4-5, 1982				
*2140	0.2	33	7.0	13	3.9	0.9	3.3	1.7
2152	0.6	31	7.0	.	.	.	.	.
2200	0.9	26	7.1	10	2.9	0.7	3.0	1.3
2302	1.6	22	7.1	.	.	.	.	.
2310	2.1	21	7.1	8	2.4	0.6	2.2	1.1
0002	2.9	21	7.1	.	.	.	.	.
0132	2.8	28	.	.	.	.	.	.
				February 14-15, 1982				
* .	.	67	7.0	14	4.3	0.7	6.0	3.4
				February 15-16, 1982				
* .	.	42	7.1	10	3.2	0.6	3.1	2.2
				March 9, 1982				
*2014	0.6	74	6.7	21	6.8	0.9	4.7	2.8
2044	0.5	60	6.9	16	5.2	0.8	4.0	2.7
2114	0.4	58	7.0	.	.	.	.	.
2144	0.4	47	6.9	13	4.2	0.6	3.0	2.1
2214	0.3	48	7.1	.	.	.	.	.
				March 10, 1982				
*0142	0.1	71	7.3	22	7.3	0.9	4.3	2.5
0212	0.1	73	7.3	.	.	.	.	.
0242	0.1	67	7.3	.	.	.	.	.
0304	0.3	57	7.3	16	5.4	0.6	3.4	2.0
0322	0.6	32	7.3	.	.	.	.	.
0330	1.2	37	7.2	10	3.2	0.4	2.5	1.5
0334	2.5	27	7.2	9	3.0	0.3	2.6	1.4
0338	3.7	27	7.2	.	.	.	.	.
0358	5.2	25	7.2	8	2.9	0.3	1.6	1.2
0428	2.0	26	7.3	.	.	.	.	.
0458	0.9	32	7.3	.	.	.	.	.
0528	0.3	34	7.3	10	3.2	0.5	2.1	1.6
0558	0.1	40	7.3	.	.	.	.	.
				March 10-11, 1982				
*2350	0.2	121	7.4	37	12	1.8	9.5	4.1
0018	0.8	48	7.0	.	.	.	.	.
0038	1.4	32	6.9	8	2.8	0.3	2.5	1.5
0046	2.0	28	7.2	.	.	.	.	.
0100	2.9	20	7.3	6	2.0	0.3	2.2	1.2
0130	2.1	24	.	.	.	.	.	.
0200	0.7	31	7.4	.	.	.	.	.
0230	0.2	39	.	.	.	.	.	.
				March 11, 1982				
*0702	0.2	59	7.4	16	5.0	0.8	3.5	2.1
0732	0.4	43	.	12	3.9	0.6	2.4	1.5
0802	0.3	45	7.2	.	.	.	.	.
*1414	0.3	67	.	.	.	.	.	.
1422	0.7	47	.	.	.	.	.	.
1452	0.9	35	.	.	.	.	.	.
1500	1.4	34	.	.	.	.	.	.
1530	1.1	35	.	.	.	.	.	.
1600	0.5	49	.	.	.	.	.	.
1702	0.3	52	.	.	.	.	.	.
1732	0.4	47	.	.	.	.	.	.
1802	0.5	44	.	.	.	.	.	.
1832	0.3	47	.	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				January 4-5, 1982				
16	6.0	1.2	2.8	16	30	31	54	.
.	.	.	.	.	.	.	.	.
13	6.0	1.5	2.2	17	21	26	479	.
.	.	.	.	.	.	.	.	.
13	6.0	0.7	1.8	22	14	23	829	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
				February 14-15, 1982				
19	6.0	2.3	3.6	13	.	40	112	P
				February 15-16, 1982				
16	6.0	1.1	3.1	18	.	30	144	P
				March 9, 1982				
24	7.0	2.5	3.1	20	80	47	314	.
21	7.0	2.0	2.4	9.8	62	40	90	.
.	.	.	.	.	.	.	.	.
17	6.0	1.3	2.1	15	49	32	59	.
.	.	.	.	.	.	.	.	.
				March 10, 1982				
24	7.0	1.5	5.0	6.3	70	46	8	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
19	7.0	1.1	3.4	7.0	53	37	25	.
.	.	.	.	.	.	.	.	.
14	6.0	0.8	<1.9	22	31	.	119	.
16	5.0	0.9	<1.9	44	24	.	1,260	.
.	.	.	.	.	.	.	.	P
15	5.0	0.6	<1.9	.	20	.	.	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
13	5.0	0.6	<1.9	40	21	.	393	.
.	.	.	.	.	.	.	.	.
				March 10-11, 1982				
43	8.0	2.9	9.9	12	150	79	94	.
.	.	.	.	.	.	.	.	.
14	7.0	0.9	2.5	18	39	27	927	.
.	.	.	.	.	.	.	.	.
12	7.0	0.9	1.9	20	25	23	1,310	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 11, 1982				
23	6.0	1.1	4.4	18	32	39	102	.
16	5.0	0.8	2.9	10	43	29	43	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				March 14, 1982				
*0546	0.3	72	6.8	.	.	.	.	.
0632	0.7	46	6.7	.	.	.	.	.
0702	0.8	41	6.8	.	.	.	.	.
0734	0.7	43	.	.	.	.	.	.
0808	1.0	35	6.8	.	.	.	.	.
0826	1.7	26	6.9	.	.	.	.	.
0842	1.6	27	6.7	.	.	.	.	.
0902	0.9	31	6.9	.	.	.	.	.
0946	0.4	36	7.0	.	.	.	.	.
1016	1.6	28	.	.	.	.	.	.
1032	2.4	28	6.9	.	.	.	.	.
1044	3.0	30	.	.	.	.	.	.
1056	2.9	27	6.9	9	2.8	0.6	1.7	1.3
1108	3.2	30	.	.	.	.	.	.
1118	4.7	27	6.8	12	3.4	0.8	1.6	1.2
1126	6.8	28	.	.	.	.	.	.
1132	7.6	26	.	.	.	.	.	.
1158	8.3	26	.	.	.	.	.	.
1212	6.6	25	.	.	.	.	.	.
1220	4.6	27	.	.	.	.	.	.
1230	3.1	28	.	.	.	.	.	.
1242	2.1	29	7.0	.	.	.	.	.
1256	2.5	28	.	.	.	.	.	.
1308	3.5	28	7.0	.	.	.	.	.
1320	3.3	25	.	.	.	.	.	.
1330	2.6	30	7.0	.	.	.	.	.
				March 25-26, 1982				
*2234	0.2	170	7.3	66	20	3.8	11	4.2
2250	0.6	93	7.1	.	.	.	.	.
2320	0.7	47	7.1	14	4.3	0.7	3.7	1.9
2350	0.6	53	7.0	.	.	.	.	.
0020	0.9	34	7.0	10	3.0	0.5	2.2	1.5
0040	0.9	27	7.0	.	.	.	.	.
0110	0.7	31	7.0	.	.	.	.	.
0140	1.0	30	6.9	9	3.0	0.4	1.6	1.2
0210	0.5	36	7.0	.	.	.	.	.
0240	0.2	45	6.8	12	4.0	0.6	2.4	1.8
0310	0.1	45	6.8	.	.	.	.	.
				March 29, 1982				
* .	.	46	.	12	4.1	0.5	4.8	1.8
* .	.	41	.	11	3.4	0.6	3.6	1.4
				September 3, 1982				
0735	0.1	291	8.0	94	22	9.4	20	6.1
				September 24, 1982				
*0350	0.2	380	7.2	140	35	13	27	12
0358	0.5	330	7.1	130	33	11	22	11
0406	0.6	252	6.8	96	26	7.6	15	11
0414	0.6	222	7.0	78	21	6.2	13	8.3
0422	0.7	210	7.1	71	19	5.8	12	7.3
0430	1.1	180	7.1	61	16	5.1	10	6.5
0436	1.9	150	7.1	52	14	4.1	8.6	5.9
0444	2.9	105	7.2	37	9.7	3.0	5.8	4.3

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				March 14, 1982				
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
13	6.0	0.7	<1.9	20	26	.	1,580	.
.	.	.	.	.	.	.	.	.
13	5.0	1.1	<1.9	25	23	.	3,230	.
.	.	.	.	.	.	.	.	P
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 25-26, 1982				
66	8.0	5.9	18	28	159	119	101	.
.	.	.	.	.	.	.	.	P
14	6.0	1.5	2.5	40	51	32	.	.
.	.	.	.	.	.	.	.	P
10	6.0	1.3	1.8	16	36	24	161	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
10	6.0	0.9	1.5	15	36	24	136	.
.	.	.	.	.	.	.	.	.
16	5.0	1.9	2.4	16	43	32	37	.
.	.	.	.	.	.	.	.	.
				March 29, 1982				
18	9.0	4.2	3.6	31	44	40	199	.
17	.	.	3.1	70	42	.	200	.
				September 3, 1982				
115	12	10	67	5.7	242	223	22	.
				September 24, 1982				
112	58	18	.	140	492	.	698	.
91	51	15	.	200	492	.	1,470	.
67	35	14	.	.	345	.	1,490	.
57	32	10	.	120	268	.	1,090	.
50	28	10	.	.	268	.	781	.
57	21	16	.	.	232	.	1,450	.
40	17	7.5	.	.	186	.	3,550	.
30	5.0	5.0	.	200	128	.	4,300	.

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				September 24, 1982--Continued				
0452	3.1	98	7.3	.	.	.	.	.
0506	2.3	90	7.3	.	.	.	.	.
0536	0.9	76	7.3	29	7.9	2.3	4.5	4.0
0606	0.3	82	7.5	.	.	.	.	.
*0910	0.1	135	7.3	45	13	3.1	6.6	4.2
0940	0.1	134	.	.	.	.	.	.
1014	0.1	139	.	.	.	.	.	.
				October 25, 1982				
*0354	0.4	90	7.3	25	7.7	1.5	6.9	4.6
0402	0.4	98	7.3	.	.	.	.	.
0410	0.3	104	.	.	.	.	.	.
0418	0.2	106	7.3	.	.	.	.	.
0426	0.2	106	7.3	30	8.4	2.2	7.0	5.1
0434	0.2	106	7.3	.	.	.	.	.
0442	0.2	114	7.5	.	.	.	.	.
0450	0.1	110	7.6	35	9.4	2.7	7.2	4.7
				October 26, 1982				
*0222	0.2	126	7.3	29	7.8	2.2	13	3.7
0228	1.0	84	7.3	25	7.0	1.9	7.8	3.1
0236	1.1	62	7.1	.	.	.	.	.
0244	1.9	58	.	.	.	.	.	.
0248	3.5	51	7.0	13	4.0	0.8	3.5	2.4
0254	8.1	33	7.0	.	.	.	.	.
0302	11	39	7.0	.	.	.	.	.
0310	15	38	7.0	.	.	.	.	.
0320	21	46	7.2	.	.	.	.	.
0326	22	34	7.2	.	.	.	.	.
0340	22	31	7.1	.	.	.	.	.
0354	21	33	7.1	10	2.7	0.8	2.4	2.2
0408	6.6	40	.	.	.	.	.	.
0422	3.0	44	.	.	.	.	.	.
0436	1.6	46	7.2	.	.	.	.	.
0444	1.1	43	7.5	.	.	.	.	.
0452	0.7	44	7.5	14	3.8	1.0	2.5	2.7
0500	0.6	41	.	.	.	.	.	.
0508	0.5	48	7.5	.	.	.	.	.
0516	0.3	49	.	.	.	.	.	.
0524	0.3	54	7.5	.	.	.	.	.
0532	0.2	55	7.5	20	5.4	1.6	3.0	3.8
0540	0.2	63	7.5	.	.	.	.	.
0548	0.2	72	.	.	.	.	.	.
0556	0.1	77	7.6	.	.	.	.	.
				November 9, 1982				
* .	.	35	7.6	12	3.3	0.9	2.2	1.3
				January 18-19, 1983				
*1838	0.1	280	7.1	75	22	4.9	28	7.7
1844	0.2	194	6.9	40	12	2.4	19	5.7
1848	0.6	160	6.9	.	.	.	.	.
1854	1.1	70	.	.	.	.	.	.
1900	2.0	72	6.7	14	4.3	0.9	4.8	2.4
1908	2.7	56	6.6	14	4.1	0.8	5.8	2.6
1916	3.0	45	6.6	.	.	.	.	.
1930	2.8	36	6.7	.	.	.	.	.
1938	2.6	36	.	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				September 24, 1982--Continued				
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	1,190	.
19	14	3.7	.	.	99	.	569	.
.	.	.	.	.	.	.	.	.
30	31	4.7	.	.	216	.	142	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				October 25, 1982				
27	12	6.9	.	.	92	.	171	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
26	17	9.0	.	.	97	.	126	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
41	12	4.6	.	.	156	.	41	.
				October 26, 1982				
31	17	8.8	.	78	109	.	289	.
28	11	3.4	.	.	35	.	498	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
12	14	2.0	.	.	42	.	1,140	.
.	.	.	.	.	.	.	.	.
.	.	.	.	23	.	.	2,040	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	8.0	1.5	.	.	38	.	216	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
18	5.0	1.9	.	.	.	.	103	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
25	7.0	1.8	.	.	.	.	36	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				November 9, 1982				
15	8.0	1.3	.	17	31	.	421	.
				January 18-19, 1983				
72	43	11	19	12	244	192	125	.
44	27	7.0	8.6	47	164	119	207	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
15	11	1.9	3.3	42	53	41	433	.
8	10	2.3	3.6	39	47	39	368	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
				January 18-19, 1983--Continued				
1946	2.5	32	6.7	.	.	.	.	.
1954	2.5	33	.	.	.	.	.	.
2002	2.7	30	6.6	9	2.8	0.5	1.7	1.4
2010	3.1	29	.	.	.	.	.	.
2040	3.1	32	6.6	.	.	.	.	.
2110	3.2	31	6.6	11	3.1	0.7	1.3	1.4
2134	4.5	31	6.6	.	.	.	.	.
2150	6.4	29	6.6	9	2.5	0.7	1.1	1.4
2220	4.9	29	6.6	.	.	.	.	.
2244	7.1	27	7.1	11	3.3	0.7	1.0	1.4
2314	3.8	30	6.8	.	.	.	.	.
2344	3.1	29	7.0	.	.	.	.	.
0014	1.4	32	6.9	.	.	.	.	.
0044	0.4	38	6.7	14	3.6	1.1	1.8	1.6
0114	0.2	45	6.8	.	.	.	.	.
0144	0.1	49	.	.	.	.	.	.
				January 23-24, 1983				
* .	.	22	7.3	8	2.0	0.6	1.3	1.1
				February 28-March 1, 1983				
* .	.	45	.	7	2.2	0.5	1.1	0.8
				March 16, 1983				
* .	.	.	.	.	5.8	1.3	3.4	1.4
				March 23-24, 1983				
* .	.	17	8.6	.	2.2	0.3	1.1	0.8
Station 364818119464700, Commercial catchment								
				October 28, 1981				
*1106	0.7	198	7.4	.	.	.	.	.
1239	0.1	261	7.6	110	24.0	11	15	4.1
				November 17, 1981				
*0420	0.5	165	7.5	66	18	5.1	10	2.9
0432	2.9	77	.	.	.	.	.	.
0440	3.9	66	7.2	29	6.8	2.9	5.7	1.6
0444	5.3	51	.	.	.	.	.	.
0448	6.8	39	6.8	20	4.9	2.0	4.6	1.3
0500	6.2	29	.	.	.	.	.	.
0512	4.5	27	6.6	18	4.2	1.9	4.3	1.1
0524	3.5	29	.	.	.	.	.	.
0536	2.4	26	.	.	.	.	.	.
0548	2.0	25	6.8	.	.	.	.	.
0600	1.8	25	.	.	.	.	.	.
0612	4.8	26	6.9	8	2.3	0.6	2.3	0.8
0620	13	17	.	.	.	.	.	.
0628	8.5	17	6.9	5	1.4	0.4	1.7	0.6
0640	8.8	17	.	.	.	.	.	.
0652	4.4	19	6.8	19	4.4	2.0	3.8	1.0
0704	2.6	21	.	.	.	.	.	.
0716	1.6	21	.	.	.	.	.	.
0748	0.5	27	.	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119443800, Multiple-dwelling residential catchment--Continued								
			January 18-19, 1983--Continued					
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	7.0	1.0	1.8	19	46	22	200	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	11	0.7	1.8	15	22	26	247	.
.	.	.	.	.	.	.	.	.
7	9.0	0.7	1.8	18	30	22	1,530	.
.	.	.	.	.	.	.	.	.
10	9.0	0.7	2.1	35	25	25	739	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
14	12	1.0	3.1	.	56	34	306	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
			January 23-24, 1983					
11	<5.0	1.1	2.4	41	42	24	234	.
			February 28-March 1, 1983					
11	5.6	0.6	2.3	35	20	21	145	.
			March 16, 1983					
19	8.9	1.8	7.9	76	55	.	.	.
			March 23-24, 1983					
12	3.6	0.8	1.9	22	17	.	91	.
Station 364818119464700, Commercial catchment--Continued								
			October 28, 1981					
.	.	.	.	.	.	.	.	.
77	8.0	20	44	13	227	193	12	.
			November 17, 1981					
45	8.0	7.2	19	10	156	109	49	.
.	.	.	.	.	.	.	.	P
18	7.0	3.2	3.4	6.2	72	45	47	.
.	.	.	.	.	.	.	.	.
1	6.0	2.6	1.3	3.0	38	26	125	.
.	.	.	.	.	.	.	.	.
7	6.0	1.1	<1.9	4.8	21	17	22	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	6.0	1.3	1.1	5.8	24	21	18	.
.	.	.	.	.	.	.	.	P
1	5.0	0.6	<1.9	.	9	9	440	.
.	.	.	.	.	.	.	.	.
12	5.0	0.9	1.1	4.0	12	27	50	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119464700, Commercial catchment--Continued								
				December 29-30, 1981				
* .	.	.	.	10	3.0	0.7	2.7	1.1
				January 4, 1982				
*0756	0.4	116	7.2	34	10.0	2.2	7.4	2.1
0804	1.1	65	6.8	.	.	.	.	.
0834	1.2	46	6.8	13	3.4	1.0	4.7	1.1
0904	0.7	35	6.4	.	.	.	.	.
0916	1.7	30	6.8	10	2.5	0.8	3.3	0.8
0920	2.6	25	6.3	.	.	.	.	.
0924	3.6	22	6.7	7	1.8	0.6	2.4	0.6
0928	4.5	22	6.1	.	.	.	.	.
0936	5.5	19	6.5	.	.	.	.	.
1006	5.5	16	6.1	.	.	.	.	.
1036	4.5	14	6.4	5	1.5	0.3	1.6	0.9
1106	5.0	15	6.6	.	.	.	.	.
1136	5.3	15	6.4	.	.	.	.	.
1206	4.4	16	6.5	.	.	.	.	.
1236	4.6	16	6.5	5	1.5	0.4	1.7	0.5
1306	5.3	13	6.8	.	.	.	.	.
1336	3.2	14	6.6	.	.	.	.	.
1406	4.4	15	7.0	.	.	.	.	.
1422	4.0	14	6.6	5	1.3	0.4	1.7	0.4
1428	3.9	15	6.7	.	.	.	.	.
1446	5.4	14	6.8	5	1.4	0.4	1.7	0.4
1458	6.7	13	7.1	.	.	.	.	.
1528	7.2	13	7.0	4	1.2	0.3	1.5	0.4
1536	7.0	15	7.0	.	.	.	.	.
1606	5.2	14	6.9	4	1.2	0.3	1.6	0.5
1622	4.6	14	6.8	.	.	.	.	.
1652	3.9	13	6.7	5	1.4	0.4	1.8	0.5
1714	4.8	14	6.7	.	.	.	.	.
1744	4.9	12	6.7	5	1.3	0.4	1.7	0.4
1814	3.3	13	6.7	.	.	.	.	.
1844	2.0	14	6.6	.	.	.	.	.
1914	1.0	16	6.5	.	.	.	.	.
1944	0.5	18	6.3	7	2.0	0.4	1.4	0.5
2014	0.3	18	6.9	.	.	.	.	.
				January 4-5, 1982				
*2144	0.3	23	6.9	11	3.2	0.7	1.8	0.6
2152	1.2	21	.	.	.	.	.	.
2156	2.2	20	6.8	8	2.3	0.6	1.9	0.6
2206	4.9	13	6.7	5	1.4	0.4	1.7	0.4
2336	3.8	10	6.7	.	.	.	.	.
2350	5.9	9	.	.	.	.	.	.
0028	7.3	8	6.7	4	1.2	0.3	1.6	0.3
0158	1.0	12	6.8	.	.	.	.	.
0328	0.3	18	6.8	.	.	.	.	.
				February 14, 1982				
*1812	0.9	273	6.9	75	23.0	4.2	19.0	10.0
				February 14-15, 1982				
* .	.	31	6.6	7	1.9	0.5	2.1	0.9
				February 15-16, 1982				
* .	.	23	6.9	6	1.7	0.5	1.8	0.8

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119464700, Commercial catchment--Continued								
				December 29-30, 1981				
9	6.0	1.6	1.8	13	26	27	60	.
				January 4, 1982				
16	8.0	14	4.9	7.0	91	71	213	.
.	.	.	.	.	.	.	.	P
11	7.0	3.8	2.0	10	42	33	16	.
.	.	.	.	.	.	.	.	.
8	7.0	2.2	1.1	7.0	22	25	15	.
.	.	.	.	.	.	.	.	.
8	6.0	1.8	.	9.0	14	20	48	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	<5.0	0.9	0.50	9.5	7	17	28	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
7	<5.0	1.1	0.50	8.5	10	17	24	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
7	6.0	1.0	1.0	7.5	10	17	30	.
.	.	.	.	.	.	.	.	.
9	5.0	1.0	1.2	8.5	9	17	47	.
.	.	.	.	.	.	.	.	.
9	6.0	1.0	0.80	7.0	1	17	40	.
.	.	.	.	.	.	.	.	P
7	5.0	0.9	0.90	6.3	3	16	20	.
.	.	.	.	.	.	.	.	.
9	5.0	1.2	1.3	6.7	7	18	20	.
.	.	.	.	.	.	.	.	.
9	6.0	1.0	1.4	6.0	8	19	29	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
10	5.0	0.9	1.2	6.5	8	19	11	.
.	.	.	.	.	.	.	.	.
				January 4-5, 1982				
9	6.0	1.2	1.9	6.5	13	22	10	.
.	.	.	.	.	.	.	.	.
10	6.0	1.3	1.7	9.8	14	22	28	.
9	6.0	0.7	1.1	7.1	5	18	56	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	P
7	5.0	0.2	1.2	4.0	2	15	44	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				February 14, 1982				
83	12	27	9.1	90	.	164	190	.
				February 14-15, 1982				
9	6.0	1.3	2.0	4.3	.	22	12	P
				February 15-16, 1982				
10	6.0	1.2	1.5	11	.	21	17	P

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119464700, Commercial catchment--Continued								
				March 9, 1982				
*1932	0.6	221	7.0	84	24	5.8	12	6.9
1946	3.0	94	6.6	23	6.9	1.5	4.2	1.9
2016	3.3	43	6.8	.	.	.	.	.
2046	2.4	42	6.6	10	3.1	0.6	2.6	1.2
2146	3.1	26	6.7	.	.	.	.	.
2216	2.0	26	6.6	.	.	.	.	.
2316	0.8	28	6.6	6	1.9	0.4	1.8	0.8
				March 10-11, 1982				
*2330	0.6	83	6.8	26	7.7	1.6	3.8	1.4
2334	1.6	81	.	.	.	.	.	.
2338	2.8	47	6.7	.	.	.	.	.
2342	4.1	37	6.8	10	3.0	0.6	2.2	0.8
2350	5.8	35	6.8	.	.	.	.	.
2354	6.5	27	6.8	.	.	.	.	.
0024	8.0	15	6.7	.	.	.	.	.
0054	9.6	10	6.7	3	0.9	0.1	0.7	0.4
0114	9.9	12	6.7	.	.	.	.	.
0144	3.4	11	.	.	.	.	.	.
				March 11, 1982				
*0700	0.9	41	6.9	12	3.7	0.7	2.3	0.8
0708	2.6	31	.	.	.	.	.	.
0716	3.6	26	6.9	.	.	.	.	.
0746	1.9	26	6.9	6	1.9	0.3	1.2	0.6
0814	1.3	29	6.9	.	.	.	.	.
*1050	0.3	36	.	.	.	.	.	.
1120	1.0	38	7.0	.	.	.	.	.
1150	0.9	35	.	.	.	.	.	.
1220	0.5	35	7.2	.	.	.	.	.
1406	0.4	43	.	.	.	.	.	.
1414	1.2	50	7.2	.	.	.	.	.
1420	2.6	36	.	.	.	.	.	.
1426	4.5	28	7.1	.	.	.	.	.
1456	5.1	20	.	.	.	.	.	.
1526	3.4	17	7.1	.	.	.	.	.
1556	1.4	20	7.1	.	.	.	.	.
1626	0.6	22	7.2	.	.	.	.	.
1656	0.9	37	7.0	.	.	.	.	.
1726	1.5	26	7.1	.	.	.	.	.
1756	2.2	23	7.0	.	.	.	.	.
1826	1.1	24	6.9	.	.	.	.	.
1856	0.5	25	6.8	.	.	.	.	.
				March 14, 1982				
*0344	0.3	181	6.3	.	.	.	.	.
0554	3.2	46	6.4	.	.	.	.	.
0620	4.1	33	6.4	.	.	.	.	.
0638	5.2	33	.	.	.	.	.	.
0656	7.1	32	6.4	.	.	.	.	.
0706	5.3	26	.	.	.	.	.	.
0722	3.0	33	6.4	.	.	.	.	.
0750	1.8	31	.	.	.	.	.	.
0814	5.4	22	6.4	.	.	.	.	.
0830	6.7	20	.	.	.	.	.	.
0840	6.9	15	6.4	.	.	.	.	.
0852	4.6	17	.	.	.	.	.	.
0916	1.5	17	6.4	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119464700, Commercial catchment--Continued								
				March 9, 1982				
75	18	7.3	21	8.0	207	153	21	.
21	8.0	3.8	1.9	10	108	.	58	.
.	.	.	.	.	.	.	.	P
12	7.0	1.6	2.0	.	40	28	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	6.0	0.8	1.9	3.7	24	21	4	.
				March 10-11, 1982				
20	10	3.2	4.5	10	.	51	9	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
11	8.0	1.6	1.9	10	48	28	50	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	<5.0	0.3	0.80	4.0	.	.	23	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 11, 1982				
15	6.0	1.1	3.6	3.6	32	30	2	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	6.0	0.8	1.3	8.5	22	20	16	.
.	.	.	.	.	.	.	.	.
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				March 14, 1982				
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TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119464700, Commercial catchment--Continued								
				March 14, 1982--Continued				
1010	3.4	18	.	.	.	.	.	.
1026	6.3	15	.	.	.	.	.	.
1038	6.7	11	6.5	.	.	.	.	.
1050	8.1	11	6.5	4	1.1	0.3	1.7	0.5
1100	8.7	11	6.6	3	1.0	0.2	0.9	0.4
1108	12	11	6.5	.	.	.	.	.
1114	22	9	6.5	3	0.8	0.2	1.4	0.4
1120	29	12	.	.	.	.	.	.
1124	29	12	6.5	3	0.8	0.2	1.7	0.5
1128	28	15	6.5	3	0.8	0.2	1.2	0.5
1132	25	12	.	.	.	.	.	.
1138	22	11	.	.	.	.	.	.
1144	20	11	6.5	.	.	.	.	.
1150	18	13	.	.	.	.	.	.
1156	15	10	.	.	.	.	.	.
1204	12	11	6.6	.	.	.	.	.
1212	11	12	.	.	.	.	.	.
1222	7.5	15	.	.	.	.	.	.
1240	3.5	12	6.6	.	.	.	.	.
1302	5.5	14	.	.	.	.	.	.
1312	9.1	16	.	.	.	.	.	.
1320	9.1	16	.	.	.	.	.	.
				March 25-26, 1982				
*2240	0.3	176	7.1	.	.	.	.	.
2248	1.6	135	6.6	39	12	2.2	7.7	2.9
2256	3.3	71	6.3	20	6.0	1.2	3.0	1.6
2326	2.0	43	6.4	.	.	.	.	.
2344	2.9	33	6.6	8	2.5	0.4	1.6	0.9
0014	2.9	24	6.6	.	.	.	.	.
0020	3.9	23	6.6	5	1.5	0.3	1.1	0.7
0050	3.5	18	6.7	.	.	.	.	.
0120	1.9	23	6.7	.	.	.	.	.
0132	1.8	23	6.6	6	1.7	0.4	1.6	0.7
0202	0.9	60	6.6	.	.	.	.	.
				March 29, 1982				
* .	.	17	7.0	5	1.4	0.3	1.1	0.5
* .	.	.	6.9	3	1.0	0.2	0.8	0.4
				September 24, 1982				
*0236	0.1	397	8.2	170	44	14	21	6.4
0244	0.3	599	8.1	220	56	19	35	11
0252	0.3	543	7.6	180	47	16	26	8.1
0300	0.3	550	7.2	.	.	.	.	.
0308	0.3	768	7.1	280	76	22	36	14
0316	0.4	657	7.1	270	72	21	37	14
0324	0.6	670	7.0	290	80	21	34	15
0332	0.8	868	6.7	330	100	20	29	14
0340	1.4	540	6.8	.	.	.	.	.
0348	2.5	360	7.0	.	.	.	.	.
0356	3.3	264	6.9	110	32	6.5	11	5.9
0404	3.3	213	7.1	.	.	.	.	.
0412	4.2	203	6.7	80	23	5.4	9.8	5.2
0418	6.9	144	6.9	.	.	.	.	.
0422	9.9	128	7.2	43	13	2.6	7.3	2.9
0426	14	108	7.4	39	12	2.3	4.3	2.5
0440	14	80	7.2	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119464700, Commercial catchment--Continued								
				March 14, 1982--Continued				
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
10	5.0	0.9	<1.9	6.5	3	.	25	.
9	5.0	0.6	<1.9	7.6	4	.	27	.
.	.	.	.	.	.	.	.	P
8	5.0	1.0	<1.9	8.5	13	.	263	.
.	.	.	.	.	.	.	.	P
8	6.0	0.4	<1.9	9.0	7	.	434	.
8	5.0	0.5	<1.9	11	5	.	291	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				March 25-26, 1982				
.	.	.	.	.	.	.	.	P
26	11	10	2.4	10	166	75	70	.
8	8.0	3.8	1.2	8.5	76	37	89	.
.	.	.	.	.	.	.	.	P
8	6.0	1.8	1.2	6.4	39	22	26	.
.	.	.	.	.	.	.	.	.
8	6.0	1.3	0.80	7.5	25	18	32	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
5	5.0	1.5	0.90	3.0	25	.	8	.
.	.	.	.	.	.	.	.	.
				March 29, 1982				
9	.	.	0.90	15	20	11	47	.
8	5.0	0.9	0.70	10	11	10	104	.
				September 24, 1982				
187	12	9.7	.	1.6	300	.	21	.
257	32	20	.	140	455	.	268	.
95	86	17	.	.	492	.	187	.
.	.	.	.	.	.	.	.	.
166	110	30	.	.	915	.	128	.
158	110	31	.	.	871	.	110	.
158	140	28	.	35	951	.	119	.
167	190	28	.	.	1,010	.	217	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
93	43	10	.	300	312	.	2,270	.
.	.	.	.	.	.	.	.	.
49	32	9.4	.	.	255	.	639	.
.	.	.	.	.	.	.	.	.
40	13	3.9	.	170	124	.	1,890	.
58	12	3.9	.	.	103	.	2,300	.
.	.	.	.	.	.	.	.	.

TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119464700, Commercial catchment--Continued								
				September 24, 1982--Continued				
0454	7.4	73	6.9	.	.	.	.	.
0508	3.6	76	7.0	23	7.2	1.3	3.1	1.8
0538	1.2	87	7.0	.	.	.	.	.
0608	0.5	101	7.1	.	.	.	.	.
0638	0.3	115	7.2	.	.	.	.	.
0708	0.1	130	7.2	44	13	2.7	7.0	3.0
0810	0.1	176	.	.	.	.	.	.
				October 24, 1982				
*0706	0.2	468	7.5	180	47	16	27	11
0714	0.2	503	7.8	190	47	18	29	10
0722	0.3	458	7.3	170	46	14	22	9.1
0730	0.3	487	7.3	.	.	.	.	.
0738	0.2	496	.	.	.	.	.	.
0746	0.2	431	7.1	170	46	13	20	9.1
0754	0.2	442	.	.	.	.	.	.
0802	0.2	443	7.0	.	.	.	.	.
0810	0.2	457	6.8	.	.	.	.	.
				October 25, 1982				
*0258	0.2	394	7.2	160	48	9.8	15	7.5
0302	0.9	390	7.3	160	49	10	15	7.6
0308	4.7	121	7.3	52	16	3.0	6.3	3.1
0316	4.6	154	7.1	58	17	3.8	7.2	3.1
0324	3.4	104	6.9	.	.	.	.	.
0332	2.6	99	7.0	29	8.6	1.9	4.7	2.2
0340	1.9	94	7.0	.	.	.	.	.
0348	1.0	95	.	.	.	.	.	.
0402	0.6	101	7.0	.	.	.	.	.
0416	0.4	108	7.0	41	13	2.0	4.7	2.6
0430	0.3	106	7.1	.	.	.	.	.
				October 26, 1982				
*0200	0.3	178	7.2	60	18	3.6	6.5	4.3
0208	1.3	247	7.1	92	31	3.4	11	8.5
0214	5.7	111	7.1	.	.	.	.	.
0218	8.6	88	.	.	.	.	.	.
0232	11	54	7.1	18	5.4	1.1	3.0	1.7
0240	16	40	.	.	.	.	.	.
0246	20	44	7.1	.	.	.	.	.
0300	17	31	7.1	8	2.5	0.4	1.6	1.0
0306	21	33	7.2	.	.	.	.	.
0310	29	32	7.5	11	3.4	0.7	1.5	1.0
0324	29	26	.	.	.	.	.	.
0338	29	19	7.4	6	1.8	0.3	0.9	0.7
0352	29	19	7.2	.	.	.	.	.
0406	29	19	7.1	.	.	.	.	.
0420	5.5	21	7.1	.	.	.	.	.
0428	4.6	20	7.1	7	2.2	0.3	0.9	0.7
0436	3.9	21	7.1	.	.	.	.	.
0444	2.9	22	7.1	.	.	.	.	.
0452	2.0	23	7.2	.	.	.	.	.
0500	1.4	29	7.2	.	.	.	.	.
0508	1.1	26	7.4	.	.	.	.	.
0516	0.8	27	7.3	.	.	.	.	.
0524	0.7	31	.	.	.	.	.	.
0532	0.5	33	7.3	.	.	.	.	.
0540	0.4	38	7.2	.	.	.	.	.
0548	0.3	42	.	.	.	.	.	.
0556	0.3	42	.	.	.	.	.	.
0604	0.3	50	7.4	.	.	.	.	.

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119464700, Commercial catchment--Continued								
				September 24, 1982--Continued				
.	.	.	.	.	.	.	.	.
19	<5.0	3.2	.	.	67	.	107	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
31	19	6.0	.	.	124	.	38	.
.	.	.	.	.	.	.	.	.
				October 24, 1982				
164	73	16	.	.	515	.	36	.
163	76	16	.	13	479	.	40	.
134	78	14	.	.	454	.	65	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
118	84	14	.	.	489	.	46	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
				October 25, 1982				
102	74	13	.	.	465	.	30	.
89	80	16	.	.	480	.	296	.
25	35	4.5	.	150	138	.	731	.
39	27	5.8	.	.	153	.	801	.
.	.	.	.	.	.	.	.	.
14	20	3.7	.	.	105	.	139	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
18	21	4.1	.	.	111	.	44	.
.	.	.	.	.	.	.	.	.
				October 26, 1982				
50	28	4.9	.	.	173	.	23	.
55	55	8.8	.	60	232	.	95	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
12	11	2.9	.	.	.	.	273	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	<5.0	1.3	.	.	16	.	254	.
.	.	.	.	.	.	.	.	.
12	8.0	1.1	.	150	.	.	2,000	.
.	.	.	.	.	.	.	.	.
9	5.0	0.6	.	.	.	.	388	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	5.0	0.7	.	.	.	.	53	.
.	.	.	.	.	.	.	.	.
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TABLE 8.--Stormwater runoff data: Field

Time (hours)	Discharge (ft^3/s)	Specific conductance	pH	Hardness, total (as $CaCO_3$)	Calcium, dissolved	Magnesium, dissolved	Sodium, dissolved	Potassium, dissolved
Station 364818119464700, Commercial catchment--Continued								
				November 8, 1982				
* .	.	100	7.7	34	9.9	2.2	4.3	1.7
				November 9, 1982				
* .	.	40	7.3	7	2.5	0.2	1.0	0.6
				January 18-19, 1983				
*1716	0.1	253	7.5	.	.	.	.	.
1724	0.1	255	7.6	79	25	4.0	11	7.1
1732	0.1	264	7.4	.	.	.	.	.
1740	0.1	218	7.1	.	.	.	.	.
1804	0.2	194	7.0	.	.	.	.	.
1812	0.2	180	7.0	50	15	2.9	9.3	3.6
1820	0.2	165	7.2	.	.	.	.	.
1828	0.7	155	7.1	52	16	2.9	8.9	3.2
1834	2.2	142	.	.	.	.	.	.
1838	4.3	100	.	.	.	.	.	.
1842	7.1	75	7.0	20	6.0	1.2	4.5	1.7
1846	9.6	71	.	.	.	.	.	.
1854	13	42	7.0	10	3.0	0.6	2.6	1.2
1924	10	22	7.0	.	.	.	.	.
1954	9.4	18	.	.	.	.	.	.
2024	9.9	15	.	.	.	.	.	.
2054	9.4	15	7.0	5	1.4	0.3	0.8	0.6
2124	12	15	7.0	.	.	.	.	.
2134	16	13	7.0	.	.	.	.	.
2140	20	13	7.1	5	1.7	0.3	0.6	0.7
2220	9.1	13	7.0	.	.	.	.	.
2232	15	15	7.3	6	1.7	0.4	0.6	0.7
2236	29	15	7.4	9	2.5	0.6	0.7	0.9
2316	9.2	18	7.4	.	.	.	.	.
2356	5.1	17	7.3	6	2.1	0.3	0.7	0.7
0036	0.6	24	7.5	.	.	.	.	.
				January 23-24, 1983				
* .	.	19	7.2	7	2.0	0.4	1.3	0.7
				February 28-March 1, 1983				
* .	.	35	.	5	1.7	0.3	0.9	0.5
				March 16, 1983				
* .	.	.	.	40	14	1.1	3.3	1.1
				March 23-24, 1983				
* .	.	45	8.9	.	6.8	0.6	1.7	0.8

measurements, major ions, and physical properties--Continued

Alkalinity, total (as $CaCO_3$)	Sulfate, dissolved	Chloride, dissolved	Silica, dissolved	Turbidity	Solids, residue at 180°C, dissolved	Solids, sum of constituents, dissolved	Sediment, suspended	Particle size
Station 364818119464700, Commercial catchment--Continued								
			November 8, 1982					
32	10	2.9	.	22	74	.	175	.
			November 9, 1982					
10	<5.0	1.0	.	35	46	.	133	.
			January 18-19, 1983					
.	.	.	.	.	.	.	.	.
53	44	11	12	.	173	159	25	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	37	8.3	4.8	35	145	102	75	.
.	.	.	.	.	.	.	.	.
23	36	7.9	5.2	43	153	109	124	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	15	3.7	2.3	33	79	46	566	.
.	.	.	.	.	.	.	.	.
7	11	2.1	1.3	32	32	26	534	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
8	<5.0	0.6	1.0	17	11	.	187	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
9	<5.0	0.5	0.84	47	22	.	903	.
.	.	.	.	.	.	.	.	.
8	3.1	0.5	1.0	62	10	19	507	.
7	5.0	0.6	1.3	38	20	16	3,720	.
.	.	.	.	.	.	.	.	.
9	6.0	0.4	0.91	.	14	17	64	.
.	.	.	.	.	.	.	.	.
			January 23-24, 1983					
10	5.0	2.2	1.1	71	19	20	323	.
			February 28-March 1, 1983					
8	3.7	0.4	0.96	52	13	14	404	.
			March 16, 1983					
16	20	1.6	2.6	160	64	57	.	.
			March 23-24, 1983					
12	15	0.8	2.8	76	32	.	167	.

TABLE 9.--Stormwater runoff data: Nutrients

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are a sequence number to uniquely identify each site. All nutrient values are in milligrams per liter. <, actual value is less than value shown. ., no data available. Asterisk (*) indicates the first sample of a storm. No data given for time and discharge indicates composite sample for dates shown]

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364155119445000, Industrial catchment												
					November 12-13, 1981							
*2056	0.6	3.3	3.5	1.0	33	24	23	28	7.1	4.9	.	.
2128	0.7	2.6	2.8	6.2	18	16	9.8	19	2.5	2.3	2.8	2.7
2200	0.7	2.5	2.7	3.2	20	17	14	20	3.3	3.0	3.0	3.0
2232	0.8	2.7	2.9	3.2	23	22	19	25	4.4	4.1	0.72	0.68
2304	0.7	2.3	2.6	4.4	33	27	23	30	7.9	6.2	7.3	6.0
2336	0.4	1.7	2.0	2.9	23	19	16	21	4.5	3.9	4.5	3.8
0344	0.5	1.7	2.2	.	43	.	.	.	11	11	8.5	.
0548	0.5	1.8	2.1	.	32	.	.	.	8.1	6.9	5.3	.
0720	1.1	2.0	2.5	8.9	27	20	11	23	6.1	5.0	4.7	3.3
0748	3.3	2.1	2.5	9.1	33	21	12	24	7.1	5.5	6.0	3.8
0812	4.8	2.9	3.4	8.4	27	18	9.6	21	6.1	4.8	3.9	3.3
0836	4.4	1.5	1.9	.	23	.	.	.	5.5	5.3	3.8	.
0904	3.5	1.4	1.7	.	21	.	.	.	5.2	4.9	3.9	.
					November 17, 1981							
*0500	0.4	0.29	0.43	6.0	15	11	5.0	11	6.4	6.0	.	.
0620	0.4	0.31	0.64	6.0	20	15	9.0	16	7.9	4.7	.	.
0700	3.3	0.24	0.59	9.3	29	21	12	22	9.1	6.4	.	.
0820	0.6	.	0.13	20	38	33	13	33	11	8.6	.	.
					December 29-30, 1981							
* .	.	0.68	1.1	8.1	33	19	11	20	7.9	7.2	7.1	6.3
					January 4, 1982							
*0932	0.8	1.2	1.4	7.7	20	17	9.3	18	7.5	6.6	6.9	6.3
0948	2.1	1.1	1.3	6.4	36	17	11	18	7.7	5.6	7.4	5.1
1230	3.8	1.1	1.2	4.9	19	14	9.1	15	5.8	4.4	4.9	3.9
1330	4.4	0.91	1.0	3.8	17	10	6.2	11	5.3	3.4	4.4	3.0
1422	5.9	0.61	0.87	4.6	33	19	14	20	5.5	4.4	4.2	3.6
1622	7.3	0.53	0.75	4.4	28	11	6.6	12	5.4	4.0	4.0	3.4
1722	4.5	0.55	0.71	3.6	22	8.9	5.3	9.6	5.0	3.4	3.6	2.8
					January 4-5, 1982							
*2154	0.7	1.3	1.6	4.8	26	12	7.2	14	6.4	4.8	5.2	4.2
2210	3.2	0.66	0.88	6.4	35	10	3.6	11	6.8	4.4	5.4	3.6
0024	3.0	0.84	0.93	4.0	19	8.2	4.2	9.1	5.4	3.6	3.9	3.1
					February 13, 1982							
*2238	0.4	.	0.10	6.8	21	17	10	.	4.3	3.4	3.5	3.2
					February 14-15, 1982							
* .	.	0.11	0.28	7.3	24	20	13	20	8.6	7.8	7.5	6.4
					February 15-16, 1982							
* .	.	0.31	0.41	5.3	25	16	11	16	8.0	6.7	7.1	6.1

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364155119445000, Industrial catchment--Continued												
					March 9-10, 1982							
*2020	0.7	1.1	1.2	4.9	8.8	.	5.1	11	0.92	0.78	.	.
2106	1.2	1.2	1.4	5.6	15	15	9.4	16	3.2	3.4	.	.
2152	2.4	0.98	1.2	5.7	15	16	10	17	6.0	5.4	.	.
2252	1.1	.	.	6.7	17	14	7.3	14	6.3	6.2	.	.
2352	0.3	.	.	7.9	23	21	13	.	8.8	8.1	.	.
0152	0.1	.	.	13	31	.	14	.	10	9.8	.	.
0322	0.5	.	.	6.4	17	13	6.6	.	6.2	5.9	.	.
0358	1.8	.	.	9.3	24	19	9.7	.	9.5	8.8	.	.
0458	1.4	.	.	9.5	23	20	11	20	8.8	8.4	.	.
0558	0.7	.	.	8.9	23	17	8.1	17	9.5	8.4	.	.
0758	0.2	.	.	15	30	26	11	.	11	10	.	.
0928	0.1	.	.	12	45	24	12	.	11	9.9	.	.
					March 11, 1982							
*0810	0.8	0.00	0.24	7.7	25	17	9.3	17	8.5	0.40	.	.
0836	1.1	0.04	0.39	8.3	26	16	7.7	16	8.8	7.3	.	.
					March 25-26, 1982							
*2230	0.5	1.3	1.4	7.4	14	13	5.6	14	3.7	2.9	3.2	2.8
2258	2.4	1.3	1.5	4.9	15	12	7.1	14	3.4	3.0	3.2	2.8
2344	1.8	0.95	1.1	3.7	9.2	8.1	4.4	9.2	2.3	2.1	2.1	1.9
0030	4.1	0.98	1.2	7.1	20	17	9.9	18	6.8	6.6	6.9	6.2
0200	0.8	0.60	0.78	6.3	18	15	8.7	16	6.6	6.4	6.6	6.2
0300	0.3	0.62	0.84	7.9	24	19	11	20	8.0	8.3	8.8	8.3
0400	0.1	0.56	0.78	8.6	25	21	12	22	8.9	9.0	10	9.0
					March 29, 1982							
* .	.	0.34	0.48	3.3	11	8.1	4.8	8.6	3.8	3.0	3.4	2.9
					September 24, 1982							
*0432	0.1	.	4.1	9.6	.	38	28	42	8.5	3.7	4.9	5.3
0440	0.2	.	3.2	8.1	.	45	37	48	10	7.6	6.0	5.5
0448	0.3	.	4.5	11	.	.	38	54	20	.	9.5	.
0456	0.4	.	4.1	9.7	.	31	21	35	10	8.3	6.6	6.0
0504	0.5	.	3.4	7.8	.	28	20	31	9.5	6.9	5.2	4.8
0512	0.6	.	4.1	9.0	.	30	21	34	9.4	6.9	5.0	4.8
0520	0.7	.	5.5	10	.	39	29	45	8.5	5.7	4.5	4.5
0528	0.7	.	4.0	8.3	.	35	27	39	8.7	5.4	4.2	3.8
0552	0.6	.	3.6	6.6	.	20	13	24	4.2	3.5	2.7	2.5
0614	0.5	.	3.7	6.3	.	22	16	26	3.0	2.7	2.0	1.8
0642	0.3	.	3.8	6.0	.	18	12	22	3.3	3.0	2.5	2.0
0710	0.2	.	3.7	6.5	.	31	25	35	4.8	4.9	3.5	3.3
					October 25, 1982							
*0248	0.1	.	1.9	5.0	21	4.9	0.1	6.8	2.2	1.4	1.6	1.4
0256	0.1	.	1.4	7.7	26	16	8.3	17	4.5	3.3	3.7	3.3
0312	0.1	.	3.2	11	77	28	17	31	10	7.2	7.8	6.8
0320	0.2	.	4.2	10	78	28	18	32	8.9	6.7	6.5	6.1
0328	0.4	.	2.9	8.7	49	21	12	24	6.8	4.5	4.4	4.0
0334	0.5	.	2.5	14	47	36	22	39	8.3	7.5	7.8	7.1
0352	0.3	.	2.1	9.2	36	19	9.8	21	7.4	5.1	5.0	4.6
0408	0.2	.	1.9	6.8	24	17	10	19	4.6	3.6	3.5	3.3
0432	0.1	.	1.8	5.0	21	10	5.0	12	3.1	2.3	2.3	2.1
0514	0.1	.	1.8	4.8	20	16	11	18	2.6	2.3	2.3	2.1

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364155119445000, Industrial catchment--Continued												
					October 26, 1982							
*0448	2.6	.	0.71	3.9	26	15	11	16	5.9	3.1	3.3	2.6
0544	2.1	.	0.80	5.6	29	16	10	17	6.1	4.0	4.0	3.5
0720	3.9	.	1.3	4.4	27	14	9.6	15	6.1	3.4	3.8	3.2
0752	2.2	.	0.78	4.8	25	18	13	19	5.9	3.7	3.9	3.2
					November 9, 1982							
*	.	.	0.40	5.3	27	15	9.7	15	6.2	3.5	4.4	3.4
					December 22, 1982							
*	.	.	0.77	1.8	19	6.5	4.7	7.3	4.9	2.7	2.2	1.7
					January 18, 1983							
*1916	0.4	.	1.1	6.0	42	15	9.0	16	5.7	1.5	1.8	1.0
1922	2.7	.	0.78	4.5	64	6.0	1.5	6.8	8.0	1.8	3.1	1.3
1938	5.5	.	1.2	4.8	31	12	7.2	13	8.1	3.7	3.0	2.8
2026	7.8	.	0.91	3.3	20	6.2	2.9	7.1	5.7	3.1	2.4	2.1
2112	11	.	0.74	2.4	19	7.0	4.6	7.7	4.9	3.3	2.4	2.0
2224	14	.	0.54	1.9	17	6.9	5.0	7.4	3.9	2.3	2.0	1.6
2304	25	.	0.36	1.3	36	3.6	2.3	4.0	3.4	1.6	1.8	1.2
2334	18	.	0.54	1.6	19	5.6	4.0	6.1	3.7	2.3	1.9	1.5
					January 23-24, 1983							
*	.	.	0.43	0.90	12	3.6	2.7	4.0	3.2	2.0	1.6	1.3
Station 364746119445400, Single-dwelling residential catchment												
					November 12, 1981							
*2016	0.3	1.9	2.0	1.8	8.7	6.4	4.6	8.4	2.2	1.6	2.2	1.6
2032	0.7	2.1	2.2	2.6	6.5	5.4	2.8	7.6	0.82	0.58	0.77	0.60
2104	0.6	1.9	2.0	2.8	6.0	5.6	2.8	7.6	0.60	0.52	0.54	0.46
2124	0.8	1.7	1.8	1.9	5.7	4.7	2.8	6.5	0.60	0.54	0.56	0.48
2228	0.8	1.2	1.3	2.1	4.4	4.1	2.0	5.4	0.67	0.61	0.61	0.58
2316	0.3	1.0	1.1	2.0	3.7	3.6	1.6	4.7	0.62	0.57	0.57	0.56
					November 17, 1981							
*0444	0.4	0.58	0.65	1.1	4.9	2.3	1.2	3.0	0.63	0.45	0.55	0.48
0604	0.6	0.37	0.42	0.78	1.7	1.7	0.9	2.1	0.32	0.31	0.30	0.26
0632	1.4	0.30	0.33	0.67	1.5	1.3	0.6	1.6	0.37	0.27	0.29	0.26
					March 9, 1982							
*2040	.	0.89	1.0	2.0	4.1	4.2	2.2	5.2	0.65	0.62	.	0.48
2050	.	0.89	1.0	1.9	4.2	3.9	2.0	4.9	0.41	0.36	0.26	0.29
					March 11, 1982							
*0716	.	0.35	0.37	0.67	1.6	0.9	0.3	1.3	0.13	0.13	0.12	0.11
0722	.	0.29	0.31	0.64	1.3	1.1	0.5	1.4	0.13	0.13	0.12	0.11

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364746119445400, Single-dwelling residential catchment--Continued												
					March 25-26, 1982							
*2320	0.8	0.90	1.0	1.6	3.7	3.8	2.2	4.8	0.39	0.33	0.29	0.27
2324	0.8	0.85	0.94	1.4	3.8	3.8	2.4	4.7	0.37	0.31	0.30	0.27
0014	0.8	0.49	0.54	0.94	2.1	1.6	0.7	2.1	0.33	0.30	0.26	0.25
0114	0.7	0.33	0.36	0.64	1.4	1.4	0.8	1.8	0.22	0.21	0.17	0.16
0144	0.6	0.44	0.47	0.63	.	1.4	0.8	1.9	0.20	0.19	0.16	0.15
0240	0.1	0.61	0.64	0.68	1.5	1.4	0.7	2.0	0.17	0.18	0.14	0.14
					March 29, 1982							
*1332	0.3	0.46	0.52	0.54	.	2.0	1.5	2.5	0.24	0.17	0.17	0.14
1356	0.7	0.29	0.32	0.45	2.0	1.7	1.3	2.0	0.24	0.21	0.17	0.15
1408	0.9	0.19	0.22	0.44	.	2.3	1.9	2.5	0.16	0.14	0.14	0.10
					March 31, 1982							
*1652	0.8	0.36	0.40	0.59	3.3	1.0	0.4	1.4	0.34	0.23	0.24	0.19
1658	1.7	0.27	0.29	0.47	2.1	0.8	0.3	1.1	0.28	0.13	0.16	0.12
1718	2.8	0.18	0.20	0.45	1.6	0.6	0.2	0.8	0.21	0.10	0.13	0.10
1818	1.2	.	0.22	0.41	1.0	0.9	0.4	1.1	0.13	0.13	0.14	0.12
1918	1.4	.	0.16	0.30	0.8	0.8	0.5	1.0	0.12	0.11	0.12	0.11
2006	1.6	.	0.16	0.27	0.6	0.7	0.4	0.9	0.11	0.10	0.11	0.11
2046	2.0	.	0.12	0.21	0.6	0.6	0.4	0.7	0.10	0.09	0.11	0.10
2136	1.6	.	0.13	0.20	0.6	0.5	0.3	0.6	0.11	0.09	0.11	0.10
2236	0.5	.	0.11	0.18	0.6	0.5	0.3	0.6	0.14	0.10	0.12	0.11
					September 3, 1982							
0715	0.1	0.93	1.0	0.76	2.8	2.7	1.9	3.7	1.0	0.97	0.91	0.88
					September 24, 1982							
*0404	0.5	.	4.7	6.4	.	16	9.6	21	1.8	1.3	1.1	1.0
0412	0.8	.	4.5	6.4	.	14	7.6	19	2.4	1.1	0.97	0.97
0420	1.0	.	3.7	5.6	.	13	7.4	17	2.3	1.0	1.7	0.81
0428	1.1	.	2.9	4.4	.	9.8	5.4	13	1.6	0.85	0.74	0.69
0436	0.9	.	2.7	4.1	.	11	6.9	14	1.3	0.93	0.79	0.76
0452	0.9	.	2.6	3.8	.	.	.	.	0.95	0.96	0.84	0.81
0508	0.5	.	2.7	3.8	.	9.7	5.9	12	1.1	0.96	0.77	0.79
					October 25, 1982							
*0300	0.2	.	1.1	1.6	22	7.5	5.9	8.6	1.9	0.60	0.55	0.44
0308	0.1	.	1.5	1.8	16	14	12	16	1.6	0.40	0.40	0.30
0324	0.2	.	1.5	1.9	13	9.9	8.0	11	1.2	0.50	0.50	0.39
0332	0.4	.	1.2	2.2	11	6.8	4.6	8.0	0.72	0.44	0.45	.
0340	0.4	.	1.2	2.0	10	6.1	4.1	7.3	0.55	0.35	0.36	0.31
0356	0.3	.	1.1	1.9	3.8	3.7	1.8	4.8	0.47	0.30	0.35	0.30
					October 26, 1982							
*0220	0.2	.	0.85	0.12	15	6.7	6.6	7.6	1.3	0.40	0.51	0.40
0246	0.4	.	0.69	0.81	12	6.3	5.5	7.0	1.3	0.27	0.38	0.25
0256	1.1	.	0.67	1.1	8.7	5.5	4.4	6.2	1.5	0.50	0.37	0.17
0308	2.0	.	0.44	1.0	8.9	5.7	4.7	6.1	1.1	0.17	0.18	0.14
0326	5.8	.	0.33	0.71	2.7	1.7	1.0	2.0	1.1	0.20	0.20	0.12
0344	6.8	.	0.30	0.62	2.4	1.8	1.2	2.1	0.40	0.18	0.18	0.16
0404	5.8	.	0.28	0.56	2.1	1.5	0.9	1.8	0.50	0.18	0.19	0.17

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364746119445400, Single-dwelling residential catchment--Continued												
December 22, 1982												
*	.	.	.	0.68	0.28	2.8	0.8	0.5	3.0	0.41	0.20	0.23	0.18
January 18, 1983												
*1934	2.6	.	0.56	0.82	6.8	4.8	4.0	5.4	0.33	0.20	0.24	0.22
1944	3.2	.	0.42	0.73	2.6	1.7	1.0	2.1	0.40	0.30	0.20	0.21
1956	2.7	.	0.37	0.69	8.7	2.5	1.8	2.9	0.30	0.20	0.19	0.15
2046	2.4	.	0.19	0.42	1.3	1.3	0.9	1.5	0.19	0.14	0.14	0.12
2130	2.5	.	0.15	0.38	1.1	1.3	0.9	1.5	0.18	0.15	0.14	0.11
2202	5.2	.	0.17	0.38	2.6	0.7	0.3	0.9	0.40	0.40	0.14	0.11
2226	4.1	.	0.13	0.30	1.0	1.1	0.8	1.2	0.17	0.13	0.13	0.11
2246	5.4	.	0.22	0.41	2.7	2.1	1.7	2.3	0.20	0.20	0.16	0.12
2330	3.0	.	0.17	0.30	1.3	1.0	0.7	1.2	0.20	0.15	0.15	0.13
January 23-24, 1983												
*	.	.	.	0.39	0.19	2.7	1.7	1.5	2.1	0.32	0.14	0.12	0.10
February 28-March 1, 1983												
*	.	.	.	0.14	0.21	1.2	0.7	0.5	0.8	0.19	0.09	0.10	0.09
March 16, 1983												
*	.	.	.	0.50	0.50	1.3	2.1	.	1.9	0.22	0.15	0.15	0.13
March 23, 1983												
*	.	.	.	0.15	0.60	2.3	1.5	.	1.7	0.21	0.15	0.12	0.11
Station 364818119443800, Multiple-dwelling residential catchment												
October 28, 1981												
*0720	0.5	6.6	7.0	1.1	24	26	25	33	2.9	2.6	1.8	1.5
0740	0.4	5.6	5.8	1.1	21	19	18	25	3.3	2.7	.	1.5
0820	1.8	.	.	.	13	.	.	.	2.2	.	2.0	.
0825	4.6	2.3	2.4	3.4	7.8	8.2	4.8	11	0.90	0.80	0.80	0.73
0900	4.1	1.6	1.6	2.2	5.5	5.3	3.1	6.9	0.65	0.50	0.59	0.50
0925	1.3	1.5	1.5	2.1	6.8	4.1	2.0	5.6	0.90	0.58	0.74	0.60
0935	0.8	.	.	.	4.8	.	.	.	.	.	.	.
0945	0.5	1.6	1.6	2.2	5.3	4.2	2.0	5.8	0.75	0.64	0.65	0.49
November 12, 1981												
*2016	0.6	1.8	1.9	2.0	7.6	7.6	5.6	9.5	1.1	0.97	1.0	0.94
2052	0.8	1.3	1.4	2.2	5.3	5.3	3.1	6.7	0.79	0.71	0.27	0.21
2140	0.6	0.93	1.0	2.6	4.2	4.2	1.6	5.2	0.59	0.53	0.57	0.53
2228	0.4	0.66	0.72	2.0	3.1	3.3	1.3	4.0	0.53	0.49	0.50	0.46
2336	0.2	0.67	0.74	1.9	3.2	3.2	1.3	3.9	0.61	0.52	0.62	0.53
November 17, 1981												
*0424	0.2	1.1	1.2	1.2	2.9	2.5	1.3	3.7	0.45	0.37	0.41	0.35
0444	0.8	0.55	0.60	1.2	2.5	2.3	1.1	2.9	0.38	0.34	0.36	0.30
0604	0.3	0.24	0.27	0.82	1.5	1.5	0.7	1.8	0.27	0.25	0.24	0.18
0628	2.2	0.21	0.23	0.61	1.3	1.0	0.4	1.2	0.25	0.17	0.23	0.14

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364818119443800, Multiple-dwelling residential catchment--Continued												
					December 29-30, 1981							
* . .		0.36	0.41	0.82	2.0	1.3	0.5	1.7	0.49	.	0.29	0.29
					January 4, 1982							
*0810	0.2	0.61	0.69	0.78	1.8	1.9	1.1	2.6	0.37	0.32	0.29	0.27
0932	0.5	0.34	0.39	0.65	2.1	1.5	0.9	1.9	0.43	0.24	0.28	0.19
1016	1.1	0.15	0.18	0.50	1.3	1.2	0.7	1.4	0.73	0.66	0.22	0.18
1116	1.4	0.14	0.16	0.46	1.1	1.0	0.5	1.2	0.30	0.23	0.17	0.15
1216	1.1	0.16	0.18	0.41	1.0	1.1	0.7	1.3	0.30	0.25	0.19	0.15
1316	1.4	0.16	0.18	0.34	1.1	0.9	0.5	1.1	0.31	0.20	0.16	0.14
1416	1.3	.	0.16	0.33	1.0	0.7	0.4	0.9	0.27	0.16	0.15	0.13
1522	2.0	.	0.16	0.29	1.2	0.9	0.6	1.0	0.27	0.14	0.14	0.11
1652	1.7	.	0.18	0.28	0.8	0.6	0.4	0.8	0.24	0.13	0.14	0.10
1822	0.9	0.25	0.27	0.28	0.8	0.8	0.5	1.1	0.23	0.14	0.15	0.12
*2140	0.2	0.25	0.29	0.32	1.0	1.1	0.8	1.4	0.29	0.19	0.20	0.16
2200	0.9	0.15	0.17	0.27	0.8	0.8	0.5	1.0	0.22	0.13	0.12	0.10
2310	2.1	.	0.15	0.25	0.8	0.7	0.4	0.8	0.20	0.10	0.10	0.08
					February 14-15, 1982							
* . .		0.36	0.42	1.2	2.6	3.2	2.0	3.6	0.50	0.43	0.44	0.44
					February 15-16, 1982							
* . .		0.27	0.30	0.60	2.0	2.5	1.9	2.8	0.18	0.14	0.16	0.14
					March 9, 1982							
*2014	0.6	0.82	0.89	2.2	4.4	3.7	1.5	4.6	0.43	0.40	0.27	0.29
2044	0.5	0.68	0.76	1.9	3.9	3.4	1.5	4.2	0.36	0.34	0.23	0.27
2144	0.4	0.43	0.49	1.5	3.2	2.8	1.3	3.3	0.27	0.26	0.30	0.22
					March 10, 1982							
*0142	0.1	0.53	0.62	1.3	2.7	2.5	1.2	3.1	0.32	0.31	0.35	0.25
0304	0.3	0.52	0.58	1.2	2.3	2.0	0.8	2.6	0.25	0.23	0.28	0.19
0330	1.2	0.42	0.45	0.89	1.9	1.5	0.6	2.0	0.22	0.15	0.12	0.14
0334	2.5	0.32	0.34	0.67	1.5	1.3	0.6	1.6	0.27	0.17	0.40	0.18
0358	5.2	.	0.22	0.48	1.6	1.1	0.6	1.3	0.17	0.09	0.07	0.09
0528	0.3	.	0.30	0.53	1.3	0.9	0.4	1.2	0.15	0.12	0.26	0.16
					March 10-11, 1982							
*2350	0.2	0.70	0.82	0.86	2.9	2.6	1.7	3.4	1.9	1.9	0.65	0.55
0038	1.4	0.22	0.24	0.58	1.5	1.0	0.4	1.2	0.24	0.19	0.15	0.10
0100	2.9	.	0.12	0.45	1.1	0.8	0.3	0.9	0.14	0.10	0.11	0.06
					March 11, 1982							
*0702	0.2	0.50	0.54	0.90	1.7	1.5	0.6	2.0	0.22	0.22	0.23	0.17
0732	0.4	0.57	0.59	1.0	1.7	1.6	0.6	2.2	0.14	0.15	0.14	0.12
					March 25-26, 1982							
*2234	0.2	1.6	1.7	1.5	5.2	4.6	3.1	6.3	0.86	0.74	0.66	0.64
2320	0.7	0.61	0.67	0.98	2.9	2.3	1.3	3.0	0.47	0.38	0.23	0.22
0020	0.9	0.30	0.33	0.70	1.6	1.6	0.9	1.9	0.19	0.15	0.13	0.10
0140	1.0	0.69	0.71	0.72	1.5	1.7	1.0	2.4	0.18	0.11	0.11	0.08
0240	0.2	0.86	0.90	0.86	1.7	1.7	0.8	2.6	0.18	0.14	0.12	0.10

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364818119443800, Multiple-dwelling residential catchment--Continued												
					March 29, 1982							
* .	.	0.26	0.29	0.42	1.3	1.3	0.9	1.6	0.17	0.11	0.12	0.11
* .	.	0.16	0.19	0.36	0.8	1.0	0.6	1.2	0.08	0.12	0.08	0.11
					September 3, 1982							
0735	0.1	1.5	1.6	0.32	2.2	2.4	2.1	4.0	0.45	0.39	0.37	0.35
					September 24, 1982							
*0350	0.2	.	7.5	6.5	.	25	19	33	3.2	1.1	1.4	1.1
0358	0.5	.	6.2	7.3	21	19	12	25	2.8	1.7	1.1	1.1
0406	0.6	.	4.7	6.6	25	13	6.4	18	2.4	1.4	1.1	1.0
0414	0.6	.	3.9	5.2	16	15	9.8	19	1.8	1.2	0.94	0.90
0422	0.7	.	3.5	4.7	17	11	6.3	15	1.3	1.3	0.92	0.88
0430	1.1	.	3.0	4.0	.	10	6.0	13	1.7	0.99	0.82	0.72
0436	1.9	.	2.7	3.6	19	11	7.4	14	1.9	0.82	0.77	0.61
0444	2.9	.	1.9	3.0	15	7.3	4.3	9.2	0.89	0.68	0.70	0.49
0506	2.3	.	1.4	2.2	.	4.1	1.9	5.5	1.1	0.59	0.63	0.43
0536	0.9	.	1.3	2.1	.	4.9	2.8	6.2	0.91	0.60	0.66	0.43
*0910	0.1	.	1.4	2.0	.	5.1	3.1	6.5	0.84	0.83	0.70	0.60
					October 24, 1982							
*0354	0.4	.	1.0	1.8	9.7	4.7	2.9	5.7	0.60	0.42	0.43	0.36
0426	0.2	.	1.2	1.8	16	7.3	5.5	8.5	0.53	0.43	.	0.29
0450	0.1	.	1.0	1.2	21	8.4	7.2	9.4	0.39	0.33	0.34	0.30
					October 26, 1982							
*0222	0.2	.	1.5	1.3	13	8.4	7.1	9.9	2.0	0.50	0.53	0.45
0228	1.0	.	0.73	1.3	9.1	7.0	5.7	7.7	0.90	0.30	0.36	0.29
0248	3.5	.	0.50	1.1	3.3	3.4	2.3	3.9	0.60	0.24	0.26	0.21
0302	11	.	<0.10	<0.06	6.4	3.0	.	.	0.98	0.11	0.16	0.09
0354	21	.	0.26	0.50	6.2	5.0	4.5	5.3	0.40	0.24	0.25	0.23
0452	0.7	.	0.28	0.47	6.9	5.6	5.1	5.9	0.40	0.23	0.26	0.22
0532	0.2	.	0.32	0.45	5.7	5.2	4.8	5.5	0.34	0.27	0.29	0.26
					November 9, 1982							
* .	.	.	0.36	0.50	2.2	1.4	0.9	1.8	0.32	0.20	0.16	0.13
					January 18-19, 1983							
*1838	0.1	.	2.8	1.6	7.3	5.6	4.0	8.4	5.0	4.7	2.4	2.1
1844	0.2	.	2.3	1.8	6.6	5.5	3.7	7.8	3.6	2.9	1.8	1.6
1848	0.6	.	1.2	1.4	6.4	4.9	3.5	6.1	4.1	3.1	1.5	1.2
1900	2.0	.	0.76	1.2	4.4	3.2	2.0	4.0	1.1	0.60	0.59	0.32
1908	2.7	.	1.1	1.5	2.7	2.5	1.0	3.6	0.70	0.60	0.46	0.39
2002	2.7	.	0.27	0.72	1.4	0.9	0.2	1.2	0.30	0.30	0.16	0.11
2110	3.2	.	0.19	0.56	3.4	3.2	2.6	3.4	0.30	0.20	0.14	0.10
2150	6.4	.	0.17	0.48	2.0	1.3	0.8	1.5	0.50	0.50	0.20	0.10
2244	7.1	.	0.16	0.39	2.4	0.7	0.3	0.9	0.50	0.20	0.18	0.09
0044	0.4	.	0.20	0.38	1.2	1.3	0.9	1.5	0.18	0.16	0.14	0.11

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364818119443800, Multiple-dwelling residential catchment--Continued												
January 23-24, 1983												
*	.	.	.	0.17	0.19	3.0	0.9	0.7	1.1	0.12	0.08	0.07	0.03
February 28-March 1, 1983												
*	.	.	.	0.13	0.17	1.2	<0.2	.	.	0.20	0.06	0.09	0.06
March 16, 1983												
*	.	.	.	0.83	0.33	1.6	0.9	.	1.7	0.26	0.15	0.21	0.14
March 23-24, 1983												
*	.	.	.	0.16	0.23	1.4	0.9	.	1.1	0.14	0.08	0.08	0.05
Station 364818119464700, Commercial catchment												
October 28, 1981												
*1239	0.1	4.5	4.6	3.5	6.4	3.3	0.2	7.9	0.54	0.55	0.47	0.45
November 17, 1981												
*0420	0.5	2.5	2.6	1.9	5.8	4.8	2.9	7.4	0.41	0.34	0.31	0.27
0440	3.9	0.58	0.62	1.9	3.4	3.3	1.4	3.9	0.26	0.22	0.19	0.13
0448	6.8	0.41	0.44	1.4	2.3	2.1	0.7	2.5	0.16	0.14	0.12	0.07
0512	4.5	0.24	0.26	0.86	1.5	1.3	0.5	1.6	0.12	0.10	0.11	0.04
0612	4.8	0.28	0.30	0.86	1.6	1.5	0.6	1.3	0.13	0.13	0.12	0.07
0628	8.5	0.21	0.23	0.64	1.4	1.0	0.4	1.2	0.07	0.07	0.08	<0.02
0652	4.4	0.24	0.27	0.72	1.2	1.3	0.6	1.6	0.09	0.07	0.07	0.02
December 29-30, 1981												
*	.	.	0.86	0.91	1.0	1.9	1.3	0.3	2.2	0.49	0.36	0.31	0.27
January 4, 1982												
*0756	0.4	2.6	2.8	1.1	.	3.0	1.9	5.8	0.36	0.33	0.29	0.27
0834	1.2	0.61	0.68	1.0	.	2.0	1.0	2.7	0.17	0.13	0.09	0.09
0916	1.7	0.38	0.42	0.77	1.4	1.3	0.5	1.7	0.18	0.14	0.11	0.09
0924	3.6	0.29	0.32	0.65	1.3	1.1	0.5	1.4	0.18	0.11	0.09	0.07
1036	4.5	0.16	0.18	0.45	0.9	0.9	0.4	1.0	0.12	0.09	0.06	0.06
1236	4.6	0.15	0.18	0.44	1.1	0.8	0.3	1.0	0.12	0.09	0.07	0.06
1422	4.0	0.14	0.16	0.33	0.8	0.7	0.4	0.9	0.10	0.07	0.06	0.04
1446	5.4	0.16	0.18	0.32	0.7	0.6	0.3	0.8	0.11	0.10	0.06	0.04
1528	7.2	.	0.16	0.32	.	0.7	0.4	0.9	0.10	0.06	0.05	0.04
1606	5.2	.	0.19	0.31	0.7	0.6	0.3	0.8	0.09	0.06	0.05	0.04
1652	3.9	.	0.25	0.32	0.6	0.6	0.3	0.8	0.09	0.06	0.05	0.04
1744	4.9	.	0.19	0.33	0.7	0.5	0.2	0.7	0.08	0.05	0.05	0.04
1944	0.5	0.23	0.26	0.38	0.7	0.7	0.3	1.0	0.10	0.08	0.07	0.05
January 4-5, 1982												
*2144	0.3	0.30	0.33	0.38	0.8	0.5	0.1	0.8	0.15	0.10	0.10	0.07
2156	2.2	0.25	0.30	0.41	0.8	0.8	0.4	1.1	0.15	0.08	0.08	0.05
8206	4.9	0.18	0.21	0.32	0.8	0.7	0.4	0.9	0.12	0.05	0.04	0.03
0028	7.3	.	0.15	0.24	0.6	0.6	0.3	0.8	0.07	0.05	0.03	0.03

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364818119464700, Commercial catchment--Continued												
					February 14-15, 1982							
* . .		0.38	0.42	0.88	2.0	1.8	0.9	2.2	0.12	0.11	0.10	0.10
					February 14, 1982							
*1812	0.9	1.3	1.9	8.0	34	19	11	21	9.1	8.0	1.6	1.4
					February 15-16, 1982							
* . .		0.21	0.24	0.68	1.9	2.0	1.3	2.2	0.10	0.07	0.10	0.07
					March 9, 1982							
*1932	0.6	2.6	2.7	1.4	4.2	3.4	2.0	6.1	0.97	0.72	0.60	0.55
1946	3.0	1.6	1.7	3.8	6.0	6.0	2.2	7.7	0.38	0.42	0.47	0.27
2046	2.4	0.57	0.64	1.5	3.0	2.8	1.3	3.4	0.18	0.14	0.14	0.11
2316	0.8	0.42	0.47	1.1	1.9	1.7	0.6	2.2	0.13	0.10	0.11	0.09
					March 10-11, 1982							
*2330	0.6	1.3	1.4	1.8	3.7	3.4	1.6	4.8	0.19	0.18	0.21	0.13
2342	4.1	0.57	0.62	1.4	2.2	1.9	0.5	2.5	0.11	0.10	0.11	0.08
0054	9.6	.	0.13	0.66	0.9	0.7	0.0	0.8	0.03	0.04	0.03	0.02
					March 11, 1982							
*0700	0.9	0.63	0.67	0.95	1.5	1.3	0.4	2.0	0.14	0.15	0.11	0.12
0746	1.9	0.56	0.58	1.2	.	1.8	0.6	2.4	0.05	0.06	0.05	0.04
					March 25-26, 1982							
*2248	1.6	2.1	2.2	2.6	6.8	5.5	2.9	7.7	0.63	0.54	0.41	0.37
2256	3.3	1.3	1.4	1.9	5.3	4.0	2.1	5.4	0.31	0.24	0.24	0.23
2344	2.9	0.46	0.50	0.91	2.2	1.9	1.0	2.4	0.19	0.20	0.12	0.12
0020	3.9	0.31	0.34	0.62	1.4	1.4	0.8	1.7	0.16	0.12	0.09	0.08
0132	1.8	0.44	0.47	0.64	.	1.5	0.9	2.0	0.11	0.10	0.07	0.07
					March 29, 1982							
* . .		0.21	0.23	0.48	0.9	1.0	0.5	1.2	0.08	0.04	0.07	0.05
* . .		0.15	0.18	0.46	0.9	0.8	0.3	1.0	0.08	0.02	0.05	0.04
					September 24, 1982							
*0236	0.1	.	0.19	1.7	6.5	5.1	3.4	5.3	0.76	0.59	0.45	0.46
0244	0.3	.	2.7	1.2	.	7.3	6.1	10	0.95	0.71	0.57	0.50
0252	0.3	.	12	6.6	.	22	15	34	0.65	0.46	0.43	0.35
0308	0.3	.	19	12	35	35	23	54	1.5	1.3	0.99	1.1
0316	0.4	.	18	12	.	33	21	51	2.6	2.8	2.0	1.8
0324	0.6	.	17	14	.	37	23	54	6.4	6.1	5.0	4.8
0332	0.8	.	22	17	61	44	27	66	3.7	3.6	3.0	3.2
0356	3.3	.	5.9	6.1	.	16	9.9	22	2.5	1.1	0.78	0.78
0412	4.2	.	4.6	5.0	15	7.0	2.0	12	0.92	0.95	0.72	0.73
0422	9.9	.	2.6	2.7	12	6.4	3.7	9	0.50	0.52	0.47	0.38
0426	14	.	2.4	2.3	10	8.6	6.3	11	0.48	0.46	0.42	0.32
0508	3.6	.	2.1	2.2	6	4.5	2.3	6.6	0.46	0.35	0.27	0.24
0708	0.1	.	4.3	3.5	11	8.4	4.9	13	0.55	0.47	0.43	0.36

TABLE 9.--Stormwater runoff data: Nutrients--Continued

Time (hours)	Discharge (ft^3/s)	Nitrogen, nitrate, dissolved (as N)	Nitrogen, nitrite plus nitrate, dissolved (as N)	Nitrogen, ammonia, dissolved (as N)	Nitrogen, ammonia plus organic, total (as N)	Nitrogen, ammonia plus organic, dissolved (as N)	Nitrogen, organic, dissolved (as N)	Nitrogen, dissolved (as N)	Phosphorus, total (as P)	Phosphorus, dissolved (as P)	Phosphorus, orthophosphate, total (as P)	Phosphorus, orthophosphate, dissolved (as P)
Station 364818119464700, Commercial catchment--Continued												
					October 25, 1982							
*0258	0.2	.	3.5	6.4	21	21	15	25	0.25	0.16	0.12	0.05
0302	0.9	.	1.6	6.4	23	18	12	20	0.60	0.21	0.19	0.10
0308	4.7	.	2.3	2.5	12	9.4	6.9	12	0.91	0.21	0.25	0.17
0316	4.6	.	2.0	2.3	21	7.6	5.3	9.6	0.79	0.17	0.19	0.13
0332	2.6	.	1.7	2.3	14	7.3	5.0	9.0	0.42	0.24	0.23	0.20
0416	0.4	.	1.7	2.5	13	7.3	4.8	9.0	0.31	0.26	0.26	0.22
					October 26, 1982							
*0200	0.3	.	2.1	2.8	10	11	8.2	13	0.24	0.17	0.16	0.13
0208	1.3	.	2.6	3.8	20	15	11	18	0.40	0.15	0.17	0.11
0232	11	.	0.75	1.4	11	7.0	5.6	7.8	1.1	0.16	0.16	0.12
0300	17	.	0.55	0.97	2.2	2.2	1.2	2.8	0.22	0.09	0.10	0.08
0310	29	.	0.46	0.78	10	7.5	6.7	8.0	1.4	0.11	0.14	0.09
0338	29	.	0.27	0.42	6.2	6.2	5.8	6.5	0.60	0.30	0.08	0.04
0428	4.6	.	0.30	0.50	5.3	4.9	4.4	5.2	0.16	0.08	0.07	0.08
					November 8, 1982							
*	.	.	1.1	1.5	4.2	3.4	1.9	4.5	0.27	0.12	0.13	0.10
					November 9, 1982							
*	.	.	0.29	0.54	1.4	1.5	1.0	1.8	0.15	0.05	0.12	0.06
					January 18, 1983							
*1724	0.1	.	2.9	4.4	13	9.1	4.7	12	0.68	0.61	0.58	0.52
1812	0.2	.	3.3	3.6	7.8	6.2	2.6	9.5	0.70	0.40	0.46	0.24
1828	0.7	.	3.4	3.1	7.7	6.0	2.9	9.4	0.29	0.13	0.38	0.19
1842	7.1	.	1.4	1.7	6.3	3.3	1.6	4.7	0.90	0.30	0.35	0.14
1854	13	.	<0.10	1.2	6.7	2.6	1.4	.	0.40	0.20	0.22	0.09
2054	9.4	.	0.20	0.38	1.1	0.5	0.1	0.7	1.0	0.05	0.08	0.05
2140	20	.	<0.10	0.30	4.3	0.3	0.0	.	0.80	0.20	0.11	0.04
2232	15	.	0.17	0.34	3.5	0.1	.	.	1.1	0.06	0.15	0.03
2236	29	.	<0.10	0.30	5.4	0.7	0.4	.	0.50	0.20	0.22	0.06
2356	5.1	.	0.16	0.34	1.1	0.8	0.5	1.0	0.12	0.09	0.05	0.05
					January 23-24, 1983							
*	.	.	0.18	0.23	4.3	0.8	0.6	1.0	0.21	0.25	0.11	0.13
					February 28-March 1, 1983							
*	.	.	0.12	0.22	1.2	0.7	0.5	0.8	0.13	0.02	0.04	0.02
					March 16, 1983							
*	.	.	0.81	0.37	1.6	1.0	0.6	1.8	0.25	0.05	0.10	0.04
					March 23-24, 1983							
*	.	.	0.23	0.22	1.1	1.1	.	1.3	0.17	0.06	0.06	0.03

TABLE 10.--Stormwater

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are a sequence number to uniquely identify each site.

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364155119445000, Industrial catchment											
					November 12-13, 1981						
*2056	0.6	.	.	7	22	4	4	<1	30	6	130
2128	0.7	.	.	6	11	5	3	7	30	24	100
2200	0.7	.	.	6	14	5	3	4	24	26	100
2232	0.8	.	.	7	14	6	2	2	20	40	100
2304	0.7	.	.	7	15	6	<1	<1	18	38	110
2336	0.4	.	.	.	12	5	1	1	12	38	78
0344	0.5	.	.	.	5	.	<1	.	20	.	94
0548	0.5	.	.	9	10	1	<1	<1	12	33	74
0720	1.1	.	.	10	12	1	<1	<1	14	35	84
0748	3.3	.	.	10	23	1	<1	<1	36	23	140
0812	4.8	.	.	10	23	<1	2	<1	36	22	120
0836	4.4	.	.	10	22	<1	3	3	36	23	110
0904	3.5	.	.	13	22	<1	2	<1	34	27	100
					November 17, 1981						
*0500	0.4	.	.	5	8	1	<1	6	15	12	54
0620	0.4	.	.	6	6	1	<1	<1	10	28	46
0700	3.3	.	.	11	26	<1	<1	<1	30	19	49
0820	0.6	.	.	50	64	<1	1	1	25	30	110
					December 29-30, 1981						
*	.	.	.	10	19	2	2	<1	35	18	100
					January 4, 1982						
*0932	0.8	.	.	8	20	2	1	1	24	23	74
0948	2.1	.	.	11	22	4	1	<1	35	18	80
1230	3.8	.	.	9	21	4	1	<1	28	12	60
1330	4.4	.	.	10	21	4	<1	1	35	13	61
1422	5.9	.	.	15	30	1	1	2	35	16	88
1622	7.3	.	.	11	30	1	1	2	40	12	80
1722	4.5	.	.	12	26	<1	1	1	30	10	64
					January 4-5, 1982						
*2154	0.7	.	.	26	67	<1	<1	2	25	12	78
2210	3.2	.	.	15	38	<1	<1	<1	25	8	74
0024	3.0	.	.	13	19	<1	<1	<1	10	8	48
					February 13, 1982						
*2238	0.4	.	.	7	10	4	3	13	24	22	50
					February 14-15, 1982						
*	.	.	.	12	18	5	<1	3	12	30	60
					February 15-16, 1982						
*	.	.	.	14	25	1	<1	3	12	11	58
					March 9-10, 1982						
*2020	0.7	.	.	3	7	<1	1	<1	<1	12	58
2106	1.2	.	.	4	6	1	2	1	22	21	98
2152	2.4	.	.	6	14	<1	1	<1	15	16	60
2252	1.1	.	.	5	6	<1	<1	1	10	23	40
2352	0.3	.	.	8	14	<1	<1	<1	4	20	42

runoff data: Metals

All metal values are in micrograms per liter. <, actual value is less than value shown. ., no data available. Asterisk (*) indicates the first sample of a storm. No data given for time and discharge indicates composite sample for dates shown]

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364155119445000, Industrial catchment--Continued											
November 12-13, 1981											
2,400	20,000	8	150	.	.	<0.1	0.1	12	42	200	1,300
390	6,200	10	84	.	.	0.2	0.3	14	20	450	1,000
700	6,100	10	83	.	.	0.1	0.2	14	26	510	1,100
560	5,400	14	60	.	.	0.2	0.2	18	26	400	990
330	6,700	8	50	.	.	<0.1	0.1	16	28	350	1,000
290	3,000	8	38	.	.	<0.1	0.1	16	18	390	810
.	4,400	.	36	.	.	.	0.1	.	22	.	750
.	3,600	11	30	.	.	0.2	0.1	12	12	.	660
.	3,100	9	42	.	.	0.2	0.1	12	16	.	630
.	16,000	10	94	.	.	<0.1	0.1	12	38	.	870
.	16,000	3	81	.	.	<0.1	0.1	13	57	.	780
450	14,000	5	91	.	.	<0.1	<0.1	15	39	220	750
570	11,000	7	80	.	.	<0.1	<0.1	14	37	250	660
November 17, 1981											
750	5,100	16	60	.	.	0.1	0.1	7	16	150	460
330	2,300	10	36	.	.	<0.1	0.1	10	26	260	450
470	13,000	9	48	.	.	<0.1	0.1	10	14	210	720
2,700	16,000	11	56	.	.	<0.1	0.1	9	14	190	600
December 29-30, 1981											
430	9,600	12	98	.	.	0.2	0.2	8	26	150	580
January 4, 1982											
850	9,000	19	74	.	.	0.8	0.2	11	14	170	450
390	9,700	10	98	.	.	0.2	0.1	6	18	140	550
810	11,000	10	68	.	.	0.2	0.2	8	24	130	410
320	12,000	10	66	.	.	0.1	0.2	8	24	140	390
900	14,000	24	170	.	.	0.2	0.2	4	26	130	530
480	16,000	14	100	.	.	0.1	0.2	6	32	100	530
420	12,000	14	82	.	.	0.1	0.1	4	26	110	420
January 4-5, 1982											
780	15,000	12	60	.	.	0.2	0.1	4	24	80	460
330	10,000	8	76	.	.	0.1	0.1	18	20	90	500
230	6,800	4	30	.	.	0.1	0.1	<1	14	70	310
February 13, 1982											
1,700	4,400	36	92	.	.	0.4	0.3	16	22	630	1,300
February 14-15, 1982											
550	6,500	12	34	.	.	0.4	0.8	12	16	250	420
February 15-16, 1982											
470	8,200	5	27	.	.	0.3	1.4	7	17	120	390
March 9-10, 1982											
2,100	6,600	15	130	.	.	0.1	0.1	6	6	300	560
320	4,700	12	74	.	.	0.2	0.3	8	5	330	940
250	6,800	4	66	.	.	0.1	0.1	6	7	160	370
340	1,700	13	32	.	.	0.2	0.3	6	4	210	310
320	1,700	5	28	.	.	0.2	0.1	8	6	200	330

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364155119445000, Industrial catchment--Continued											
					March 9-10, 1982--Continued						
0152	0.1	.	.	18	42	<1	<1	<1	4	11	56
0322	0.5	.	.	11	9	<1	1	<1	7	18	46
0358	1.8	.	.	10	25	<1	1	<1	4	21	72
0458	1.4	.	.	11	10	<1	1	<1	3	20	54
0558	0.7	.	.	13	10	<1	1	<1	5	21	42
0758	0.2	.	.	22	22	2	<1	<1	6	22	48
0928	0.1	.	.	23	47	2	<1	<1	7	25	62
					March 11, 1982						
*0022	0.8	.	.	10	12	1	<1	<1	10	7	44
0038	3.5	.	.	8	11	1	<1	<1	18	29	76
0054	5.8	.	.	7	25	<1	<1	<1	17	9	68
0354	1.9	.	.	12	34	<1	<1	<1	9	12	46
*0810	0.8	.	.	13	15	<1	<1	<1	6	14	52
0836	1.1	.	.	9	11	1	<1	<1	6	14	48
					March 14, 1982						
*1042	9.5	.	.	2	23	<1	<1	<1	19	7	52
1104	11	.	.	3	24	<1	<1	<1	24	7	62
1124	13	.	.	4	24	<1	<1	<1	24	6	66
1134	14	.	.	2	24	<1	<1	<1	25	7	64
1144	15	.	.	1	24	<1	<1	<1	24	12	62
					March 25-26, 1982						
*2230	0.5	.	.	6	7	<1	4	3	11	8	32
2258	2.4	.	.	2	5	<1	4	3	10	21	52
2344	1.8	.	.	3	3	<1	3	4	15	11	40
0030	4.1	.	.	6	7	<1	3	4	6	17	38
0200	0.8	.	.	5	14	<1	2	3	6	17	30
0300	0.3	.	.	17	18	<1	2	2	7	17	32
0400	0.1	.	.	20	23	<1	2	2	5	18	36
					March 28, 1982						
*1316	1.1	.	.	10	27	<1	3	6	40	7	220
1338	4.1	.	.	2	13	<1	2	4	14	7	100
*1636	12	.	.	11	40	<1	2	4	14	9	240
1644	18	.	.	8	32	<1	1	5	6	7	130
1702	14	.	.	3	22	<1	1	2	42	7	160
1740	5.0	.	.	3	26	<1	1	<1	46	5	50
1810	15	.	.	11	32	<3	1	2	24	6	85
1830	11	.	.	6	22	<1	<1	2	51	6	95
					March 29, 1982						
*	.	.	.	9	23	<1	1	2	51	9	72
					September 24, 1982						
*0432	0.1	.	.	.	11	.	.	.	.	.	.
0440	0.2	130	6,600	.	15	.	.	.	2	22	240
0448	0.3	.	.	.	16	.	.	.	.	.	.
0456	0.4	190	18,000	.	14	.	.	.	12	12	400
0504	0.5	.	.	.	13	.	.	.	.	.	.
0512	0.6	.	.	.	13	.	.	.	.	.	.
0520	0.7	260	15,000	.	15	.	.	.	5	28	310
0528	0.7	.	.	.	14	.	.	.	.	.	.
0552	0.6	.	.	.	10	.	.	.	.	.	.
0614	0.5	290	3,000	.	8	.	.	.	5	18	160
0642	0.3	.	.	.	4	.	.	.	.	.	.
0710	0.2	.	.	.	7	.	.	.	.	.	.

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 364155119445000, Industrial catchment--Continued											
					March 9-10, 1982--Continued						
580	4,400	5	22	.	.	0.2	0.1	8	7	110	310
310	1,900	5	36	.	.	0.2	0.1	7	4	200	320
300	6,800	<1	54	.	.	0.1	0.1	6	8	200	510
90	2,900	4	34	.	.	0.5	0.1	4	5	80	310
40	2,200	4	22	.	.	0.1	0.1	10	5	90	310
440	2,500	5	16	.	.	0.4	0.1	10	6	160	290
330	5,400	5	20	.	.	0.2	0.1	10	8	200	350
					March 11, 1982						
430	3,600	12	60	.	.	<0.1	<0.1	5	8	200	540
1,100	9,700	23	92	.	.	0.1	0.1	6	14	170	520
510	14,000	9	98	.	.	0.2	0.1	5	16	110	560
390	480	9	36	.	.	1.8	0.1	10	48	140	340
380	2,800	6	50	.	.	0.1	0.1	7	12	170	350
350	2,600	9	42	.	.	0.2	0.2	7	12	180	380
					March 14, 1982						
420	13,000	5	56	.	.	0.1	0.1	4	10	150	370
370	15,000	5	64	.	.	0.1	0.9	4	24	180	400
350	15,000	6	70	.	.	0.1	0.1	4	23	180	430
340	17,000	6	88	.	.	0.1	0.1	4	30	160	440
360	17,000	5	70	.	.	0.3	0.1	5	26	180	420
					March 25-26, 1982						
490	5,200	13	56	.	.	0.1	0.1	8	16	280	580
320	3,900	19	80	.	.	0.1	0.1	9	28	390	630
250	5,000	8	56	.	.	<0.1	0.1	9	20	470	640
210	4,000	11	42	.	.	<0.1	0.1	9	26	270	400
260	2,800	6	42	.	.	0.1	0.1	9	16	290	340
330	4,400	7	22	.	.	0.2	0.1	10	47	240	310
350	4,800	8	20	.	.	0.1	0.1	10	20	150	280
					March 28, 1982						
470	45,000	3	350	.	.	<0.1	0.1	3	46	190	1,800
230	26,000	7	320	.	.	<0.1	0.1	3	42	190	870
310	43,000	7	240	.	.	0.1	0.1	3	55	110	1,400
260	30,000	10	240	.	.	0.2	0.1	5	44	140	1,200
710	62,000	1	200	.	.	0.1	0.2	3	98	87	930
330	20,000	4	130	.	.	0.2	0.1	3	37	90	510
240	20,000	6	100	.	.	0.2	0.1	2	31	170	860
350	31,000	6	230	.	.	0.1	0.1	1	48	110	640
					March 29, 1982						
510	18,000	7	200	.	.	0.1	0.1	5	35	140	520
					September 24, 1982						
680	16,000	16	80	220	550	.	0.1	17	30	.	.
1,800	13,000	10	65	620	1,200	.	0.1	19	35	650	2,300
1,200	24,000	16	120	280	990	.	0.1	17	80	.	.
1,300	31,000	15	140	290	980	.	0.1	18	70	450	3,100
1,300	19,000	27	80	330	780	.	<0.1	16	50	.	.
1,300	19,000	39	90	290	730	.	0.1	17	45	.	.
1,200	25,000	25	140	270	830	.	0.1	21	65	600	2,100
960	21,000	13	110	210	690	.	0.3	16	55	.	.
820	11,000	22	90	200	430	.	0.3	13	40	.	.
840	5,500	16	20	230	340	.	0.4	15	20	1,400	1,800
790	3,700	18	75	240	310	.	0.2	25	15	.	.
690	3,000	23	45	200	300	.	0.2	17	15	.	.

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364155119445000, Industrial catchment--Continued											
					October 25, 1982						
*0248	0.1	.	.	.	8	.	.	.	.	.	.
0256	0.0	20	5,700	.	8	.	.	.	2	15	90
0312	0.0	.	.	.	30	.	.	.	.	.	.
0320	0.2	240	16,000	.	21	.	.	.	<1	7	270
0328	0.4	.	.	.	13	.	.	.	.	.	.
0334	0.5	90	6,300	.	12	.	.	.	<1	15	120
0352	0.3	.	.	.	11	.	.	.	.	.	.
0408	0.2	.	.	.	8	.	.	.	.	.	.
0432	0.1	.	.	.	8	.	.	.	.	.	.
0514	0.1	.	.	.	7	.	.	.	.	.	.
					October 26, 1982						
*0448	2.6	90	7,900	.	12	.	.	.	<1	12	51
0544	2.1	.	.	.	16	.	.	.	.	.	.
0720	3.9	60	6,900	.	1	.	.	.	1	13	56
0752	2.2	.	.	.	9	.	.	.	.	.	.
					November 9, 1982						
* .	.	170	7,100	.	11	.	.	.	12	15	65
					December 22, 1982						
* .	.	240	6,000	.	12	.	.	.	10	15	44
					January 18, 1983						
*1916	0.4	.	.	.	13	.	.	.	.	.	.
1922	2.7	50	18,000	.	17	.	.	.	8	6	320
1938	5.5	.	.	.	12	.	.	.	.	.	.
2026	7.8	150	17,000	.	7	.	.	.	11	9	55
2112	11	.	.	.	11	.	.	.	.	.	.
2224	14	150	6,000	.	9	.	.	.	11	6	48
2304	25	250	14,000	.	12	.	.	.	10	5	90
2334	18	.	.	.	10	.	.	.	.	.	.
					January 23-24, 1983						
* .	.	140	6,300	.	9	.	.	.	13	3	39
Station 364746119445400, Single-dwelling residential catchment											
					November 12, 1981						
*2016	0.3	.	.	3	6	4	3	<1	18	12	58
2032	0.7	.	.	2	8	3	4	<1	34	10	92
2104	0.6	.	.	2	6	4	2	<1	16	14	32
2124	0.8	.	.	2	5	3	2	<1	10	14	20
2228	0.8	.	.	2	2	2	2	<1	8	12	18
2316	0.3	.	.	2	2	2	1	<1	10	12	64
					November 17, 1981						
*0444	0.4	.	.	1	2	<1	2	<1	40	10	57
0604	0.6	.	.	1	1	<1	1	<1	7	7	12
0632	1.4	.	.	1	1	1	1	1	7	5	17
					March 9, 1982						
*2040	.	.	.	4	4	1	1	<1	11	13	34
2050	.	.	.	5	5	<1	1	<1	15	15	26

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 364155119445000, Industrial catchment--Continued											
					October 25, 1982						
59	18,000	17	360	64	480	.	0.1	6	37	.	.
81	7,700	13	150	79	240	.	0.1	4	21	360	1,300
240	23,000	11	210	420	1,600	.	0.1	11	47	.	.
7,400	33,000	6	290	750	1,200	.	0.1	30	59	970	3,000
2,000	16,000	10	170	280	540	.	0.8	20	36	.	.
760	11,000	8	140	130	360	.	2.5	11	27	340	1,200
370	11,000	9	140	110	340	.	1.3	10	27	.	.
360	7,200	12	100	110	250	.	0.6	8	19	.	.
360	6,400	7	90	130	250	.	0.6	11	21	.	.
330	3,700	8	78	120	190	.	0.8	10	18	.	.
					October 26, 1982						
150	9,100	5	58	56	330	.	0.1	13	26	240	540
150	4,100	7	44	67	180	.	0.1	8	11	.	.
120	7,700	3	69	56	280	.	0.2	5	31	220	460
150	4,200	4	61	46	170	.	0.2	8	17	.	.
					November 9, 1982						
22	9,000	8	86	52	280	.	0.2	8	17	150	560
					December 22, 1982						
250	6,800	6	70	50	230	.	1.4	6	24	150	370
					January 18, 1983						
490	29,000	14	320	230	950	.	0.4	5	48	.	.
250	29,000	7	330	100	860	.	0.3	4	48	260	2,500
410	14,000	27	160	190	490	.	0.2	2	28	.	.
280	7,900	18	69	99	290	.	0.1	<1	20	330	500
240	7,700	13	54	72	250	.	0.1	3	19	.	.
200	7,700	9	50	51	260	.	0.1	2	19	210	350
250	17,000	7	95	49	480	.	0.2	2	33	250	540
300	12,000	7	89	50	380	.	0.1	5	28	.	.
					January 23-24, 1983						
160	8,000	4	72	62	250	.	<0.1	3	14	87	320
Station 364746119445400, Single-dwelling residential catchment--Continued											
					November 12, 1981						
640	4,700	56	540	.	.	<0.1	0.2	6	16	90	310
210	9,900	54	1,000	.	.	<0.1	0.2	4	26	60	520
310	3,400	86	300	.	.	<0.1	<0.1	8	10	130	230
240	1,700	68	200	.	.	<0.1	<0.1	4	6	110	160
210	1,200	84	170	.	.	<0.1	0.1	6	4	110	140
260	860	96	130	.	.	<0.1	0.1	10	12	100	130
					November 17, 1981						
120	7,300	39	910	.	.	<0.1	0.1	5	22	50	480
140	460	30	80	.	.	<0.1	0.1	4	7	60	50
120	1500	30	170	.	.	<0.1	0.1	3	8	40	100
					March 9, 1982						
130	2,300	42	200	.	.	0.1	0.2	7	5	90	190
180	1,700	53	210	.	.	0.1	0.2	7	4	90	150

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364746119445400, Single-dwelling residential catchment--Continued											
					March 11, 1982						
*0716	.	.	.	1	1	1	<1	<1	4	4	8
0722	.	.	.	1	2	1	<1	<1	4	4	9
					March 25-26, 1982						
*2320	0.8	.	.	1	1	1	2	3	1	9	22
2324	0.8	.	.	1	1	1	2	3	10	10	13
0014	0.8	.	.	1	1	<1	2	2	5	6	12
0114	0.7	.	.	1	1	2	2	2	5	5	14
0144	0.6	.	.	1	1	1	2	2	4	5	9
0240	0.1	.	.	1	1	<1	<1	2	4	5	6
					March 29, 1982						
*1332	0.3	.	.	1	1	<1	<1	4	10	6	12
1356	0.7	.	.	1	1	<1	<1	<1	13	5	17
1408	0.9	.	.	1	1	<1	1	2	13	3	10
					March 31, 1982						
*1652	0.8	.	.	1	1	<3	<1	<1	13	5	27
1658	1.7	.	.	1	1	<3	<1	<1	9	4	17
1718	2.8	.	.	1	1	<3	<1	<1	5	2	12
1818	1.2	.	.	1	<1	<3	<1	1	5	2	10
1918	1.4	.	.	1	<1	<3	<1	2	3	2	13
2006	1.6	.	.	1	<1	<3	<1	<1	9	2	13
2046	2.0	.	.	<1	<1	<3	<1	<1	5	1	13
2136	1.6	.	.	<1	<1	<3	<1	<1	9	2	4
2236	0.5	.	.	1	1	<3	<1	<1	9	2	4
					September 3, 1982						
0715	0.1	.	.	3	4	1	<1	3	2	3	13
					September 24, 1982						
*0404	0.5	350	10,000	.	4	.	.	.	12	21	110
0412	0.8	.	.	.	4	.	.	.	.	.	.
0420	1.0	370	13,000	.	5	.	.	.	13	7	140
0428	1.1	280	8,700	.	2	.	.	.	16	6	180
0436	0.9	.	.	.	<1	.	.	.	.	.	.
0452	0.9	.	.	.	1	.	.	.	.	.	.
0508	0.5	.	.	.	1	.	.	.	.	.	.
					October 25, 1982						
*0300	0.2	50	20,000	.	7	.	.	.	4	7	150
0308	0.1	.	.	.	7	.	.	.	.	.	.
0332	0.4	70	4,800	.	2	.	.	.	3	11	37
0340	0.4	.	.	.	2	.	.	.	.	.	.
0356	0.3	.	.	.	2	.	.	.	.	.	.
					October 26, 1982						
*0220	0.2	40	4,900	.	3	.	.	.	11	5	42
0246	0.4	50	7,700	.	3	.	.	.	14	5	70
0256	1.1	.	.	.	3	.	.	.	.	.	.
0308	2.0	.	.	.	5	.	.	.	.	.	.
0326	5.8	40	3,500	.	2	.	.	.	15	3	21
0344	6.8	.	.	.	1	.	.	.	.	.	.
0404	5.8	.	.	.	<1	.	.	.	.	.	.
					December 22, 1982						
*	.	.	70	2,300	.	1	.	.	.	1	4	.

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 364746119445400, Single-dwelling residential catchment--Continued											
					March 11, 1982						
40	580	14	83	.	.	<0.1	0.1	5	2	40	60
40	270	14	31	.	.	<0.1	0.1	4	2	40	50
					March 25-26,1982						
150	940	43	140	.	.	<0.1	0.1	6	11	97	160
130	670	43	140	.	.	<0.1	0.1	6	18	94	140
57	350	25	65	.	.	<0.1	0.1	3	13	51	70
42	290	21	50	.	.	<0.1	<0.1	1	17	42	60
38	170	19	35	.	.	<0.1	<0.1	<1	14	59	60
37	160	19	37	.	.	<0.1	<0.1	<1	7	43	50
					March 29, 1982						
80	800	35	120	.	.	<0.1	0.1	<1	5	51	80
63	1,100	28	150	.	.	<0.1	<0.1	3	4	37	90
58	1,400	22	190	.	.	<0.1	0.1	1	4	29	80
					March 31, 1982						
50	3,300	24	460	.	.	<0.1	0.1	<1	9	42	170
35	3,100	15	370	.	.	<0.1	0.1	2	7	32	120
44	1,700	15	190	.	.	<0.1	<0.1	1	4	33	80
40	580	10	48	.	.	<0.1	<0.1	<1	1	30	50
30	490	9	45	.	.	<0.1	<0.1	<1	1	28	60
29	390	8	28	.	.	<0.1	0.1	<1	1	29	50
31	500	5	35	.	.	<0.1	<0.1	1	2	22	50
33	730	5	45	.	.	<0.1	<0.1	1	5	22	40
37	400	6	15	.	.	<0.1	<0.1	2	1	21	30
					September 3, 1982						
350	2,000	8	93	.	.	0.1	0.1	4	12	20	70
					September 24, 1982						
900	14,000	200	870	190	400	.	0.3	29	85	350	850
960	17,000	140	1000	210	470	.	0.4	29	80	.	.
920	19,000	110	1200	180	480	.	0.4	23	85	330	1,100
730	13,000	110	1100	140	340	.	0.4	23	70	260	780
570	10,000	110	680	120	280	.	0.3	15	60	.	.
390	4,100	120	430	120	190	.	0.3	18	26	.	.
350	2,600	130	400	120	170	.	0.3	30	.	.	.
					October 25, 1982						
480	29,000	53	2100	53	480	.	8.6	10	70	70	1,300
260	22,000	47	1300	45	380	.	3.3	10	61	.	.
430	6,300	100	490	62	160	.	2.0	9	32	130	300
300	4,800	86	400	49	120	.	1.1	10	24	.	.
180	4,200	74	360	44	100	.	0.5	9	20	.	.
					October 26, 1982						
350	7,000	68	550	76	180	.	2.3	6	12	56	320
170	11,000	47	740	30	190	.	3.3	6	32	43	470
140	16,000	32	1,000	23	280	.	4.4	6	43	.	.
290	21,000	15	1,300	23	320	.	1.9	5	52	.	.
94	5,000	2	450	13	100	.	0.6	4	24	29	180
65	2,500	25	210	11	50	.	0.2	2	10	.	.
57	1,500	16	110	9	40	.	0.1	3	12	.	.
					December 22, 1982						
53	.	16	.	8	.	.	2.4	2	.	35	.

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364746119445400, Single-dwelling residential catchment--Continued											
					January 18, 1983						
*1934	2.6	.	.	.	<1	.	.	.	.	.	.
1944	3.2	110	1,300	.	<1	.	.	.	7	4	16
1956	2.7	.	.	.	1	.	.	.	.	.	.
2046	2.4	40	530	.	<1	.	.	.	4	3	10
2130	2.5	.	.	.	<1	.	.	.	.	.	.
2202	5.2	30	670	.	<1	.	.	.	4	2	10
2226	4.1	.	.	.	<1	.	.	.	.	.	.
2246	5.4	40	1,200	.	<1	.	.	.	6	2	12
2330	3.0	.	.	.	1	.	.	.	.	.	.
					January 23-24, 1983						
* .	.	60	1,500	.	1	.	.	.	4	<1	10
					February 28-March 1, 1983						
* .	.	60	3,400	.	1	.	.	.	13	1	10
					March 16, 1983						
* .	.	40	559	.	1	.	.	.	4	3	7
					March 23, 1983						
* .	.	40	600	.	1	.	.	.	1	1	7
Station 364818119443800, Multiple-dwelling residential catchment											
					October 28, 1981						
*0720	0.5	.	.	10	16	3	6	<1	40	58	270
0740	0.4	.	.	9	11	5	6	<1	14	56	130
0820	1.8	.	.	.	11	.	4	.	6	.	140
0925	1.3	.	.	1	4	1	2	3	20	14	45
0935	0.8	.	.	.	2	.	4	.	19	.	43
0945	0.5	.	.	2	2	2	1	1	17	16	32
					November 12, 1981						
*2016	0.6	.	.	3	6	5	2	<1	62	12	110
2052	0.8	.	.	2	5	4	1	<1	16	14	18
2140	0.6	.	.	1	6	4	1	1	16	12	26
2228	0.4	.	.	2	6	4	1	<1	12	10	24
2336	0.2	.	.	2	2	4	1	<1	8	10	18
					November 17, 1981						
*0424	0.2	.	.	2	2	<1	1	<1	13	9	28
0444	0.8	.	.	2	2	<1	2	<1	25	7	29
0604	0.3	.	.	2	1	<1	1	<1	10	5	13
0628	2.2	.	.	1	2	1	2	<1	35	4	31
					December 29-30, 1981						
* .	.	.	.	1	2	1	2	1	25	6	24
					January 4, 1982						
*0810	0.2	.	.	1	1	<1	<1	1	5	5	14
0932	0.5	.	.	<1	2	2	1	1	20	4	32
1016	1.1	.	.	1	1	<1	<1	1	30	7	37
1116	1.4	.	.	1	1	<1	<1	1	15	4	16
1216	1.1	.	.	1	1	<1	<1	<1	15	3	16

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 364746119445400, Single-dwelling residential catchment--Continued											
					January 18, 1983						
100	2,400	29	200	12	60	.	0.1	7	14	.	.
100	1,900	24	150	13	40	.	<0.1	4	11	37	90
87	1,500	23	130	12	40	.	0.1	4	10	.	.
47	740	16	78	10	20	.	0.2	3	3	62	50
36	670	13	66	6	20	.	0.2	2	2	.	.
38	900	7	88	6	20	.	0.2	3	6	22	60
34	630	8	57	5	20	.	0.1	3	7	.	.
41	1,800	7	180	7	50	.	0.1	2	9	21	80
37	1,000	10	77	6	30	.	0.3	1	2	.	.
					January 23-24, 1983						
44	2,200	6	100	9	50	.	<0.1	2	15	33	80
					February 28-March 1, 1983						
39	4,600	4	96	5	120	.	<0.1	2	11	23	120
					March 16, 1983						
47	790	4	69	24	30	.	<0.1	<1	14	37	60
					March 23, 1983						
43	950	5	61	9	30	.	<0.1	2	6	36	60
Station 364818119443800, Multiple-dwelling residential catchment--Continued											
					October 28, 1981						
1,800	72,000	60	850	.	.	0.2	1.4	78	310	530	1,800
1,300	19,000	86	500	.	.	0.2	1.6	70	140	840	1,200
.	50,000	.	900	.	.	.	1.2	.	170	.	1,400
320	9,700	40	370	.	.	0.0	0.2	10	31	330	550
.	6,400	.	300	.	.	.	0.2	.	23	.	500
310	4,000	44	210	.	.	0.0	0.2	10	18	370	450
					November 12, 1981						
450	23,000	14	430	.	.	0.2	1.5	12	72	100	540
160	6,100	18	110	.	.	<0.1	0.7	8	24	110	230
210	4,500	18	120	.	.	<0.1	0.1	6	18	110	170
190	3,500	16	110	.	.	<0.1	0.1	2	12	110	160
210	1,700	16	70	.	.	<0.1	0.1	2	6	130	170
					November 17, 1981						
140	3,700	12	170	.	.	<0.1	0.4	6	18	80	180
130	11,000	9	150	.	.	<0.1	0.4	6	31	50	240
80	1,900	7	72	.	.	0.1	0.2	3	9	50	70
80	21,000	15	250	.	.	<0.1	0.3	6	39	30	270
					December 29-30, 1981						
270	9,400	24	240	.	.	0.1	0.2	1	18	50	220
					January 4, 1982						
110	1,400	11	71	.	.	0.1	0.2	4	6	50	90
150	9,200	21	550	.	.	<0.1	0.3	2	18	40	360
200	9,300	27	290	.	.	0.1	0.4	<1	21	60	230
150	6,400	10	160	.	.	0.1	0.2	<1	16	40	130
150	5,200	10	140	.	.	0.1	0.1	<1	12	40	140

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364818119443800, Multiple-dwelling residential catchment--Continued											
					January 4, 1982--Continued						
1316	1.4	.	.	1	1	1	1	<1	15	3	30
1416	1.3	.	.	1	1	1	1	<1	17	3	21
1522	2.0	.	.	1	1	<1	1	<1	30	2	24
1652	1.7	.	.	1	1	<1	1	<1	29	2	29
1822	0.9	.	.	1	1	<1	1	<1	19	3	13
*2140	0.2	.	.	1	1	<1	1	<1	10	3	10
2200	0.9	.	.	1	1	1	1	<1	16	3	14
2310	2.1	.	.	<1	1	<1	1	<1	23	2	16
					February 14-15, 1982						
*	.	.	.	1	2	1	1	3	10	9	33
					February 15-16, 1982						
*	.	.	.	1	1	<1	<1	1	10	3	12
					March 9, 1982						
*2014	0.6	.	.	2	2	1	1	<1	11	7	20
2044	0.5	.	.	2	2	<1	1	<1	10	9	16
2144	0.4	.	.	2	2	<1	<1	2	10	8	16
					March 10, 1982						
*0142	0.1	.	.	2	2	<1	<1	3	5	12	18
0304	0.3	.	.	2	2	<1	<1	<1	5	9	12
0330	1.2	.	.	1	1	1	<1	<1	9	6	14
0334	2.5	.	.	1	2	1	1	<1	30	5	40
0528	0.3	.	.	2	2	1	1	2	15	3	14
					March 10-11, 1982						
*2350	0.2	.	.	2	2	1	<1	<1	10	17	30
0038	1.4	.	.	1	1	<1	<1	<1	18	4	18
0100	2.9	.	.	1	1	<1	<1	<1	22	2	34
					March 11, 1982						
*0702	0.2	.	.	2	3	1	<1	<1	7	4	15
0732	0.4	.	.	<1	1	1	<1	<1	7	4	7
					March 14, 1982						
*1056	2.9	.	.	1	1	1	<1	<1	18	3	13
1118	4.7	.	.	1	1	<1	<1	<1	23	2	34
					March 25-26, 1982						
*2234	0.2	.	.	1	1	<1	3	4	12	13	24
2320	0.7	.	.	1	1	2	2	4	13	8	18
0020	0.9	.	.	1	1	2	2	2	9	6	21
0140	1.0	.	.	1	1	<1	1	2	9	4	8
0240	0.2	.	.	1	1	<1	1	2	9	4	15
					March 29, 1982						
*	.	.	.	<1	2	<1	1	2	16	4	11
*	.	.	.	1	1	<1	<1	2	16	3	12
					September 3, 1982						
0735	0.1	.	.	5	6	1	1	1	4	8	11

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 364818119443800, Multiple-dwelling residential catchment--Continued											
					January 4, 1982--Continued						
190	7,900	8	150	.	.	0.1	0.2	1	16	30	150
150	6,300	7	150	.	.	0.1	0.2	<1	15	30	130
110	12,000	7	280	.	.	<0.1	0.2	1	22	40	210
80	9,300	8	240	.	.	<0.1	0.2	<1	19	40	170
110	4,300	8	190	.	.	0.1	0.1	1	13	40	310
110	1,800	9	91	.	.	<0.1	0.2	1	6	40	80
80	3,900	5	230	.	.	<0.1	0.2	2	10	30	100
50	7,000	5	150	.	.	<0.1	0.1	2	14	20	130
					February 14-15, 1982						
140	3,800	13	170	.	.	2.3	1.3	7	14	80	170
					February 15-16, 1982						
140	3,400	9	89	.	.	<0.1	0.7	3	11	40	110
					March 9, 1982						
100	4,400	18	170	.	.	0.1	0.4	8	6	110	230
80	2,900	17	140	.	.	0.1	0.3	6	4	80	130
100	2,100	15	78	.	.	0.1	0.2	4	4	70	110
					March 10, 1982						
80	450	16	36	.	.	0.1	0.2	6	2	70	90
120	740	14	46	.	.	0.1	0.2	4	2	60	80
80	2,700	11	96	.	.	<0.1	0.2	2	3	50	100
180	15,000	15	530	.	.	0.6	0.4	2	13	50	410
50	4,900	5	85	.	.	<0.1	0.2	3	6	40	110
					March 10-11, 1982						
670	2,300	57	110	.	.	<0.1	0.2	9	10	120	160
20	8,300	7	220	.	.	<0.1	0.2	3	16	40	160
70	9,900	6	300	.	.	<0.1	0.2	2	24	20	200
					March 11, 1982						
130	1,900	7	45	.	.	<0.1	0.1	5	6	50	80
40	1,100	6	40	.	.	0.1	0.1	5	4	50	60
					March 14, 1982						
170	12,000	8	220	.	.	<0.1	0.1	3	21	40	220
110	20,000	8	390	.	.	0.1	0.2	3	34	40	350
					March 25-26, 1982						
280	2,900	29	110	.	.	0.1	0.6	14	50	200	250
120	3,200	19	110	.	.	<0.1	0.2	6	16	80	150
33	2,900	6	89	.	.	0.1	0.1	2	20	45	110
36	2,100	8	55	.	.	<0.1	0.1	1	18	55	90
38	1,500	7	44	.	.	0.1	0.1	1	25	65	100
					March 29, 1982						
120	3,600	12	110	.	.	<0.1	0.1	9	10	68	110
94	4,700	11	140	.	.	<0.1	0.1	8	13	92	110
					September 3, 1982						
38	540	10	6	.	.	0.1	0.1	3	12	27	20

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 364818119443800, Multiple-dwelling residential catchment--Continued											
					September 24, 1982						
*0350	0.2	450	13,000	.	8	.	.	.	11	39	170
0358	0.5	540	22,000	.	12	.	.	.	7	34	110
0406	0.6	.	.	.	10	.	.	.	.	.	.
0414	0.6	390	15,000	.	6	.	.	.	10	27	140
0422	0.7	.	.	.	6	.	.	.	.	.	.
0430	1.1	.	.	.	3	.	.	.	.	.	.
0436	1.9	.	.	.	5	.	.	.	.	.	.
0444	2.9	180	37,000	.	6	.	.	.	3	11	210
0506	2.3	.	.	.	3	.	.	.	.	.	.
0536	0.9	.	.	.	3	.	.	.	.	.	.
*0910	0.1	.	.	.	1	.	.	.	.	.	.
					October 25, 1982						
*0354	0.4	.	.	.	3	.	.	.	.	.	.
0426	0.2	.	.	.	3	.	.	.	.	.	.
0450	0.1	.	.	.	4	.	.	.	.	.	.
					October 26, 1982						
*0222	0.2	50	6,800	.	3	.	.	.	22	11	26
0228	1.0	.	.	.	4	.	.	.	.	.	.
0248	3.5	.	.	.	2	.	.	.	.	.	.
0302	11	50	28,000	.	3	.	.	.	31	2	90
0354	21	.	.	.	1	.	.	.	.	.	.
0452	0.7	.	.	.	2	.	.	.	.	.	.
0532	0.2	.	.	.	21	.	.	.	.	.	.
					November 9, 1982						
* .	.	100	2,800	.	2	.	.	.	18	4	11
					January 18-19, 1983						
*1838	0.0	.	.	.	5	.	.	.	.	.	.
1844	0.2	.	.	.	2	.	.	.	.	.	.
1900	2.0	.	.	.	1	.	.	.	.	.	.
1908	2.7	180	5,900	.	1	.	.	.	18	10	37
2002	2.7	.	.	.	<1	.	.	.	.	.	.
2110	3.2	.	.	.	<1	.	.	.	.	.	.
2150	6.4	140	4,600	.	<1	.	.	.	11	2	13
2244	7.1	190	6,300	.	1	.	.	.	20	3	22
0044	0.4	.	.	.	1	.	.	.	.	.	.
					January 23-24, 1983						
* .	.	230	4,400	.	<1	.	.	.	10	3	14
					February 28-March 1, 1983						
* .	.	220	2,700	.	1	.	.	.	8	1	9
					March 16, 1983						
* .	.	570	3,200	.	1	.	.	.	10	3	10
					March 23-24, 1983						
* .	.	.	1,600	.	1	.	.	.	6	1	9

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 364818119443800, Multiple-dwelling residential catchment--Continued											
					September 24, 1982						
690	19,000	86	340	440	920	.	1.1	58	130	590	860
870	34,000	70	450	470	1,300	.	1.6	52	170	450	910
1,000	40,000	50	490	430	1,200	.	0.9	56	180	.	.
730	22,000	53	390	310	810	.	0.5	44	90	420	760
620	17,000	55	350	250	630	.	0.4	33	80	.	.
570	24,000	53	430	230	810	.	0.5	33	110	.	.
570	44,000	29	830	230	1,400	.	0.6	27	190	.	.
590	58,000	18	940	220	1,600	.	0.5	21	180	140	950
390	22,000	24	350	140	530	.	0.7	15	80	.	.
270	8,000	49	180	110	280	.	0.3	16	45	.	.
470	3,300	47	80	110	190	.	0.1	19	20	.	.
					October 25, 1982						
180	5,600	42	270	69	160	.	0.3	11	25	.	.
150	4,300	43	200	74	150	.	<0.1	16	25	.	.
100	1,800	21	71	55	90	.	0.1	10	24	.	.
					October 26, 1982						
150	9,900	13	200	50	260	.	0.2	10	27	180	220
200	10,000	12	240	56	270	.	0.2	8	31	.	.
170	14,000	15	310	40	290	.	0.3	5	35	.	.
96	43,000	11	420	21	820	.	0.4	1	130	27	410
250	5,100	3	100	77	110	.	0.3	4	19	.	.
180	2,600	8	40	22	80	.	0.6	2	8	.	.
88	1,200	6	25	25	50	.	0.1	<1	5	.	.
					November 9, 1982						
87	3,600	8	120	11	80	.	0.2	4	13	42	130
					January 18-19, 1983						
380	2,700	34	92	76	130	.	0.3	19	33	.	.
390	9,600	33	210	86	280	.	0.2	20	42	.	.
280	11,000	28	270	30	280	.	0.3	10	41	.	.
240	8,300	11	270	34	180	.	0.4	9	28	67	240
120	3,000	8	110	16	70	.	0.1	5	14	.	.
110	2,600	6	90	16	60	.	0.1	5	13	.	.
120	5,000	6	140	17	100	.	0.1	3	16	43	140
180	8,400	3	270	20	180	.	0.2	4	28	50	190
66	1,100	5	40	12	40	.	0.1	4	8	.	.
					January 23-24, 1983						
160	6,000	4	130	12	120	.	0.1	2	20	34	120
					February 28-March 1, 1983						
130	3,800	3	95	11	90	.	0.2	2	13	30	80
					March 16, 1983						
190	4,100	1	83	20	90	.	0.1	1	24	50	140
					March 23-24, 1983						
86	2,500	4	63	9	60	.	<0.1	2	10	35	70

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 36481811946700, Commercial catchment											
					October 28, 1981						
*1239	0.1	.	.	3	4	3	2	3	10	21	24
					November 17, 1981						
*0420	0.5	.	.	8	7	2	2	<1	13	18	32
0440	3.9	.	.	10	11	1	1	1	13	13	18
0448	6.8	.	.	12	12	1	1	<1	13	9	21
0512	4.5	.	.	10	10	1	<1	<1	10	6	12
0612	4.8	.	.	6	6	<1	<1	<1	5	6	11
0628	8.5	.	.	3	4	<1	<1	<1	18	5	19
0652	4.4	.	.	3	3	<1	<1	<1	6	4	9
					December 29-30, 1981						
*	.	.	.	2	2	1	1	1	10	6	16
					January 4, 1982						
*0736	0.4	.	.	2	2	1	1	1	15	10	18
0834	1.2	.	.	1	1	1	<1	1	15	6	15
0916	1.7	.	.	1	1	<1	<1	<1	15	4	11
0924	3.6	.	.	1	1	<1	1	1	20	3	13
1036	4.5	.	.	1	1	<1	<1	2	10	2	10
1236	4.6	.	.	1	1	<1	<1	2	10	2	11
1422	4.0	.	.	1	1	1	2	<1	11	3	24
1446	5.4	.	.	1	1	<1	2	<1	10	3	12
1528	7.2	.	.	<1	1	<1	1	<1	11	2	11
1606	5.2	.	.	1	<1	<1	1	<1	8	2	9
1652	3.9	.	.	1	1	<1	1	<1	9	2	23
1744	4.9	.	.	1	1	<1	1	<1	8	2	7
1944	0.5	.	.	1	1	<1	1	<1	5	5	8
					January 4-5, 1982						
*2144	0.3	.	.	1	2	<1	1	<1	5	3	9
2156	2.2	.	.	1	1	<1	1	<1	9	4	12
2206	4.9	.	.	1	1	<1	1	<1	10	3	11
0028	7.3	.	.	<1	1	<1	1	<1	6	1	7
					February 14, 1982						
*1812	0.9	.	.	4	8	5	12	13	32	30	50
					February 14-15, 1982						
*	.	.	.	1	1	1	1	2	5	5	9
					February 15-16, 1982						
*	.	.	.	1	1	1	<1	1	3	3	6
					March 9, 1982						
*1932	0.6	.	.	16	10	2	4	1	15	12	22
1946	3.0	.	.	18	16	3	3	3	19	23	30
2316	0.8	.	.	5	4	<1	1	2	3	6	13
					March 10-11, 1982						
*2330	0.6	.	.	4	4	2	1	1	19	19	21
2342	4.1	.	.	3	3	1	1	1	16	8	21
0054	9.6	.	.	1	1	<1	<1	<1	7	2	6
					March 11, 1982						
*0700	0.9	.	.	2	2	<1	<1	<1	7	6	26
0746	1.9	.	.	1	2	1	<1	<1	5	3	24

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 36481811946700, Commercial catchment--Continued											
October 28, 1981											
140	490	31	51	.	.	0.0	0.2	6	7	480	490
November 17, 1981											
200	1,900	26	110	.	.	<0.1	0.1	9	11	220	350
100	920	26	99	.	.	<0.1	0.1	8	10	170	220
100	1,600	15	240	.	.	<0.1	0.1	5	14	130	210
160	780	12	68	.	.	<0.1	0.1	2	5	120	140
80	550	7	40	.	.	<0.1	<0.1	2	6	70	90
20	3,200	4	200	.	.	<0.1	0.1	2	8	50	220
<10	570	5	69	.	.	<0.1	<0.1	1	5	80	110
December 29-30, 1981											
60	1,200	20	150	.	.	0.7	0.1	2	8	100	250
January 4, 1982											
150	900	18	56	.	.	0.1	0.1	4	8	300	350
60	610	15	60	.	.	<0.1	0.1	5	5	120	140
30	880	10	68	.	.	<0.1	0.1	3	5	90	130
10	1,300	10	120	.	.	<0.1	0.1	<1	5	80	150
40	850	8	75	.	.	<0.1	0.1	1	2	50	90
70	880	10	86	.	.	<0.1	0.1	2	4	60	100
50	1,200	10	74	.	.	<0.1	0.2	3	3	60	120
70	1,300	8	79	.	.	<0.1	0.2	4	3	60	100
60	1,000	8	79	.	.	0.2	0.1	<1	3	60	100
50	650	11	58	.	.	<0.1	0.1	1	3	50	90
60	1,000	9	58	.	.	<0.1	0.1	1	3	60	140
60	560	9	53	.	.	<0.1	0.1	<1	2	60	90
50	340	13	39	.	.	<0.1	0.1	2	4	70	90
January 4-5, 1982											
50	340	12	34	.	.	0.1	0.1	<1	4	70	120
100	1,000	14	90	.	.	<0.1	0.1	2	4	80	140
30	1,300	6	110	.	.	<0.1	0.1	<1	6	60	140
<10	650	1	45	.	.	<0.1	<0.1	<1	2	40	80
February 14, 1982											
490	5,800	38	500	.	.	<0.1	0.3	24	33	950	1,500
February 14-15, 1982											
70	430	7	54	.	.	<0.1	0.5	4	4	110	140
February 15-16, 1982											
50	520	6	51	.	.	<0.1	0.3	3	3	70	130
March 9, 1982											
560	1,600	33	110	.	.	0.1	0.1	6	3	390	490
240	1,900	51	190	.	.	0.1	0.1	12	7	520	680
40	170	10	36	.	.	<0.1	<0.1	3	3	110	110
March 10-11, 1982											
160	630	35	83	.	.	<0.1	0.2	10	9	380	470
110	1,300	16	100	.	.	<0.1	0.1	6	6	170	250
40	830	3	74	.	.	<0.1	0.1	3	2	40	80
March 11, 1982											
10	140	8	18	.	.	<0.1	0.1	4	.	150	160
20	570	9	51	.	.	<0.1	<0.1	3	2	100	130

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 36481811946700, Commercial catchment--Continued											
					March 14, 1982						
*1050	8.1	.	.	1	1	<1	<1	<1	3	2	12
1100	8.7	.	.	1	1	<1	<1	<1	2	2	16
1114	22	.	.	1	1	<1	<1	<1	19	3	34
1124	29	.	.	1	1	<1	1	<1	20	3	20
1128	28	.	.	1	1	<1	<1	<1	13	2	18
					March 25-26, 1982						
*2248	1.6	.	.	1	1	3	5	9	24	23	36
2256	3.3	.	.	1	1	1	5	6	19	17	38
2344	2.9	.	.	1	1	<1	2	3	12	7	20
0020	3.9	.	.	1	1	<1	1	2	9	5	8
0132	1.8	.	.	1	1	<1	1	3	7	6	9
					March 29, 1982						
*	.	.	.	1	1	<1	<1	2	10	3	10
*	.	.	.	1	1	<1	1	2	20	2	13
					September 24, 1982						
*0236	0.1	20	340	.	3	.	.	.	2	4	14
0244	0.3	140	5,300	.	6	.	.	.	12	4	45
0252	0.3	.	.	.	5	.	.	.	.	.	.
0380	0.3	.	.	.	4	.	.	.	.	.	.
0316	0.4	.	.	.	5	.	.	.	.	.	.
0324	0.6	1,500	2,900	.	6	.	.	.	5	45	200
0332	0.8	.	.	.	5	.	.	.	.	.	.
0356	3.3	360	45,000	.	9	.	.	.	1	9	380
0412	4.2	.	.	.	5	.	.	.	.	.	.
0422	9.9	140	27,000	.	6	.	.	.	9	5	260
0426	14	.	.	.	6	.	.	.	.	.	.
0508	3.6	.	.	.	<1	.	.	.	.	.	.
0708	0.1	.	.	.	<1	.	.	.	.	.	.
					October 24, 1982						
*0706	0.2	.	.	.	6	.	.	.	.	.	.
0714	0.2	80	520	.	5	.	.	.	<1	20	39
0722	0.3	.	.	.	8	.	.	.	.	.	.
0746	0.2	.	.	.	5	.	.	.	.	.	.
					October 25, 1982						
*0258	0.2	.	.	.	4	.	.	.	.	.	.
0302	0.9	.	.	.	6	.	.	.	.	.	.
0308	4.7	60	13,000	.	7	.	.	.	14	19	100
0316	4.6	.	.	.	7	.	.	.	.	.	.
0332	2.6	.	.	.	4	.	.	.	.	.	.
0416	0.4	.	.	.	4	.	.	.	.	.	.
					October 26, 1982						
*0200	0.3	.	.	.	5	.	.	.	.	.	.
0208	1.3	510	2,500	.	3	.	.	.	11	16	33
0232	11	.	.	.	4	.	.	.	.	.	.
0300	17	.	.	.	2	.	.	.	.	.	.
0310	29	50	1,400	.	5	.	.	.	37	<1	80
0338	29	.	.	.	2	.	.	.	.	.	.
0428	4.6	.	.	.	1	.	.	.	.	.	.
					November 8, 1982						
*	.	.	80	2,800	.	17	.	.	.	12	7	21

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able	Dis-solved	Total recover-able
Station 36481811946700, Commercial catchment--Continued											
					March 14, 1982						
20	560	4	59	.	.	<0.1	0.1	1	15	40	80
20	700	6	77	.	.	<0.1	0.1	1	1	40	80
10	3,200	5	290	.	.	<0.1	<0.1	2	4	40	230
70	4,500	4	500	.	.	<0.1	0.1	3	4	50	290
60	3,500	4	300	.	.	<0.1	0.1	3	5	40	360
					March 25-26, 1982						
320	1,600	86	190	.	.	<0.1	0.1	18	32	1,100	1,100
140	2,200	43	170	.	.	<0.1	0.1	14	24	600	680
140	640	21	64	.	.	0.1	0.2	3	11	220	270
30	640	11	55	.	.	0.1	0.2	<1	7	110	140
25	160	10	25	.	.	0.1	0.2	1	6	93	110
					March 29, 1982						
77	1,100	14	100	.	.	<0.1	0.1	7	5	75	140
56	2,500	12	210	.	.	0.1	0.1	6	9	40	140
					September 24, 1982						
330	1,100	7	9	180	250	.	0.1	9	4	24	60
640	8,900	12	41	340	550	.	0.4	9	18	40	150
830	6,500	29	85	470	620	.	0.1	26	30	.	.
1,100	3,800	210	270	730	860	.	0.3	35	50	.	.
1,100	2,900	250	310	730	860	.	0.3	36	35	.	.
1,100	3,400	160	300	750	870	.	0.3	50	70	2,400	2,700
1,400	6,800	90	330	910	1,100	.	0.2	53	85	.	.
970	57,000	47	1,200	470	1,700	.	0.5	40	120	770	3,400
650	15,000	86	550	290	650	.	0.2	36	70	.	.
420	38,000	13	1,100	180	990	.	0.3	19	55	370	2,100
240	35,000	8	1,100	150	1,100	.	0.4	16	70	.	.
110	2,800	13	190	89	160	.	0.4	5	15	.	.
140	1,000	50	110	150	200	.	0.2	8	<5	.	.
					October 24, 1982						
710	1,400	61	110	330	430	.	0.1	22	28	.	.
700	1,600	26	46	97	320	.	0.1	17	16	210	270
640	2,800	47	110	330	430	.	0.1	32	37	.	.
650	2,200	81	150	430	500	.	0.2	26	44	.	.
					October 25, 1982						
530	840	53	77	360	390	.	0.1	28	38	.	.
660	6,700	36	350	380	530	.	0.1	24	40	.	.
160	18,000	20	910	120	590	.	0.2	14	39	250	1,200
150	20,000	29	940	150	720	.	0.1	19	49	.	.
130	4,200	46	350	82	170	.	0.1	16	23	.	.
150	1,500	41	120	87	110	.	<0.1	15	22	.	.
					October 26, 1982						
140	370	28	41	110	130	.	0.1	11	10	.	.
990	3,900	37	56	510	640	.	0.1	40	45	270	320
100	4,500	17	280	55	160	.	0.1	6	15	.	.
27	3,700	9	250	21	120	.	0.1	2	8	.	.
47	22,000	<1	770	15	650	.	0.1	<1	28	20	730
20	6,800	<1	330	8	200	.	0.1	<1	10	.	.
16	1,400	5	84	12	50	.	0.1	2	5	.	.
					November 8, 1982						
89	4,200	13	180	40	140	.	0.1	7	12	120	300

TABLE 10.--Stormwater runoff

Time (hours)	Discharge (ft^3/s)	Aluminum		Arsenic		Cadmium		Chromium		Copper	
		Dissolved	Total recoverable	Dissolved	Total	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 36481811946700, Commercial catchment--Continued											
					November 9, 1982						
*	.	.	70	3,000	.	2	.	.	.	10	4	13
					January 18, 1983						
*1724	0.1	.	.	.	2	.	.	.	.	.	.
1812	0.2	240	2,100	.	3	.	.	.	12	17	42
1828	0.7	.	.	.	3	.	.	.	.	.	.
1842	7.1	.	.	.	3	.	.	.	.	.	.
1854	13	80	4,400	.	1	.	.	.	23	6	34
2054	9.4	.	.	.	1	.	.	.	.	.	.
2140	20	50	5,000	.	1	.	.	.	19	1	22
2232	15	.	.	.	3	.	.	.	.	.	.
2236	29	50	17,000	.	4	.	.	.	23	1	180
2356	5.1	.	.	.	2	.	.	.	.	.	.
					January 23-24, 1983						
*	.	.	70	5,200	.	1	.	.	.	12	<1	20
					February 28-March 1, 1983						
*	.	.	70	120	.	11	.	.	.	3	1	7
					March 16, 1983						
*	.	.	40	6,300	.	2	.	.	.	23	3	17
					March 23-24, 1983						
*	.	.	.	3,400	.	2	.	.	.	13	1	14

data: Metals--Continued

Iron		Lead		Manganese		Mercury		Nickel		Zinc	
Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable	Dissolved	Total recoverable
Station 36481811946700, Commercial catchment--Continued											
					November 9, 1982						
82	4,400	6	100	23	130	.	0.1	4	10	57	140
					January 18, 1983						
170	750	23	45	100	120	.	0.2	13	9	.	.
310	3,100	42	180	140	180	.	0.1	16	32	530	630
220	4,400	27	180	120	210	.	0.2	19	34	.	.
130	10,000	11	430	51	310	.	0.1	10	27	.	.
97	6,800	9	360	31	190	.	0.1	5	21	120	430
45	2,100	2	100	11	60	.	0.1	3	10	.	.
64	7,900	6	350	15	200	.	0.1	1	16	31	300
76	9,900	2	110	13	320	.	0.1	3	15	.	.
66	28,000	3	1,100	11	870	.	0.3	<1	72	20	860
49	1,700	1	40	11	50	.	0.3	6	3	.	.
					January 23-24, 1983						
47	7,200	<1	140	9	210	.	<0.1	2	9	15	150
					February 28-March 1, 1983						
40	1,500	1	79	10	30	.	0.1	1	11	12	70
					March 16, 1983						
30	8,300	5	110	30	230	.	0.1	2	22	10	190
					March 23-24, 1983						
100	5,200	3	69	19	150	.	<0.1	2	11	31	120

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. Fecal coliform is in colony count per 100 milliliters; K is nonideal colony count. Reaction rate coefficient to base E. All other values are given in milligrams per liter, unless otherwise noted. ., no data available. <, actual value is less than value shown. >, actual value is greater than value shown. Asterisk (*) indicates the first sample of a storm. No data given for time and discharge indicates composite sample for dates shown]

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364155119445000, Industrial catchment										
November 12-13, 1981										
*2056	0.6	.	1,700	.	.	190	30	.	.	.
2112	0.6	13,000	.	240	250	.	.	.	.	0.66
2128	0.7	.	510	.	.	140	14	.	.	.
2144	0.7	17,000	.	150	200	.	.	.	.	0.27
2200	0.7	.	500	.	.	120	12	.	.	.
2216	0.7	31,000	.	.	.	.	.	.	.	.
2232	0.8	.	500	.	.	140	16	.	.	.
2248	0.9	>20,000	.	220	220	.	.	.	.	0.80
2304	0.7	.	700	.	.	200	23	.	.	.
2320	0.5	7,300	.	240	260	.	.	.	.	0.54
2336	0.4	.	490	.	.	130	13	.	.	.
0344	0.5	.	2,500	.	.	210	37	.	.	.
0516	0.5	>20,000	.	330	830	.	.	.	.	0.10
0548	0.5	.	1,100	.	.	130	25	.	.	.
0720	1.1	.	790	.	.	120	26	.	.	.
0736	2.2	>20,000	.	310	340	.	.	.	.	0.47
0748	3.3	.	1,000	.	.	140	37	.	.	.
0800	4.3	>20,000	.	290	370	.	.	.	.	0.31
0812	4.8	.	770	.	.	120	32	.	.	.
0824	4.8	>20,000	.	230	240	.	.	.	.	0.55
0836	4.4	.	940	.	.	320	32	.	.	.
0848	4.0	>20,000	.	200	210	.	.	.	.	0.59
0904	3.5	.	900	.	.	320	28	.	.	.
November 17, 1981										
*0500	0.4	.	490	.	.	150	40	.	.	.
0620	0.4	.	470	.	.	290	40	.	.	.
0700	3.3	.	730	.	.	40	<40	.	.	.
0820	0.6	.	1,800	.	.	24	.	.	.	.
December 29-30, 1981										
* .	.	.	630	160	240	85	28	.	.	0.23
January 4, 1982										
*0932	0.8	.	490	.	.	440	24	.	.	.
0940	1.2	K670	.	100	110	.	.	.	.	0.41
0948	2.1	.	680	.	.	37	38	.	.	.
1002	3.0	K670	.	140	190	.	.	.	.	0.26
1100	6.0	<120	.	120	140	.	.	.	.	0.35
1200	4.5	<120	.	140	160	.	.	.	.	0.36
1230	3.8	.	480	.	.	48	40	.	.	.
1300	4.7	<120	.	120	140	.	.	.	.	0.36
1330	4.4	.	440	.	.	28	29	.	.	.
1422	5.9	.	690	.	.	30	41	.	.	.
1452	6.7	K1,200	.	100	160	.	.	.	.	0.22

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364155119445000, Industrial catchment--Continued										
				January 4, 1982--Continued						
1552	6.9	K670	.	90	120	.	.	.	.	0.25
1622	7.3	.	460	.	.	26	40	.	.	.
1652	5.1	K670	.	80	120	.	.	.	.	0.26
1722	4.5	.	410	.	.	29	31	.	.	.
				January 4-5, 1982						
*2154	0.7	.	470	.	.	34	33	.	.	.
2200	1.2	.	.	80	120	.	.	.	.	0.24
2210	3.2	.	700	.	.	150	37	.	.	.
2232	4.1	.	.	90	120	.	.	.	.	0.30
0002	1.7	.	.	45	64	.	.	.	.	0.25
0024	3.0	.	280	.	.	270	22	.	.	.
				February 13, 1982						
*2238	0.4	.	630	.	.	120	18	.	.	.
				February 14-15, 1982						
* .	.	.	630	190	220	230	22	.	.	0.37
				February 15-16, 1982						
* .	.	.	470	200	350	86	22	.	.	0.17
				March 9-10, 1982						
*2020	0.7	.	1,600	.	.	2,300	7.0	.	.	.
2106	1.2	.	380	.	.	160	9.1	.	.	.
2152	2.4	.	390	.	.	100	28	.	.	.
2222	1.8	.	.	42	56	.	.	.	.	0.28
2252	1.1	.	280	.	.	57	12	.	.	.
2322	0.5	.	.	120	120	.	.	.	.	0.57
2352	0.3	.	390	.	.	96	15	.	.	.
0052	0.2	.	.	210	230	.	.	.	.	0.47
0152	0.1	.	500	.	.	130	27	.	.	.
0252	0.3	.	.	94	97	.	.	.	.	0.71
0322	0.5	.	290	.	.	85	13	.	.	.
0342	1.1	.	.	180	240	.	.	.	.	0.31
0358	1.8	.	150	.	.	100	40	.	.	.
0428	1.6	.	.	200	210	.	.	.	.	0.50
0458	1.4	.	420	.	.	78	21	.	.	.
0528	1.2	.	.	140	140	.	.	.	.	0.65
0558	0.7	.	390	.	.	130	17	.	.	.
0628	0.4	.	.	130	140	.	.	.	.	0.64
0758	0.2	.	470	.	.	130	18	.	.	.
0828	0.1	.	.	170	180	.	.	.	.	0.56
0928	0.1	.	740	.	.	130	39	.	.	.
				March 11, 1982						
*0744	0.6	>1,200	.	170	260	.	.	.	.	0.21
0810	0.8	.	550	.	.	86	30	.	.	.
0836	1.1	<120	590	.	.	200	32	.	.	.

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364155119445000, Industrial catchment--Continued										
				March 25-26, 1982						
*2230	0.5	.	370	.	.	370	5.8	.	.	.
2258	2.4	.	360	.	.	120	8.3	.	.	.
2314	2.3	.	.	120	160	.	.	.	.	0.27
2344	1.8	.	300	.	.	300	8.2	.	.	.
0014	2.9	.	.	94	100	.	.	.	.	0.48
0030	4.1	.	360	.	.	150	10	.	.	.
0100	3.0	.	.	120	120	.	.	.	.	0.59
0130	1.8	.	.	100	130	.	.	.	.	0.31
0200	0.8	.	310	.	.	210	11	.	.	.
0230	0.5	.	.	130	140	.	.	.	.	0.52
0300	0.3	.	380	.	.	240	11	.	.	.
0330	0.1	.	.	160	170	.	.	.	.	0.49
0400	0.1	.	370	.	.	210	17	.	.	.
				March 29, 1982						
*	.	.	.	92	100	750	36	.	.	0.46
				November 9, 1982						
*	.	.	590	110	140	60	38	<0.01	<0.01	0.28
				December 22, 1982						
*	.	.	290	.	.	20	22	<0.01	<0.01	.
				January 23-24, 1983						
*	.	.	300	30	39	24	.	<0.01	<0.01	0.30
Station 364746119445400, Single-dwelling residential catchment										
				November 12, 1981						
*2016	0.3	.	290	.	.	48	8.9	.	.	.
2032	0.7	.	.	.	.	40	.	.	.	.
2048	0.4	5,300	.	53	81	.	.	.	.	0.21
2104	0.6	.	200	.	.	67	3.6	.	.	.
2120	0.8	K1,700	.	43	57	.	.	.	.	0.28
2124	0.8	.	170	.	.	48	2.8	.	.	.
2156	0.9	K2,700	.	45	51	.	.	.	.	0.43
2228	0.8	.	170	.	.	110	.	.	.	.
2300	0.6	6,200	.	45	49	.	.	.	.	0.51
2316	0.3	.	140	.	.	92	2.3	.	.	.
				November 17, 1981						
*0444	0.4	.	130	.	.	15	17	.	.	.
0604	0.6	.	62	.	.	44	4.4	.	.	.
0632	1.4	.	63	.	.	212	8.6	.	.	.
				March 9, 1982						
*2040	.	.	150	.	.	31	3.6	.	.	.
2050	.	.	130	.	.	26	3.5	.	.	.

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364746119445400, Single-dwelling residential catchment--Continued										
				March 11, 1982						
*0716	.	.	84	.	.	32	1.4	.	.	.
0722	.	.	78	.	.	52	1.4	.	.	.
				March 25-26, 1982						
*2246	.	.	.	2.1	2.3	.	.	.	.	0.53
2320	0.8	.	180	.	.	120	1.8	.	.	.
2324	0.8	.	170	.	.	230	1.8	.	.	.
2354	0.7	.	.	21	27	.	.	.	.	0.30
0014	0.8	.	110	.	.	94	1.5	.	.	.
0044	0.9	.	.	12	17	.	.	.	.	0.28
0114	0.7	.	110	.	.	46	1.2	.	.	.
0144	0.6	.	100	.	.	28	1.0	.	.	.
0214	0.3	.	.	9.3	11	.	.	.	.	0.40
0240	0.1	.	75	.	.	150	1.0	.	.	.
				March 29, 1982						
*1332	0.3	.	99	.	.	29	2.5	.	.	.
1356	0.7	.	89	.	.	31	2.6	.	.	.
1408	0.9	.	120	.	.	30	3.1	.	.	.
1420	1.3	.	.	12	15	.	.	.	.	0.31
1428	1.5	.	.	9.6	11	.	.	.	.	0.40
				March 31, 1982						
*1652	0.8	.	150	.	.	17	6.5	.	.	.
1658	1.7	.	130	.	.	24	4.3	.	.	.
1708	2.3	.	.	13	17	.	.	.	.	0.26
1718	2.8	.	90	.	.	53	2.6	.	.	.
1748	2.7	.	.	6.9	7.6	.	.	.	.	0.47
1818	1.2	.	62	.	.	550	1.2	.	.	.
1848	1.3	.	.	5.1	6.9	.	.	.	.	0.27
1918	1.4	.	64	.	.	97	1.2	.	.	.
1948	1.1	.	.	3.3	3.7	.	.	.	.	0.46
2006	1.6	.	64	.	.	64	1.0	.	.	.
2036	1.6	.	.	3.2	3.8	.	.	.	.	0.37
2046	2.0	.	66	.	.	22	0.9	.	.	.
2116	1.7	.	.	2.6	3.2	.	.	.	.	0.34
2136	1.6	.	.	.	.	100	1.0	.	.	.
2206	1.1	.	.	2.6	3.4	.	.	.	.	0.30
2236	0.5	.	66	.	.	45	0.8	.	.	
				September 3, 1982						
*0715	0.1	K84,000	120	.	.	90	3.1	.	.	.
				December 22, 1982						
* .	.	.	37	.	.	50	5.0	<0.01	<0.01	.
				January 23, 1983						
* .	.	.	47	3.6	4.4	20	.	<0.01	<0.01	0.32
				February 28-March 1, 1983						
* .	.	.	27	4.6	52	4.4	1.9	<0.01	<0.01	0.02

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364746119445400, Single-dwelling residential catchment--Continued										
				March 16, 1983						
* .	.	.	48	7.2	9.1	45	3.6	<0.01	<0.01	.
1720	.	K1,500	.	.	.	.	.	.	.	.
1746	.	K15,000	.	.	.	.	.	.	.	.
1758	.	K15,000	.	.	.	.	.	.	.	.
1948	.	K15,000	.	.	.	.	.	.	.	.
				March 23-24, 1983						
* .	.	.	42	7.0	20	27	2.3	<0.01	<0.01	0.08
2010	.	K<1,000	.	.	.	.	.	.	.	.
2034	.	K20,000	.	.	.	.	.	.	.	.
2044	.	180,000	.	.	.	.	.	.	.	.
Station 364818119443800, Multiple-dwelling residential catchment										
				October 28, 1981						
*0720	0.5	.	1,400	.	.	310	4.0	.	.	.
0740	0.4	.	890	.	.	310	4.0	.	.	.
0810	0.6	5,800	.	110	150	.	.	.	.	0.26
0820	1.8	.	770	.	.	180	4.8	.	.	.
0825	4.5	.	710	.	.	110	4.0	.	.	.
0845	7.9	K400	.	28	45	.	.	.	.	0.20
0900	4.1	.	190	.	.	51	3.7	.	.	.
0905	3.3	K20,000	.	27	43	.	.	.	.	0.20
0925	1.3	.	180	.	.	45	1.8	.	.	.
0930	1.0	K30,000	.	27	44	.	.	.	.	0.20
0945	0.5	.	150	.	.	54	2.3	.	.	.
				November 12, 1981						
*2016	0.6	.	400	.	.	48	11	.	.	.
2036	1.0	K1,700	.	38	52	.	.	.	.	0.27
2052	0.8	.	180	.	.	44	4.0	.	.	.
2108	0.6	K780	.	32	42	.	.	.	.	0.30
2140	0.6	.	140	.	.	36	2.4	.	.	.
2156	0.6	K890	.	21	27	.	.	.	.	0.32
2228	0.4	.	120	.	.	460	3.0	.	.	.
2300	0.3	K780	.	18	24	.	.	.	.	0.27
2336	0.2	.	110	.	.	130	1.8	.	.	.
2352	.	K1,300	.	20	25	.	.	.	.	0.33
				November 17, 1981						
*0424	0.2	.	130	.	.	12	15	.	.	.
0444	0.8	.	110	.	.	13	12	.	.	.
0604	0.3	.	51	.	.	17	.	.	.	.
0628	2.2	.	63	.	.	21	12	.	.	.
				December 29-30, 1981						
* .	.	.	100	8.1	15	10	3.5	.	.	0.16

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364818119443800, Multiple-dwelling residential catchment--Continued										
				January 4, 1982						
*0810	0.2	.	66	.	.	11	1.8	.	.	.
0912	0.2	K8,000	.	11	17	.	.	.	.	0.20
0932	0.5	.	150	.	.	10	7.3	.	.	.
0946	0.8	K8,000	.	16	27	.	.	.	.	0.17
1016	1.1	.	91	.	.	7	4.7	.	.	.
1046	1.3	K16,000	.	8.0	18	.	.	.	.	0.12
1116	1.4	.	55	.	.	7	2.9	.	.	.
1146	1.3	K5,000	.	6.5	25	.	.	.	.	0.06
1216	1.1	.	51	.	.	5	2.3	.	.	.
1316	1.4	.	43	.	.	9	3.0	.	.	.
1346	1.2	62,000	.	6.4	7.0	.	.	.	.	0.49
1416	1.3	.	36	.	.	11	2.3	.	.	.
1452	1.5	<2,500	.	6.0	8.2	.	.	.	.	0.26
1522	2.0	.	67	.	.	11	2.9	.	.	.
1622	1.6	K4,000	.	5.6	6.6	.	.	.	.	0.38
1652	1.7	.	36	.	.	9	2.8	.	.	.
1752	1.5	<2,500	.	6.0	7.0	.	.	.	.	0.41
1822	0.9	.	38	.	.	10	1.8	.	.	.
				January 4-5, 1982						
*2140	0.2	.	.	.	.	13	2.2	.	.	.
2152	0.6	.	.	6.8	7.9	.	.	.	.	0.40
2200	0.9	.	53	.	.	21	2.4	.	.	.
2302	1.6	.	.	5.2	6.6	.	.	.	.	0.32
2310	2.1	.	43	.	.	57	2.5	.	.	.
0032	2.8	.	.	4.8	6.5	.	.	.	.	0.27
				February 14-15, 1982						
* .	.	.	110	15	23	23	.	.	.	0.23
				February 15-16, 1982						
* .	.	.	49	9.0	21	26	2.8	.	.	0.11
				March 9, 1982						
*2014	0.6	K500	140	.	.	90	3.9	.	.	.
2044	0.5	.	110	.	.	33	2.5	.	.	.
2114	0.4	K2,300	.	.	.	.	.	.	.	.
2144	0.4	.	80	.	.	20	2.0	.	.	.
2214	0.3	K2,000	.	.	.	.	.	.	.	.
				March 10, 1982						
*0142	0.1	.	73	.	.	19	1.6	.	.	.
0212	0.1	.	.	86	140	.	.	.	.	0.19
0304	0.3	.	67	.	.	16	2.4	.	.	.
0322	0.6	.	.	5.9	9.7	.	.	.	.	0.19
0330	1.2	.	55	.	.	10	1.9	.	.	.
0334	2.5	.	130	.	.	8	6.9	.	.	.
0338	3.7	.	.	7.3	12	.	.	.	.	0.20
0358	5.2	.	86	.	.	5	.	.	.	.
0428	2.0	.	.	4.6	6.1	.	.	.	.	0.28
0528	0.3	.	31	.	.	6	2.4	.	.	.
0558	0.1	.	.	5.4	7.4	.	.	.	.	0.26

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364818119443800, Multiple-dwelling residential catchment--Continued										
				March 10-11, 1982						
*2350	0.2	.	170	.	.	50	3.4	.	.	.
0018	0.8	.	.	9.4	19	.	.	.	.	0.14
0038	1.4	.	97	.	.	250	3.3	.	.	.
0046	2.0	.	.	6.0	9.3	.	.	.	.	0.21
0100	2.9	.	97	.	.	23	4.2	.	.	.
0200	0.7	.	.	3.8	5.8	.	.	.	.	0.22
				March 11, 1982						
*0702	0.2	>6,000	83	.	.	33	2.0	.	.	.
0732	0.4	>6,000	62	.	.	17	1.7	.	.	.
0802	0.3	.	.	3.6	6.3	.	.	.	.	0.17
				March 14, 1982						
*0546	0.3	6,700	.	.	.	.	.	.	.	.
0632	0.7	1,600	.	.	.	.	.	.	.	.
0808	1.0	2,800	.	.	.	.	.	.	.	.
0826	1.7	K3,200	.	.	.	.	.	.	.	.
1016	1.6	.	.	3.6	13.0	.	.	.	.	0.08
1108	3.2	.	.	3.2	6.9	.	.	.	.	0.12
1126	6.8	.	.	3.1	5.3	.	.	.	.	0.18
1220	4.6	.	.	3.4	9.5	.	.	.	.	0.10
				March 25-26, 1982						
*2234	0.2	.	270	.	.	110	2.9	.	.	.
2250	0.6	.	.	30	39	.	.	.	.	0.29
2320	0.7	.	120	.	.	80	2.6	.	.	.
2350	0.6	.	.	16	21	.	.	.	.	0.30
0020	0.9	.	100	.	.	110	1.7	.	.	.
0040	0.9	.	.	7.7	10	.	.	.	.	0.28
0110	0.7	.	.	6.8	10	.	.	.	.	0.23
0140	1.0	.	84	.	.	150	1.6	.	.	.
0210	0.5	.	.	5.6	9.3	.	.	.	.	0.19
0240	0.2	.	64	.	.	100	1.3	.	.	.
0310	0.1	.	.	4.7	6.8	.	.	.	.	0.24
				March 29, 1982						
* .	.	.	71	.	.	120	2.1	.	.	.
* .	.	.	68	10	0.18	270	2.2	.	.	0.42
				September 9, 1982						
0735	0.1	39,000	76	.	.	17	2.0	.	.	.
				November 9, 1982						
* .	.	.	77	7.2	8.2	11	3.5	<0.01	<0.01	0.42
1208	.	K3,000	.	.	.	.	.	.	.	.
1304	.	K2,200	.	.	.	.	.	.	.	.
1330	.	2,500	.	.	.	.	.	.	.	.
1402	.	460	.	.	.	.	.	.	.	.
1428	.	K1,600	.	.	.	.	.	.	.	.
				January 23-24, 1983						
* .	.	.	56	.	.	10	.	<0.01	<0.01	.

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 364818119443800, Multiple-dwelling residential catchment--Continued										
				February 28-March 1, 1983						
*	.	.	43	.	.	8	3.7	<0.01	<0.01	.
				March 16, 1983						
*	.	.	110	.	.	33	3.7	<0.01	<0.01	.
1708	.	K1,000	.	.	.	.	.	.	.	.
1748	.	6,800	.	.	.	.	.	.	.	.
1930	.	K1,500	.	.	.	.	.	.	.	.
				March 23-24, 1983						
*	.	.	38	3.5	5.2	24	3.1	<0.01	<0.01	0.23
2002	.	K920	.	.	.	.	.	.	.	.
2032	.	K880	.	.	.	.	.	.	.	.
2042	.	1,200	.	.	.	.	.	.	.	.
Station 3648181194640700, Commercial catchment										
				October 28, 1981						
*1106	0.6	320,000	.	29	53	.	.	.	.	0.16
1239	0.2	.	120	.	.	56	0.9	.	.	.
				November 17, 1981						
*0420	0.5	.	120	.	.	19	6.2	.	.	.
0432	2.9	.	.	30	38	.	.	.	.	0.31
0440	3.9	.	110	.	.	31	4.8	.	.	.
0444	5.3	.	.	18	22	.	.	.	.	0.37
0448	6.8	.	80	.	.	19	4.5	.	.	.
0500	6.2	.	.	18	19	.	.	.	.	0.70
0512	4.5	.	61	.	.	14	4.4	.	.	.
0600	1.8	.	.	9.7	14	.	.	.	.	0.23
0612	4.8	.	41	.	.	11	3.2	.	.	.
0620	13	.	.	4.3	5.2	.	.	.	.	0.35
0628	8.5	.	35	.	.	6	3.5	.	.	.
0652	4.4	.	31	.	.	7	2.8	.	.	.
				December 29-30, 1981						
*	.	.	75	13	18	44	2.1	.	.	0.25
				January 4, 1982						
*0756	0.4	.	83	.	.	87	1.8	.	.	.
0804	1.1	K2,500	.	21	35	.	.	.	.	0.18
0834	1.2	.	71	.	.	15	1.6	.	.	.
0904	0.7	<2,500	.	8.8	13	.	.	.	.	0.24
0916	1.7	.	57	.	.	8	1.5	.	.	.
0920	2.6	<2,500	.	6.5	8.5	.	.	.	.	0.29
0924	3.6	.	70	.	.	6	1.7	.	.	.
0928	4.5	<2,500	.	6.0	7.8	.	.	.	.	0.30
1006	5.5	<2,500	.	4.3	6.4	.	.	.	.	0.22

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 3648181194640700, Commercial catchment--Continued										
				January 4, 1982--Continued						
1036	4.5	.	40	.	.	4	.	.	.	.
1106	5.0	<2,500	.	4.0	6.6	.	.	.	.	0.18
1206	4.4	<2,500	.	4.7	6.4	.	.	.	.	0.27
1406	4.4	K2,500	.	5.1	7.1	.	.	.	.	0.26
1446	5.4	.	43	.	.	10	1.5	.	.	.
1458	6.7	K2,500	.	4.7	6.2	.	.	.	.	0.29
1528	7.2	.	49	.	.	17	1.0	.	.	.
1536	7.0	K5,000	.	3.7	4.6	.	.	.	.	0.32
1652	3.9	.	34	.	.	11	1.2	.	.	.
1714	4.8	K10,000	.	3.8	5.0	.	.	.	.	0.29
1744	4.9	.	32	.	.	7	1.1	.	.	.
1814	3.3	K2,500	.	3.4	4.3	.	.	.	.	0.30
1944	0.5	.	63	.	.	9	1.3	.	.	.
				January 4-5, 1982						
*2152	1.2	.	.	6.1	7.6	.	.	.	.	0.33
2156	2.2	.	63	.	.	51	1.7	.	.	.
2206	4.9	.	61	.	.	9	1.2	.	.	.
2350	5.9	.	.	2.8	3.4	.	.	.	.	0.34
0028	7.3	.	12	.	.	12	0.9	.	.	.
				February 14, 1982						
*1812	0.9	.	460	.	.	140	10	.	.	.
				February 14-15, 1982						
* .	.	.	52	6.2	9.7	26	1.3	.	.	0.21
				February 15-16, 1982						
* .	.	.	36	8.2	15	39	2.2	.	.	0.16
				March 9, 1982						
*1932	0.6	K500	240	.	.	250	3.2	.	.	.
1946	3.0	.	210	.	.	64	2.8	.	.	.
2016	3.3	K1,500	.	.	.	.	.	.	.	.
2046	2.4	.	72	.	.	16	1.8	.	.	.
2146	3.1	K670	.	.	.	.	.	.	.	.
2316	0.8	.	44	.	.	14	1.5	.	.	.
				March 10-11, 1982						
*2330	0.6	.	130	.	.	38	1.9	.	.	.
2334	1.6	.	.	18	25	.	.	.	.	0.27
2342	4.1	.	120	.	.	130	2.6	.	.	.
2350	5.8	.	.	9.1	11	.	.	.	.	0.35
0024	8.0	.	.	3.5	3.8	.	.	.	.	0.50
0054	9.6	.	97	.	.	190	1.5	.	.	.
				March 11, 1982						
*0700	0.9	.	110	.	.	27	1.3	.	.	.
0708	2.6	3,700	.	4.5	7.7	.	.	.	.	0.17
0746	1.9	.	97	.	.	160	1.8	.	.	.
0814	1.3	K1,200	.	3.4	5.5	.	.	.	.	0.19

TABLE 11.--Stormwater runoff data: Biological constituents, chemical and biochemical oxygen demand, organic carbon, and cyanide--Continued

Time (hours)	Discharge (ft^3/s)	Coliform, fecal	Oxygen demand, chemical 0.25 N dichromate	Oxygen demand, biochemical, carbonaceous, 5-day at 20°C	Oxygen demand, biochemical, carbonaceous, 20-day	Carbon, organic, dissolved	Carbon, organic, suspended	Cyanide, total	Cyanide, dissolved	Reaction rate coefficient
Station 3648181194640700, Commercial catchment--Continued										
				March 14, 1982						
*0554	3.2	6,600	.	.	.	.	.	.	.	.
0620	4.1	2,000	.	.	.	.	.	.	.	.
0814	5.4	620	.	.	.	.	.	.	.	.
0830	6.7	930	.	.	.	.	.	.	.	.
1038	6.7	.	.	2.7	3.5	.	.	.	.	0.30
1108	12	.	.	3.0	3.6	.	.	.	.	0.36
1120	29	.	.	2.8	4.5	.	.	.	.	0.20
1132	25	.	.	2.7	4.0	.	.	.	.	0.22
				March 29, 1982						
* .	.	.	110	6.5	7.2	260	2.1	.	.	0.45
* .	.	.	65	5.9	6.4	49	3.2	.	.	0.48
				November 8, 1982						
* .	.	.	.	21	23	22	5.2	<0.01	<0.01	0.47
1744	7.3	3,700	.	.	.	.	.	.	.	.
1802	13	3,300	.	.	.	.	.	.	.	.
1816	6.4	1,800	.	.	.	.	.	.	.	.
				November 9, 1982						
* .	.	.	310	7.3	7.9	47	3.2	<0.01	<0.01	0.53
1220	5.5	K17,000	.	.	.	.	.	.	.	.
1242	9.3	5,600	.	.	.	.	.	.	.	.
1318	9.1	K3,500	.	.	.	.	.	.	.	.
1412	14	K7,500	.	.	.	.	.	.	.	.
				January 23-24, 1983						
* .	.	.	35	5.3	15	14	.	<0.01	<0.01	0.08
				February 28-March 1, 1983						
* .	.	.	25	.	.	12	2.9	<0.01	<0.01	.
				March 16, 1983						
* .	.	.	51	5.3	64	14	.	<0.01	<0.01	0.01
1654	0.1	K160	.	.	.	.	.	.	.	.
1734	12	K570	.	.	.	.	.	.	.	.
1750	19	K390	.	.	.	.	.	.	.	.
1946	1.6	1,100	.	.	.	.	.	.	.	.
				March 23-24, 1983						
* .	.	.	34	2.8	4.2	78	3.3	<0.01	<0.01	0.21
1958	0.2	1,000	.	.	.	.	.	.	.	.
2026	19	700	.	.	.	.	.	.	.	.
2036	25	700	.	.	.	.	.	.	.	.

TABLE 12.--Stormwater

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are a sequence number to uniquely identify each site.

Date	Time (hours)	Discharge (ft^3/s)	Oil and grease, total recoverable, gravimetric (mg/L)	Phenols, total recoverable	Aldrin, total recoverable	Benzene, total recoverable	Chlordane, total recoverable	Chlorobenzene, total recoverable	Dibromo chloropropane, total recoverable	DDE, total recoverable	DDT, total recoverable	Diazinon, total recoverable
Station 364155119445000, Industrial catchment												
81-11-12	2220	0.8	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.36
82-01-04	0940	1.2	1	.	<0.01	.	<0.10	.	<0.003	<0.01	<0.01	0.44
82-01-19	2320	1.9	12	.	<0.01	.	<0.10	.	<0.003	0.03	<0.01	0.89
82-01-20	1226	3.0	2	.	<0.01	.	<0.10	.	<0.003	0.02	<0.01	0.60
82-02-15	2240	4.5	<1	.	<0.01	.	<0.10	.	<0.003	0.01	<0.01	0.52
82-03-01	1440	0.5	1	.	<0.01	.	<0.10	.	0.003	<0.01	<0.01	0.38
82-03-09	2140	2.2	7	.	<0.01	.	<0.10	.	<0.003	0.01	<0.01	0.27
82-03-11	0815	0.9	7	.	<0.01	.	<0.10	.	<0.003	0.01	<0.01	0.21
82-03-25	2255	2.3	15	.	<0.01	.	<0.10	.	.	0.01	<0.01	0.24
82-09-24	0545	0.6	4	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.66
82-09-24	0826	.	<1	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.56
82-10-25	0424	0.1	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.93
82-10-26	0450	2.6	<1	.	<0.01	.	0.10	.	.	0.01	<0.01	0.56
82-11-09	1318	1.8	13	500	<0.01	<1	0.30	<1	.	0.01	<0.01	0.34
83-01-18	1930	4.0	80	25	<0.01	<1	0.20	<1	.	0.03	<0.01	3.3
83-01-18	2046	8.6	.	.	<0.01	.	0.20	.	.	0.01	<0.01	1.1
83-02-18	0820	.	.	8	<0.01	<1	<0.10	<1	.	<0.01	<0.01	.
83-02-25	1600	.	14	20	<0.01	<1	<0.10	<1	.	0.01	<0.01	0.53
83-02-28	2000	.	2	18	<0.01	<1	0.10	<1	.	0.01	<0.01	0.14
Station 364746119445400, Single-dwelling residential catchment												
81-11-12	2045	0.6	.	.	<0.01	.	0.30	.	.	<0.01	<0.01	0.31
82-01-04	1005	.	6	.	<0.01	.	0.10	.	<0.003	<0.01	<0.01	0.26
82-03-25	2355	0.6	8	.	<0.01	.	0.10	.	0.003	<0.01	<0.01	0.64
82-03-28	1335	0.8	1	.	<0.01	.	0.20	.	<0.003	0.01	0.01	0.37
82-03-29	1800	0.5	1	.	<0.01	.	0.20	.	<0.003	0.01	<0.01	0.20
82-09-03	0715	0.1	.	.	<0.01	.	0.10	.	.	<0.01	<0.01	1.1
82-09-24	0505	0.5	3	.	<0.01	.	0.20	.	.	<0.01	<0.01	0.19
82-10-25	0400	.	.	.	<0.01	.	0.10	.	.	<0.01	<0.01	0.13
82-10-26	0310	2.7	1	.	<0.01	.	0.30	.	.	0.01	<0.01	0.23
83-01-18	1942	3.1	6	18	<0.01	<1	0.20	<1	.	0.01	<0.01	0.77
83-01-18	2116	2.2	.	.	<0.01	.	0.10	.	.	<0.01	<0.01	0.47
83-02-25	1525	.	1	35	<0.01	<1	0.10	<1	.	<0.01	<0.01	0.26
83-02-28	1855	.	1	16	<0.01	<1	0.10	<1	.	<0.01	<0.01	0.11
83-03-16	1735	1.6	3	30	<0.01	.	0.20	.	.	<0.01	<0.01	0.27
83-03-23	2112	6.5	2	13	<0.01	.	0.10	.	.	<0.01	<0.01	0.27
83-03-23	2248	0.9	.	.	<0.01	.	0.10	.	.	<0.01	<0.01	0.19

runoff data: Organics

Organic values are in micrograms per liter, unless otherwise noted. <, actual value is less than value shown. ., no data available. Other organics also were analyzed for but not detected and are given at the end of this table]

Dieldrin, total recoverable	Endosulfan, total recoverable	Endrin, total recoverable	Ethylbenzene, total recoverable	Lindane, total recoverable	Malathion, total recoverable	Methoxychlor, total recoverable	Methyl parathion, total recoverable	Parathion, total recoverable	Gross polychlorinated biphenols, total recoverable	Silvex, total recoverable	Trithion, total recoverable	2,4-D, total recoverable
Station 364155119445000, Industrial catchment--Continued												
<0.01	<0.01	<0.01	.	0.27	0.42	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	3.2
0.01	<0.01	<0.01	.	0.02	0.33	<0.01	<0.01	0.03	<0.10	<0.01	<0.01	0.07
0.01	<0.01	<0.01	.	0.03	0.39	<0.01	<0.01	<0.01	<0.10	0.07	<0.01	0.53
0.01	<0.01	<0.01	.	0.03	0.34	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.09
<0.01	0.01	<0.01	.	0.04	1.0	<0.04	<0.01	<0.01	<0.10	<0.01	<0.01	0.03
<0.01	0.02	<0.01	.	0.06	0.69	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.24
<0.01	0.02	<0.01	.	0.06	0.58	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.23
<0.01	0.01	<0.01	.	0.03	0.33	<0.01	<0.01	0.05	<0.10	<0.01	<0.01	0.07
<0.01	0.01	<0.01	.	0.04	0.25	0.03	<0.01	0.14	<0.10	<0.01	<0.01	0.36
<0.01	0.02	<0.01	.	0.09	0.25	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	0.01	<0.01	.	0.12	0.25	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.06	3.0	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.04	1.5	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
0.02	<0.01	<0.01	<1	0.02	0.65	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	0.03	0.48	<0.01	<0.01	<0.10	<0.10	<0.01	<0.01	0.07
<0.01	<0.01	<0.01	.	0.01	0.45	<0.01	<0.01	0.38	<0.10	<0.01	<0.01	0.03
<0.01	<0.01	<0.01	<1	0.01	.	<0.01	.	.	<0.10	<0.01	<0.10	0.01
<0.01	<0.01	<0.01	<1	0.01	0.71	<0.01	<0.10	<0.10	<0.10	<0.01	<0.10	0.01
<0.01	<0.01	<0.01	<1	0.01	0.20	<0.01	<0.01	0.07	<0.10	<0.01	<0.01	0.03
Station 364746119445400, Single-dwelling residential catchment--Continued												
<0.01	<0.01	<0.01	.	0.05	0.25	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.24
<0.01	<0.01	<0.01	.	0.01	0.67	<0.01	<0.01	0.16	<0.10	<0.01	<0.01	0.08
<0.01	<0.01	<0.01	.	0.01	0.45	0.03	0.03	0.32	<0.10	<0.01	<0.01	0.28
0.01	<0.01	<0.01	.	0.01	2.0	0.19	<0.01	0.08	<0.10	0.01	<0.01	0.16
0.01	<0.01	<0.01	.	0.01	0.33	0.10	<0.01	0.07	<0.10	0.01	<0.01	0.03
0.01	<0.01	<0.01	.	0.03	5.7	<0.01	<0.01	<0.01	<0.10	0.01	<0.01	0.04
<0.01	0.01	0.01	.	0.03	13	<0.01	<0.01	0.01	<0.10	0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.02	1.2	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
0.01	<0.01	<0.01	.	0.02	1.1	<0.01	<0.01	0.01	<0.10	<0.01	<0.01	0.08
<0.01	<0.01	<0.01	<1	0.06	4.1	<0.01	<0.01	0.92	<0.10	<0.01	<0.01	0.07
<0.01	<0.01	<0.01	.	0.05	2.0	<0.01	<0.01	0.71	<0.10	<0.01	<0.01	0.03
<0.01	<0.01	<0.01	<1	0.04	0.87	<0.01	<0.01	0.15	<0.10	<0.01	<0.01	1.4
<0.01	<0.01	<0.01	<1	0.04	0.53	<0.01	<0.01	0.19	<0.10	<0.01	<0.01	0.06
<0.01	<0.01	<0.01	.	0.02	1.7	<0.01	<0.01	0.10	<0.10	<0.01	<0.01	1.7
<0.01	<0.01	<0.01	.	0.03	0.19	<0.01	<0.01	0.28	<0.10	<0.01	<0.01	0.02
<0.01	<0.01	<0.01	.	0.02	0.39	<0.01	<0.01	0.30	<0.10	0.03	<0.01	0.02

Date	Time (hours)	Discharge (ft^3/s)	Oil and grease, total recoverable, gravimetric (mg/L)	Phenols, total recoverable	Aldrin, total recoverable	Benzene, total recoverable	Chlordane, total recoverable	Chlorobenzene, total recoverable	Dibromo chloropropane, total recoverable	DDE, total recoverable	DDT, total recoverable	Diazinon, total recoverable
Station 364818119443800, Multiple-dwelling residential catchment												
81-11-12	2235	4.1	.	.	<0.01	.	0.10	.	.	<0.01	<0.01	0.22
82-01-04	0835	0.2	1	.	<0.01	.	<0.10	.	<0.003	<0.01	<0.01	0.40
82-01-19	2235	0.9	.	.	<0.01	.	0.50	.	<0.003	<0.01	<0.01	8.1
82-01-21	1430	0.2	2	.	<0.01	.	<0.10	.	<0.003	<0.01	<0.01	1.4
82-02-15	2135	1.7	2	.	<0.01	.	0.10	.	<0.003	<0.01	<0.01	0.87
82-03-09	2025	0.6	1	.	<0.01	.	0.10	.	0.004	<0.01	<0.01	0.37
82-03-11	0705	0.4	<1	.	0.02	.	0.10	.	<0.003	<0.01	<0.01	0.34
82-03-25	2245	0.4	1	.	<0.01	.	0.10	.	<0.003	<0.01	<0.01	0.45
82-09-03	0735	0.1	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	2.1
82-09-24	0455	3.1	<1	.	<0.01	.	0.70	.	.	0.01	<0.01	0.13
82-09-24	0900	0.2	<1	.	<0.01	.	1.2	.	.	<0.01	<0.01	0.06
82-10-25	0312	1.4	.	.	<0.01	.	.	.	.	<0.01	<0.01	0.07
82-10-26	0302	11	2	.	<0.01	.	0.60	.	.	0.06	<0.01	0.07
82-11-08	1802	.	<1	31	<0.01	<1	0.50	<1	.	0.01	<0.01	0.12
82-11-08	1910	.	.	.	<0.01	.	0.10	.	.	0.01	<0.01	0.12
82-11-09	1230	0.5	1	41	<0.01	<1	0.60	<1	.	0.01	<0.01	0.20
83-01-18	1905	2.4	5	16	<0.01	<1	0.30	<1	.	0.02	0.01	1.3
83-01-18	2110	3.2	.	.	<0.01	.	0.10	.	.	0.01	0.01	0.56
83-01-24	0856	0.3	2	6	<0.01	<1	0.10	<1	.	0.01	0.01	0.23
83-01-24	1418	0.1	.	.	<0.01	.	0.10	.	.	<0.01	<0.01	0.16
83-02-18	0758	4.8	.	13	<0.01	<1	0.20	<1	.	<0.01	<0.01	0.39
83-02-25	1450	0.7	1	32	<0.01	<1	0.10	<1	.	<0.01	<0.01	0.21
83-02-28	1845	1.9	2	16	<0.01	<1	0.20	<1	.	0.01	<0.01	0.12
83-03-16	1725	1.6	1	16	<0.01	.	0.10	.	.	<0.01	<0.01	0.18
83-03-16	2022	0.3	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.16
83-03-23	2035	7.2	1	13	<0.01	.	0.10	.	.	<0.01	<0.01	0.39
83-03-23	2256	0.6	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.12
Station 364818119464700, Commercial catchment												
82-01-04	0805	1.0	2	.	<0.01	.	0.10	.	<0.003	0.01	<0.01	0.20
82-01-19	2250	3.6	5	.	<0.01	.	0.20	.	<0.003	0.01	<0.01	0.25
82-01-21	1450	20	5	.	<0.01	.	0.10	.	<0.003	0.01	<0.01	0.49
82-02-15	0830	0.5	3	.	<0.10	.	0.10	.	0.01	0.01	<0.01	3.7
82-02-15	2200	5.2	3	.	<0.01	.	0.10	.	<0.003	0.01	<0.01	0.47
82-03-09	2115	2.7	0	.	<0.01	.	0.10	.	0.004	<0.01	<0.01	0.24
82-03-11	0745	2.0	1	.	<0.01	.	<0.10	.	<0.003	0.01	<0.01	0.13
82-03-25	2330	2.0	2	.	<0.01	.	<0.10	.	<0.003	<0.01	<0.01	0.28
82-09-24	0425	13	5	.	<0.01	.	0.30	.	.	0.01	<0.01	18
82-09-24	0835	0.5	<1	.	<0.01	.	0.10	.	.	<0.01	<0.01	3.4
82-10-25	0338	.	.	.	<0.01	.	0.10	.	.	0.01	<0.01	0.39
82-10-26	0324	.	6	.	<0.01	.	0.10	.	.	<0.01	<0.01	0.20
82-11-08	1738	.	26	32	<0.01	<1	<0.10	<1	.	<0.01	<0.01	0.46
82-11-09	1212	.	1	52	<0.01	<1	.	<1	.	<0.01	<0.01	0.25
83-01-18	1835	2.8	8	32	<0.01	<1	0.20	<1	.	<0.01	<0.01	4.6
83-01-18	2058	9.2	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.78
83-01-24	0924	1.6	.	6	<0.01	<1	<0.10	<1	.	<0.01	<0.01	0.48
83-02-18	0735	.	.	14	<0.01	<1	0.10	<1	.	0.01	<0.01	0.68
83-02-25	1420	.	1	9	<0.01	<1	0.10	<1	.	<0.01	<0.01	0.84
83-02-28	1830	8.1	3	13	<0.01	<1	0.10	<1	.	0.01	<0.01	0.32
83-03-16	1705	3.2	4	19	<0.01	.	<0.10	.	.	0.01	<0.01	0.36
83-03-16	2022	0.5	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.27
83-03-23	2010	6.1	1	17	<0.01	.	0.10	.	.	0.01	<0.01	0.39
83-03-23	2302	1.1	.	.	<0.01	.	<0.10	.	.	<0.01	<0.01	0.29

runoff data: Organics--Continued

Dieldrin, total recoverable	Endosulfan, total recoverable	Endrin, total recoverable	Ethylbenzene, total recoverable	Lindane, total recoverable	Malathion, total recoverable	Methoxychlor, total recoverable	Methyl parathion, total recoverable	Parathion, total recoverable	Gross polychlorinated biphenols, total recoverable	Silvex, total recoverable	Trithion, total recoverable	2,4-D, total recoverable
Station 364818119443800, Multiple-dwelling residential catchment--Continued												
<0.01	<0.01	<0.01	.	0.02	1.9	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.27
<0.01	<0.01	<0.01	.	0.01	0.37	<0.01	<0.01	0.05	<0.10	<0.01	<0.01	0.08
0.01	<0.01	<0.01	.	0.01	0.37	<0.01	<0.01	0.26	<0.10	<0.01	<0.01	0.06
0.01	<0.01	<0.01	.	0.01	0.27	<0.01	<0.01	0.18	<0.10	<0.01	<0.01	0.07
<0.01	<0.01	<0.01	.	0.01	0.49	<0.04	<0.01	0.12	<0.10	<0.01	<0.01	0.06
<0.01	<0.01	<0.01	.	0.01	3.0	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.56
<0.01	<0.01	<0.01	.	0.01	1.2	<0.01	<0.01	0.06	<0.10	<0.01	<0.01	0.08
<0.01	<0.01	<0.01	.	0.01	2.1	0.02	<0.01	<0.01	<0.10	<0.01	<0.01	0.20
<0.01	<0.01	<0.01	.	0.01	0.08	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.34
<0.01	<0.01	<0.01	.	0.01	1.0	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.01	1.3	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	<0.03	0.30	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
0.02	<0.01	<0.01	.	0.02	0.16	<0.01	<0.01	<0.01	<0.10	.	<0.01	.
<0.01	<0.01	<0.01	<1	0.02	0.21	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.02	0.14	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.18
<0.01	<0.01	<0.01	<1	<0.01	0.23	<0.01	<0.01	0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	<0.01	1.3	<0.01	<0.01	2.5	<0.10	<0.01	<0.01	0.25
<0.01	<0.01	<0.01	.	<0.01	1.3	<0.01	<0.01	0.67	<0.10	<0.01	<0.01	0.05
<0.01	<0.01	<0.01	<1	<0.01	0.14	<0.01	<0.01	0.19	<0.10	<0.01	<0.01	0.03
<0.01	<0.01	<0.01	.	0.01	0.15	<0.01	<0.01	0.16	<0.10	<0.01	<0.01	0.02
<0.01	<0.01	<0.01	<1	0.01	1.1	<0.01	<0.01	0.23	<0.10	<0.01	<0.01	3.7
<0.01	<0.01	<0.01	<1	0.01	14	<0.01	<0.10	<0.10	<0.10	<0.01	<0.10	2.1
<0.01	<0.01	<0.01	<1	0.01	2.7	<0.01	<0.01	0.16	0.10	<0.01	<0.01	0.62
<0.01	<0.01	<0.01	.	0.01	0.54	<0.01	<0.01	0.04	<0.10	<0.01	<0.01	0.21
<0.01	<0.01	<0.01	.	0.01	1.3	<0.01	<0.01	0.07	<0.10	<0.01	<0.01	0.20
<0.01	<0.01	<0.01	.	0.01	0.20	<0.01	<0.01	0.18	<0.10	<0.01	<0.01	0.02
<0.01	<0.01	<0.01	.	0.01	0.20	<0.01	<0.01	0.21	<0.10	<0.01	<0.01	0.10
Station 364818119464700, Commercial catchment--Continued												
<0.01	<0.01	<0.01	.	0.01	0.24	<0.01	<0.01	0.05	<0.10	<0.01	<0.01	0.03
0.01	<0.01	<0.01	.	0.01	0.23	<0.01	<0.01	0.20	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.01	0.23	<0.01	<0.01	0.31	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.01	0.22	<0.04	<0.01	0.08	<0.10	<0.01	<0.01	0.10
<0.01	<0.01	<0.01	.	0.01	0.34	<0.04	<0.01	0.10	<0.10	<0.01	<0.01	0.03
<0.01	<0.01	<0.01	.	0.01	0.22	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	0.17
<0.01	<0.01	<0.01	.	0.01	0.15	<0.01	<0.01	0.04	<0.10	<0.01	<0.01	0.02
<0.01	<0.01	<0.01	.	0.01	0.25	<0.01	0.03	0.23	<0.10	<0.01	<0.01	0.15
<0.01	<0.01	<0.01	.	0.02	0.15	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.03	0.27	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.02	0.18	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	.	0.01	0.10	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	0.01	0.39	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	<0.03	0.33	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	0.02	1.4	<0.01	<0.01	0.90	<0.10	<0.01	<0.01	0.63
<0.01	<0.01	<0.01	.	0.01	0.22	<0.01	<0.01	0.51	<0.10	<0.01	<0.01	0.01
<0.01	<0.01	<0.01	<1	0.01	0.15	<0.01	<0.01	0.21	<0.10	.	<0.01	.
<0.01	<0.01	<0.01	<1	0.01	0.17	<0.01	<0.01	0.24	0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	0.01	0.29	<0.01	<0.01	0.07	<0.10	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<1	0.01	0.20	<0.01	<0.01	0.13	0.10	<0.01	<0.01	0.02
<0.01	0.07	<0.01	.	0.01	0.23	<0.01	<0.01	0.06	<0.10	<0.01	<0.01	0.24
<0.01	0.01	<0.01	.	0.01	0.42	<0.01	<0.01	0.28	<0.10	<0.01	<0.01	0.01
<0.01	<0.01	<0.01	.	0.01	0.29	<0.01	<0.01	0.09	<0.10	<0.01	<0.01	0.09
<0.01	<0.01	<0.01	.	0.01	0.08	<0.01	<0.01	0.22	<0.10	<0.01	<0.01	0.02

TABLE 12.--Stormwater runoff data: Organics--Continued

Organic (total recoverable)	Detection limit (µg/L)	Number of samples per site			
		Industrial	Single	Multiple	Commercial
Other organics analyzed but not detected					
DDD	0.01	19	16	27	24
Ethion	0.01	19	16	27	24
Gross polychlorinated naphthalenes	0.01	19	16	27	24
Heptachlor	0.01	19	16	27	24
Heptachlor epoxide	0.01	19	16	27	24
Methomyl	2	8	4	8	7
Methyl trithion	0.01	19	16	27	24
Mirex	0.01	19	16	27	24
Perthane	0.1	19	16	27	24
Propham	2	8	4	8	7
Sevin	2	8	4	8	7
Toxaphene	1	19	16	27	24
2,4-DP	0.01	19	16	26	23
2,4,5-T	0.01	19	16	26	23

TABLE 13.--Stormwater runoff data: Particle size

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are a sequence number to uniquely identify each site. ., no data available]

Date	Time (hours)	Discharge (ft^3/s)	Percentage of particle size finer than size indicated, in millimeters									
			2.00	1.00	0.500	0.250	0.125	0.031	0.016	0.008	0.004	0.002
Station 364155119445000, Industrial catchment												
Nov. 1981												
12-------	2112	0.7	.	.	.	100	99	97	89	73	58	35
13-------	0736	2.2	.	.	.	100	98	77	60	48	37	28
17-------	0548	0.6	.	.	.	100	99	98	93	80	64	52
17-------	0632	1.2	.	.	.	100	99	91	81	69	54	41
Jan. 1982												
4-------	0940	1.2	.	.	.	.	100	96	88	79	68	.
4-------	1552	6.9	.	.	100	98	95	79	72	64	56	.
4-------	2200	1.2	.	.	.	.	100	96	93	85	71	.
Feb. 1982												
14-15-----	.	.	.	.	.	.	100	99	94	87	75	62	51
15-16-----	.	.	.	.	.	.	.	100	94	85	74	63	49
Mar. 1982												
9-------	2222	1.8	.	.	100	99	98	90	79	69	54	38
10-------	0428	1.6	.	.	.	.	100	94	83	68	50	.
14-------	1030	6.5	.	100	96	80	77	54	44	36	29	.
14-------	1114	4.3	.	100	96	76	69	46	36	28	25	.
25-------	2314	2.3	.	100	99	93	82	63	54	45	36	25
26-------	0100	2.3	.	100	99	80	72	59	53	47	41	33
28-------	1652	16	.	.	.	100	99	89	76	56	37	.
28-------	1758	7.3	.	100	99	98	95	69	59	48	33	.

TABLE 13.--Stormwater runoff data: Particle size--Continued

Date	Time (hours)	Discharge (ft^3/s)	Percentage of particle size finer than size indicated, in millimeters									
			2.00	1.00	0.500	0.250	0.125	0.031	0.016	0.008	0.004	0.002
Station 364746119445400, Single-dwelling residential catchment												
Nov. 1981												
12-------	2140	0.9	.	.	100	98	94	.	.	.	.	.
17-------	0500	1.0	.	100	96	85	58	.	.	.	.	.
Mar. 1982												
26-------	0044	0.9	.	.	100	97	85	.	.	.	.	.
Station 364818119443800, Multiple-dwelling residential catchment												
Nov. 1981												
12-------	2036	1.0	.	100	99	99	95	76	63	51	37	28
Jan. 1982												
4-------	0912	0.2	.	.	.	100	97	.	.	.	.	.
4-------	1452	1.5	99	97	83	72	35	7	6	5	4	3
5-------	0132	0.6	100	99	98	90	32	.	.	.	.	.
Feb. 1982												
14-15----	.	.	.	.	.	100	95	87	81	69	56	42
15-16----	.	.	.	.	100	98	70	49	41	35	29	21
Mar. 1982												
10-------	0338	5.7	.	100	99	89	42	20	15	11	8	.
10-------	0428	2.0	100	98	90	75	24	9	7	6	4	3
14-------	1044	3.0	.	100	98	87	37	9	7	5	3	2
14-------	1126	6.8	100	99	90	66	13	4	3	2	1	1
25-------	2250	0.6	.	.	100	98	76	68	61	48	34	26
25-------	2350	0.6	.	.	100	98	77	68	62	50	40	30
Station 364818119464700, Commercial catchment												
Nov. 1981												
17-------	0432	2.9	.	100	96	95	92	.	.	.	.	.
17-------	0620	13	100	97	76	61	34	.	.	.	.	.
Jan. 1982												
4-------	0804	1.1	.	.	.	100	96	.	.	.	.	.
4-------	1536	7.0	100	93	84	79	67	.	.	.	.	.
4-------	2350	5.9	100	78	51	44	40	.	.	.	.	.
Feb. 1982												
14-15----	.	.	.	.	.	100	96	.	.	.	.	.
15-16----	.	.	.	.	.	100	92	.	.	.	.	.
Mar. 1982												
9-------	2016	2.7	.	.	.	100	98	.	.	.	.	.
14-------	1108	12	100	95	86	70	50	.	.	.	.	.
14-------	1120	29	.	100	91	69	20	13	9	5	3	2
25-------	2240	0.3	.	.	.	100	89	.	.	.	.	.
25-------	2326	2.3	.	.	.	100	98	.	.	.	.	.

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. ., no data available. Specific conductance is in microsiemens per centimeter at 25°C. pH is in units. Discharge is in cubic feet per second. Asterisk (*) indicates the first sample of a storm]

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364155119445000, Industrial catchment									
81-12-29	*1712	490	6.8	1.1	82-03-02	0156	370	6.6	0.30
	1738	307	6.8	1.2		0226	399	.	0.22
	1804	278	.	1.1	82-03-11	*1054	298	6.9	0.82
	1832	300	6.8	0.92		1124	324	.	0.88
	1906	330	.	0.83		1154	332	6.8	1.2
	2014	384	6.9	1.9		1224	352	6.7	1.6
	2030	358	.	2.7		1254	362	6.6	1.6
	2044	335	7.0	2.6		1324	362	6.7	1.2
	2100	295	.	2.0		1354	402	6.8	1.0
	2118	284	6.9	1.4		1424	400	.	0.88
	2144	313	.	0.79		1454	467	6.9	0.76
82-01-02	*0052	298	.	0.12		1524	500	.	0.63
	0128	220	.	0.14		1554	520	6.8	0.47
82-01-26	*1512	703	.	0.10		1624	506	.	0.46
	1608	677	.	0.28		1654	518	7.0	0.47
	1702	408	.	0.17		*1724	425	.	1.3
82-02-15	*2044	328	7.1	0.59		1730	389	7.1	2.2
	2118	236	6.9	1.4		1744	438	6.5	3.2
	2140	298	6.8	1.8		1814	275	6.8	3.3
	2158	320	6.7	2.5		1854	277	.	3.4
	2212	318	.	3.5		1934	318	6.8	1.9
	2224	319	6.7	4.1		2014	360	.	1.1
	2236	302	6.9	4.5		2054	436	6.9	0.83
	2246	286	.	4.5		2134	469	.	0.63
	2256	309	6.7	4.7		2214	460	7.0	0.54
	2316	289	.	4.8		2254	480	.	0.56
	2336	264	6.7	4.0		2334	408	7.1	0.54
	2400	263	.	2.8	82-03-16	*0802	203	7.6	2.2
82-02-16	0036	306	6.7	1.3		0826	189	7.6	4.5
	0146	384	6.8	0.59		0844	185	7.1	5.1
	0504	243	7.0	1.1		0902	168	7.1	4.8
	0528	254	6.9	5.6		0920	154	7.1	4.0
	0546	240	.	4.5		0942	155	7.1	3.7
	0608	223	6.9	3.3		1004	167	7.2	4.2
	0636	261	.	1.8		1024	173	7.2	4.5
	0730	286	6.9	0.66		1044	173	6.6	4.3
82-03-01	*1058	546	7.0	1.5		1104	197	.	3.6
	1128	555	7.1	2.2		1128	195	6.7	2.7
	1152	645	7.4	3.3		1156	215	.	2.0
	1222	575	6.6	3.7		1234	256	6.7	1.1
	1252	499	6.9	3.0		1330	268	6.9	0.59
	1322	635	7.2	1.7		*2004	189	7.0	0.57
	1352	592	7.0	0.88		2030	216	6.6	6.0
	1422	550	7.0	0.63		2046	157	6.7	5.2
	1452	553	7.0	0.46		2106	153	.	3.8
	1522	415	6.4	0.30		2128	176	6.7	3.3
	*2148	468	7.1	0.32		2152	195	.	3.1
	2200	442	7.2	1.3		2216	202	6.7	3.5
	2208	442	7.3	2.1		2238	198	.	3.6
	2238	277	6.7	2.3		2300	198	6.8	3.0
	2308	329	6.4	1.4		2326	205	.	2.4
	2338	305	6.6	1.1		2356	219	6.9	2.2
	2356	326	6.7	1.8	82-03-17	0024	204	.	3.0
82-03-02	0026	283	6.6	1.5		0044	197	6.8	5.9
	0056	313	6.6	0.79		0100	189	.	6.3
	0126	353	6.6	0.46		0116	167	6.8	5.7

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364155119445000, Industrial catchment--Continued									
82-03-17	0132	172	.	7.3	82-04-10	0738	180	7.3	2.9
	0148	173	6.8	4.6		0818	182	7.4	1.5
	0212	184	.	3.3		*1146	193	7.2	0.48
	*2208	205	6.8	0.48		1156	208	7.3	1.6
82-03-18	0004	270	6.7	0.73		1206	193	7.3	2.7
	0204	234	6.8	0.90		1210	212	7.2	3.5
	0422	247	6.8	0.60		1214	213	7.2	4.3
	0522	236	6.6	3.2		1228	222	7.3	5.0
	0552	241	6.5	2.2		1428	280	7.1	0.85
	0640	280	6.7	2.6	82-10-30	*0208	1,441	8.2	0.09
	0708	290	6.5	3.1		0412	1,404	7.1	2.8
	0746	239	6.6	2.0		0426	595	7.0	5.7
	0844	263	6.7	1.1		0436	290	.	5.6
	1018	162	6.9	0.65		0448	242	6.8	4.3
	*1340	263	6.8	0.46		0504	221	.	4.1
	1428	215	6.7	3.0		0518	227	6.7	5.0
	1516	259	.	1.0		0530	237	.	6.2
	*1944	230	.	0.46		0542	250	6.8	6.4
	2026	228	6.5	7.1		0550	235	.	7.6
	2038	206	.	8.1		0558	209	6.9	8.2
	2054	238	6.5	5.3		0606	205	.	7.1
	2112	275	.	5.4		0614	194	6.9	6.7
	2128	258	.	5.6		0624	189	.	6.4
	2146	234	6.6	4.7		0634	190	6.9	6.0
	2208	196	.	3.3		0644	192	.	5.4
	2250	242	.	1.4		0656	189	.	5.1
82-03-19	0038	272	6.7	0.56		0708	200	6.9	5.0
82-03-29	*1302	.	7.2	0.54		0720	200	.	4.0
	1426	.	6.9	5.4		0734	181	.	4.0
	1442	.	6.9	6.7		0750	185	.	3.7
	1458	.	6.9	5.6		0806	181	.	3.5
	1520	.	6.8	3.2		0824	180	.	3.7
	1554	.	6.9	2.0		0840	185	.	4.1
82-03-31	*1720	208	6.9	1.5	82-11-09	*1214	705	7.1	0.11
	1746	165	6.8	5.4		1314	435	6.7	1.8
	1808	146	6.8	4.9		1340	304	6.9	3.1
	1828	154	6.7	5.4		1354	277	6.9	5.1
	1846	148	.	5.0		1406	225	6.9	7.4
	1906	141	6.8	4.0		1414	232	.	6.7
	1926	138	.	4.8		1424	219	7.0	6.4
	1946	139	6.7	4.8		1434	221	7.0	4.8
	2006	132	.	4.8		1448	232	7.0	4.5
	2044	122	.	5.2		1504	240	7.1	2.9
	2104	120	6.8	5.1		1524	212	6.9	3.0
	2122	119	.	4.5		1550	240	7.0	1.8
	2142	115	6.8	4.8		1638	223	7.0	0.66
	2204	115	.	3.7	82-11-18	*0832	865	7.1	0.11
	2230	117	6.8	3.4		0958	321	7.0	0.70
	2300	118	6.8	2.8		1058	263	7.0	1.0
	2334	116	6.9	2.8		*1742	482	.	0.10
82-04-01	0008	155	.	2.6		1920	236	7.1	1.2
	0042	184	6.9	2.2		1932	221	6.9	9.5
	0124	211	7.0	1.4		1938	205	.	11
	0218	247	7.0	1.2		1944	197	6.9	10
	0402	350	.	1.2		1950	158	6.9	12
	0540	260	7.0	0.94		1956	139	.	13
82-04-10	*0518	190	7.4	0.44		2002	130	.	13
	0548	199	7.4	0.83		2008	136	7.0	13
	0606	193	7.2	1.4		2014	136	.	13
	0646	187	7.4	1.8		2020	144	.	12
	0726	179	7.3	1.8		2026	144	7.0	10

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364155119445000, Industrial catchment--Continued									
82-11-18	2032	145	.	8.8	83-01-22	1714	98	.	15
	2040	150	.	7.1		1718	79	6.6	19
	2050	153	7.0	6.4		1722	73	.	20
	2100	163	.	6.0		1726	77	6.7	20
	2110	160	.	5.3		1730	78	.	19
	2124	156	.	3.9		1734	78	6.8	15
	2142	143	.	3.1		1740	85	.	13
	2228	145	.	1.7		1748	78	6.6	12
82-11-29	*1542	430	6.7	0.09		1756	78	.	11
	1608	209	7.0	6.7		1804	78	6.7	12
	1616	194	6.8	8.8		1812	78	.	11
	1622	171	6.8	10	83-01-24	*0420	291	7.0	7.4
	1628	157	.	11		0434	238	7.1	6.0
	1634	144	6.8	11		0450	152	.	5.4
	1640	147	.	11		0510	181	7.1	5.7
	1646	153	.	9.9		0526	149	.	7.4
	1652	148	6.8	9.3		0536	120	7.1	10
	1700	144	.	8.8		0548	96	.	7.6
	1708	145	.	8.6		0604	105	7.1	6.7
	1716	142	6.8	8.0		0622	105	.	6.5
	1724	159	.	7.1		0640	95	7.0	4.7
	1732	151	.	6.9		0712	92	.	2.0
82-12-22	*0412	240	6.9	1.6		0806	196	7.1	3.6
	0620	141	6.8	7.8		0900	319	.	4.4
	0822	124	6.7	2.9		0924	285	7.0	2.9
	0928	63	6.8	7.4		0950	208	.	11
	1158	74	.	11		0956	183	7.0	18
	1246	62	6.7	15		1000	171	.	17
	1320	71	.	5.6		1006	147	7.0	14
	1336	70	.	3.2		1014	138	.	10
	1352	67	6.7	1.6		1026	116	7.0	7.6
	1408	71	.	0.66		1042	131	.	5.7
	1424	81	.	0.15		1104	141	7.0	3.5
83-01-22	*1706	127	6.7	8.0		1128	196	.	3.8
						1158	243	7.2	2.0
364746119445400, Single-dwelling residential catchment									
82-09-25	*1226	162	7.1	0.25	82-09-25	1720	34	.	0.76
	1240	78	7.1	0.50		1734	38	.	0.60
	1254	73	7.2	0.42		1748	41	.	0.46
	1308	73	7.1	0.36	82-12-21	*1344	76	.	0.39
	1322	63	7.1	0.31		1444	43	.	0.77
	1336	61	.	0.23	82-12-22	*1514	18	6.9	0.78
	1400	65	7.0	0.26		1534	14	7.0	2.5
	1414	60	.	0.46		1542	13	.	5.1
	1428	54	6.9	0.77		1548	14	7.0	8.4
	1432	51	.	1.4		1552	13	.	8.9
	1446	46	7.0	0.77		1556	14	.	9.6
	1500	58	.	0.28		1600	15	6.9	10
	1514	50	6.9	0.40		1608	15	.	12
	1528	49	.	0.29		1612	18	.	15
	1542	45	7.0	0.33		1616	16	6.9	14
	1556	46	.	0.49		1622	16	.	10
	1610	44	7.0	0.55		1628	16	.	8.3
	1624	41	.	0.34		1636	15	6.9	5.7
	1640	40	.	1.4		1650	16	.	3.0
	1654	44	6.9	2.1	83-01-22	*1702	21	.	1.5
	1706	37	.	1.3		1706	18	7.2	1.2

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364746119445400, Single-dwelling residential catchment--Continued									
83-01-24	*0038	760	7.6	0.56	83-02-28	2058	44	7.7	0.54
	0230	44	.	0.54	83-03-01	0002	45	.	1.4
	0436	50	7.4	2.5		0024	40	.	1.0
	0502	20	.	1.5		0100	42	7.3	1.0
	0548	26	7.5	1.1		0118	39	.	2.1
	0624	20	.	1.1		0130	38	7.6	4.1
	*0938	41	7.3	3.7		0136	37	.	5.4
	0946	19	.	15		0142	37	7.6	6.6
	0950	16	7.1	18		0150	35	.	8.3
	0954	19	.	19		0154	37	7.7	9.5
	0958	20	7.1	19		0158	33	.	10
	1002	23	.	18		0204	33	7.9	11
	1006	22	7.1	17		0210	32	.	12
	1010	23	.	15		0216	32	7.2	14
	1014	21	7.2	15		0220	32	7.8	15
	1018	22	.	14		0224	.	7.5	16
	1024	18	7.4	12		0228	35	7.5	16
	1030	24	.	11		0232	33	7.6	17
	1038	65	7.1	6.4		0236	33	.	16
	1054	145	.	2.4		0240	44	7.4	16
83-01-26	*2106	225	7.2	0.57		0244	34	.	15
	2200	44	7.3	1.2		0250	34	7.6	14
	2248	27	7.2	0.90		0254	33	7.7	14
83-01-27	0110	24	7.1	0.73		0300	35	7.6	11
	0154	19	.	2.5		0304	34	.	11
	0214	14	7.1	3.4	83-03-16	*1720	305	7.4	0.63
	0230	13	.	3.6		1746	60	7.3	2.6
	0246	13	.	4.4		1758	50	7.2	4.0
	0258	14	7.1	5.2		1808	46	7.3	4.9
	0308	14	.	7.1		1816	46	7.2	5.0
	0316	15	.	8.6		1824	51	7.3	4.8
	0324	14	7.0	8.7		1834	45	7.8	4.1
	0322	14	.	8.8		1900	46	7.4	2.4
	0340	14	.	7.2		1918	42	7.5	1.8
	0350	15	7.0	6.3		1948	45	7.4	0.85
	0400	15	.	5.2	83-03-23	*2010	172	8.1	0.54
	0412	16	.	4.8		2034	30	8.5	3.1
	0426	16	7.0	4.6		2044	23	8.8	4.5
	0440	15	.	4.5		2052	21	8.9	5.5
	0454	16	.	4.6		2100	23	8.7	5.7
	0508	16	.	4.6		2108	26	8.6	6.1
	0522	16	.	4.5		2114	26	8.7	6.6
	0534	16	.	4.7		2120	24	.	6.8
	0546	16	.	4.9		2126	24	8.6	7.5
83-02-28	*1812	442	7.3	0.70		2132	26	.	7.9
	1830	64	7.3	1.3		2138	23	8.7	8.2
	1842	50	7.4	1.2		2144	23	8.3	8.0
	1858	46	7.5	0.77		2150	20	8.4	7.7
	1920	47	7.6	0.68		2156	17	.	7.0
	1944	48	7.6	0.57		2202	19	8.6	5.9
	2018	49	7.4	0.79		2210	20	.	4.4
	2036	46	.	0.87		2222	20	8.6	2.8

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364818119443800, Multiple-dwelling residential catchment									
81-11-27	*0916	84	.	0.17	82-03-16	*2016	36	.	0.33
	0932	54	.	0.28		2038	31	7.0	1.4
	0948	50	.	0.31		2108	34	.	0.61
	1004	45	.	0.27		2148	34	7.0	0.78
81-12-20	*0758	104	.	0.29		2228	37	.	0.52
	0856	69	.	0.38		2334	40	7.0	0.37
	*1416	91	.	0.22	82-03-17	0014	29	.	1.5
	1456	66	.	0.69		0034	34	7.0	1.7
	1530	56	.	0.43		0050	30	.	2.3
81-12-29	*1454	176	7.4	0.20		0104	34	7.1	1.9
	1530	68	7.3	0.35		0122	34	.	1.2
	1654	40	7.2	0.91		0156	45	7.1	0.38
	1714	36	.	0.87	82-03-18	*0420	53	7.2	0.25
	1736	33	7.1	0.64		0506	46	7.3	0.44
	1812	39	.	0.34		0538	35	7.2	0.53
	1906	39	7.0	0.52		0634	53	.	0.69
	1940	38	.	0.33		0656	47	7.2	1.1
81-12-30	*0204	32	7.0	0.29		0720	36	.	1.2
	0226	32	.	0.96		0742	48	7.2	0.83
	0244	30	6.9	1.0		0820	51	.	0.37
	0302	30	.	1.0		*1344	30	.	0.90
	0328	32	6.9	0.44		1400	29	7.2	3.9
82-01-01	*0222	106	.	0.22		1410	37	.	4.5
	0252	40	.	0.56		1422	44	.	3.0
82-01-02	*0020	63	.	0.24		1438	40	7.2	1.5
	0050	38	.	0.63		1514	58	.	0.34
82-02-14	*1818	100	7.1	0.52		*1946	73	.	0.36
	1844	66	7.0	1.4		2040	39	7.2	0.44
	1950	67	7.8	0.23		2142	48	.	0.25
	*2132	44	7.2	0.72	82-03-28	*0924	85	7.3	0.08
	2200	42	7.4	0.78		0934	83	7.3	0.26
	2310	42	7.3	0.46		1004	51	.	0.32
82-02-15	0006	42	7.4	0.41		1034	48	7.4	0.23
	*2030	75	7.0	0.26		1104	58	.	0.10
	2110	50	7.0	0.72	82-03-29	*1156	78	7.1	0.06
	2134	44	7.2	1.6		1214	73	7.2	0.19
	2148	32	7.0	1.9		1244	53	.	0.24
	2204	32	7.0	1.6		1314	48	7.2	0.27
	2220	32	.	1.9		1332	53	.	0.59
	2236	32	7.0	1.6		1350	33	7.2	1.1
	2256	30	.	1.9		1402	28	.	1.8
	2310	29	7.0	1.9		1418	26	7.2	2.8
	2324	29	.	1.5		1448	35	.	2.4
	2344	33	7.0	0.83		1518	46	7.6	1.1
82-02-16	0024	42	.	0.26		1548	60	7.8	0.37
	*0402	68	7.2	0.25		1618	68	8.1	0.16
	0426	31	.	1.2		1648	73	7.6	0.08
	0448	30	7.2	1.2		*1714	65	7.4	0.47
	0510	33	7.2	1.1		1724	26	.	2.6
	0528	32	7.3	1.1		1732	32	7.4	2.0
	0548	34	.	0.90		1742	31	7.4	1.6
	0628	42	7.1	0.33		1752	30	7.1	1.3
82-03-11	*1414	67	.	0.35		1802	39	.	1.0
	1422	47	7.4	0.67		1814	38	7.1	0.77
	1452	35	.	0.91		1828	49	7.3	0.45
	1500	34	7.2	1.4		1844	56	7.4	0.26
	1530	35	7.6	1.1		1902	68	.	0.15
	1600	49	7.7	0.50		1924	60	7.4	0.09
	1702	52	.	0.29	82-03-31	*1642	137	7.3	0.19
	1732	47	7.5	0.40		1652	32	6.8	4.0
	1802	44	.	0.54		1700	23	6.9	5.0
	1832	47	7.4	0.31		1706	21	6.7	5.1

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364818119443800, Multiple-dwelling residential catchment--Continued									
82-03-31	1712	19	6.7	5.1	82-11-28	2002	36	7.6	4.0
	1718	19	6.7	5.5		2010	34	.	3.8
	1724	21	6.8	5.5		2018	37	7.5	5.0
	1730	23	.	4.8		2024	37	.	6.1
	1738	23	6.7	3.9		2030	37	7.5	6.3
	1746	24	7.0	3.4		2036	34	.	5.6
	1754	26	7.0	2.9		2042	28	.	5.1
	1802	31	.	2.0	82-12-21	*1838	37	.	0.81
	1810	35	7.1	2.0		1900	29	.	1.7
	1820	38	.	2.0		1920	27	.	1.3
	1828	36	7.1	2.4		1948	24	.	0.65
	1836	32	7.1	2.7		2122	28	.	0.44
	1844	37	7.2	2.6		2214	27	.	0.41
	1852	31	.	2.7	82-12-22	*0436	26	.	0.49
	1900	31	7.2	2.6		0518	21	.	1.1
	1908	30	.	2.6		0542	19	.	1.5
	1916	31	7.2	2.7		0602	18	.	1.5
	1924	31	.	2.5		0616	18	.	2.2
	1932	30	7.2	2.3		0630	17	.	1.7
	1940	32	7.2	2.1		0656	19	.	0.68
82-04-01	*1618	24	6.9	0.77		0836	22	.	0.72
	1622	38	6.9	2.5		0854	16	.	3.6
	1626	32	7.1	3.0		0902	17	.	5.3
	1746	33	7.3	1.5		0908	17	.	5.9
	1706	45	7.4	0.35		0914	16	.	5.6
82-09-25	*1234	122	7.5	0.21		0920	17	.	4.6
	1246	106	7.3	0.51	83-01-21	*2224	100	7.5	0.06
	1258	82	7.3	0.84		2336	36	.	1.3
	1328	62	.	0.94		2358	37	.	0.99
	1358	64	7.3	0.60	83-01-22	*0548	27	7.4	1.8
	1428	57	.	0.52		0606	27	.	1.7
	1442	59	7.3	0.96		0624	26	.	1.4
	1452	53	.	1.7		0654	29	.	0.57
	1522	53	7.3	2.1		0742	28	7.4	4.4
	1622	48	7.3	1.6		0748	21	.	6.6
	1652	54	.	2.3		0752	24	7.4	9.3
	1706	43	7.4	3.4		0756	20	.	10
	1718	49	.	4.8		0800	25	.	9.8
	1814	41	7.6	2.4		0804	22	.	11
	1844	48	.	1.4		0808	22	7.4	13
	1914	50	7.6	1.1		0812	22	.	12
	1944	46	.	1.0		0816	22	.	10
	2014	49	7.6	0.74		0820	22	.	9.0
	2044	48	.	0.60		0824	21	7.4	7.9
	2114	53	.	0.63		0828	18	.	6.5
82-11-09	*1208	178	7.9	0.08		0834	20	7.4	5.8
	1250	55	7.5	1.6		0840	20	.	4.6
	1304	45	7.6	2.1		0848	23	.	4.2
	1318	46	7.3	2.7		1046	34	.	1.3
	1330	36	7.3	2.9		1130	32	7.3	0.81
	1342	35	7.4	3.3		1336	41	.	0.50
	1352	29	7.4	3.7		*1654	35	7.5	1.4
	1402	28	7.5	4.2		1710	21	.	21
	1410	28	7.5	4.4		1714	21	7.4	21
	1418	27	7.4	3.6		1718	19	.	21
	1428	28	7.6	2.8		1722	23	7.4	21
	1440	28	7.7	2.4		1726	27	.	21
	1452	30	7.6	2.2		1730	25	.	21
	1508	29	7.5	1.4		1734	22	.	21
	1538	34	7.4	0.64		1738	23	7.4	21
82-11-28	*1844	98	7.5	0.12		1742	24	.	21
	1954	35	.	3.2		1746	21	.	21

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364818119443800, Multiple-dwelling residential catchment--Continued									
83-01-22	1750	25	.	19	83-02-25	1832	40	7.2	0.45
	1754	22	7.4	16		1914	35	.	1.6
	1758	23	.	15		1938	32	7.1	0.88
	1802	23	.	15	83-02-28	*0726	89	7.6	0.07
	1806	23	.	14		*1654	82	7.7	0.07
	1812	26	7.4	13		1818	54	7.7	4.0
	1818	26	.	13		1826	41	.	4.4
	1824	23	.	14		1834	40	7.7	3.5
83-01-24	*0318	32	.	0.40		1846	40	.	1.8
	0442	19	7.3	3.7		1910	42	7.8	0.99
	0504	21	.	1.8		1938	50	.	0.73
	0548	22	7.3	3.0		2020	46	7.8	1.9
	0610	23	.	2.0		2038	48	.	1.3
	0658	30	7.5	0.67		2116	44	7.0	0.36
	*0944	25	7.2	3.9		*2342	51	7.4	2.1
	0950	25	.	21		2358	39	7.7	3.8
	0954	26	7.3	21	83-03-01	0012	44	7.5	2.8
	0958	28	.	21		0046	46	7.4	0.88
	1002	23	7.2	21		0108	43	7.6	4.0
	1006	24	.	21		0118	38	.	6.7
	1010	21	7.2	21		0126	37	7.7	9.2
	1014	22	.	21		0132	37	.	11
	1018	18	7.2	21		0136	36	7.7	14
	1022	20	.	21		0140	34	7.5	17
	1026	21	7.5	21		0144	28	7.0	20
	1030	26	.	21		0152	41	7.1	25
	1034	20	7.4	21		0200	22	7.4	31
	1038	22	.	9.4		0208	20	7.4	37
	1048	24	7.3	3.8		0212	30	7.8	21
	1116	27	.	1.0		0220	30	7.6	21
83-01-26	*2026	56	7.0	0.10		0228	31	.	21
	2228	26	7.3	0.91		0236	28	7.7	21
83-01-27	0020	28	7.4	0.30		0240	28	7.8	21
	0148	21	7.4	1.9		0244	30	7.5	21
	0210	19	.	3.8		0248	36	7.4	21
	0224	18	7.5	4.3		0252	.	7.4	21
	0238	17	.	4.4		0256	35	.	21
	0250	17	7.4	5.5		0300	34	.	21
	0300	16	.	6.8	83-03-16	*1708	159	8.0	0.17
	0308	17	7.4	8.1		1748	55	7.5	3.3
	0314	18	.	13		1804	47	7.4	7.3
	0318	16	7.4	14		1814	45	7.5	8.1
	0322	15	.	17		1824	45	7.5	6.6
	0326	15	7.4	18		1838	46	7.5	4.5
	0330	16	.	18		1858	44	7.5	3.3
	0334	15	7.3	18		1930	43	7.5	1.6
	0338	16	.	17	83-03-23	*2002	77	8.6	0.13
	0342	16	7.3	14		2032	22	.	6.2
	0348	16	.	10		2042	13	8.6	8.8
	0354	18	7.3	9.9		2050	24	.	11
	0402	18	.	8.4		2058	14	8.4	13
	0410	18	.	7.0		2106	29	.	12
	0418	18	.	6.9		2112	13	8.5	13
83-02-13	*0206	49	.	6.9		2118	15	.	13
	0242	35	7.4	1.4		2124	13	8.5	15
83-02-25	*1512	53	7.0	1.0		2130	18	.	16
	1542	49	7.1	1.5		2136	16	.	17
	1600	37	7.2	1.7		2142	15	8.6	15
	1622	37	7.4	1.1		2148	13	.	14
	1644	34	7.1	2.1		2154	18	.	12
	1656	31	6.8	3.0		2202	20	8.8	8.5
	1708	31	7.1	2.0		2214	19	.	4.5
	1730	36	7.1	0.80					

TABLE 14.--Specific conductance, pH, and discharge for samples without laboratory analysis--Continued

Date	Time (hours)	Specific conductance	pH	Discharge	Date	Time (hours)	Specific conductance	pH	Discharge
364818119464700, Commercial catchment									
81-12-20	*0410	234	.	0.32	82-02-15	2306	13	.	6.4
	0754	99	.	0.90		2328	13	6.6	4.0
	0824	51	.	2.0	82-02-16	*0402	31	.	1.4
	0846	38	.	2.4		0420	17	6.7	6.3
	0908	40	.	1.9		0440	17	6.6	4.2
	0948	45	.	0.64		0504	19	.	3.2
	1410	99	.	0.62		0528	15	6.6	4.8
	1442	68	.	2.9		0556	16	.	2.3
	1506	60	.	2.1		0852	23	6.6	1.1
	1532	60	.	1.7	82-03-28	*0924	79	6.5	0.45
81-12-29	*1452	208	7.1	0.09		0958	33	6.8	1.8
	1512	80	7.1	3.4		*1304	25	7.2	5.3
	1532	64	6.9	1.4		1316	25	7.3	5.2
	1646	54	6.8	2.1		1338	27	.	1.6
	1656	32	6.7	6.8		*1610	25	7.3	12
	1704	36	6.7	6.0		1616	23	.	11
	1718	34	6.8	3.2		1626	23	.	5.7
	1742	30	6.7	1.9		1646	27	7.3	1.6
	1804	32	6.7	1.8	82-03-29	*1228	46	.	0.45
	1828	32	7.0	1.3		1336	28	7.0	2.8
	1900	32	.	2.4		1354	21	.	5.1
	1914	23	6.8	4.1		1406	17	7.0	7.2
	1926	23	.	2.6		1416	17	.	9.0
	1948	27	6.7	1.1		1426	18	7.0	9.4
	2028	30	.	0.90		1436	13	.	8.0
	2126	33	6.6	0.21		1448	19	7.0	6.2
81-12-30	*0200	42	.	1.3		1502	12	.	4.9
	0212	19	6.7	6.0		1528	17	6.9	2.1
	0220	18	.	8.4		*1722	17	.	11
	0226	17	6.7	9.3		1730	18	6.9	9.6
	0232	18	.	8.6		1740	16	6.9	5.8
	0238	16	6.6	8.1		1758	17	6.7	3.4
	0246	16	.	7.4	82-03-31	*1646	94	6.8	1.6
	0254	16	6.6	5.3		1656	26	7.0	18
	0304	17	.	3.1		1702	20	7.0	19
	0322	20	6.6	1.2		1710	17	.	17
	0414	26	.	0.22		1718	14	7.1	16
82-01-01	*0206	105	.	0.48		1724	12	.	16
	0230	31	.	9.0		1730	11	7.0	14
	0248	24	.	4.10		1740	11	.	10
82-01-02	*0012	69	.	0.46		1750	11	7.0	7.9
	0014	32	.	1.1		1812	11	.	5.8
	0044	31	.	3.1		1828	10	.	9.0
	0120	43	.	1.1		1838	09	7.0	10
	*0640	56	.	0.25		1852	09	.	8.1
82-01-19	*2236	136	.	0.44		1906	09	.	7.9
	2330	28	.	3.6		1916	08	7.1	8.9
82-01-20	*0842	50	.	0.62		1926	07	.	9.0
	1034	18	.	0.53		1938	08	.	6.6
	1140	20	.	1.4		1952	08	7.2	8.0
	*1700	49	6.6	0.30		2002	08	7.1	9.9
82-01-26	*1444	88	.	0.81		2012	07	7.1	11
	1510	35	.	3.9		2020	07	7.0	12
82-02-15	*2028	52	7.1	0.89		2028	06	.	14
	2056	36	6.9	3.4		2036	06	6.9	14
	2114	28	6.9	3.5		2044	06	6.9	13
	2132	22	.	5.5	82-04-01	*1610	21	7.2	3.9
	2144	18	6.8	7.8		1614	16	7.1	27
	2156	17	.	5.8		1634	12	7.2	22
	2212	17	6.7	5.5		1654	12	7.3	8.0
	2228	14	.	5.4		1734	16	7.3	1.6
	2248	14	6.7	5.4		1814	29	7.4	0.62

TABLE 15.--Atmospheric dry-deposition data

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. <, actual value is less than value shown. ., no data available. Mass concentrations determined by dividing bucket-washed sample constituent concentration by total solids concentration and multiplying by 10^6. Other pesticides also were analyzed for but not detected and are given at the end of this table]

Station 364155119445000, Industrial site

Beginning date	Ending date	Calcium, dissolved (mg/kg)	Magnesium, dissolved (mg/kg)	Sodium, dissolved (mg/kg)	Potassium, dissolved (mg/kg)	Sulfate, dissolved (mg/kg)	Chloride, dissolved (mg/kg)	Silica, dissolved (mg/kg)
81-11-25	82-01-26	22,600	21,000	21,000	74,200	113,000	25,800	3,200
82-02-08	82-02-16	12,200	4,880	17,100	24,400	122,000	4,880	7,320
82-02-16	82-03-26	5,120	2,470	<2,790	7,440	23,300	3,260	1,810
82-03-26	82-06-09	4,210	2,450	3,150	4,670	9,350	4,670	1,050
82-06-09	82-08-12	8,450	4,050	3,380	12,800	<16,900	3,720	1,620
82-08-12	82-10-08	18,200	7,650	5,290	18,800	58,800	9,410	.
82-10-08	82-11-09	31,100	8,220	8,890	17,800	178,000	15,600	.
82-11-15	83-01-18	11,400	4,290	12,900	12,900	41,400	11,400	.
83-01-18	83-03-25	8,150	3,700	14,800	8,890	74,100	12,600	.
83-03-25	83-04-19	2,760	780	1,380	2,760	<922	2,300	.

Beginning date	Ending date	Nitrogen, nitrite plus nitrate, dissolved (mg/kg as N)	Nitrogen, ammonia, total (mg/kg as N)	Nitrogen, ammonia plus organic, total (mg/kg as N)	Nitrogen, organic, total (mg/kg as N)	Phosphorus, total (mg/kg as P)
81-11-25	82-01-26	16,100	46,800	129,000	82,300	5,160
82-02-08	82-02-16	3,660	22,200	39,000	16,800	4,150
82-02-16	82-03-26	1,670	6,050	27,400	21,400	3,400
82-03-26	82-06-09	1,870	1,050	28,000	26,900	1,870
82-06-09	82-08-12	6,080	2,800	64,200	60,800	3,720
82-08-12	82-10-08	10,000	7,060	94,100	88,200	10,600
82-10-08	82-11-09	42,200	6,670	136,000	129,000	9,110
82-11-15	83-01-18	4,570	10,600	41,400	31,400	7,000
83-01-18	83-03-25	5,930	15,600	49,600	.	5,260
83-03-25	83-04-19	1,200	1,060	13,400	12,400	1,290

Beginning date	Ending date	Phosphorus, orthophos-phate, total (mg/kg as P)	Aluminum, total recoverable (µg/kg)	Aluminum, dissolved (µg/kg)	Arsenic, total (µg/kg)	Chromium, total recoverable (µg/kg)	Copper, total recoverable (µg/kg)
81-11-25	82-01-26	25,800	.	.	.	.	.
82-02-08	82-02-16	2,200	.	.	.	.	.
82-02-16	82-03-26	2,090	.	.	.	.	.
82-03-26	82-06-09	794	.	.	.	.	.
82-06-09	82-08-12	1,520	.	.	.	.	.
82-08-12	82-10-08	5,530	30,600,000	235,000	23,500	118,000	382,000
82-10-08	82-11-09	2,220	33,300,000	667,000	22,200	289,000	689,000
82-11-15	83-01-18	1,290	10,400,000	.	14,300	143,000	443,000
83-01-18	83-03-25	2,890	9,630,000	.	7,410	200,000	444,000
83-03-25	83-04-19	553	8,290,000	.	4,610	27,600	115,000

TABLE 15.--Atmospheric dry-deposition data--Continued

Station 364155119445000, Industrial site--Continued

Beginning date	Ending date	Copper, dissolved (µg/kg)	Iron, total recoverable (µg/kg)	Iron, dissolved (µg/kg)	Lead, total recoverable (µg/kg)	Lead, dissolved (µg/kg)	Manganese, total recoverable (µg/kg)
81-11-25	82-01-26	.	.	.	1,610,000	96,800	.
82-02-08	82-02-16	.	.	.	561,000	97,600	.
82-02-16	82-03-26	.	.	.	377,000	18,600	.
82-03-26	82-06-09	.	.	.	140,000	3,500	.
82-06-09	82-08-12	.	.	.	372,000	<3,380	.
82-08-12	82-10-08	76,500	42,400,000	282,000	647,000	11,800	1,290,000
82-10-08	82-11-09	289,000	42,200,000	378,000	1,020,000	22,200	1,330,000
82-11-15	83-01-18	.	13,700,000	.	729,000	.	429,000
83-01-18	83-03-25	.	15,600,000	.	622,000	.	444,000
83-03-25	83-04-19	.	11,100,000	.	189,000	.	276,000

Beginning date	Ending date	Manganese, dissolved (µg/kg)	Mercury, total recoverable (µg/kg)	Nickel, total recoverable (µg/kg)	Nickel, dissolved (µg/kg)	Zinc, total recoverable (µg/kg)	Zinc, dissolved (µg/kg)
81-11-25	82-01-26	.	.	.	.	.	.
82-02-08	82-02-16	.	.	.	.	.	.
82-02-16	82-03-26	.	.	.	.	.	.
82-03-26	82-06-09	.	.	.	.	.	.
82-06-09	82-08-12	.	.	.	.	.	.
82-08-12	82-10-08	276,000	1,760	100,000	29,400	1,760,000	400,000
82-10-08	82-11-09	289,000	4,440	133,000	<22,200	2,440,000	667,000
82-11-15	83-01-18	.	2,860	329,000	.	1,570,000	.
83-01-18	83-03-25	.	741	81,500	.	2,000,000	.
83-03-25	83-04-19	.	922	27,600	.	369,000	.

Beginning date	Ending date	Solids, residue at 105°C, total (mg/L)	Solids, sum of constituents, dissolved (mg/kg)	Carbon, organic, dissolved (mg/kg)	Chlordane, total recoverable (µg/kg)	DDE, total recoverable (µg/kg)	Diazinon, total recoverable (µg/kg)
81-11-25	82-01-26	62	452,000	258,000	.	.	.
82-02-08	82-02-16	41	341,000	390,000	.	.	.
82-02-16	82-03-26	215	65,100	27,900	.	.	.
82-03-26	82-06-09	856	44,400	30,400	.	.	.
82-06-09	82-08-12	296	.	10,100	.	.	.
82-08-12	82-10-08	170	.	112,000	.	.	.
82-10-08	82-11-09	45	.	140,000	270	13	120
82-11-15	83-01-18	70	.	134,000	.	.	.
83-01-18	83-03-25	135	.	54,800	.	.	.
83-03-25	83-04-19	217	.	19,800	.	.	.

Beginning date	Ending date	Lindane, total recoverable (µg/kg)	Malathion, total recoverable (µg/kg)	Methoxychlor, total recoverable (µg/kg)
81-11-25	82-01-26	.	.	.
82-02-08	82-02-16	.	.	.
82-02-16	82-03-26	.	.	.
82-03-26	82-06-09	.	.	.
82-06-09	82-08-12	.	.	.
82-08-12	82-10-08	.	.	.
82-10-08	82-11-09	13	200	<13
82-11-15	83-01-18	.	.	.
83-01-18	83-03-25	.	.	.
83-03-25	83-04-19	.	.	.

TABLE 15.--Atmospheric dry-deposition data--Continued

Station 364746119445400, Single-dwelling residential site

Beginning date	Ending date	Calcium, dissolved (mg/kg)	Magnesium, dissolved (mg/kg)	Sodium, dissolved (mg/kg)	Potassium, dissolved (mg/kg)	Sulfate, dissolved (mg/kg)	Chloride, dissolved (mg/kg)	Silica, dissolved (mg/kg)
81-11-25	82-01-26	121,000	13,800	55,200	24,100	207,000	58,600	17,200
82-02-08	82-03-26	14,600	<1,790	<8,960	5,970	89,600	8,960	3,430
82-03-26	82-06-09	8,920	5,120	10,200	4,360	11,400	8,350	5,690
82-06-09	82-08-12	10,600	2,960	5,030	4,520	25,100	3,520	24,100
82-08-12	82-10-08	12,700	5,430	9,950	4,520	31,700	498	.
82-10-08	82-11-09	28,500	11,500	20,000	15,000	<250,000	25,000	.
82-11-15	83-01-18	15,400	1,920	17,300	7,690	<84,600	13,500	.
83-01-18	83-03-25	3,770	<1,890	13,200	1,890	9,430	5,660	.
83-03-25	83-04-19	4,470	638	<4,260	4,260	4,260	10,600	.

Beginning date	Ending date	Nitrogen, nitrite plus nitrate, dissolved (mg/kg as N)	Nitrogen, ammonia, total (mg/kg as N)	Nitrogen, ammonia plus organic, total (mg/kg as N)	Nitrogen, organic, total (mg/kg as N)	Phosphorus, total (mg/kg as P)
81-11-25	82-01-26	34,500	82,800	93,100	10,300	6,900
82-02-08	82-03-26	5,070	5,670	26,900	20,900	1,340
82-03-26	82-06-09	3,040	<114	5,690	.	588
82-06-09	82-08-12	4,720	1,260	15,600	14,600	1,610
82-08-12	82-10-08	8,600	679	14,500	14,000	1,540
82-10-08	82-11-09	295,000	6,500	75,000	70,000	4,000
82-11-15	83-01-18	16,000	19,200	36,500	17,300	1,730
83-01-18	83-03-25	1,890	4,150	26,400	.	2,260
83-03-25	83-04-19	2,550	3,190	25,500	23,400	2,340

Beginning date	Ending date	Phosphorus, orthophos-phate, total (mg/kg as P)	Aluminum, total recoverable (µg/kg)	Aluminum, dissolved (µg/kg)	Arsenic, total (µg/kg)	Chromium, total recoverable (µg/kg)	Copper, total recoverable (µg/kg)
81-11-25	82-01-26	5,860	.	.	.	.	.
82-02-08	82-03-26	896	.	.	.	.	.
82-03-26	82-06-09	304	.	.	.	.	.
82-06-09	82-08-12	704	.	.	.	.	.
82-08-12	82-10-08	814	9,950,000	136,000	4,500	81,400	90,500
82-10-08	82-11-09	2,000	40,500,000	1,000,000	<50,000	250,000	1,950,000
82-11-15	83-01-18	577	12,300,000	.	19,200	154,000	481,000
83-01-18	83-03-25	1,320	11,300,000	.	<18,900	56,600	509,000
83-03-25	83-04-19	1,060	12,800,000	.	<21,300	85,100	213,000

Beginning date	Ending date	Copper, dissolved (µg/kg)	Iron, total recoverable (µg/kg)	Iron, dissolved (µg/kg)	Lead, total recoverable (µg/kg)	Lead, dissolved (µg/kg)	Manganese, total recoverable (µg/kg)
81-11-25	82-01-26	.	.	.	8,280,000	310,000	.
82-02-08	82-03-26	.	.	.	1,640,000	74,600	.
82-03-26	82-06-09	.	.	.	304,000	3,800	.
82-06-09	82-08-12	.	.	.	553,000	20,100	.
82-08-12	82-10-08	36,200	15,400,000	95,000	724,000	54,300	362,000
82-10-08	82-11-09	1,000,000	50,000,000	500,000	3,500,000	150,000	1,500,000
82-11-15	83-01-18	.	15,200,000	.	3,650,000	.	385,000
83-01-18	83-03-25	.	17,500,000	.	1,660,000	.	377,000
83-03-25	83-04-19	.	19,600,000	.	1,230,000	.	426,000

TABLE 15.--Atmospheric dry-deposition data--Continued

Station 364746119445400, Single-dwelling residential site--Continued

Beginning date	Ending date	Manganese, dissolved (µg/kg)	Mercury, total recoverable (µg/kg)	Nickel, total recoverable (µg/kg)	Nickel, dissolved (µg/kg)	Zinc, total recoverable (µg/kg)	Zinc, dissolved (µg/kg)
81-11-25	82-01-26	.	.	.	.	.	.
82-02-08	82-03-26	.	.	.	.	.	.
82-03-26	82-06-09	.	.	.	.	.	.
82-06-09	82-08-12	.	.	.	.	.	.
82-08-12	82-10-08	90,500	905	<22,600	4,520	543,000	140,000
82-10-08	82-11-09	400,000	10,000	350,000	50,000	4,000,000	2,250,000
82-11-15	83-01-18	.	3,850	192,000	.	2,690,000	.
83-01-18	83-03-25	.	1,890	94,300	.	1,130,000	.
83-03-25	83-04-19	.	4,260	21,300	.	2,340,000	.

Beginning date	Ending date	Solids, residue at 105°C, total (mg/L)	Solids, sum of constituents, dissolved (mg/kg)	Carbon, organic, dissolved (mg/kg)	Chlordane, total recoverable (µg/kg)	DDE, total recoverable (µg/kg)	Diazinon, total recoverable (µg/kg)
81-11-25	82-01-26	29	862,000	266,000	.	.	.
82-02-08	82-03-26	67	209,000	179,000	.	.	.
82-03-26	82-06-09	527	91,100	30,400	.	.	.
82-06-09	82-08-12	199	111,000	.	.	.	.
82-08-12	82-10-08	221	.	118,000	.	.	.
82-10-08	82-11-09	20	.	.	610	30	180
82-11-15	83-01-18	52	.	82,700	.	.	.
83-01-18	83-03-25	53	.	43,400	.	.	.
83-03-25	83-04-19	47	.	109,000	.	.	.

Beginning date	Ending date	Lindane, total recoverable (µg/kg)	Malathion, total recoverable (µg/kg)	Methoxychlor, total recoverable (µg/kg)
81-11-25	82-01-26	.	.	.
82-02-08	82-03-26	.	.	.
82-03-26	82-06-09	.	.	.
82-06-09	82-08-12	.	.	.
82-08-12	82-10-08	.	.	.
82-10-08	82-11-09	30	850	30
82-11-15	83-01-18	.	.	.
83-01-18	83-03-25	.	.	.
83-03-25	83-04-19	.	.	.

Other organics analyzed but not detected (one sample per site)

Organic (total recoverable)	Detection[1] limit (µg/L)	Organic (total recoverable)	Detection[1] limit (µg/L)	Organic (total recoverable)	Detection[1] limit (µg/L)
Aldrin	0.01	Gross polychlorinated napthalenes	0.1	Perthane	0.1
DDD	0.01	Heptachlor	0.01	Silvex	0.01
DDT	0.01	Heptachlor epoxide	0.01	Toxaphene	1
Dieldrin	0.01	Methyl parathion	0.01	Trithion	0.01
Endosulfan	0.01	Methyl trithion	0.01	2,4-D	0.01
Endrin	0.01	Mirex	0.01	2,4-DP	0.01
Ethion	0.01	Parathion	0.01	2,4,5-T	0.01
Gross polychlorinated biphenyls	0.1				

[1]Detection limit not converted to mass units.

TABLE 16.--Street-surface particulate data

[Station number is a unique number for each site based on the latitude and longitude of the site; first six digits are latitude, next seven digits are longitude, and final two digits are sequence number to uniquely identify each site. ., no data available. <, actual value is less than value shown. >, actual value is greater than value shown]

Station 364155119445000, Industrial catchment

Date	Calcium, total (mg/kg)	Magnesium, total (mg/kg)	Sodium, total (mg/kg)	Potassium, total (mg/kg)	Nitrogen, nitrite, total (mg/kg as N)	Nitrogen, nitrite plus nitrate, total (mg/kg as N)	Nitrogen, ammonia, total (mg/kg as N)
82-04-16	40	40	<10	310	<2	7.4	23
82-04-23	30	20	<10	310	<2	6.8	44
82-07-23	40	40	<10	420	<2	<2.0	6
82-11-08	.	.	.	.	.	<2.0	38
83-01-18	.	.	.	.	.	4.0	80

Date	Nitrogen, ammonia plus organic, total (mg/kg as N)	Nitrogen, total (mg/kg as N)	Phosphorus, total (mg/kg as P)	Aluminum, total recoverable (µg/g)	Arsenic, total (µg/g)	Cadmium, total recoverable (µg/g)	Chromium, total recoverable (µg/g)
82-04-16	340	347	220	.	3	<1	10
82-04-23	430	437	210	.	4	1	10
82-07-23	300	.	210	.	3	<10	30
82-11-08	1,000	.	250	830	3	.	.
83-01-18	570	574	120	780	2	.	.

Date	Copper, total recoverable (µg/g)	Iron, total recoverable (µg/g)	Lead, total recoverable (µg/g)	Manganese, total recoverable (µg/g)	Mercury, total recoverable (µg/g)	Nickel, total recoverable (µg/g)	Zinc, total recoverable (µg/g)
82-04-16	27	3,000	150	.	0.02	28	70
82-04-23	41	2,300	100	.	0.01	20	59
82-07-23	40	3,700	300	.	0.03	<100	120
82-11-08	54	2,000	150	46	0.02	20	80
82-01-18	28	2,000	100	34	0.02	20	49

Date	Oxygen demand, chemical, total (mg/kg)	Residue, loss on ignition (mg/kg)	Carbon, inorganic plus organic, total (g/kg as C)	Carbon, inorganic, total (g/kg as C)	Aldrin, total recoverable (µg/kg)	Chlordane, total recoverable (µg/kg)	DDD, total recoverable (µg/kg)
82-04-16	30,000	22,600	11	0.2	<1.0	140	<0.5
82-04-23	34,000	29,500	11	0.2	<1.0	69	<0.5
82-07-23	42,000	28,400	14	<0.1	<4.0	95	<4.0
82-11-08	65,000	31,100	17	<0.1	<0.5	110	<0.5
83-01-18	33,000	19,900	10	<0.1	<1.0	260	<1.0

Date	DDE, total recoverable (µg/kg)	DDT, total recoverable (µg/kg)	Diazinon, total recoverable (µg/kg)	Dieldrin, total recoverable (µg/kg)	Endosulfan, total recoverable (µg/kg)	Endrin, total recoverable (µg/kg)	Ethion, total recoverable (µg/kg)	Heptachlor epoxide, total recoverable (µg/kg)
82-04-16	15	21	<1.0	2.3	<0.5	<0.5	<1.0	<0.5
82-04-23	12	33	<1.0	1.2	<0.5	<0.5	<1.0	<0.5
82-07-23	11	7.4	1.5	0.8	<4.0	<0.8	<1.0	2.8
82-11-08	12	27	<0.1	1.5	<0.5	<0.5	<0.1	<0.5
83-01-18	8.1	18	20	0.2	<1.0	<1.0	<1.0	2.7

TABLE 16.--Street-surface particulate data--Continued

Station 364155119445000, Industrial catchment--Continued

Date	Heptachlor, total recoverable (µg/kg)	Lindane, total recoverable (µg/kg)	Malathion, total recoverable (µg/kg)	Methoxychlor, total recoverable (µg/kg)	Methyl parathion, total recoverable (µg/kg)	Methyl trithion, total recoverable (µg/kg)	Mirex, total recoverable (µg/kg)
82-04-16	0.4	4.6	<1.0	<2.5	<1.0	<1.0	<1.0
82-04-23	0.2	2.2	<1.0	<2.5	<1.0	<1.0	<1.0
82-07-23	<4.0	2.0	<1.0	<8.0	<1.0	<1.0	<4.0
82-11-08	0.6	2.1	<0.1	<0.5	<0.1	<0.1	<0.5
83-01-18	0.5	2.0	2.1	<1.0	<1.0	<1.0	<1.0

Date	Parathion, total recoverable (µg/kg)	PCB, total recoverable (µg/kg)	PCN, total recoverable (µg/kg)	Perthane, total recoverable (µg/kg)	Toxaphene, total recoverable (µg/kg)	Trithion, total recoverable (µg/kg)	2,4-D, total recoverable (µg/kg)
82-04-16	<1.0	23	<10	<5	<50	<1.0	.
82-04-23	<1.0	33	<10	<5	<50	<1.0	.
82-07-23	<1.0	23	.	<40	<400	<1.0	.
82-11-08	<0.1	33	.	<5	<50	<0.1	<0.5
83-01-18	16	37	.	<10	<100	<1.0	<0.5

Station 364746119445400, Single-dwelling residential catchment

Date	Calcium, total (mg/kg)	Magnesium, total (mg/kg)	Sodium, total (mg/kg)	Potassium, total (mg/kg)	Nitrogen, nitrite, total (mg/kg as N)	Nitrogen, nitrite plus nitrate, total (mg/kg as N)	Nitrogen, ammonia, total (mg/kg as N)
82-04-16	30	20	<10	690	<2	4.1	31
82-04-23	110	20	<10	800	<2	<2.0	40
82-07-23	60	20	<10	800	>2	7.0	19
82-11-08	.	.	.	.	.	12	64
83-01-18	.	.	.	.	.	4.0	22

Date	Nitrogen, ammonia plus organic, total (mg/kg as N)	Nitrogen, total (mg/kg as N)	Phosphorus, total (mg/kg as P)	Aluminum, total recoverable (µg/g)	Arsenic, total (µg/g)	Cadmium, total recoverable (µg/g)	Chromium, total recoverable (µg/g)
82-04-16	500	507	220	.	2	<1	4
82-04-23	1,020	.	260	.	2	<1	4
82-07-23	1,200	1,210	330	.	3	<10	4
82-11-08	1,100	1,110	240	1,400	3	.	.
83-01-18	680	684	1,200	1,100	2	.	.

Date	Copper, total recoverable (µg/g)	Iron, total recoverable (µg/g)	Lead, total recoverable (µg/g)	Manganese, total recoverable (µg/g)	Mercury, total recoverable (µg/g)	Nickel, total recoverable (µg/g)	Zinc, total recoverable (µg/g)
82-04-16	18	3,200	510	.	0.01	10	59
82-04-23	11	3,600	510	.	0.02	10	85
82-07-23	<10	3,100	500	.	0.03	<100	800
82-11-08	17	3,300	790	65	0.05	10	95
83-01-18	12	2,100	500	43	0.03	<10	72

TABLE 16.--Street-surface particulate data--Continued

Station 364746119445400, Single-dwelling residential catchment--Continued

Date	Oxygen demand, chemical, total (mg/kg)	Residue, loss on ignition (mg/kg)	Carbon, inorganic plus organic, total (g/kg as C)	Carbon, inorganic, total (g/kg as C)	Aldrin, total recoverable (µg/kg)	Chlordane, total recoverable (µg/kg)	DDD, total recoverable (µg/kg)
82-04-16	45,000	63,500	20	0.2	<1.0	300	<1.0
82-04-23	57,000	36,100	22	0.7	<1.0	260	<1.0
82-07-23	44,000	98,000	25	<0.1	<0.8	470	<4.0
82-11-08	66,000	58,000	19	<0.1	<0.5	290	<0.5
83-01-18	50,000	57,100	18	<0.1	<1.0	170	<1.0

Date	DDE, total recoverable (µg/kg)	DDT, total recoverable (µg/kg)	Diazinon, total recoverable (µg/kg)	Dieldrin, total recoverable (µg/kg)	Endosulfan, total recoverable (µg/kg)	Endrin, total recoverable (µg/kg)	Ethion, total recoverable (µg/kg)	Heptachlor epoxide, total recoverable (µg/kg)
82-04-16	7.0	15	3.0	3.9	<1.0	<1.0	<1.0	1.2
82-04-23	6.0	17	3.0	3.7	<1.0	<1.0	<1.0	<1.0
82-07-23	11	31	7.0	5.2	<4.0	<0.8	<1.0	<0.8
82-11-08	5.3	13	6.0	2.1	<0.5	<0.5	<0.1	<0.5
83-01-18	3.3	11	18	0.7	<1.0	<1.0	<1.0	<1.0

Date	Heptachlor, total recoverable (µg/kg)	Lindane, total recoverable (µg/kg)	Malathion, total recoverable (µg/kg)	Methoxychlor, total recoverable (µg/kg)	Methyl parathion, total recoverable (µg/kg)	Methyl trithion, total recoverable (µg/kg)	Mirex, total recoverable (µg/kg)
82-04-16	1.8	1.5	<1.0	<1.0	<1.0	<1.0	<1.0
82-04-23	2.2	26	2.0	<1.0	<1.0	<1.0	<1.0
82-07-23	1.1	2.8	4.5	<8.0	<1.0	<1.0	<0.8
82-11-08	1.0	2.6	10	<0.5	<0.1	<0.1	<0.5
83-01-18	1.4	4.7	2.9	<1.0	<1.0	<1.0	<1.0

Date	Parathion, total recoverable (µg/kg)	PCB, total recoverable (µg/kg)	PCN, total recoverable (µg/kg)	Perthane, total recoverable (µg/kg)	Toxaphene, total recoverable (µg/kg)	Trithion, total recoverable (µg/kg)	2,4-D, total recoverable (µg/kg)
82-04-16	<1.0	13	<10	<10	<100	<1.0	.
82-04-23	<1.0	13	<10	<10	<100	<1.0	.
82-07-23	<1.0	51	.	<40	<400	<1.0	.
82-11-08	<0.1	10	.	<5	<50	<0.1	<0.5
83-01-18	29	18	.	<10	<100	<1.0	<0.5

Station 364818119443800, Multiple-dwelling residential catchment

Date	Calcium, total (mg/kg)	Magnesium, total (mg/kg)	Sodium, total (mg/kg)	Potassium, total (mg/kg)	Nitrogen, nitrite, total (mg/kg as N)	Nitrogen, nitrite plus nitrate, total (mg/kg as N)	Nitrogen, ammonia, total (mg/kg as N)
82-03-05	30	10	<10	500	<2	4.9	26
82-04-19	40	20	<10	640	<2	9.7	22
82-07-23	30	20	<10	460	>2	15	38
82-11-08	.	.	.	.	.	<2.0	35
83-01-18	.	.	.	.	.	5.0	30

TABLE 16.--Street-surface particulate data--Continued

Station 364818119443800, Multiple-dwelling residential catchment--Continued

Date	Nitrogen, ammonia plus organic, total (mg/kg as N)	Nitrogen, total (mg/kg as N)	Phosphorus, total (mg/kg as P)	Aluminum, total recoverable (µg/g)	Arsenic, total (µg/g)	Cadmium, total recoverable (µg/g)	Chromium, total recoverable (µg/g)
82-03-05	250	255	210	.	2	1	4
82-04-19	570	580	180	.	1	1	3
82-07-23	470	485	160	.	2	10	3
82-11-08	540	.	180	1,700	2	.	.
83-01-18	390	395	300	720	1	.	.

Date	Copper, total recoverable (µg/g)	Iron, total recoverable (µg/g)	Lead, total recoverable (µg/g)	Manganese, total recoverable (µg/g)	Mercury, total recoverable (µg/g)	Nickel, total recoverable (µg/g)	Zinc, total recoverable (µg/g)
82-03-05	17	2,200	420	.	0.02	10	150
82-04-19	7	3,000	220	.	0.02	8	49
82-07-23	<10	2,400	400	.	0.04	<100	47
82-11-08	11	3,000	430	60	0.04	<10	75
83-01-18	5	1,200	200	31	0.03	<10	40

Date	Oxygen demand, chemical, total (mg/kg)	Residue, loss on ignition (mg/kg)	Carbon, inorganic plus organic, total (g/kg as C)	Carbon, inorganic, total (g/kg as C)	Aldrin, total recoverable (µg/kg)	Chlordane, total recoverable (µg/kg)	DDD, total recoverable (µg/kg)
82-03-05	25,000	20,100	11	0.2	<0.5	85	<0.5
82-04-19	33,000	20,600	11	0.1	<0.5	110	<0.2
82-07-23	37,000	25,100	11	<0.1	<0.8	57	<0.8
82-11-08	49,000	53,200	12	<0.1	<0.5	160	<0.5
83-01-18	37,000	19,600	14	<0.1	<1.0	120	<1.0

Date	DDE, total recoverable (µg/kg)	DDT, total recoverable (µg/kg)	Diazinon, total recoverable (µg/kg)	Dieldrin, total recoverable (µg/kg)	Endosulfan, total recoverable (µg/kg)	Endrin, total recoverable (µg/kg)	Ethion, total recoverable (µg/kg)	Heptachlor epoxide, total recoverable (µg/kg)
82-03-05	8.0	15	5.4	2.8	<0.5	<0.1	<0.1	<0.1
82-04-19	10	8.5	3.9	2.7	<0.2	<0.1	<0.1	<0.1
82-07-23	3.1	4.4	3.9	1.1	6.7	<0.8	<1.0	<0.8
82-11-08	3.1	<0.5	1.8	1.2	<0.5	<0.5	<1.0	<0.5
83-01-18	4.5	<1.0	25	0.3	<1.0	<1.0	<1.0	2.2

Date	Heptachlor, total recoverable (µg/kg)	Lindane, total recoverable (µg/kg)	Malathion, total recoverable (µg/kg)	Methoxychlor, total recoverable (µg/kg)	Methyl parathion, total recoverable (µg/kg)	Methyl trithion, total recoverable (µg/kg)	Mirex, total recoverable (µg/kg)
82-03-05	1.9	1.1	8.7	<2.5	<0.1	<0.1	<0.5
82-04-19	1.5	1.5	<0.1	<2.5	<0.1	<0.1	<0.5
82-07-23	<0.8	0.6	<1.0	<8.0	<1.0	<1.0	<0.8
82-11-08	0.8	3.3	2.1	<0.5	<0.1	<0.1	<0.5
83-01-18	1.2	1.7	3.7	<1.0	<1.0	<1.0	<1.0

TABLE 16.--Street-surface particulate data--Continued

Station 364818119443800, Multiple-dwelling residential catchment--Continued

Date	Parathion, total recoverable (µg/kg)	PCB, total recoverable (µg/kg)	PCN, total recoverable (µg/kg)	Perthane, total recoverable (µg/kg)	Toxaphene, total recoverable (µg/kg)	Trithion, total recoverable (µg/kg)	2,4-D, total recoverable (µg/kg)
82-03-05	2.0	49	<5	<5	<50	<0.1	.
82-04-19	1.0	40	<5	<2	<20	<0.1	.
82-07-23	<1.0	31	.	<8	<80	<1.0	.
82-11-08	<0.1	38	.	<5	<50	<0.1	<0.5
83-01-18	36	30	.	<10	<100	<1.0	<0.5

Station 364818119464700, Commercial catchment

Date	Calcium, total (mg/kg)	Magnesium, total (mg/kg)	Sodium, total (mg/kg)	Potassium, total (mg/kg)	Nitrogen, nitrite, total (mg/kg as N)	Nitrogen, nitrite plus nitrate, total (mg/kg as N)	Nitrogen, ammonia, total (mg/kg as N)
82-03-05	80	40	<10	500	<2	6.6	38
82-04-16	90	50	<10	1,400	<2	13	59
82-04-23	70	30	<10	600	<2	42	40
82-07-23	120	50	<10	1,300	>2	7.0	100
82-11-08	.	.	.	.	.	13	30
83-01-18	.	.	.	.	.	13	24

Date	Nitrogen, ammonia plus organic, total (mg/kg as N)	Nitrogen, total (mg/kg as N)	Phosphorus, total (mg/kg as P)	Aluminum, total recoverable (µg/g)	Arsenic, total (µg/g)	Cadmium, total recoverable (µg/g)	Chromium, total recoverable (µg/g)
82-03-05	700	707	280	.	1	1	20
82-04-16	1,400	1,410	380	.	4	1	20
82-04-23	1,190	1,230	450	.	3	2	20
82-07-23	1,900	1,910	330	.	7	<10	20
82-11-08	1,300	1,310	340	1,900	5	.	.
83-01-18	630	643	180	1,200	2	.	.

Date	Copper, total recoverable (µg/g)	Iron, total recoverable (µg/g)	Lead, total recoverable (µg/g)	Manganese, total recoverable (µg/g)	Mercury, total recoverable (µg/g)	Nickel, total recoverable (µg/g)	Zinc, total recoverable (µg/g)
82-03-05	42	4,400	1,000	.	0.06	31	230
82-04-16	30	7,000	850	.	0.05	26	240
82-04-23	50	3,600	770	.	0.08	26	230
82-07-23	30	6,000	1,000	.	0.13	<100	1,300
82-11-08	39	5,500	720	110	0.12	20	330
83-01-18	12	2,500	280	61	0.06	10	130

Date	Oxygen demand, chemical, total (mg/kg)	Residue, loss on ignition (mg/kg)	Carbon, inorganic plus organic, total (g/kg as C)	Carbon, inorganic, total (g/kg as C)	Aldrin, total recoverable (µg/kg)	Chlordane, total recoverable (µg/kg)	DDD, total recoverable (µg/kg)
82-03-05	120,000	60,000	39	0.8	.	.	.
82-04-16	150,000	98,300	55	0.7	.	.	.
82-04-23	120,000	67,900	39	0.5	.	.	.
82-07-23	150,000	89,500	55	<0.1	<4.0	3,400	4.0
82-11-08	110,000	82,100	52	<0.1	<0.5	420	7.9
83-01-18	91,000	41,200	29	<0.1	<1.0	280	<1.0

TABLE 16.--Street-surface particulate data--Continued

Station 364818119464700, Commercial catchment--Continued

Date	DDE, total recoverable (µg/kg)	DDT, total recoverable (µg/kg)	Diazinon, total recoverable (µg/kg)	Dieldrin, total recoverable (µg/kg)	Endosulfan, total recoverable (µg/kg)	Endrin, total recoverable (µg/kg)	Ethion, total recoverable (µg/kg)	Heptachlor epoxide, total recoverable (µg/kg)
82-03-05	.	.	.	.	.	.	.	.
82-04-16	.	.	.	.	.	.	.	.
82-04-23	.	.	.	.	.	.	.	.
82-07-23	<4.0	19	26	89	<4.0	<4.0	<1.0	35
82-11-08	<0.5	3.3	16	6.8	<0.5	<0.5	<0.1	9.9
83-01-18	<1.0	<1.0	80	1.2	<1.0	<1.0	<1.0	2.4

Date	Heptachlor, total recoverable (µg/kg)	Lindane, total recoverable (µg/kg)	Malathion, total recoverable (µg/kg)	Methoxychlor, total recoverable (µg/kg)	Methyl parathion, total recoverable (µg/kg)	Methyl trithion, total recoverable (µg/kg)	Mirex, total recoverable (µg/kg)
82-03-05	.	.	.	.	.	.	.
82-04-16	.	.	.	.	.	.	.
82-04-23	.	.	.	.	.	.	.
82-07-23	2.2	4.8	15	<8.0	<1.0	<1.0	<4.0
82-11-08	0.7	4.1	17	<0.5	<0.1	<0.1	<0.5
83-01-18	3.0	1.7	4.4	<1.0	<1.0	<1.0	<1.0

Date	Parathion, total recoverable (µg/kg)	PCB, total recoverable (µg/kg)	PCN, total recoverable (µg/kg)	Perthane, total recoverable (µg/kg)	Toxaphene, total recoverable (µg/kg)	Trithion, total recoverable (µg/kg)	2,4-D, total recoverable (µg/kg)
82-03-05	.	.	.	.	.	.	.
82-04-16	.	.	.	.	.	.	.
82-04-23	.	.	.	.	.	.	.
82-07-23	<1.0	860	.	<40	<400	<1.0	.
82-11-08	<0.1	820	.	<5	<50	<0.1	<0.5
83-01-18	38	220	.	<10	<100	<1.0	<0.5