Hydrologic Data in Bear Creek Basin and Western Jackson County, Oregon, 1976-77

U.S. GEOLOGICAL SURVEY
Open-File Report 78–230

Prepared in cooperation with the
Rogue Valley Council of Governments,
Oregon Department of Environmental Quality,
and the City of Medford

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By Loren A. Wittenberg and Stuart W. McKenzie

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1978

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

W. A. Radlinski, Acting Director

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[Plate is in pocket]

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CONVERSION FACTORS

Factors for converting English units to the International System of Units (SI) are given below to four significant figures. However, in the text the metric equivalents are shown only to the number of significant figures consistent with the values for the English units.

English	Multiply by	Metric (SI)
inches (in)	25.40	millimeters (mm)
square inches (in^2)	.0006452	square meters (m^2)
feet (ft)	.3048	meters (m)
square feet (ft^2)	.09290	square meters (m^2)
yards (yd)	.9144	meters (m)
miles (mi)	1.609	kilometers (km)
cubic feet per second (ft^3/s)	.02832	cubic meters per second (m^3/s)

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ABSTRACT

To determine irrigation return flow impacts on Meyer Creek and Griffin Creek, 12 sites were sampled prior to and during the irrigation season. Thirty-three sets of samples, consisting of irrigation inflow and outflow samples on farms, were collected to determine if the use of irrigation water was improving or degrading the water quality. One hundred fifty visits were made to tributaries and Bear Creek to collect and analyze samples to help isolate the source of water-quality problems. Three diel studies were made on six main-stem Bear Creek sites, two during and one after the irrigation season, to help identify main-stem water-quality problems. Rainfall and runoff data from five small basins as well as water-quality data from four of the basins were collected during storm events.

INTRODUCTION

The U.S. Geological Survey (USGS) is studying surface-water-quality problems and their causes in the Bear Creek basin. Several problems were identified from data collected during the spring and summer of 1976 (McKenzie and Wittenberg, 1977). An intensive study was begun in the fall of 1976 and was continued through October 1977 to determine possible or probable causes of the water-quality problems. The study included the following elements:

1. Measurements, at several sites, of the quality and quantity of water in two subbasins (Meyer and Griffin Creeks) known to have water-quality problems as identified from previous sampling.

2. Measurement of the quality and quantity of water delivered to and leaving irrigated farm plots.

3. Measurement of the quality and quantity of water in selected streams in Bear Creek basin and western Jackson County.

4. Intensive water-quality measurements in the main stem of Bear Creek, including physical, chemical, and biological parameters (diel studies).

5. Collection of data on precipitation, quality and quantity of storm-water runoff, and combined sewer overflow in four specific areas of the Bear Creek basin. Only precipitation and runoff data were collected at a fifth site (McAndrews Road outflow).

The first four elements of the data-collection program were completed in 1977. All data collected for these four elements in the fall of 1976 and 1977 are presented in this report. An interpretive report identifying water-quality problems and their possible causes will be completed in 1978 using all data collected in 1976 and 1977. Collection of data will continue at the five storm-water-runoff sites. A data report on the storm-water part of the study (element 5) will be prepared after June 1978, followed by a second interpretive report.

Data presented in this report were collected during a year that had lower than normal streamflows at most gaging sites in Jackson County.

This project was done in cooperation with the Rogue Valley Council of Governments, Oregon Department of Environmental Quality, and the city of Medford. The authors wish to thank Mr. Don Vandervelden of the U.S. Department of Agriculture, Soil Conservation Service, for his time and effort in obtaining landowner cooperation and in providing plot locations and soil types for the farm irrigation plots sampled.

SAMPLING GUIDELINES AND SITE LOCATIONS

A general description of the size, land use, and irrigation delivery system of the Bear Creek basin can be found in reports by McKenzie and Wittenberg (1977) and La Riviere, Quan, Westgarth, and Culver (1977).

Figure 1 shows the location of the study area in Jackson County, and plate 1 shows the locations and identification numbers of all sampling sites used in this report. The site numbers were assigned in a downstream order. When a site was used in more than one element of the study, it has more than one number. Locations of sampling sites were determined from USGS 15-minute topographic maps and from aerial photographic maps supplied by the U.S. Department of Agriculture, Soil Conservation Service. The eight-digit station numbers given for some sites are those assigned for the stream-gaging network operated by the USGS.

All data were collected using standard procedures of the USGS (Brown and others, 1970; Buchanan and Somers, 1969; Guy, 1969; Hines and others, 1976; Slack and others, 1973) and the American Public Health Association and others (1975). Sampling guidelines and equipment used in this study are described in a report by McKenzie and Wittenberg (1977).

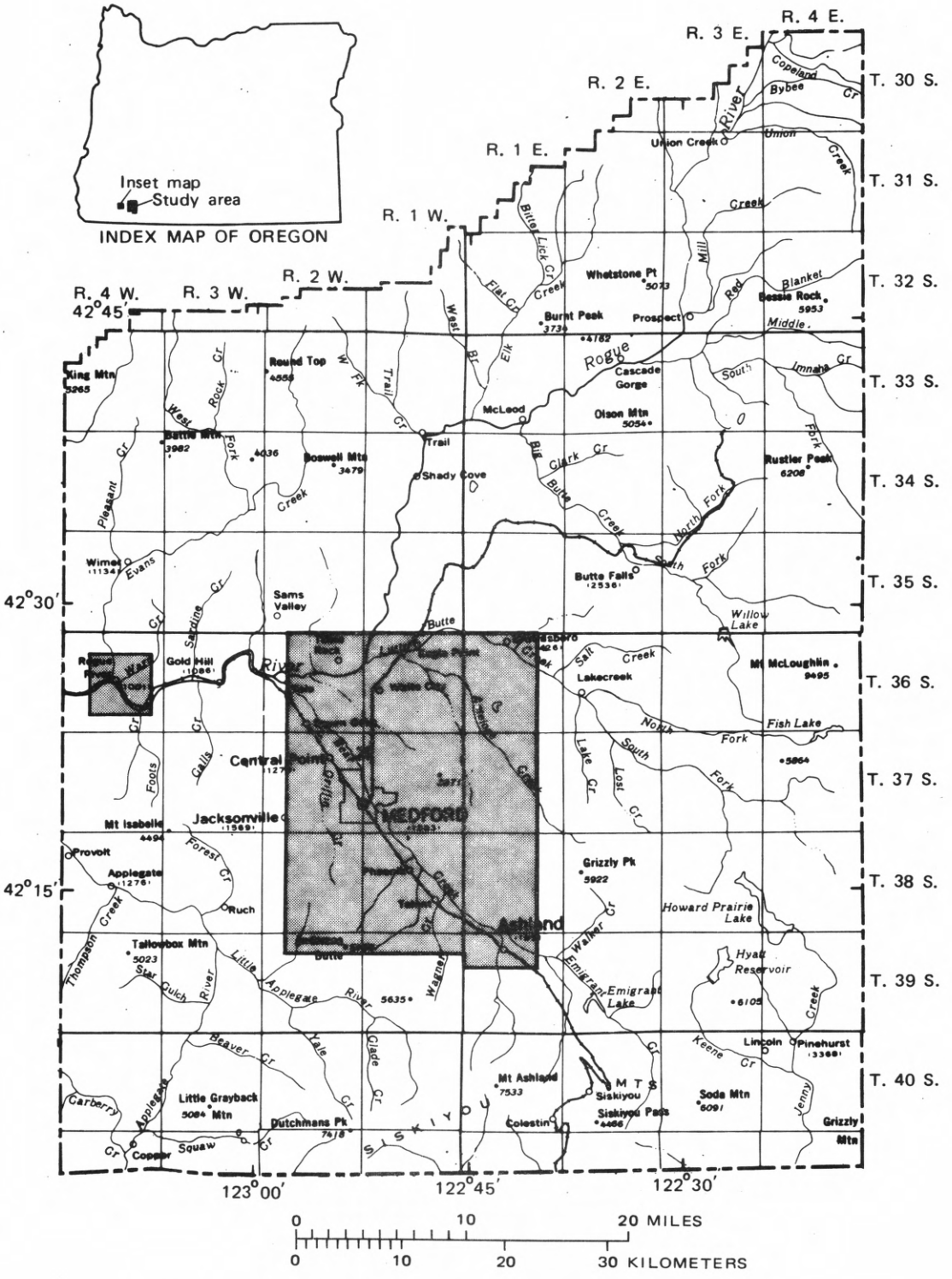

Figure 1.- Index map showing Jackson County and study area.

Chemical analyses of most samples were made by the USGS central laboratory in Arvada, Colo.; suspended-sediment analyses were made by the Oregon District laboratory of the USGS in Portland. Measurements of stream discharge, temperature, dissolved oxygen, pH, specific conductance, turbidity, biochemical oxygen demand, alkalinity, and bacteria were made on site or in the USGS laboratory in Medford. Samples exceeding a turbidity value of 40 JTU's (Jackson turbidity units) were measured using a dilution (McKenzie and Miller, 1976, p. 10).

Meyer Creek and Griffin Creek Sampling Sites

The objective of establishing the Meyer Creek (locally known as Myer Creek) and Griffin Creek sampling sites was to identify those sections of the creeks where the most significant changes in concentrations or loads of constituents occurred. Sites listed in table 1 include (1) one site near the mouth of each creek, which was established during the previous year (Meyer Creek at South Valley View Road and Griffin Creek at Scenic Avenue [La Riviere, no date]); (2) three sites on Meyer Creek; and (3) seven sites on Griffin Creek at points upstream where there were differing land uses, such as urban development, grazing lands, and orchards. Physical, chemical, and bacterial data were collected prior to the irrigation season, at monthly intervals during the irrigation season, and once after the irrigation season. (See table 6.)

Irrigation Sampling on Farms

The objective of the irrigation sampling was to determine the effect that irrigation practices, farming methods, soil type, and plot size have on water quality. The quantities of water at inflow and outflow points on farm plots were measured, and water samples were taken for analysis of physical, chemical, and bacterial parameters. Locations of the farm plots are listed in table 2, and the inflow and outflow data are given in table 7. At most sites, accuracy of discharge is within 10 percent, but some measurements may be accurate to within only 25 percent owing to adverse measuring conditions.

Tributary and Main-Stem Monitoring

In 1975 and 1976, the Soils Testing Laboratory of Medford sampled many tributaries near their mouths and at intermediate points along Bear Creek to determine the extent of water-quality problems in the Bear Creek basin. To determine the source of water-quality problems, 30 sites were sampled by the Survey during the winter months of 1976-77. Some of these sites, established previously as baseline sites, were on Bear Creek, its tributaries, and on streams in western Jackson County. Table 3 lists the locations of the monitoring sites, and table 8 lists the monitoring data collected.

Bear Creek Diel Studies

The objective of the diel studies was to determine if there was a dissolved-oxygen or pH problem in Bear Creek. Because of the many diversions on Bear Creek, six sites were chosen for the studies. Locations of the sampling sites are listed in table 4. Sites 102, 104, and 105 were used in 1976 and 1977, and sites 107, 108, and 109 were used in 1977 only.

Table 1.--Locations of sampling sites on Meyer Creek and Griffin Creek

Site no.	Site name	Site location
30	Meyer Creek at east lateral	Lat 42°14'47", long 122°43'05", in SE¼ sec.20, T.38 S., R.1 E.
31	Meyer Creek at Meyer Creek Road	Lat 42°14'20", long 122°42'45", in NW¼ sec.29, T.38 S., R.1 E.
32	Meyer Creek at South Valley View Road	Lat 42°14'05", long 122°44'25", in SE¼ sec.30, T.38 S., R.1 E.
33	Meyer Creek at Interstate 5	Lat 42°14'02", long 122°44'58", in SW¼ sec.30, T.38 S., R.1 E.
34	Griffin Creek at Sterling Road	Lat 42°16'00", long 122°54'50", in NE¼ sec.15, T.38 S., R.2 W.
35	Griffin Creek at West Griffin Creek Road	Lat 42°16'47", long 122°54'26", in W½ sec.11, T.38 S., R.2 W.
36	Griffin Creek at Graham's Place, 1/4 mile upstream from South Stage Road	Lat 42°17'48", long 122°54'38", in NW¼ sec.2, T.38 S., R.2 W.
37	Griffin Creek at Bellinger Lane	Lat 42°18'33", long 122°55'10", near center of sec.34, T.37 S., R.2 W.
38	Griffin Creek at Highway 238	Lat 42°19'27", long 122°55'20", near center of sec.27, T.37 S., R.2 W.
39	Griffin Creek at Ross Lane	Lat 42°20'40", long 122°55'25", in N½ sec.22, T.37 S., R.2 W.
40	Griffin Creek at Beall Lane	Lat 42°21'45", long 122°55'10", in SE¼ sec.10, T.37 S., R.2 W.
41	Griffin Creek at Scenic Avenue	Lat 42°23'22", long 122°55'30", in S½ sec.34, T.36 S., R.2 W.

Table 2.–Locations of farm plots with irrigation sampling

[Map number designates the aerial photographic map of April 1969 used for the site location]

Site no.	Map no.	Crop	Plot location	Location of inflow point	Location of outflow point
50	149	Pasture	T. 38 S., R. 1 E., sec. 30	50 yd W. of middle of E. border of NE¼SE¼	100 yd E. of W. border, 200 yd N. of S. border of NE¼SE¼
51	136	Pasture	T. 38 S., R. 1 W., secs. 21, 22, 27, and 28	NE. corner of NE¼NE¼ of sec. 28	100 yd N. of middle of the S. border of SW¼SW¼ of sec. 22
52	136	Orchard	T. 38 S., R. 1 W., sec. 23	150 yd E. of W. border, 150 yd N. of S. border of NW¼SW¼	100 yd W. of E. border, 50 yd N. of S. border of SW¼NW¼
53	136	do	T. 38 S., R. 1 W., sec. 23	175 yd E. of middle of W. border of SW¼NW¼	100 yd E. of W. border, 100 yd S. of N. border of SW¼NW¼
54	136	Pasture	T. 38 S., R. 1 W., sec. 22	30 yd S. of N. border, 20 yd W. of E. border of SW¼NE¼	75 yd N. of S. border, 75 yd E. of W. border of NE¼NE¼
55	136	do	T. 38 S., R. 1 W., sec. 22	100 yd N. of S. border, 150 yd E. of W. border of NE¼NE¼	150 yd N. of S. border, 200 yd E. of W. border of NE¼NE¼
56	118	Orchard	T. 38 S., R. 1 W., sec. 17	Middle of S. border of SW¼NE¼	150 yd E. of W. border on N. border of SW¼NE¼
57	118	do	T. 38 S., R. 1 W., secs. 8 and 17	25 yd N. of S. border on W. border of NE¼NE¼ of sec. 17	50 yd N. of S. border on W. border of NE¼SE¼ of sec. 8
58	118	do	T. 38 S., R. 1 W., secs. 8 and 17	125 yd N. of S. border, 125 yd W. of E. border of SE¼SW¼ of sec. 8	75 yd S. of N. border, 50 yd E. of W. border of SE¼SW¼ of sec. 8
59	118	do	T. 38 S., R. 1 W., sec. 9	150 yd W. of E. border on S. border of SW¼SW¼	150 yd W. of E. border on N. border of SW¼SW¼
60	118	do	T. 38 S., R. 1 W., sec. 8	150 yd S. of N. border on E. border of SE¼SW¼	75 yd S. of middle of N. border of NE¼SW¼
61	134	Pasture	T. 38 S., R. 1 W., sec. 11	175 yd E. of W. border, 200 yd S. of N. border of SE¼NE¼	25 yd E. of W. border, 175 yd N. of S. border of SE¼NE¼
62	117	Orchard	T. 38 S., R. 1 W., secs. 8 and 5	Middle of W. border of NW¼NE¼ of sec. 8	200 yd E. of W. border, 200 yd N. of S. border of SW¼SE¼ of sec. 5
63	95	do	T. 38 S., R. 1 W., secs. 5 and 8	50 yd S. of middle of N. border of NW¼NW¼ of sec. 8	50 yd S. of N. border on W. border of NW¼NW¼ of sec. 8
64	95	do	T. 38 S., R. 1 W., sec. 5	150 yd S. of middle of N. border of SW¼NW¼	150 yd E. of middle of W. border of NW¼NW¼
65	95	do	T. 38 S., R. 1 W., sec. 6	Center of W. border of SW¼NW¼SW¼	Center of NW¼SW¼
66	95	do	T. 38 S., R. 2 W., sec. 1	Center of SW¼SW¼	Middle of N. border of NW¼SW¼
67	95	do	T. 38 S., R. 2 W., sec. 2	25 yd W. of E. border, 100 yd N. of S. border of SE¼NE¼	175 yd W. of E. border on N. border of SE¼NE¼
68	95	do	T. 38 S., R. 1 W., sec. 6 (2 inflow points)	Middle of W. border of NE¼SW¼NW¼ 100 yd E. of middle of W. border of NE¼SW¼NW¼	Middle of E. border of NE¼SW¼NW¼
69	95	do	T. 38 S., R. 1 W., sec. 6	200 yd W. of E. border, 175 yd N. of S. border of SE¼NE¼	50 yd E. of W. border, 175 yd N. of S. border of NE¼NE¼
70	76	Pasture	T. 38 S., R. 2 W., sec. 3	Center of SE¼NE¼	Middle of E. border of NE¼NE¼
71	76	Orchard	T. 38 S., R. 2 W., sec. 2	75 yd E. of W. border, 175 yd S. of N. border of NW¼NW¼	100 yd E. of W. border, 75 yd S. of N border of NW¼NW¼
72	94	Orchard	T. 37 S., R. 2 W., secs. 35 and 36	50 yd W. of E. border, 100 yd N. of S. border of NE¼SE¼ of sec. 35	100 yd E. of W. border, 150 yd S. of N. border of NW¼SW¼ of sec. 36
73	132	Pasture	T. 37 S., R. 1 W., sec. 35	100 yd E. of W. border, 150 yd S. of N. border of SE¼SW¼	150 yd E. of W. border, 75 yd N. of S. border of NE¼SW¼
74	116	do	T. 37 S., R. 1 W., secs. 27, 28, 33, and 34 (2 inflow points)	100 yd S. of N. border on E. border of NE¼NE¼ of sec. 33 200 yd S. of N. border on E. border of NE¼NE¼ of sec. 33	100 yd W. of E. border on N. border of NW¼NE¼ of sec. 33
75	74	Orchard	T. 37 S., R. 2 W., secs. 26 and 23	150 yd S. of middle of N. border of NW¼NE¼ of sec. 26	150 yd N. of middle of S. border of SW¼SE¼ of sec. 23
76	74	Beet field	T. 37 S., R. 2 W., secs. 21, 22, 28, and 27	150 yd S. of middle of N. border of NE¼NE¼ of sec. 28	100 yd N. of S. border on W. border of SW¼SW¼ of sec. 22
77	74	do	T. 37 S., R. 2 W., secs. 21 and 22	100 yd N. of S. border on W. border of SW¼SW¼ of sec. 22	Center of SW¼SW¼ of sec. 22
78	55	Pasture	T. 37 S., R. 2 W., sec. 10	125 yd E. of W. border, 125 yd S. of N. border of SE¼SW¼	125 yd E. of W. border on N. border of SE¼SW¼
79	55	Pasture	T. 37 S., R. 2 W., secs. 4 and 9	25 yd S. of N. border on E. border of NE¼NE¼ of sec. 9	Middle of E. border of SW¼SE¼ of sec. 4
80	55	Grass field	T. 37 S., R. 2 W., sec. 3	150 yd E. of W. border, 150 yd S. of N. border of SW¼SW¼	25 yd S. of middle of N. border of SW¼SW¼
81	53	Pasture	T. 36 S., R. 2 W., sec. 32, and T. 37 S., R. 2 W., sec. 5	175 yd W. of middle of E. border of NE¼NW¼ of sec. 5	125 yd N. of middle of S. border of NW¼NE¼ of sec. 5
82	53	do	T. 36 S., R. 2 W., sec. 32	25 yd E. of W. border, 50 yd S. of N. border of NW¼SE¼	100 yd N. of middle of S. border of SE¼NE¼
83	110	do	T. 36 S., R. 1 W., sec. 28	Middle of E. border of SE¼SE¼	Middle of W. border of SW¼SW¼

Table 3.--Locations of tributary and main-stem monitoring sites

Site no.	Site name	Site location
200	Ashland Creek at South Pioneer Street	Lat 42°11'12", long 122°43'00", in SE¼ sec.8, T.39 S., R.1 E.
201	Duck pond overflow	Lat 42°11'20", long 122°43'06", in SE¼ sec.8, T.39 S., R.1 E.
202	Ashland Creek at first bridge upstream from Main Street	Lat 42°11'52", long 122°42'55", in NW¼ sec.9, T.39 S., R.1 E.
203	Ashland Creek at Nevada Street	Lat 42°12'40", long 122°42'37", in NW¼ sec.4, T.39 S., R.1 E.
204	Bear Creek at Interstate 5 (PUC site)	Lat 42°11'43", long 122°40'33", in NW¼ sec.11, T.39 S., R.1 E.
205	Bear Creek at South Valley View Road	Lat 42°13'20", long 122°44'25", in SE¼ sec.31, T.38 S., R.1 E.
206	Wagner Creek at Rapp Road	Lat 42°14'14", long 122°47'07", in center of sec.26, T.38 S., R.1 W.
207	Wagner Creek at U.S. Highway 99	Lat 42°14'36", long 122°46'50", in SE¼ sec.23, T.38 S., R.1 W.
208	Coleman Creek at Pioneer Road	Lat 42°15'32", long 122°50'25", in NE¼ sec.20, T.38 S., R.1 W.
209	Coleman Creek at Houston Road	Lat 42°16'23", long 122°49'42", in SW¼ sec.9, T.38 S., R.1 W.
210	Coleman Creek at U.S. Highway 99	Lat 42°16'52", long 122°49'20", in NE¼ sec.9, T.38 S., R.1 W.
211	Larson Creek at North Phoenix Road	Lat 42°18'46", long 122°48'54", in NW¼ sec.34, T.37 S., R.1 W.
212	Larson Creek at Ellendale Road	Lat 42°18'55", long 122°50'41", in N½ sec.32, T.37 S., R.1 W.
213	Hansen Creek above Kogap Mill	Lat 42°18'15", long 122°51'18", in SE¼ sec.31, T.37 S., R.1 W.
214	Hansen Creek at U.S. Highway 99	Lat 42°18'46", long 122°51'30", in NE¼ sec.31, T.37 S., R.1 W.

Table 3.--Locations of tributary and main-stem monitoring sites--Continued

Site no.	Site name	Site location
215	Crooked Creek at South Stage Road	Lat 42°17'38", long 122°53'17", in SW¼ sec.1, T.38 S., R.2 W.
216	Crooked Creek at Kings Highway	Lat 42°18'08", long 122°52'35", in SE¼ sec.36, T.37 S., R.2 W.
217	Crooked Creek at U.S. Highway 99	Lat 42°18'50", long 122°51'39", in NE¼ sec.31, T.37 S., R.1 W.
218	Bear Creek at Barnett Road	Lat 42°18'55", long 122°51'05", in NW¼ sec.32, T.37 S., R.1 W.
219	Bear Creek at Table Rock Road	Lat 42°21'55", long 122°53'05", in S½ sec.12, T.37 S., R.2 W.
220	Griffin Creek at Bellinger Lane	Lat 42°18'33", long 122°55'10", near center of sec.34, T.37 S., R.2 W.
221	Griffin Creek at Beall Lane	Lat 42°21'45", long 122°55'10", in SE¼ sec.10, T.37 S., R.2 W.
222	Griffin Creek at Scenic Avenue	Lat 42°23'22", long 122°55'30", in S½ sec.34, T.36 S., R.2 W.
223	Jackson Creek at Highway 238	Lat 42°19'35", long 122°56'30", in N½ sec.28, T.37 S., R.2 W.
224	Jackson Creek at Beall Lane	Lat 42°21'47", long 122°55'35", in SW¼ sec.10, T.37 S., R.2 W.
225	Jackson Creek at Scenic Avenue	Lat 42°23'25", long 122°56'09", in SE¼ sec.33, T.36 S., R.2 W.
226	Bear Creek at Kirtland Road near Central Point	Lat 42°25'40", long 122°57'25", in in NE¼ sec.20, T.36 S., R.2 W.
227	Little Butte Creek at Eagle Point	Lat 42°28'20", long 122°47'57", in NE¼ sec.3, T.36 S., R.1 W.
228	Little Butte Creek at Agate Road	Lat 42°27'20", long 122°51'18", in W½ sec.8, T.36 S., R.1 W.
229	Evans Creek at city of Rogue River	Lat 42°26'09", long 123°10'20", in SE¼ sec.16, T.36 S., R.4 W.

Table 4.--Locations of Bear Creek diel-study sites

Site no.	Site name	Site location
107	Bear Creek at Interstate 5 south of Ashland	Lat 42°11'43", long 122°40'33", in NW¼ sec.11, T.39 S., R.1 E.
102	Bear Creek at South Valley View Road	Lat 42°13'20", long 122°44'25", in SE¼ sec.31, T.38 S., R.1 E.
108	Bear Creek at Talent	Lat 42°14'42", long 122°46'28", in SW¼ sec.24, T.38 S., R.1 W.
104	Bear Creek at Barnett Road	Lat 42°18'55", long 122°51'05", in NW¼ sec.32, T.37 S., R.1 W.
105	Bear Creek at Table Rock Road	Lat 42°21'55", long 122°53'05", in S½ sec.12, T.37 S., R.2 W.
109	Bear Creek at Kirtland Road	Lat 42°25'47", long 122°57'38", in NE¼ sec.20, T.36 S., R.2 W.

Field measurements of temperature, dissolved oxygen, pH, and specific conductance were obtained using a Martek[1] multiparameter monitor coupled to an Elnik continuous recorder. Discharge was measured once during the daylight hours at each site. To determine if the rate of flow was changing, stage was noted at the time of each site visit. Measurements of alkalinity were made three times per day; samples for analysis of turbidity, suspended sediment, and chemical constituents were collected once a day, usually at the time of day associated with peak productivity. Most of the chemical analyses for the diel studies were made by the Oregon Department of Environmental Quality.

Biological samples were taken once at each site and consisted of: (1) 10-in^2 rock scrapings of periphyton taken at random from a cross section of the creek for population count, determination of chlorophyll A and B, and biomass; (2) benthic invertebrates (using a Surber sampler covering 1 ft^2 of area); (3) indicator bacteria; (4) biochemical oxygen demand; and (5) light-dark bottle tests for about 24 hours.

Precipitation and Storm-Water-Runoff Gages

The objective of the storm-water-runoff study was to determine the quantity and quality of water leaving selected basins under storm conditions. Table 5 lists the locations of the precipitation and storm-water-runoff gages. Most of the samples were collected using a SERCO automatic sampler, but occasionally samples for all sites were collected using a hand sampler. All the samples for the combined sewer outflow were collected by hand. (See tables 13, 14, and 15 for daily precipitation, mean daily discharge, and water-quality data, respectively.)

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[1] The use of brand names in this report is for identification purposes only and does not imply endorsement by the U.S. Geological Survey.

Table 5.--Locations of precipitation and storm-water-runoff gages

Station number	Station name	Station location
14352010	Unnamed tributary to Bear Creek in Ashland	Lat 42°11'45", long 122°41'50", in NE¼ sec.9, T.39 S., R.1 E.
P1	Ashland rain gage on Science No. 1 Building, Southern Oregon State College	Lat 42°11'10", long 122°41'40", in SW¼ sec.10, T.39 S., R.1 E.
14357501	Combined sewer outflow to Bear Creek in Medford	Lat 42°19'37", long 122°52'10", in NW¼ sec.30, T.37 S., R.1 W.
P2	Rain gage on Medical Center Building near Red Lion Inn	Lat 42°19'32", long 122°52'20", in NW¼ sec.30, T.37 S., R.1 W.
14357506	Storm sewer outflow to Bear Creek at McAndrews Road in Medford	Lat 42°20'27", long 122°52'30", in NE¼ sec.24, T.37 S., R.2 W.
P3	McAndrews Road rain gage	Lat 42°19'35", long 122°52'50", in NE¼ sec.25, T.37 S., R.2 W.
14358495	Unnamed tributary to Bear Creek at Sage Road near Medford	Lat 42°20'35", long 122°53'50", in NE¼ sec.23, T.37 S., R.2 W.
P4	Sage Road rain gage at station 14358495 site	Lat 42°20'35", long 122°53'50", in NE¼ sec.23, T.37 S., R.2 W.
P5	Sage Road rain gage at 1135 Lozier Lane	Lat 42°18'45", long 122°53'54", in NE¼ sec.35, T.37 S., R.2 W.
14358499	Unnamed tributary to Bear Creek at Upton Road in Central Point	Lat 42°23'20", long 122°55'09", in NE¼ sec.3, T.37 S., R.2 W.
P6	Upton Road rain gage on Central Point School Motor Pool Building	Lat 42°22'45", long 122°55'10", in SE¼ sec.3, T.37 S., R.2 W.

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HYDROLOGIC DATA

Data collected for the various elements of this study are listed in tables 6 through 15. Most of the tables are organized in a sequential site number order. Remarks describe information about the site or anomalies in the data. Bacterial samples that did not have one or a combination of filters with a colony count of between the ideal of 20 and 60 for fecal coliform, 20 to 80 for total coliform, or 20 to 100 for fecal streptococci are reported with the remark "B."

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages

[E/, estimated; NF, no flow]

Site number and name: 30 - Meyer Creek at east lateral

Remarks: The samples that were taken after May consisted of water spilling into the creek from the east lateral because the creek was dry.

Date sampled (1977)	4-1	6-15	7-13	8-23	9-22	10-12
Time (2400 hours)	1015	1030	1010	1030	0855	0930
Discharge (ft^3/s)	<.05	.03	.18	.50	.61	NF
Temperature (°C)	8.0	11.0	13.0	20.0	14.5	
Dissolved oxygen (mg/L)	10.7	11.3	10.4	10.4	9.9	
pH (units)	8.3	7.8	7.9	8.0	7.9	
Specific conductance (micromhos/cm at 25°C)	500	109	116	119	120	
Turbidity (JTU's)	1	20	9	15	30	
Suspended sediment						
Concentration (mg/L)	3	44	24	43	50	
Percentage less than 0.062-mm diameter	--	90	--	--	--	
Dissolved nitrate + nitrite as N (mg/L)	.02	--	--	--	--	
Dissolved orthophosphate as P (mg/L)	.13	--	--	--	--	
Total Kjeldahl nitrogen as N (mg/L)	.55	--	--	--	--	
Fecal coliform (count/100 ml)	70	73	27B	82	33B	
Fecal streptococci (count/100 ml)	590B	190	88B	160	83B	

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 31 - Meyer Creek at Meyer Creek Road

Remarks: On April 1 there was standing water with no visible flow.

Date sampled (1977)	4-1	6-14	7-13	8-23	9-22	10-12
Time (2400 hours)	--	1115	1050	1050	0930	0955
Discharge (ft^3/s)	NF	.43	3.2	.65	.63	--
Temperature (°C)	--	19.5	15.5	19.0	12.5	13.0
Dissolved oxygen (mg/L)	--	8.5	8.6	8.9	9.9	9.2
pH (units)	--	7.6	8.0	7.7	7.9	8.0
Specific conductance (micromhos/cm at 25°C)	--	300	265	310	520	650
Turbidity (JTU's)	--	6	8	8	2	2
Suspended sediment						
Concentration (mg/L)	--	15	30	16	98	112
Percentage less than 0.062-mm diameter	--	86	--	--	--	--
Fecal coliform (count/100 ml)	--	>2,700	950	>1,000	1,700	>2,000
Fecal streptococci (count/100 ml)	--	>2,500	2,100	>2,000	8,400	1,600

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 32 - Meyer Creek at South Valley View Road

Remarks: Site same as No. 4 in report by McKenzie and Wittenberg (1977).

Date sampled (1977)	4-1	6-15	7-13	7-29	8-23	9-22	10-12
Time (2400 hours)	--	1215	1155	1100	0945	0945	1020
Discharge (ft^3/s)	NF	1.9	3.0	3.52	2.99	1.58	.78
Temperature (°C)	--	18.0	18.0	17.0	17.0	12.0	12.0
Dissolved oxygen (mg/L)	--	8.5	--	9.6	9.4	9.1	9.9
pH (units)	--	7.7	8.0	7.8	7.8	8.1	8.0
Specific conductance (micromhos/cm at 25°C)	--	330	320	285	390	480	705
Turbidity (JTU's)	--	10	7	7	4	8	2
Suspended sediment							
Concentration (mg/L)	--	40	21	28	21	84	128
Percentage less than 0.062-mm diameter	--	76	--	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	--	.67	.27	.27	.32	.40	.69
Dissolved orthophosphate as P (mg/L)	--	.29	.06	.10	.07	.04	.06
Fecal coliform (count/100 ml)	--	3,600B	730	1,900	>2,700	970	1,000
Fecal streptococci (count/100 ml)	--	>2,500	1,400	11,000	>2,500	5,700	1,300
Total coliform (count/100 ml)	--	5,500	--	--	12,000B	--	--

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 33 - Meyer Creek at Interstate 5

Remarks: Sampling site is approximately 300 yd above mouth of creek.

Date sampled (1977)	4-1	6-15	7-15	7-29	8-23	9-22	10-12
Time (2400 hours)	1120	1255	1300	1130	1110	1020	1120
Discharge (ft^3/s)	E/.05	.56	.23	.39	.26	.23	.39
Temperature (°C)	9.0	18.0	20.0	17.0	18.5	12.0	12.5
Dissolved oxygen (mg/L)	--	9.0	--	8.5	8.9	10.1	10.5
pH (units)	8.8	7.6	8.3	7.8	8.1	8.2	8.3
Specific conductance (micromhos/cm at 25°C)	650	323	460	425	450	480	710
Turbidity (JTU's)	1	7	2	2	9	1	1
Suspended sediment							
Concentration (mg/L)	56	10	41	7	32	40	97
Percentage less than 0.062-mm diameter	--	84	--	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	.36	--	--	.49	--	--	--
Dissolved orthophosphate as P (mg/L)	.04	--	--	.42	--	--	--
Total Kjeldahl nitrogen as N (mg/L)	.46	--	--	--	--	--	--
Fecal coliform (count/100 ml)	<3	1,100	260	650	550	2,100	1,400
Fecal streptococci (count/100 ml)	140	2,100	520	4,100	2,100	7,400	1,000

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 34 - Griffin Creek at Sterling Road

Remarks: Site located at intersection of Griffin Creek Road and Sterling Road. Site had no water flowing during most of summer.

Date sampled (1977)	3-31	6-16	7-21	8-26	9-23	10-13
Time (2400 hours)	1335	1240				0950
Discharge (ft^3/s)	.36	.26	NF	NF	NF	.13
Temperature (°C)	9.5	14.0				12.0
Dissolved oxygen (mg/L)	10.3	9.8				8.7
pH (units)	8.3	8.4				7.6
Specific conductance (micromhos/cm at 25°C)	420	440				500
Turbidity (JTU's)	1	5				1
Suspended sediment						
Concentration (mg/L)	5	13				75
Dissolved nitrate + nitrite as N (mg/L)	.01	--				--
Dissolved orthophosphate as P (mg/L)	.05	--				--
Total Kjeldahl nitrogen as N (mg/L)	.56	--				--
Fecal coliform (count/100 ml)	8B	1,200				110
Fecal streptococci (count/100 ml)	100	370				350

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 35 - Griffin Creek at West Griffin Creek Road

Remarks: Discharge measurements rated fair (within 10 percent).

Date sampled (1977)	3-31	6-16	7-21	8-26	9-23	10-13
Time (2400 hours)	1310	1250	1145	1130	1100	1005
Discharge (ft^3/s)	.34	E/8	.43	3.5	--	E/.10
Temperature (°C)	9.0	18.0	19.0	17.5	15.0	12.5
Dissolved oxygen (mg/L)	10.7	9.1	7.7	8.3	9.6	9.1
pH (units)	8.5	8.3	7.3	7.2	8.0	7.4
Specific conductance (micromhos/cm at 25°C)	400	145	165	133	120	360
Turbidity (JTU's)	1	20	4	15	30	1
Suspended sediment						
Concentration (mg/L)	2	34	13	12	73	7
Percentage less than 0.062-mm diameter	--	93	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	.00	--	--	--	--	--
Dissolved orthophosphate as P (mg/L)	.05	--	--	--	--	--
Total phosphorus as P (mg/L)	.06	--	--	--	--	--
Total Kjeldahl nitrogen as N (mg/L)	.52	--	--	--	--	--
Fecal coliform (count/100 ml)	<8	470	430	220	140	150
Fecal streptococci (count/100 ml)	--	1,000	1,600	1,600	890	470

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 36 - Griffin Creek at Graham's Place, 1/4 mile upstream from South Stage Road

Remarks: Site is downstream from Griffin Creek School.

Date sampled (1977)	3-31	6-16	7-21	8-26	9-23	10-13
Time (2400 hours)	1245	1145	1315	1100	1030	1025
Discharge (ft^3/s)	.54	9.80	7.0	11.0	14	.41
Temperature (°C)	8.5	17.0	20.0	17.0	14.0	13.5
Dissolved oxygen (mg/L)	12.4	9.0	8.6	9.4	9.9	10.1
pH (units)	8.4	8.2	8.0	7.6	8.1	8.0
Specific conductance (micromhos/cm at 25°C)	350	185	195	175	180	320
Turbidity (JTU's)	1	20	5	15	--	1
Suspended sediment						
Concentration (mg/L)	4	85	21	30	68	7
Percentage less than 0.062-mm diameter	59	62	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	.00	--	--	--	--	--
Dissolved orthophosphate as P (mg/L)	.03	--	--	--	--	--
Total phosphorus as P (mg/L)	.06	--	--	--	--	--
Total Kjeldahl nitrogen as N (mg/L)	.68	--	--	--	--	--
Fecal coliform (count/100 ml)	73	760	230	670	230	270
Fecal streptococci (count/100 ml)	230	730	600	5,600	1,700	550

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 37 - Griffin Creek at Bellinger Lane

Remarks: Sampling site the same as No. 220 in table 8.

Date sampled (1977)	3-31	5-18	6-16	7-20	8-26	9-23	10-13
Time (2400 hours)	--	1310	1115	1230	1030	1010	1100
Discharge (ft^3/s)	NF	4.7	2.5	.26	6.4	5.4	.72
Temperature (°C)	--	11.0	17.0	22.0	17.0	14.0	12.0
Dissolved oxygen (mg/L)	--	9.6	9.3	8.5	8.9	9.7	10.1
pH (units)	--	8.1	8.1	8.0	7.6	8.0	7.7
Specific conductance (micromhos/cm at 25°C)	--	215	216	280	235	--	215
Turbidity (JTU's)	--	45	15	5	15	20	10
Suspended sediment							
Concentration (mg/L)	--	84	19	15	23	43	55
Percentage less than 0.062-mm diameter	--	93	81	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	--	.59	--	--	--	--	--
Dissolved orthophosphate as P (mg/L)	--	.02	--	--	--	--	--
Total phosphorus as P (mg/L)	--	.32	--	--	--	--	--
Total Kjeldahl nitrogen as N (mg/L)	--	.75	--	--	--	--	--
Fecal coliform (count/100 ml)	--	1,500	650	580	900	1,000	710
Fecal streptococci (count/100 ml)	--	1,400	--	2,100	4,800	3,600	1,500

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 38 - Griffin Creek at Highway 238

Remarks: Sampled only for bacteria at this site.

Date sampled (1977)	3-31	6-16	7-20	8-26	9-23	10-13
Time (2400 hours)	--	--	1230	1015	1000	1120
Discharge (ft^3/s)	NF	--	--	--	--	--
Specific conductance (micromhos/cm at 25°C)	--	--	--	270	--	--
Turbidity (JTU's)	--	--	--	5	--	--
Fecal coliform (count/100 ml)	--	390	140	1,500	1,100	1,200
Fecal streptococci (count/100 ml)	--	200	1,000	2,900	4,100	3,100

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 39 - Griffin Creek at Ross Lane

Remarks: Samples only for bacteria, specific conductance, and turbidity at this site.

Date sampled (1977)	3-31	6-16	7-20	8-26	9-23	10-13
Time (2400 hours)	--	--	1220	1000	0950	1130
Specific conductance (micromhos/cm at 25°C)	420	--	--	300	285	--
Turbidity (JTU's)	3	--	--	5	15	--
Fecal coliform (count/100 ml)	<9	310	830	550	880	690
Fecal streptococci (count/100 ml)	--	>2,500	350	3,100	4,100	870

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 40 - Griffin Creek at Beall Lane

Remarks: Sampling site the same as No. 221 in table 8. On August 26, total coliform equal to 6,600 colonies per 100 ml.

Date sampled (1977)	3-31	5-18	6-16	7-20	8-26	9-23	10-13
Time (2400 hours)	1030	1120	1015	1125	0950	0930	1225
Discharge (ft^3/s)	2.9	13	7.0	1.6	10.5	21.7	7.17
Temperature (°C)	10.0	11.0	16.0	18.0	16.0	15.0	14.0
Dissolved oxygen (mg/L)	10.4	9.5	9.1	8.0	8.5	9.0	9.3
pH (units)	7.4	7.7	8.1	7.4	7.4	7.8	7.6
Specific conductance (micromhos/cm at 25°C)	450	260	320	345	320	275	380
Turbidity (JTU's)	2	50	10	2	6	10	6
Suspended sediment							
Concentration (mg/L)	8	151	24	12	16	43	21
Percentage less than 0.062-mm diameter	56	94	72	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	--	1.4	--	--	--	--	--
Dissolved orthophosphate as P (mg/L)	--	.20	--	--	--	--	--
Total phosphorus as P (mg/L)	--	.40	--	--	--	--	--
Total Kjeldahl nitrogen as N (mg/L)	--	.96	--	--	--	--	--
Fecal coliform (count/100 ml)	220	840	2,500	1,700	4,200B	470	1,400
Fecal streptococci (count/100 ml)	530	1,900	--	1,900	>12,000	2,700	20,000

Table 6.--Hydrologic data from Meyer Creek and Griffin Creek drainages--Continued

Site number and name: 41 - Griffin Creek at Scenic Avenue

Remarks: Site same as No. 222 in table 8.

Date sampled (1977)	3-31	5-17	6-16	7-20	8-26	9-23	10-13
Time (2400 hours)	1000	1100	0930	1030	0900	0855	1300
Discharge (ft^3/s)	.52	18	.43	.14	9.4	16	6.8
Temperature (°C)	9.0	11.0	16.0	20.0	16.0	14.0	14.0
Dissolved oxygen (mg/L)	14.8	10.2	9.1	13.2	8.7	9.5	9.8
pH (units)	7.9	7.3	8.0	8.1	7.6	7.9	7.9
Specific conductance (micromhos/cm at 25°C)	420	280	360	365	350	280	400
Turbidity (JTU's)	1	30	6	1	7	10	6
Suspended sediment							
Concentration (mg/L)	5	65	8	5	15	21	27
Percentage less than 0.062-mm diameter	60	91	84	--	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	2.7	1.5	1.4	1.5	3.3	1.3	2.9
Dissolved orthophosphate as P (mg/L)	.53	.19	.19	.21	.32	.22	.16
Total phosphorus as P (mg/L)	--	.36	--	--	--	--	--
Total Kjeldahl nitrogen as N (mg/L)	1.0	.67	--	--	--	--	--
Fecal coliform (count/100 ml)	55B	730	830	260	1,400	660	810
Fecal streptococci (count/100 ml)	2,100B	1,300	2,200	780	4,900	12,000	10,000
Total coliform (count/100 ml)	--	--	2,900	180	1,200	--	1,800

Table 7.--Inflow and outflow data from irrigated farm plots

Site number 50 Agricultural practice Pasture

Approximate plot size: 50 yd by 300 yd

Irrigation method: Flood Soil type: Coker clay

	Inflow	Inflow	Outflow
Date sampled (1977)	7-28	7-29	7-29
Time (2400 hours)	1100	0945	1100
Discharge (ft^3/s)	.23	.54	.20
Temperature (°C)	18.0	16.0	21.0
Dissolved oxygen (mg/L)	9.4	9.1	6.4
pH (units)	8.1	8.2	7.6
Specific conductance (micromhos/cm at 25°C)	185	180	200
Turbidity (JTU's)	7	25	2
Suspended sediment			
Concentration (mg/L)	17	67	13
Percentage less than 0.062-mm diameter	--	--	--
Dissolved nitrate + nitrite as N (mg/L)	.12	.03	.06
Dissolved orthophosphate as P (mg/L)	.07	.15	.12
Total Kjeldahl nitrogen as N (mg/L)	--	--	--
Fecal coliform (count/100 ml)	380	1,000	4,000
Fecal streptococci (count/100 ml)	4,600	18,000B	30,000
Total coliform (count/100 ml)	--	--	16,000

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number 51 Agricultural practice Pasture

Approximate plot size: 50 yd by 100 yd

Irrigation method: Flood Soil type: Coleman loam

	Inflow	Outflow
Date sampled (1977)	9-26	9-26
Time (2400 hours)	1105	1115
Discharge (ft^3/s)	.25	--
Temperature (°C)	16.0	21.0
Dissolved oxygen (mg/L)	9.4	7.5
pH (units)	7.9	7.6
Specific conductance (micromhos/cm at 25°C)	145	142
Turbidity (JTU's)	25	6
Suspended sediment (mg/L)	43	14
Dissolved nitrate + nitrite as N (mg/L)	.06	.01
Dissolved orthophosphate as P (mg/L)	.00	.00
Total Kjeldahl nitrogen as N (mg/L)	.36	.27
Fecal coliform (count/100 ml)	310	380B
Fecal streptococci (count/100 ml)	800	5,200
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 52 Agricultural practice Orchard

Approximate plot size: 400 yd by 400 yd

Irrigation method: Rill irrigation Soil type: Medford clay loam

Remarks: Grass growing between trees.

	Inflow	Outflow
Date sampled (1977)	9-6	9-6
Time (2400 hours)	0930	1020
Discharge (ft^3/s)	2.52	.47
Temperature (°C)	--	--
Dissolved oxygen (mg/L)	7.8	7.7
pH (units)	7.0	7.0
Specific conductance (micromhos/cm at 25°C)	200	165
Turbidity (JTU's)	9	15
Suspended sediment (mg/L)	18	18
Dissolved nitrate + nitrite as N (mg/L)	.12	.98
Dissolved orthophosphate as P (mg/L)	.07	.92
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	2,100	520
Fecal streptococci (count/100 ml)	14,000	4,600
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 53 Agricultural practice: Orchard

Approximate plot size: 75 yd by 175 yd

Irrigation method: Rill irrigation (moderate slope)

Soil type: Medford clay loam and Medford silty clay loam

Remarks: Poor discharge measurements at inflow and outflow points. Grass between tree rows.

	Inflow	Outflow
Date sampled (1977)	9-20	9-20
Time (2400 hours)	1030	0945
Discharge (ft^3/s)	.34	.14
Temperature (°C)	16.0	15.0
Dissolved oxygen (mg/L)	8.4	6.3
pH (units)	7.5	7.2
Specific conductance (micromhos/cm at 25°C)	200	215
Turbidity (JTU's)	25	10
Suspended sediment		
Concentration (mg/L)	417	48
Percentage less than 0.062-mm diameter	64	66
Dissolved nitrate + nitrite as N (mg/L)	.80	1.5
Dissolved orthophosphate as P (mg/L)	.28	.71
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	1,800	4,600
Fecal streptococci (count/100 ml)	12,000	24,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 54 Agricultural practice: Pasture

Approximate plot size: 50 yd by 150 yd

Irrigation method: Flood Soil type: Medford clay loam

	Inflow	Outflow
Date sampled (1977)	9-27	9-27
Time (2400 hours)	1120	1105
Discharge (ft^3/s)	1.69	--
Temperature (°C)	15.5	16.0
Dissolved oxygen (mg/L)	9.3	7.5
pH (units)	8.0	7.5
Specific conductance (micromhos/cm at 25°C)	240	315
Turbidity (JTU's)	10	5
Suspended sediment		
Concentration (mg/L)	226	27
Percentage less than 0.062-mm diameter	86	--
Dissolved nitrate + nitrite as N (mg/L)	.14	.06
Dissolved orthophosphate as P (mg/L)	.03	.03
Total Kjeldahl nitrogen as N (mg/L)	.27	.49
Fecal coliform (count/100 ml)	2,000	680
Fecal streptococci (count/100 ml)	2,400	12,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 55 Agricultural practice: Pasture

Approximate plot size: 75 yd by 100 yd

Irrigation method: Flood Soil type: Medford clay loam

Remarks: Very heavy rain for several hours previous to sample collection.

	Inflow	Outflow
Date sampled (1977)	9-28	9-28
Time (2400 hours)	0915	0900
Discharge (ft^3/s)	1.73	--
Temperature (°C)	14.0	14.0
Dissolved oxygen (mg/L)	9.2	8.4
pH (units)	7.6	7.3
Specific conductance (micromhos/cm at 25°C)	280	175
Turbidity (JTU's)	50	15
Suspended sediment (mg/L)	7	30
Dissolved nitrate + nitrite as N (mg/L)	1.5	.09
Dissolved orthophosphate as P (mg/L)	.27	.51
Total Kjeldahl nitrogen as N (mg/L)	1.9	1.3
Fecal coliform (count/100 ml)	19,000	>54,000
Fecal streptococci (count/100 ml)	100,000	46,000
Total coliform (count/100 ml)	67,000	>80,000

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 56 Agricultural practice: Orchard

Approximate plot size: 175 yd by 450 yd

Irrigation method: Rill Soil type: Coleman loam and Medford clay loam

	Inflow	Outflow
Date sampled (1977)	9-7	9-7
Time (2400 hours)	1105	1120
Discharge (ft^3/s)	.41	.48
Temperature (°C)	--	--
Dissolved oxygen (mg/L)	8.3	9.0
pH (units)	--	--
Specific conductance (micromhos/cm at 25°C)	205	200
Turbidity (JTU's)	10	35
Suspended sediment		
Concentration (mg/L)	21	1,570
Percentage less than 0.062-mm diameter	--	13
Dissolved nitrate + nitrite as N (mg/L)	.31	4.4
Dissolved orthophosphate as P (mg/L)	.05	.09
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	520	480
Fecal streptococci (count/100 ml)	960	10,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 57 Agricultural practice: Orchard

Approximate plot size: 225 yd by 875 yd

Irrigation method: Rill Soil type: Selmac silty clay loam and Coleman loam

Remarks: Packed clay under 3 inches of loose soil.

	Inflow	Outflow
Date sampled (1977)	9-8	9-8
Time (2400 hours)	0900	0950
Discharge (ft^3/s)	--	--
Temperature (°C)	17.0	18.0
Dissolved oxygen (mg/L)	9.5	9.5
pH (units)	7.1	7.0
Specific conductance (micromhos/cm at 25°C)	200	220
Turbidity (JTU's)	30	750
Suspended sediment (mg/L)	47	2,730
Dissolved nitrate + nitrite as N (mg/L)	.81	.12
Dissolved orthophosphate as P (mg/L)	.06	.07
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	1,200	1,100
Fecal streptococci (count/100 ml)	5,700	6,700
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 58 Agricultural practice: Orchard

Approximate plot size: 175 yd by 350 yd

Irrigation method: Rill Soil type: Medford silty clay loam and Cove clay

	Inflow	Outflow
Date sampled (1977)	9-1	9-1
Time (2400 hours)	1115	1050
Discharge (ft^3/s)	.62	.17
Temperature (°C)	16.5	19.0
Dissolved oxygen (mg/L)	9.5	8.8
pH (units)	7.8	7.7
Specific conductance (micromhos/cm at 25°C)	157	190
Turbidity (JTU's)	10	400
Suspended sediment		
Concentration (mg/L)	24	2,460
Percentage less than 0.062-mm diameter	--	65
Dissolved nitrate + nitrite as N (mg/L)	.35	2.4
Dissolved orthophosphate as P (mg/L)	.14	.25
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	790	1,300
Fecal streptococci (count/100 ml)	>2,500	14,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 59 Agricultural practice: Orchard

Approximate plot size: 125 yd by 400 yd

Irrigation method: Rill Soil type: Ruch silt loam

	Inflow	Outflow
Date sampled (1977)	8-4	8-4
Time (2400 hours)	1200	1200
Discharge (ft^3/s)	.48	--
Temperature (°C)	23.0	32.0
Dissolved oxygen (mg/L)	7.1	6.4
pH (units)	7.4	7.2
Specific conductance (micromhos/cm at 25°C)	200	196
Turbidity (JTU's)	10	25
Suspended sediment		
Concentration (mg/L)	61	2,410
Percentage less than 0.062-mm diameter	--	85
Dissolved nitrate + nitrite as N (mg/L)	.26	.54
Dissolved orthophosphate as P (mg/L)	.27	.33
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	350	1,000
Fecal streptococci (count/100 ml)	3,900	4,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 60 Agricultural practice: Orchard

Approximate plot size: 225 yd by 525 yd

Irrigation method: Rill Soil type: Agate-Windlo complex

Remarks: Weeds and grass between tree rows.

	Inflow	Outflow
Date sampled (1977)	9-8	9-8
Time (2400 hours)	1115	1130
Discharge (ft^3/s)	2.71	.10
Temperature (°C)	18.0	21.0
Dissolved oxygen (mg/L)	9.5	8.5
pH (units)	7.3	7.1
Specific conductance (micromhos/cm at 25°C)	205	360
Turbidity (JTU's)	140	20
Suspended sediment (mg/L)	594	39
Dissolved nitrate + nitrite as N (mg/L)	.79	24.0
Dissolved orthophosphate as P (mg/L)	.06	.17
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	1,900	2,000
Fecal streptococci (count/100 ml)	20,000	14,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 61 Agricultural practice: Cow and sheep pasture

Approximate plot size: 75 yd by 275 yd

Irrigation method: Flood (moderate slope)

Soil type: Manita loam

	Inflow	Outflow
Date sampled (1977)	9-27	9-27
Time (2400 hours)	1000	0920
Discharge (ft^3/s)	2.60	.45
Temperature (°C)	15.5	15.5
Dissolved oxygen (mg/L)	9.1	7.7
pH (units)	8.0	7.7
Specific conductance (micromhos/cm at 25°C)	118	126
Turbidity (JTU's)	25	20
Suspended sediment		
Concentration (mg/L)	79	69
Percentage less than 0.062-mm diameter	74	77
Dissolved nitrate + nitrite as N (mg/L)	.03	.01
Dissolved orthophosphate as P (mg/L)	.00	.02
Total Kjeldahl nitrogen as N (mg/L)	.16	1.4
Fecal coliform (count/100 ml)	380B	>6,000
Fecal streptococci (count/100 ml)	1,000	>50,000
Total coliform (count/100 ml)	500B	>16,000

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 62 Agricultural practice: Orchard

Approximate plot size: 275 yd by 450 yd

Irrigation method: Rill and flood Soil type: Medford clay loam

Remarks: Some grass and weeds between trees. Tail waters formed puddling area at end of orchard. No runoff.

	Inflow	Tail waters
Date sampled (1977)	9-8	9-8
Time (2400 hours)	1015	1050
Discharge (ft^3/s)	.23	--
Temperature (°C)	17.0	--
Dissolved oxygen (mg/L)	10.1	--
pH (units)	7.3	7.1
Specific conductance (micromhos/cm at 25°C)	260	260
Turbidity (JTU's)	15	25
Suspended sediment (mg/L)	16	45
Dissolved nitrate + nitrite as N (mg/L)	1.2	2.2
Dissolved orthophosphate as P (mg/L)	.26	.16
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	1,400	4,600
Fecal streptococci (count/100 ml)	3,800	18,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 63 Agricultural practice: Orchard

Approximate plot size: 350 yd by 500 yd

Irrigation method: Rill Soil type: Cove clay, Coleman loam, and Medford silty clay loam

Remarks: Oily substance on surface of water. Noticeable odor at inflow.

	Inflow	Outflow
Date sampled (1977)	9-16	9-16
Time (2400 hours)	1120	1050
Discharge (ft^3/s)	9.16	.13
Temperature (°C)	15.0	17.0
Dissolved oxygen (mg/L)	9.4	8.5
pH (units)	8.0	7.5
Specific conductance (micromhos/cm at 25°C)	235	240
Turbidity (JTU's)	15	25
Suspended sediment (mg/L)	39	72
Dissolved nitrate + nitrite as N (mg/L)	.79	3.3
Dissolved orthophosphate as P (mg/L)	.17	.28
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	1,800	5,000
Fecal streptococci (count/100 ml)	5,900	6,700
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 64 Agricultural practice: Orchard

Approximate plot size: 350 yd by 400 yd

Irrigation method: Rill Soil type: Cove clay, Coleman loam, and Medford silty clay loam

Remarks: Water collecting in puddle at bottom of field before draining into ditch by side of road at outflow.

	Inflow	Outflow
Date sampled (1977)	9-16	9-16
Time (2400 hours)	1030	1010
Discharge (ft^3/s)	.60	Est. .08
Temperature	15.5	17.0
Dissolved oxygen (mg/L)	9.4	8.5
pH (units)	8.1	7.5
Specific conductance (micromhos/cm at 25°C)	235	270
Turbidity (JTU's)	10	40
Suspended sediment (mg/L)	16	273
Dissolved nitrate + nitrite as N (mg/L)	.89	7.2
Dissolved orthophosphate as P (mg/L)	.19	.23
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	2,600	9,400
Fecal streptococci (count/100 ml)	5,200	4,800
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 65 Agricultural practice: Orchard

Approximate plot size: 100 yd by 250 yd

Irrigation method: Rill and flood Soil type: Carney clay and Selmac silty clay loam

Remarks: Flow to orchard cut off 4 hours earlier. Inflow sample taken from Phoenix canal.

	Inflow	Outflow
Date sampled (1977)	9-7	9-7
Time (2400 hours)	1215	1150
Discharge (ft^3/s)	No flow	.37
Temperature (°C)	20.0	25.0
Dissolved oxygen (mg/L)	--	7.7
pH (units)	--	--
Specific conductance (micromhos/cm at 25°C)	260	168
Turbidity (JTU's)	10	25
Suspended sediment (mg/L)	12	32
Dissolved nitrate + nitrite as N (mg/L)	1.2	2.6
Dissolved orthophosphate as P (mg/L)	.23	.08
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	720	1,500
Fecal streptococci (count/100 ml)	1,700	13,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 66 Agricultural practice: Orchard

Approximate plot size: 100 yd by 600 yd

Irrigation method: Rill (moderate slope) Soil type: Coleman loam

	Inflow	Outflow
Date sampled (1977)	9-6	9-6
Time (2400 hours)	1130	0930
Discharge (ft^3/s)	.30	--
Temperature (°C)	20.0	18.0
Dissolved oxygen (mg/L)	9.2	7.8
pH (units)	8.1	--
Specific conductance (micromhos/cm at 25°C)	180	146
Turbidity (JTU's)	10	35
Suspended sediment (mg/L)	25	58
Dissolved nitrate + nitrite as N (mg/L)	.23	1.7
Dissolved orthophosphate as P (mg/L)	.03	.09
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	740	4,800
Fecal streptococci (count/100 ml)	1,600	>20,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 67 Agricultural practice: Orchard

Approximate plot size: 150 yd by 300 yd

Irrigation method: Rill Soil type: Medford silty clay loam

	Inflow	Outflow
Date sampled (1977)	8-31	8-31
Time (2400 hours)	1020	1045
Discharge (ft^3/s)	2.02	.11
Temperature (°C)	17.8	23.4
Dissolved oxygen (mg/L)	--	--
pH (units)	--	--
Specific conductance (micromhos/cm at 25°C)	--	--
Turbidity (JTU's)	--	--
Suspended sediment (mg/L)	24	137
Dissolved nitrate + nitrite as N (mg/L)	.98	9.6
Dissolved orthophosphate as P (mg/L)	.34	.21
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	500	6,100
Fecal streptococci (count/100 ml)	>2,000	>10,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 68 Agricultural practice: Orchard

Approximate plot size: 50 yd by 250 yd

Irrigation method: Rill Soil type: Carney clay

Remarks: Two inflow sites.

	Inflow	Outflow
Date sampled (1977)	8-4	8-4
Time (2400 hours)	0950	1045
Discharge (ft^3/s)	.52	.29
Temperature (°C)	20.0	26.0
Dissolved oxygen (mg/L)	8.4	4.7
pH (units)	8.0	7.1
Specific conductance (micromhos/cm at 25°C)	260	295
Turbidity (JTU's)	35	35
Suspended sediment		
Concentration (mg/L)	93	308
Percentage less than 0.062-mm diameter	--	54
Dissolved nitrate + nitrite as N (mg/L)	.93	5.5
Dissolved orthophosphate as P (mg/L)	.21	.19
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	2,000	1,700
Fecal streptococci (count/100 ml)	2,100	4,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 69 Agricultural practice: Orchard

Approximate plot size: 175 yd by 450 yd

Irrigation method: Rill Soil type: Coker clay

Remarks: This orchard was no longer receiving inflow. Water was being sent down the canal to irrigate the next block that same morning. Inflow sample taken from the canal.

	Inflow	Outflow
Date sampled (1977)	9-1	9-1
Time (2400 hours)	1240	1200
Discharge (ft^3/s)	--	.15
Temperature (°C)	12.0	25.5
Dissolved oxygen (mg/L)	9.4	7.2
pH (units)	8.0	7.8
Specific conductance (micromhos/cm at 25°C)	250	270
Turbidity (JTU's)	20	70
Suspended sediment		
Concentration (mg/L)	35	403
Percentage less than 0.062-mm diameter	--	66
Dissolved nitrate + nitrite as N (mg/L)	.88	6.3
Dissolved orthophosphate as P (mg/L)	.36	.38
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	1,100	480
Fecal streptococci (count/100 ml)	--	5,900
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 70 Agricultural practice: Pasture

Approximate plot size: 225 yd by 625 yd

Irrigation method: Flood (moderate slope) Soil type: Brader-Debenger loams

Remarks: Inflow sample taken from Talent canal.

	Inflow	Outflow
Date sampled (1977)	9-22	9-22
Time (2400 hours)	1225	1305
Discharge (ft^3/s)	1.43	.15
Temperature (°C)	16.0	17.5
Dissolved oxygen (mg/L)	12.6	8.6
pH (units)	9.2	7.8
Specific conductance (micromhos/cm at 25°C)	148	155
Turbidity (JTU's)	25	10
Suspended sediment (mg/L)	27	19
Dissolved nitrate + nitrite as N (mg/L)	.00	.01
Dissolved orthophosphate as P (mg/L)	.01	.03
Total Kjeldahl nitrogen as N (mg/L)	.24	.93
Fecal coliform (count/100 ml)	290	4,600
Fecal streptococci (count/100 ml)	320	56,000B
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 71 Agricultural practice: Orchard

Approximate plot size: 125 yd by 150 yd

Irrigation method: Sprinkler Soil type: Evans loam

Remarks: No inflow from Griffin Creek on July 9. Pond sample on July 10 is a combination of pond and Griffin Creek water. Source of water for irrigation system is pond.

	Inflow from Griffin Creek	Pond	Pond
Date sampled (1977)	7-10	7-9	7-10
Time (2400 hours)	1100	1740	1100
Discharge (ft^3/s)	--	--	--
Temperature (°C)	15.0	24.0	20.0
Dissolved oxygen (mg/L)	9.8	15.9	15.4
pH (units)	8.1	8.9	8.8
Specific conductance (micromhos/cm at 25°C)	230	220	235
Turbidity (JTU's)	4	3	4
Suspended sediment (mg/L)	19	14	30
Dissolved nitrate + nitrite as N (mg/L)	.27	.11	.10
Dissolved orthophosphate as P (mg/L)	.05	.06	.05
Total Kjeldahl nitrogen as N (mg/L)	--	--	--
Fecal coliform (count/100 ml)	420	17B	15B
Fecal streptococci (count/100 ml)	1,400	410	110
Total coliform (count/100 ml)	--	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 72 Agricultural practice: Orchard

Approximate plot size: 175 yd by 250 yd

Irrigation method: Rill and flood Soil type: Medford silty clay loam

Remarks: Grass and weeds between tree rows. Water pooled at end of orchard.

	Inflow	Outflow
Date sampled (1977)	9-9	9-9
Time (2400 hours)	1115	1150
Discharge (ft^3/s)	.92	--
Temperature (°C)	17.0	--
Dissolved oxygen (mg/L)	9.5	--
pH (units)	8.1	7.6
Specific conductance (micromhos/cm at 25°C)	290	280
Turbidity (JTU's)	10	15
Suspended sediment (mg/L)	23	34
Dissolved nitrate + nitrite as N (mg/L)	1.6	2.4
Dissolved orthophosphate as P (mg/L)	.24	.14
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	400	8,500B
Fecal streptococci (count/100 ml)	3,100	14,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 73 Agricultural practice: Pasture

Approximate plot size: 125 yd by 175 yd

Irrigation method: Flood Soil type: Coker clay

	Inflow	Outflow
Date sampled (1977)	9-23	9-23
Time (2400 hours)	1200	1140
Discharge (ft^3/s)	.83	.83
Temperature (°C)	15.0	15.0
Dissolved oxygen (mg/L)	9.0	7.5
pH (units)	8.3	7.4
Specific conductance (micromhos/cm at 25°C)	120	124
Turbidity (JTU's)	30	8
Suspended sediment (mg/L)	48	17
Dissolved nitrate + nitrite as N (mg/L)	.01	.00
Dissolved orthophosphate as P (mg/L)	.01	.10
Total Kjeldahl nitrogen as N (mg/L)	.29	.88
Fecal coliform (count/100 ml)	360	6,300
Fecal streptococci (count/100 ml)	940	22,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 74 Agricultural practice: Pasture

Approximate plot size: 550 yd by 725 yd

Irrigation method: Flood Soil type: Selmac silty clay loam

Remarks: Areas of bare ground near outflow sampling site.

	Inflow	Outflow
Date sampled (1977)	9-1	9-1
Time (2400 hours)	0900	1340
Discharge (ft^3/s)	3.50	Est. .02
Temperature (°C)	17.0	24.0
Dissolved oxygen (mg/L)	8.5	--
pH (units)	6.9	--
Specific conductance (micromhos/cm at 25°C)	88	124
Turbidity (JTU's)	15	95
Suspended sediment (mg/L)	31	1,260
Dissolved nitrate + nitrite as N (mg/L)	.37	.10
Dissolved orthophosphate as P (mg/L)	.09	.11
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	4,400B	> 7,500
Fecal streptococci (count/100 ml)	> 2,500	> 13,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 75 Agricultural practice: Orchard

Approximate plot size: 75 yd by 300 yd

Irrigation method: Rill Soil type: Medford clay loam

Remarks: Gentle slope, furrows next to tree rows.

	Inflow	Outflow
Date sampled (1977)	9-9	9-9
Time (2400 hours)	0900	1030
Discharge (ft^3/s)	.66	.17
Temperature (°C)	17.0	19.0
Dissolved oxygen (mg/L)	9.1	7.5
pH (units)	8.2	7.1
Specific conductance (micromhos/cm at 25°C)	280	250
Turbidity (JTU's)	20	10
Suspended sediment (mg/L)	72	77
Dissolved nitrate + nitrite as N (mg/L)	1.6	2.3
Dissolved orthophosphate as P (mg/L)	.22	.15
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	630	1,800
Fecal streptococci (count/100 ml)	1,500	6,700
Total coliform (count/100 ml)	5,400	>80,000

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 76 Agricultural practice: Beet field No. 1

Approximate plot size: 225 yd by 250 yd

Irrigation method: Rill Soil type: Central Point sandy loam

Remarks: Water very yellow. Exceptionally low dissolved oxygen. Soil very dark at outflow.

	Inflow	Outflow
Date sampled (1977)	9-15	9-15
Time (2400 hours)	1405	1425
Discharge (ft^3/s)	4.67	.60
Temperature (°C)	17.0	17.0
Dissolved oxygen (mg/L)	8.7	3.5
pH (units)	8.0	7.3
Specific conductance (micromhos/cm at 25°C)	260	400
Turbidity (JTU's)	8	10
Suspended sediment (mg/L)	1	14
Dissolved nitrate + nitrite as N (mg/L)	1.0	3.0
Dissolved orthophosphate as P (mg/L)	.18	.30
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	260	>6,000
Fecal streptococci (count/100 ml)	1,500	>25,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 77 Agricultural practice: Beet field No. 2

Approximate plot size: 225 yd by 250 yd

Irrigation method: Rill Soil type: Central Point sandy loam

Remarks: Water very yellow. Very low dissolved oxygen at outflow. Inflow includes outflow from site 76 plus canal water.

	Inflow	Outflow
Date sampled (1977)	9-15	9-15
Time (2400 hours)	1430	1445
Discharge (ft^3/s)	.92	.36
Temperature (°C)	17.0	17.0
Dissolved oxygen (mg/L)	5.5	1.8
pH (units)	7.4	7.0
Specific conductance (micromhos/cm at 25°C)	390	600
Turbidity (JTU's)	10	15
Suspended sediment (mg/L)	46	78
Dissolved nitrate + nitrite as N (mg/L)	2.2	.10
Dissolved orthophosphate as P (mg/L)	.29	1.3
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	>6,000	>6,000
Fecal streptococci (count/100 ml)	>25,000	>25,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 78 Agricultural practice: Pasture

Approximate plot size: 75 yd by 150 yd

Irrigation method: Flood Soil type: Central Point sandy loam

Remarks: Discharge impossible to measure.

	Inflow	Outflow
Date sampled (1977)	9-14	9-14
Time (2400 hours)	1010	0940
Discharge (ft^3/s)	--	--
Temperature (°C)	17.5	16.0
Dissolved oxygen (mg/L)	10.1	6.1
pH (units)	7.6	7.3
Specific conductance (micromhos/cm at 25°C)	265	275
Turbidity (JTU's)	6	4
Suspended sediment (mg/L)	3	6
Dissolved nitrate + nitrite as N (mg/L)	2.4	.63
Dissolved orthophosphate as P (mg/L)	.12	.05
Total Kjeldahl nitrogen as N (mg/L)	.20	.60
Fecal coliform (count/100 ml)	570	960
Fecal streptococci (count/100 ml)	1,200	2,900
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 79 Agricultural practice: Pasture

Approximate plot size: 200 yd by 300 yd

Irrigation method: Flood Soil type: Central Point sandy loam

Remarks: Outflow sample taken from small trickle leaving the field. Most water pooling and soaking in.

	Inflow	Outflow
Date sampled (1977)	8-30	8-30
Time (2400 hours)	0930	0950
Discharge (ft^3/s)	--	--
Temperature (°C)	18.5	--
Dissolved oxygen (mg/L)	8.3	--
pH (units)	7.2	6.9
Specific conductance (micromhos/cm at 25°C)	270	360
Turbidity (JTU's)	7	4
Suspended sediment (mg/L)	7	59
Dissolved nitrate + nitrite as N (mg/L)	.18	.07
Dissolved orthophosphate as P (mg/L)	.73	.58
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	400	2,500
Fecal streptococci (count/100 ml)	2,400	28,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 80 Agricultural practice: Grass field

Approximate plot size: 100 yd by 200 yd

Irrigation method: Rill Soil type: Central Point sandy loam

Remarks: Part of the irrigated plot had been burned.

	Inflow	Outflow
Date sampled (1977)	9-26	9-26
Time (2400 hours)	0900	0915
Discharge (ft^3/s)	1.28	Est. 1
Temperature (°C)	15.0	15.0
Dissolved oxygen (mg/L)	8.7	7.3
pH (units)	7.6	7.4
Specific conductance (micromhos/cm at 25°C)	305	350
Turbidity (JTU's)	9	5
Suspended sediment (mg/L)	29	12
Dissolved nitrate + nitrite as N (mg/L)	1.0	.34
Dissolved orthophosphate as P (mg/L)	.41	1.0
Total Kjeldahl nitrogen as N (mg/L)	--	--
Fecal coliform (count/100 ml)	700	380
Fecal streptococci (count/100 ml)	4,600	4,100
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 81 Agricultural practice: Pasture

Approximate plot size: 150 yd by 450 yd

Irrigation method: Flood (moderate slope) Soil type: Brader-Debenger loam

	Inflow	Outflow
Date sampled (1977)	9-15	9-15
Time (2400 hours)	1000	1045
Discharge (ft^3/s)	2.01	.10
Temperature (°C)	16.5	16.5
Dissolved oxygen (mg/L)	8.2	7.0
pH (units)	6.6	7.5
Specific conductance (micromhos/cm at 25°C)	280	280
Turbidity (JTU's)	25	4
Suspended sediment (mg/L)	96	8
Dissolved nitrate + nitrite as N (mg/L)	.72	.09
Dissolved orthophosphate as P (mg/L)	.09	.06
Total Kjeldahl nitrogen as N (mg/L)	.00	.52
Fecal coliform (count/100 ml)	1,700	1,300
Fecal streptococci (count/100 ml)	1,400	4,800
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 82 Agricultural practice: Pasture

Approximate plot size: 175 yd by 650 yd

Irrigation method: Flood Soil type: Brader-Debenger loam

Remarks: Water collected in pool at foot of pasture and then flows into creek from a number of places.

	Inflow	Outflow
Date sampled (1977)	9-20	9-21
Time (2400 hours)	1120	1415
Discharge (ft^3/s)	1.12	Est. .15
Temperature	16.0	25.0
Dissolved oxygen (mg/L)	9.0	6.6
pH (units)	7.9	7.9
Specific conductance (micromhos/cm at 25°C)	235	230
Turbidity (JTU's)	15	2
Suspended sediment		
Concentration (mg/L)	51	19
Percentage less than 0.062-mm diameter	75	--
Dissolved nitrate + nitrite as N (mg/L)	.57	.08
Dissolved orthophosphate as P (mg/L)	.10	.25
Total Kjeldahl nitrogen as N (mg/L)	.55	.85
Fecal coliform (count/100 ml)	1,800	27,000
Fecal streptococci (count/100 ml)	4,500	38,000
Total coliform (count/100 ml)	--	--

Table 7.--Inflow and outflow data from irrigated farm plots--Continued

Site number: 83 Agricultural practice: Pasture

Approximate plot size: 275 yd by 1,750 yd

Irrigation method: Flood Soil type: Coker clay and Phoenix clay

	Inflow	Outflow
Date sampled (1977)	9-13	9-13
Time (2400 hours)	0950	1015
Discharge (ft^3/s)	4.23	1.07
Temperature (°C)	19.5	18.0
Dissolved oxygen (mg/L)	9.2	7.9
pH (units)	8.0	7.0
Specific conductance (micromhos/cm at 25°C)	104	175
Turbidity (JTU's)	25	2
Suspended sediment (mg/L)	34	4
Dissolved nitrate + nitrite as N (mg/L)	.15	.05
Dissolved orthophosphate as P (mg/L)	.03	.09
Total Kjeldahl nitrogen as N (mg/L)	.55	1.3
Fecal coliform (count/100 ml)	380	450
Fecal streptococci (count/100 ml)	580	7,900
Total coliform (count/100 ml)	11,000	16,000

Table 8.--Monitoring data from tributaries and Bear Creek

[E/, estimated; NF, no flow]

Site number and name 200 - Ashland Creek at South Pioneer Street

Date sampled	12-6-76	1-20-77	3-7-77	4-11-77	5-20-77
Time (2400 hours)	1000	1300	1300	1030	0920
Discharge (ft^3/s)	5.2	.73	.37	4.7	7.9
Temperature (°C)	4.0	3.0	8.5	8.0	8.0
Dissolved oxygen (mg/L)	12.7	12.3	10.9	11.2	10.9
pH (units)	7.5	7.9	8.2	7.7	7.6
Specific conductance (micromhos/cm at 25°C)	108	150	160	108	93
Turbidity (JTU's)	2	0	3	1	2
Suspended sediment (mg/L)	1	1	5	5	1
Dissolved nitrate + nitrite as N (mg/L)	--	.09	.02	.07	.10
Dissolved orthophosphate as P (mg/L)	.04	--	.08	.05	--
Total orthophosphate as P (mg/L)	.17	.08	.09	.05	--
Total phosphate as P (mg/L)	.19	.06	.09	.06	--
Total Kjeldahl nitrogen as N (mg/L)	.35	.11	.18	.55	.00
Fecal coliform (count/100 ml)	<3	3B	<30	3B	6B
Fecal streptococci (count/100 ml)	30B	--	<20	--	280

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 201 - Duck pond outflow

Remarks: On 1-20-77, duck pond 75 percent covered by ice, heavy algal growth. Adjacent and downstream was a second smaller duck pond receiving the outflow of the larger duck pond. Limited data collected on the lower duck pond include: 12-6-77, 870 fecal coliform and 1,100B fecal streptococci colonies per 100 ml; 1-20-77, 27B fecal coliform colonies per 100 ml; 3-7-77, 340 fecal coliform and 1,400 fecal streptococci colonies per 100 ml; 4-11-77, turbidity of 7, specific conductance of 138, and fecal coliform of 44B colonies per 100 ml.

Date sampled	12-6-76	1-20-77	3-7-77	4-11-77	5-20-77
Time (2400 hours)	1100	1220	1415	1100	0945
Discharge (ft^3/s)	.03	<.05	NF	<.05	<.05
Temperature (°C)	2.5	3.0	--	11.0	12.5
Dissolved oxygen (mg/L)	8.7	15.4	--	11.0	6.6
pH (units)	7.2	8.6	--	7.6	7.0
Specific conductance (micromhos/cm at 25°C)	130	120	--	116	100
Turbidity (JTU's)	6	2	10	5	5
Suspended sediment (mg/L)	6	3	--	22	10
Dissolved nitrate + nitrite a as N (mg/L)	--	.03	--	.07	.02
Dissolved orthophosphate as P (mg/L)	.08	.05	--	--	.02
Total orthophosphate as P (mg/L)	.10	.04	--	.05	.04
Total phosphate as P (mg/L)	.17	.08	--	.14	.11
Total Kjeldahl nitrogen as N (mg/L)	1.1	.92	--	.90	.74
Fecal coliform (count/100 ml)	290B	54B	<30	320	510
Fecal streptococci (count/100 ml)	780	--	290B	--	--

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 202 - Ashland Creek at first bridge upstream from Main Street

Date sampled	12-6-76	1-20-77	3-8-77	4-11-77	5-20-77
Time (2400 hours)	1130	1100	1200	1140	1000
Discharge (ft^3/s)	6.0	.80	.73	5.0	7.6
Temperature (°C)	4.0	2.0	8.0	10.0	9.0
Dissolved oxygen (mg/L)	12.6	12.7	11.8	10.4	10.8
pH (units)	7.6	7.9	8.2	7.8	7.6
Specific conductance (micromhos/cm at 25°C)	148	260	410	148	126
Turbidity (JTU's)	1	1	1	1	2
Suspended sediment (mg/L)	2	2	5	7	2
Dissolved nitrate + nitrite as N (mg/L)	--	.11	.12	.08	.04
Dissolved orthophosphate as P (mg/L)	.05	.07	.07	--	.04
Total orthophosphate as P (mg/L)	.06	.08	.08	.08	.04
Total phosphate as P (mg/L)	.07	.07	.07	.06	.04
Total Kjeldahl nitrogen as N (mg/L)	.10	.28	.49	.30	.09
Fecal coliform (count/100 ml)	<9	6B	15B	190	96
Fecal streptococci (count/100 ml)	21B	--	70	--	510

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 203 - Ashland Creek at Nevada Street

Remarks: On 1-20-77, light algal growth; on 3-7-77, light algal growth, large sand particles in suspended-sediment samples; on 4-11-77, moderate algal growth.

Date sampled	12-6-76	1-20-77	3-7-77	4-11-77	5-20-77
Time (2400 hours)	1240	1050	1215	1220	1040
Discharge (ft^3/s)	5.3	.85	1.0	4.8	5.6
Temperature (°C)	5.5	2.0	10.0	12.0	11.0
Dissolved oxygen (mg/L)	12.2	13.1	11.0	10.9	10.9
pH (units)	7.6	7.9	8.6	8.3	8.0
Specific conductance (micromhos/cm at 25°C)	162	270	450	132	124
Turbidity (JTU's)	2	1	1	2	2
Suspended sediment (mg/L)	3	4	400	17	4
Dissolved nitrate + nitrite as N (mg/L)	--	.12	.13	.06	.01
Dissolved orthophosphate as P (mg/L)	.05	.08	.08	.08	.05
Total orthophosphate as P (mg/L)	.09	.08	.09	.07	.06
Total phosphate as P (mg/L)	.10	.08	.08	.08	.06
Total Kjeldahl nitrogen as N (mg/L)	.10	.22	.15	.37	.06
Fecal coliform (count/100 ml)	9B	3B	9B	30B	64
Fecal streptococci (count/100 ml)	20B	--	72B	--	650

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 204 - Bear Creek at Interstate 5 (PUC site)

Remarks: On 2-24-77, Cladophora and diatoms observed.

Date sampled	12-1-76	1-11-77	2-24-77	4-4-77	5-13-77
Time (2400 hours)	1000	1005	1000	1040	1000
Discharge (ft^3/s)	5.0	5.9	6.4	15	19
Temperature (°C)	2.5	.5	4.0	10.0	10.0
Dissolved oxygen (mg/L)	12.8	13.7	12.5	11.0	10.8
pH (units)	7.4	8.1	8.2	8.3	7.7
Specific conductance (micromhos/cm at 25°C)	365	380	415	257	276
Turbidity (JTU's)	6	4	5	25	15
Suspended sediment (mg/L)	4	7	4	40	19
Dissolved nitrate + nitrite as N (mg/L)	--	.09	.08	.05	.04
Dissolved orthophosphate as P (mg/L)	--	.07	.06	.06	--
Total orthophosphate as P (mg/L)	.24	.06	.07	.12	.64
Total phosphate as P (mg/L)	.28	.06	.06	.11	.82
Total Kjeldahl nitrogen as N (mg/L)	.23	.22	.31	.71	.44
Fecal coliform (count/100 ml)	96	220	120	230	390
Fecal streptococci (count/100 ml)	180	--	180	--	120B

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 205 - Bear Creek at South Valley View Road

Remarks: On 2-24-77, sewage-like odor present.

Date sampled	12-1-76	1-11-77	2-24-77	4-4-77	5-13-77
Time (2400 hours)	1130	1100	1030	1230	1035
Discharge (ft^3/s)	17	12	8.3	8.9	11
Temperature (°C)	6.5	3.5	6.0	18.0	10.0
Dissolved oxygen (mg/L)	11.9	12.5	11.3	9.6	10.0
pH (units)	7.8	7.9	8.4	--	7.5
Specific conductance (micromhos/cm at 25°C)	290	420	430	330	228
Turbidity (JTU's)	5	4	7	20	6
Suspended sediment (mg/L)	15	12	15	34	8
Dissolved nitrate + nitrite as N (mg/L)	--	.49	.42	4.8	.80
Dissolved orthophosphate as P (mg/L)	.70	1.6	1.1	--	.25
Total orthophosphate as P (mg/L)	.72	1.7	1.1	3.6	.26
Total phosphate as P (mg/L)	.78	1.8	1.3	3.9	.41
Total Kjeldahl nitrogen as N (mg/L)	1.7	3.4	1.1	3.2	.90
Fecal coliform (count/100 ml)	<3	<1	>6,700	<8	42B
Fecal streptococci (count/100 ml)	<4	--	3,400B	--	21B

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 206 - Wagner Creek at Rapp Road

Remarks: On 1-19-77, moderate algal growth; on 3-4-77, moderate algal growth.

Date sampled	12-7-76	1-19-77	3-4-77	4-11-77	5-24-77
Time (2400 hours)	0920	1015	1400	1315	0850
Discharge (ft^3/s)	1.2	.52	1.4	8.6	3.5
Temperature (°C)	3.0	1.5	7.0	14.0	9.0
Dissolved oxygen (mg/L)	12.6	13.2	12.0	10.8	11.1
pH (units)	7.8	8.1	8.3	8.7	7.6
Specific conductance (micromhos/cm at 25°C)	390	270	230	268	185
Turbidity (JTU's)	1	2	6	15	25
Suspended sediment (mg/L)	1	1	11	33	104
Dissolved nitrate + nitrite as N (mg/L)	--	.52	.18	.10	.44
Dissolved orthophosphate as P (mg/L)	.09	--	.05	--	.08
Total orthophosphate as P (mg/L)	.09	.11	.09	.08	.09
Total phosphate as P (mg/L)	.11	.10	.10	.12	.26
Total Kjeldahl nitrogen as N (mg/L)	.40	.20	.05	.70	.82
Fecal coliform (count/100 ml)	160	270	18B	130B	2,000
Fecal streptococci (count/100 ml)	--	230	--	--	1,600

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 207 - Wagner Creek at U.S. Highway 99

Remarks: On 3-4-77, heavy algal growth on streambed and large sand particles in sediment sample.

Date sampled	12-6-76	1-19-77	3-4-77	4-11-77	5-24-77
Time (2400 hours)	1345	1110	1215	1415	0930
Discharge (ft^3/s)	1.1	1.2	2.6	3.6	7.0
Temperature (°C)	6.0	2.0	6.0	14.5	9.0
Dissolved oxygen (mg/L)	11.7	12.7	12.0	11.2	10.8
pH (units)	7.7	8.1	8.0	8.6	7.8
Specific conductance (micromhos/cm at 25°C)	340	300	250	285	210
Turbidity (JTU's)	3	8	6	15	25
Suspended sediment (mg/L)	1	10	77	29	51
Dissolved nitrate + nitrite as N (mg/L)	--	.80	.49	.26	.51
Dissolved orthophosphate as P (mg/L)	.09	.10	.07	.06	.09
Total orthophosphate as P (mg/L)	.10	.11	.09	1.3	.10
Total phosphate as P (mg/L)	.11	.10	.09	1.4	.20
Total Kjeldahl nitrogen as N (mg/L)	.37	.25	.19	.66	.65
Fecal coliform (count/100 ml)	120	40B	15B	64B	1,000
Fecal streptococci (count/100 ml)	1,300	--	--	--	1,500

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 208 - Coleman Creek at Pioneer Road

Remarks: On 3-14-77, light algal growth; on 4-7-77, heavy algal growth.

Date sampled	12-7-76	1-19-77	3-14-77	4-7-77	5-24-77
Time (2400 hours)	1040	0950	1345	1100	1000
Discharge (ft^3/s)	.08	<.08	.20	.19	.58
Temperature (°C)	2.5	1.0	5.0	11.0	9.5
Dissolved oxygen (mg/L)	12.0	12.6	11.6	11.4	10.4
pH (units)	7.8	7.8	8.2	8.3	8.2
Specific conductance (micromhos/cm at 25°C)	440	420	410	410	360
Turbidity (JTU's)	1	1	1	1	15
Suspended sediment (mg/L)	0	0	3	1	44
Dissolved nitrate + nitrite as N (mg/L)	--	.29	.18	.19	.12
Dissolved orthophosphate as P (mg/L)	.10	.10	.07	.11	.07
Total orthophosphate as P (mg/L)	.13	.09	.08	.13	.08
Total phosphate as P (mg/L)	.09	.08	.07	.10	.13
Total Kjeldahl nitrogen as N (mg/L)	.05	.26	.27	.06	.23
Fecal coliform (count/100 ml)	50B	6B	6B	5B	290
Fecal streptococci (count/100 ml)	--	310	--	--	850

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 209 - Coleman Creek at Houston Road

Remarks: On 1-19-77, moderate algal growth; on 3-14-77, light algal growth; on 4-7-77, no algal growth.

Date sampled	12-7-76	1-19-77	3-14-77	4-7-77	5-24-77
Time (2400 hours)	1100	0915	1410	1125	1035
Discharge (ft^3/s)	E/.05	.08	.21	<.05	2.8
Temperature (°C)	2.5	2.0	6.0	12.0	11.0
Dissolved oxygen (mg/L)	12.1	12.4	11.4	9.2	10.6
pH (units)	7.4	7.5	8.1	7.5	8.1
Specific conductance (micromhos/cm at 25°C)	440	390	390	335	275
Turbidity (JTU's)	1	2	1	2	30
Suspended sediment (mg/L)	11	1	2	2	49
Dissolved nitrate + nitrite as N (mg/L)	--	.46	.24	.52	--
Dissolved orthophosphate as P (mg/L)	.08	.10	.06	.07	--
Total orthophosphate as P (mg/L)	.10	.09	.07	1.1	--
Total phosphate as P (mg/L)	.11	.08	.07	1.2	--
Total Kjeldahl nitrogen as N (mg/L)	.23	.28	.20	.61	--
Fecal coliform (count/100 ml)	35B	24B	9B	30B	460
Fecal streptococci (count/100 ml)	--	800	--	560	730

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 210 - Coleman Creek at U.S. Highway 99

Remarks: On 1-18-77, moderate algal growth.

Date sampled	12-7-76	1-18-77	3-4-77	4-7-77	5-24-77
Time (2400 hours)	1120	1240	1130	1215	1120
Discharge (ft^3/s)	.12	.12	.20	.22	4.5
Temperature (°C)	3.5	3.5	6.0	14.0	12.0
Dissolved oxygen (mg/L)	12.2	12.8	12.7	10.6	10.5
pH (units)	8.1	8.3	8.8	8.0	8.1
Specific conductance (micromhos/cm at 25°C)	460	460	440	230	210
Turbidity (JTU's)	1	2	1	10	50
Suspended sediment (mg/L)	3	4	3	16	98
Dissolved nitrate + nitrite as N (mg/L)	--	.82	.22	.13	.58
Dissolved orthophosphate as P (mg/L)	.10	.18	.07	.10	.10
Total orthophosphate as P (mg/L)	.12	.18	.08	.15	.14
Total phosphate as P (mg/L)	.13	.24	.06	.15	.15
Total Kjeldahl nitrogen as N (mg/L)	.50	.42	.35	.49	.35
Fecal coliform (count/100 ml)	490	--	220	64B	1,900
Fecal streptococci (count/100 ml)	--	970	--	1,100	1,800

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 211 - Larson Creek at North Phoenix Road

Remarks: On 4-7-77, no algae present.

Date sampled	12-7-76	1-19-77	3-15-77	4-7-77	5-19-77
Time (2400 hours)	1220	--	0915	1240	1245
Discharge (ft^3/s)	E/.01	NF	NF	<.05	13.8
Temperature (°C)	3.0			15.0	13.0
Dissolved oxygen (mg/L)	11.2			10.4	10.2
pH (units)	7.8			8.2	7.9
Specific conductance (micromhos/cm at 25°C)	640			163	104
Turbidity (JTU's)	10			10	60
Suspended sediment (mg/L)	26			15	209
Dissolved nitrate + nitrite as N (mg/L)	--			.01	.13
Dissolved orthophosphate as P (mg/L)	.02			.25	.06
Total orthophosphate as P (mg/L)	.05			1.1	.10
Total phosphate as P (mg/L)	.08			1.2	.21
Total Kjeldahl nitrogen as N (mg/L)	.39			.38	.35
Fecal coliform (count/100 ml)	50B			85	420
Fecal streptococci (count/100 ml)	--			--	770

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 212 - Larson Creek at Ellendale Road

Remarks: On 4-7-77, heavy algal growth.

Date sampled	12-7-76	1-19-77	3-4-77	4-7-77	5-19-77
Time (2400 hours)	1245	1144	1100	1310	1215
Discharge (ft^3/s)	.04	E/ .06	.45	.12	9.9
Temperature (°C)	2.5	2.0	7.0	17.0	13.0
Dissolved oxygen (mg/L)	13.8	12.4	11.6	12.2	10.0
pH (units)	8.1	8.5	8.2	9.9	8.5
Specific conductance (micromhos/cm at 25°C)	700	650	235	345	190
Turbidity (JTU's)	3	1	15	2	35
Suspended sediment (mg/L)	14	--	13	2	46
Dissolved nitrate + nitrite as N (mg/L)	--	.21	.02	.00	.07
Dissolved orthophosphate as P (mg/L)	.02	.04	.03	--	.05
Total orthophosphate as P (mg/L)	.05	.04	.07	--	.10
Total phosphate as P (mg/L)	.01	.03	.05	1.8	.10
Total Kjeldahl nitrogen as N (mg/L)	.21	.27	.21	.50	.36
Fecal coliform (count/100 ml)	5B	12B	110	6B	640
Fecal streptococci (count/100 ml)	--	160	200	--	940

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 213 - Hansen Creek above Kogap Mill

Remarks: On 1-18-77, no algal growth.

Date sampled	12-7-76	1-18-77	3-4-77	4-6-77	5-19-77
Time (2400 hours)	1200	1115	1015	1005	1010
Discharge (ft^3/s)	<.05	.08	.05	.12	20
Temperature (°C)	6.0	4.5	6.0	12.5	10.5
Dissolved oxygen (mg/L)	10.4	11.3	10.4	8.6	10.2
pH (units)	7.8	8.1	8.0	8.1	7.9
Specific conductance (micromhos/cm at 25°C)	950	1,000	1,100	700	215
Turbidity (JTU's)	2	2	1	30	35
Suspended sediment (mg/L)	39	162	95	23	119
Dissolved nitrate + nitrite as N (mg/L)	--	3.2	2.7	.87	.70
Dissolved orthophosphate as P (mg/L)	.01	--	.02	.01	.15
Total orthophosphate as P (mg/L)	.01	.04	.03	.04	.17
Total phosphate as P (mg/L)	.01	.02	.01	.06	.30
Total Kjeldahl nitrogen as N (mg/L)	.41	.42	.37	.97	.89
Fecal coliform (count/100 ml)	24B	--	560B	340	250
Fecal streptococci (count/100 ml)	210	--	880	--	1,600

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 214 - Hansen Creek at U.S. Highway 99

Remarks: On 1-18-77, heavy algal growth; on 3-4-77, moderate algal growth, some oil on surface of water.

Date sampled	12-8-76	1-18-77	3-4-77	4-6-77	5-19-77
Time (2400 hours)	1130	1310	0920	1030	1100
Discharge (ft^3/s)	.10	.15	.12	.26	17
Temperature (°C)	4.0	4.0	--	14.0	12.0
Dissolved oxygen (mg/L)	10.9	13.6	11.0	11.8	9.9
pH (units)	8.1	8.1	8.1	8.9	8.0
Specific conductance (micromhos/cm at 25°C)	950	900	850	660	220
Turbidity (JTU's)	2	4	6	9	40
Suspended sediment (mg/L)	3	153	17	13	109
Dissolved nitrate + nitrite as N (mg/L)	--	1.7	1.3	.43	.66
Dissolved orthophosphate as P (mg/L)	.06	.06	.10	.02	.15
Total orthophosphate as P (mg/L)	.06	.06	.10	.05	.18
Total phosphate as P (mg/L)	.07	.06	.11	.08	.30
Total Kjeldahl nitrogen as N (mg/L)	.26	.55	.16	1.2	.75
Fecal coliform (count/100 ml)	250	--	160B	560	440
Fecal streptococci (count/100 ml)	50B	--	360	--	1,300

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 215 - Crooked Creek at South Stage Road

Date sampled	12-8-76	1-18-77	3-2-77	4-6-77	5-19-77
Time (2400 hours)	0910	1015	1300	1130	0915
Discharge (ft^3/s)	.05	.04	.08	6.5	3.7
Temperature (°C)	3.5	2.0	6.0	14.0	9.0
Dissolved oxygen (mg/L)	12.2	13.0	12.0	9.6	10.2
pH (units)	8.0	7.9	8.4	8.5	7.6
Specific conductance (micromhos/cm at 25°C)	600	460	580	250	245
Turbidity (JTU's)	3	10	1	30	25
Suspended sediment (mg/L)	2	--	8	45	51
Dissolved nitrate + nitrite as N (mg/L)	--	.68	.33	.01	.09
Dissolved orthophosphate as P (mg/L)	.03	--	.01	.04	.05
Total orthophosphate as P (mg/L)	.06	.67	.04	.11	.07
Total phosphate as P (mg/L)	.03	.70	.01	.13	.12
Total Kjeldahl nitrogen as N (mg/L)	.04	.13	.17	.75	.57
Fecal coliform (count/100 ml)	200	--	4B	91B	1,400
Fecal streptococci (count/100 ml)	660	--	62B	--	6,900

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 216 - Crooked Creek at Kings Highway

Remarks: On 1-18-77, light algal growth; on 3-2-77, abundant algal growth.

Date sampled	12-7-76	1-18-77	3-2-77	4-6-77	5-19-77
Time (2400 hours)	1015	1055	1345	1300	0940
Discharge (ft^3/s)	<.05	.07	.03	5.5	.63
Temperature (°C)	3.0	3.0	8.0	16.0	10.0
Dissolved oxygen (mg/L)	13.8	13.3	16.8	9.1	10.5
pH (units)	8.2	8.3	8.9	8.4	7.9
Specific conductance (micromhos/cm at 25°C)	600	600	540	255	230
Turbidity (JTU's)	1	2	--	40	25
Suspended sediment (mg/L)	1	9	140	88	52
Dissolved nitrate + nitrite as N (mg/L)	--	.12	.00	.01	.28
Dissolved orthophosphate as P (mg/L)	.03	.05	.01	.04	.11
Total orthophosphate as P (mg/L)	.03	.06	.06	.13	.11
Total phosphate as P (mg/L)	.04	.06	.11	.14	.18
Total Kjeldahl nitrogen as N (mg/L)	.10	.38	.41	.89	.37
Fecal coliform (count/100 ml)	79	--	36	600	840
Fecal streptococci (count/100 ml)	520	--	150	--	3,100

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 217 - Crooked Creek at U.S. Highway 99

Remarks: On 1-18-77, water was brown in color; on 3-14-77, appearance of oil on water.

Date sampled	12-8-76	1-18-77	3-14-77	4-6-77	5-19-77
Time (2400 hours)	1045	1140	1000	1345	1040
Discharge (ft^3/s)	<.05	.33	.33	5.2	2.9
Temperature (°C)	7.5	7.0	10.0	16.0	12.0
Dissolved oxygen (mg/L)	10.5	10.2	9.0	6.7	9.1
pH (units)	8.0	8.0	7.9	8.3	7.5
Specific conductance (micromhos/cm at 25°C)	350	400	420	258	300
Turbidity (JTU's)	1	25	15	60	20
Suspended sediment (mg/L)	2	22	3	152	52
Dissolved nitrate + nitrite as N (mg/L)	--	.73	1.1	.03	1.2
Dissolved orthophosphate as P (mg/L)	.16	.18	.20	.04	.11
Total orthophosphate as P (mg/L)	.21	.21	.25	.11	.13
Total phosphate as P (mg/L)	.22	.26	.29	.20	.21
Total Kjeldahl nitrogen as N (mg/L)	.15	.63	.59	3.3	.78
Fecal coliform (count/100 ml)	1,100	--	360	750	1,000
Fecal streptococci (count/100 ml)	3,200B	--	3,400	--	4,100

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 218 - Bear Creek at Barnett Road

Remarks: On 1-11-77, abundant growth of green algae; on 2-24-77, green algae and diatoms observed; on 4-4-77, abundant algae.

Date sampled	12-1-76	1-11-77	2-24-77	4-4-77	5-13-77
Time (2400 hours)	1400	1300	1230	1410	1100
Discharge (ft^3/s)	26	20	22	19	35
Temperature (°C)	6.5	3.5	9.0	18.5	15.0
Dissolved oxygen (mg/L)	13.2	12.7	12.7	12.6	11.2
pH (units)	7.9	7.6	8.5	9.3	7.8
Specific conductance (micromhos/cm at 25°C)	390	460	410	370	269
Turbidity (JTU's)	6	4	7	6	20
Suspended sediment (mg/L)	7	8	14	14	22
Dissolved nitrate + nitrite as N (mg/L)	--	1.1	.76	1.4	.54
Dissolved orthophosphate as P (mg/L)	.38	.63	.79	.82	.89
Total orthophosphate as P (mg/L)	.40	.64	.79	.87	1.7
Total phosphate as P (mg/L)	.44	.72	.82	.94	2.0
Total Kjeldahl nitrogen as N (mg/L)	.65	1.2	.85	.64	.47
Fecal coliform (count/100 ml)	9B	5B	64	30B	190
Fecal streptococci (count/100 ml)	75B	--	200	--	20B

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 219 - Bear Creek at Table Rock Road

Remarks: On 1-17-77, small amount of algae in stream.

Date sampled	12-2-76	1-17-77	2-24-77	4-5-77	5-13-77
Time (2400 hours)	0940	1000	1300	1000	1200
Discharge (ft^3/s)	--	23	31	12	48
Temperature (°C)	2.5	3.0	9.0	13.0	15.0
Dissolved oxygen (mg/L)	13.5	12.5	13.0	15.9	12.6
pH (units)	7.6	7.8	8.7	9.3	8.7
Specific conductance (micromhos/cm at 25°C)	420	460	350	435	243
Turbidity (JTU's)	5	4	10	9	20
Suspended sediment (mg/L)	10	7	21	--	44
Dissolved nitrate + nitrite as N (mg/L)	--	1.1	.70	.20	.24
Dissolved orthophosphate as P (mg/L)	.32	.36	.51	.46	.16
Total orthophosphate as P (mg/L)	.58	.45	.52	.52	.47
Total phosphate as P (mg/L)	.68	.50	.59	.61	.67
Total Kjeldahl nitrogen as N (mg/L)	.47	.80	.64	.63	.68
Fecal coliform (count/100 ml)	55B	110	80	45B	810
Fecal streptococci (count/100 ml)	100	--	230	--	380

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 220 - Griffin Creek at Bellinger Lane

Date sampled	12-3-76	1-18-77	3-2-77	3-31-77	5-18-77
Time (2400 hours)	1300	1000	1130	--	1300
Discharge (ft^3/s)	.88	2.0	.04	NF	4.7
Temperature (°C)	5.5	3.0	6.0		11.0
Dissolved oxygen (mg/L)	12.0	12.4	13.8		9.6
pH (units)	6.9	7.7	8.8		8.1
Specific conductance (micromhos/cm at 25°C)	178	160	250		215
Turbidity (JTU's)	3	15	1		45
Suspended sediment (mg/L)	3	33	6		84
Dissolved nitrate + nitrite as N (mg/L)	--	.22	.10		.59
Dissolved orthophosphate as P mg/L)	.10	--	.06		.02
Total orthophosphate as P (mg/L)	.11	.14	.09		.20
Total phosphate as P (mg/L)	.11	.10	.07		.32
Total Kjeldahl nitrogen as N (mg/L)	.11	.24	.14		.75
Fecal coliform (count/100 ml)	60	--	30		1,500
Fecal streptococci (count/100 ml)	--	920	480		1,400

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 221 - Griffin Creek at Beall Lane

Remarks: On 1-17-77, light algal growth; on 3-1-77, heavy algal growth.

Date sampled	12-3-76	1-17-77	3-1-77	3-31-77	5-18-77
Time (2400 hours)	1000	1340	1355	1030	1120
Discharge (ft^3/s)	2.3	4.2	1.2	2.9	13
Temperature (°C)	6.0	7.0	11.0	10.0	11.0
Dissolved oxygen (mg/L)	10.6	10.8	10.4	10.4	9.5
pH (units)	7.5	7.8	7.6	7.4	7.7
Specific conductance (micromhos/cm at 25°C)	409	340	420	450	260
Turbidity (JTU's)	5	10	4	2	50
Suspended sediment (mg/L)	9	39	10	8	151
Dissolved nitrate + nitrite as N (mg/L)	--	2.2	4.4	4.2	1.4
Dissolved orthophosphate as P (mg/L)	.44	.45	.76	--	.20
Total orthophosphate as P (mg/L)	.46	.43	.84	.61	.22
Total phosphate as P (mg/L)	.53	.51	.85	.65	.40
Total Kjeldahl nitrogen as N (mg/L)	.95	.60	.78	1.1	.96
Fecal coliform (count/100 ml)	690	750	150B	220	830
Fecal streptococci (count/100 ml)	--	3,000B	--	530	1,900

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 222 - Griffin Creek at Scenic Avenue

Remarks: On 1-16-77, light algal growth; on 3-1-77, heavy algal growth; on 3-31-77, heavy algal growth.

Date sampled	12-2-76	1-16-77	3-1-77	3-31-77	5-17-77
Time (2400 hours)	1250	1140	1310	1000	1100
Discharge (ft^3/s)	2.6	4.1	1.7	.52	18
Temperature (°C)	7.0	6.0	10.0	9.0	11.0
Dissolved oxygen (mg/L)	12.1	11.8	12.0	14.8	10.2
pH (units)	7.8	7.7	8.2	7.9	7.3
Specific conductance (micromhos/cm at 25°C)	420	360	430	420	280
Turbidity (JTU's)	5	6	1	1	30
Suspended sediment (mg/L)	12	10	2	5	65
Dissolved nitrate + nitrite as N (mg/L)	--	2.5	2.1	2.7	1.5
Dissolved orthophosphate as P (mg/L)	.37	.47	.47	.53	.19
Total orthophosphate as P (mg/L)	.43	.46	.65	.58	.24
Total phosphate as P (mg/L)	.43	.50	.67	.64	.36
Total Kjeldahl nitrogen as N (mg/L)	.67	.11	.68	1.0	.67
Fecal coliform (count/100 ml)	90	440	36B	55B	730
Fecal streptococci (count/100 ml)	2,200	--	250B	2,100	1,300

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 223 - Jackson Creek at Highway 238

Date sampled	12-3-76	1-18-77	3-2-77	4-6-77	5-18-77
Time (2400 hours)	1150	0930	0950	0930	1230
Discharge (ft^3/s)	.96	NF	2.4	1.5	1.1
Temperature (°C)	2.5		6.0	13.0	11.5
Dissolved oxygen (mg/L)	12.8		12.1	10.4	10.3
pH (units)	7.8		8.2	8.6	8.3
Specific conductance (micromhos/cm at 25°C)	180		250	146	210
Turbidity (JTU's)	15		6	25	40
Suspended sediment (mg/L)	12		15	37	73
Dissolved nitrate + nitrite as N (mg/L)	--		.01	.01	.50
Dissolved orthophosphate as P (mg/L)	.09		.06	.04	.14
Total orthophosphate as P (mg/L)	.11		.10	.11	.18
Total phosphate as P (mg/L)	.13		.09	.11	.35
Total Kjeldahl nitrogen as N (mg/L)	.25		.22	.59	.57
Fecal coliform (count/100 ml)	450		82B	91B	500
Fecal streptococci (count/100 ml)	--		410	--	1,000

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 224 - Jackson Creek at Beall Lane

Remarks: On 1-18-77, light growth of green algae present; on 2-25-77, moderate algal growth, Cladophora identified.

Date sampled	12-3-76	1-18-77	2-25-77	4-6-77	5-18-77
Time (2400 hours)	1045	0900	1325	0900	1030
Discharge (ft^3/s)	1.6	.91	.49	3.6	8.7
Temperature (°C)	3.5	3.0	9.0	10.5	11.0
Dissolved oxygen (mg/L)	12.6	12.8	11.5	9.9	9.9
pH (units)	7.6	7.7	8.4	8.2	7.9
Specific conductance (micromhos/cm at 25°C)	288	330	--	297	230
Turbidity (JTU's)	10	4	--	20	30
Suspended sediment (mg/L)	8	16	0	40	94
Dissolved nitrate + nitrite as N (mg/L)	--	2.9	1.2	.54	.61
Dissolved orthophosphate as P (mg/L)	.07	.11	.09	.42	--
Total orthophosphate as P (mg/L)	.10	.12	.13	.51	.14
Total phosphate as P (mg/L)	.11	.13	.11	.53	.25
Total Kjeldahl nitrogen as N (mg/L)	.68	.55	.42	1.1	.70
Fecal coliform (count/100 ml)	350	--	40	4,700B	620
Fecal streptococci (count/100 ml)	--	1,500	--	3,100	1,100

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 225 - Jackson Creek at Scenic Avenue

Remarks: 4-5-77 sample includes irrigation return flow.

Date sampled	12-2-76	1-17-77	2-25-77	4-5-77	5-18-77
Time (2400 hours)	1330	1315	1240	1330	0945
Discharge (ft^3/s)	2.2	2.1	.77	5.7	14.8
Temperature (°C)	6.0	5.0	9.5	11.5	11.0
Dissolved oxygen (mg/L)	11.7	10.8	9.8	10.3	10.2
pH (units)	7.7	8.9	7.8	8.2	7.6
Specific conductance (micromhos/cm at 25°C)	320	390	--	220	260
Turbidity (JTU's)	10	4	--	55	30
Suspended sediment (mg/L)	--	3	4	186	61
Dissolved nitrate + nitrite as N (mg/L)	--	3.2	1.2	.72	.80
Dissolved orthophosphate as P (mg/L)	.12	.23	.13	.19	.25
Total orthophosphate as P (mg/L)	.14	.28	.32	.25	.26
Total phosphate as P (mg/L)	.17	.30	.40	.34	.41
Total Kjeldahl nitrogen as N (mg/L)	.51	.88	1.1	.90	.90
Fecal coliform (count/100 ml)	1,100	73B	1,800B	880	3,600
Fecal streptococci (count/100 ml)	2,100	--	>7,500	--	4,500

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 226 - Bear Creek at Kirtland Road near Central Point

Remarks: On 2-25-77, algal growth present; on 4-5-77, algae floating in water.

Date sampled	12-2-76	1-17-77	2-25-77	4-5-77	5-13-77
Time (2400 hours)	1120	1055	1100	1210	1330
Discharge (ft^3/s)	51	55	59	36	93
Temperature (°C)	4.0	4.5	7.5	15.0	17.0
Dissolved oxygen (mg/L)	12.8	--	12.9	15.7	8.6
pH (units)	7.9	7.6	8.1	--	7.8
Specific conductance (micromhos/cm at 25°C)	310	330	--	400	250
Turbidity (JTU's)	7	4	--	15	30
Suspended sediment (mg/L)	11	17	13	34	58
Dissolved nitrate + nitrite as N (mg/L)	--	.99	.79	.87	.55
Dissolved orthophosphate as P (mg/L)	.22	.27	.26	.38	.13
Total orthophosphate as P (mg/L)	.27	.28	.32	.43	.16
Total phosphate as P (mg/L)	.27	.31	.35	.52	.27
Total Kjeldahl nitrogen as N (mg/L)	.67	.95	.66	1.7	.68
Fecal coliform (count/100 ml)	95	15B	190	670	720
Fecal streptococci (count/100 ml)	2,000	--	730	--	1,300

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 227 - Little Butte Creek at Eagle Point

Remarks: On 3-15-77, heavy algal growth; on 4-12-77, heavy algal growth with Cladaphora

Date sampled	12-9-76	1-21-77	3-15-77	4-12-77	5-25-77
Time (2400 hours)	0915	1000	1010	0920	0910
Discharge (ft^3/s)	138	121	34	37	217
Temperature (°C)	4.0	3.5	6.5	11.0	11.5
Dissolved oxygen (mg/L)	12.4	12.5	12.4	11.6	10.3
pH (units)	7.7	7.6	7.7	8.5	7.2
Specific conductance (micromhos/cm at 25°C)	122	125	215	160	106
Turbidity (JTU's)	4	5	5	7	15
Suspended sediment (mg/L)	12	8	5	10	--
Dissolved nitrate + nitrite as N (mg/L)	--	.06	.02	.05	--
Dissolved orthophosphate as P (mg/L)	.05	.10	.04	--	.07
Total orthophosphate as P (mg/L)	.05	.27	.06	.07	.07
Total phosphate as P (mg/L)	.07	.27	.04	.09	.09
Total Kjeldahl nitrogen as N (mg/L)	.15	.83	.06	.70	.40
Fecal coliform (count/100 ml)	--	44B	70	150B	220B
Fecal streptococci (count/100 ml)	--	<4	--	--	190

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 228 - Little Butte Creek at Agate Road

Remarks: On 1-21-77, moderate algal growth; on 3-15-77, heavy algal growth; on 4-12-77, heavy algal growth.

Date sampled	12-9-76	1-21-77	3-15-77	4-12-77	5-25-77
Time (2400 hours)	1045	1120	1110	1010	1010
Discharge (ft^3/s)	151	144	40	50	370
Temperature (°C)	4.0	4.0	7.0	12.5	11.5
Dissolved oxygen (mg/L)	12.5	13.5	13.2	11.8	10.0
pH (units)	7.8	7.8	8.1	8.6	7.2
Specific conductance (micromhos/cm at 25°C)	130	130	230	165	120
Turbidity (JTU's)	5	4	6	10	15
Suspended sediment (mg/L)	6	5	8	15	--
Dissolved nitrate + nitrite as N (mg/L)	--	.03	.04	.03	.03
Dissolved orthophosphate as P (mg/L)	.06	.08	.06	.10	.07
Total orthophosphate as P (mg/L)	.07	.07	.09	.10	.09
Total phosphate as P (mg/L)	.09	.05	.09	.15	.12
Total Kjeldahl nitrogen as N (mg/L)	.32	.11	.15	.85	.49
Fecal coliform (count/100 ml)	--	12B	11B	2,600	270
Fecal streptococci (count/100 ml)	--	<4	--	--	320

Table 8.--Monitoring data from tributaries and Bear Creek--Continued

Site number and name: 229 - Evans Creek at city of Rogue River

Remarks: On 3-15-77, light algal growth.

Date sampled	12-9-76	1-21-77	3-15-77	4-12-77	5-25-77
Time (2400 hours)	1300	1315	1300	1155	1145
Discharge (ft^3/s)	33	31	66	41	77
Temperature (°C)	4.5	4.5	7.0	14.0	16.0
Dissolved oxygen (mg/L)	12.8	13.3	11.8	10.6	10.4
pH (units)	7.8	7.8	7.7	8.5	7.4
Specific conductance (micromhos/cm at 25°C)	205	170	152	167	151
Turbidity (JTU's)	1	1	4	3	25
Suspended sediment (mg/L)	6	3	5	3	--
Dissolved nitrate + nitrite as N (mg/L)	--	.03	.05	.03	.01
Dissolved orthophosphate as P (mg/L)	.01	.04	.01	.02	.03
Total orthophosphate as P (mg/L)	.01	.06	.03	.05	2.1
Tota Total phosphate as P (mg/L)	.01	.04	.01	.05	2.5
Total Kjeldahl nitrogen as N (mg/L)	.27	.23	.29	.46	.66
Fecal coliform (count/100 ml)	--	16B	27B	50	410
Fecal streptococci (count/100 ml)	--	4B	--	--	210

Table 9.--Bear Creek diel data

SITE NUMBER AND NAME: 107 - Bear Creek at Interstate 5 south of Ashland

DATE: June 27-29, 1977
DISCHARGE (ft^3/s): 77
WEATHER AND REMARKS: Weather clear and sunny. Stage fluctuated approximately 0.04 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Air temperature (°C)
June 27						
2005	14.4	126	8.8	92	7.8	13.8
2100	13.8	124	9.3	95	7.8	12.0
2200	13.0	124	9.6	97	7.7	10.5
2300	12.6	125	9.8	98	7.7	9.0
2400	12.9	124	9.9	99	7.7	8.7
June 28						
0100	13.3	122	9.9	100	7.6	8.1
0200	13.5	122	9.9	100	7.6	7.5
0300	13.5	122	9.9	100	7.7	6.9
0400	13.3	122	10.0	100	7.7	6.9
0500	13.2	120	10.0	100	7.7	6.6
0600	13.0	117	10.0	100	7.7	6.3
0700	12.9	117	9.9	100	7.9	7.2
0800	12.9	117	9.6	97	8.1	9.1
0900	13.2	117	9.2	93	8.2	10.2
1000	13.3	115	9.0	91	8.2	12.0
1100	13.9	114	9.0	93	8.3	12.7
1200	15.0	115	9.1	96	8.3	14.4
1300	15.9	115	9.2	99	8.4	15.0
1400	16.8	115	9.5	104	8.4	15.0
1500	17.4	113	9.8	108	8.3	--
1600	17.5	116	9.7	108	8.3	--
1700	17.4	116	9.9	110	8.2	--
1800	16.8	118	9.8	107	8.1	--
1900	15.6	122	9.7	103	8.0	--
2000	14.7	126	9.5	101	7.9	--
2100	14.1	121	9.5	98	7.8	--
2200	13.5	118	9.7	99	7.7	--
2300	13.0	117	9.7	98	7.6	--
2400	12.9	114	9.6	97	7.6	--
June 29						
0100	12.7	112	9.7	97	7.6	--
0200	12.6	112	9.7	97	7.5	--
0300	12.7	112	9.6	96	7.5	--
0400	13.0	110	9.5	96	7.5	--
0500	13.0	110	9.5	96	7.5	--
0600	12.9	110	9.6	97	7.5	--
0700	12.9	110	9.6	97	7.5	--
0800	12.9	110	9.7	98	7.5	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 107 - Bear Creek at Interstate 5 south of Ashland--Continued

DATE: August 15-16, 1977
DISCHARGE (ft^3/s): 56
WEATHER AND REMARKS: Sunny. Fifteen- to twenty-foot willow trees on both banks reach out to 5 ft over stream. Channel slope of stream at sampling site is approximately 2 percent.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
August 15						
0900	19.2	130	8.8	102	7.9	--
1000	19.5	129	8.6	100	8.0	--
1100	20.0	123	8.5	100	8.1	--
1200	20.8	132	8.4	100	8.2	--
1300	22.4	131	8.2	101	8.2	--
1400	24.0	129	8.0	101	8.2	--
1500	24.4	127	8.0	102	8.2	--
1600	24.6	126	8.0	102	8.1	--
1700	24.3	126	8.0	102	8.0	--
1800	23.7	129	8.0	100	8.0	--
1900	23.0	128	8.0	99	7.9	--
2000	22.3	126	8.0	98	7.8	--
2100	21.6	128	8.0	97	7.7	--
2200	21.2	130	8.0	96	7.7	--
2300	20.8	130	8.0	95	7.7	--
2400	20.5	131	8.0	95	7.7	--
August 16						
0100	20.2	133	8.0	94	7.7	--
0200	19.9	133	8.0	94	7.7	--
0300	19.6	132	8.0	93	7.7	--
0400	19.5	131	8.0	93	7.7	--
0500	19.4	130	8.2	95	7.7	--
0600	19.2	130	8.4	97	7.7	--
0700	19.2	130	8.6	99	7.8	--
0800	19.2	130	8.8	102	7.8	--
0810	19.2	130	9.2	106	7.9	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 107 - Bear Creek at Interstate 5 south of Ashland--Continued

DATE: October 17-19, 1977
DISCHARGE (ft^3/s): 1.8
WEATHER AND REMARKS: Clear on 10-18-77, partly cloudy on 10-19-77. Ninety percent of stream surface shaded. No change in stage measured.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
October 17						
1500	14.6	610	10.7	112	8.1	--
1600	15.3	610	9.6	102	8.1	--
1700	15.5	610	8.8	94	8.1	--
1800	15.5	615	8.4	90	8.0	--
1900	15.2	625	8.0	85	7.9	--
2000	14.6	635	7.9	83	7.8	--
2100	13.7	640	8.0	82	7.7	--
2200	12.9	650	8.2	83	7.7	--
2300	12.4	660	8.5	85	7.7	--
2400	11.9	665	8.8	87	7.7	--
October 18						
0100	11.3	680	9.0	88	7.8	--
0200	11.0	700	9.3	90	7.8	--
0300	10.5	700	9.5	91	7.8	--
0400	10.1	710	9.7	92	7.9	--
0500	9.8	710	9.9	94	7.9	--
0600	9.4	710	10.1	95	7.9	--
0700	9.1	710	10.3	96	7.8	--
0800	8.9	705	10.6	98	7.9	--
0900	9.0	705	10.8	100	8.0	--
1000	9.3	690	11.0	103	8.0	--
1100	9.8	670	11.2	106	8.0	--
1200	10.7	670	11.2	108	8.0	--
1300	12.1	650	11.1	111	8.0	--
1400	13.3	640	11.0	112	8.1	--
1500	14.4	635	10.7	112	8.1	--
1600	15.0	630	10.4	110	8.1	--
1700	15.5	620	9.9	106	8.0	--
1800	15.5	620	9.4	101	7.9	--
1900	15.2	630	8.7	92	7.8	--
2000	14.7	640	8.0	84	7.7	--
2100	14.0	640	7.8	81	7.6	--
2200	13.4	640	7.8	80	7.6	--
2300	12.8	650	7.9	80	7.6	--
2400	12.2	665	8.0	80	7.6	--
October 19						
0100	11.8	665	8.2	81	7.7	--
0200	11.4	675	8.3	81	7.7	--
0300	11.1	685	8.4	82	7.7	--
0400	10.7	695	8.5	82	7.7	--
0500	10.4	695	8.5	81	7.7	--
0700	10.0	690	8.6	82	7.8	--
0800	9.9	690	8.6	81	7.8	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 102 - Bear Creek at South Valley View Road

DATE: June 27-29, 1977
DISCHARGE (ft^3/s): 29
WEATHER AND REMARKS: Sunny and clear. Stage fluctuated approximately 0.10 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
June 27						
1820	21.8	190	8.1	98	8.1	0.07
1900	21.2	194	8.1	96	8.0	.07
2000	20.0	200	8.0	93	7.9	.05
2100	19.0	203	8.0	91	7.8	.0
2200	18.0	207	8.2	92	7.8	0
2300	17.0	201	8.4	92	7.8	0
2400	16.0	200	8.5	91	7.8	0
June 28						
0100	15.2	199	8.7	92	7.8	0
0200	14.4	202	8.8	92	7.8	0
0300	13.8	191	8.9	91	7.8	0
0400	13.2	188	9.0	91	7.8	0
0500	13.0	182	9.1	92	7.9	0
0600	13.0	182	9.2	93	7.9	.02
0700	13.0	182	9.2	93	8.0	.12
0800	13.6	179	9.3	95	8.0	.57
0900	14.2	183	9.2	95	8.1	.83
1000	15.6	186	9.2	98	8.1	1.1
1100	17.2	195	9.2	101	8.1	1.2
1200	18.6	194	9.0	102	8.1	1.4
1300	20.2	194	8.8	103	8.1	1.4
1400	21.3	193	8.7	104	8.1	1.3
1500	22.6	190	8.5	103	8.1	1.2
1600	23.2	192	8.3	102	8.0	1.1
1700	23.2	190	8.2	101	8.0	.86
1800	22.4	200	8.0	98	8.0	.50
1900	21.4	198	7.8	93	7.9	.22
2000	20.4	196	7.8	92	7.9	.05
2100	19.6	202	7.8	90	7.8	.0
2200	18.4	205	7.9	89	7.8	0
2300	17.6	194	8.1	90	7.8	0
2400	16.8	201	8.2	90	7.8	0
June 29						
0100	15.8	182	8.3	87	7.8	0
0200	15.2	186	8.5	90	7.8	0
0300	14.4	183	8.6	89	7.8	0
0400	14.0	179	8.7	90	7.8	0
0500	13.6	179	8.8	90	7.8	0
0600	13.6	179	8.9	91	7.8	.02
0700	13.6	179	8.9	91	7.8	.25
0740	13.6	179	9.0	92	7.7	.45

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 102 - Bear Creek at South Valley View Road--Continued

DATE: August 15-16, 1977
DISCHARGE (ft^3/s): 29
WEATHER AND REMARKS: Clear and sunny. Stage fell 0.12 ft. Channel slope at site, 1 to 5 percent. Some tall trees shaded the water.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
August 15						
1025	19.3	204	9.2	105	7.7	--
1100	19.8	198	9.0	105	7.7	0.98
1200	21.1	207	8.6	104	7.8	1.1
1300	22.3	206	8.2	100	7.8	1.2
1400	23.6	204	7.8	97	7.9	1.2
1500	23.6	199	7.5	95	8.0	1.1
1600	25.0	200	7.2	92	8.0	.88
1700	25.0	198	7.0	89	8.0	.18
1800	24.6	196	6.9	87	7.9	.12
1900	24.6	194	6.9	86	7.8	.08
2000	23.4	196	7.0	87	7.6	.0
2100	22.7	199	7.0	86	7.5	0
2200	22.0	199	7.0	85	7.5	0
2300	21.3	198	7.1	85	7.4	0
2400	20.7	198	7.2	85	7.4	0
August 16						
0100	20.1	199	7.2	84	7.5	0
0200	19.6	193	7.3	84	7.5	0
0300	19.2	186	7.4	85	7.5	0
0400	18.8	181	7.6	86	7.5	0
0500	18.6	177	7.7	87	7.6	0
0600	18.3	176	7.8	88	7.6	0
0700	18.1	175	7.9	88	7.6	.06
0800	18.1	175	8.0	89	7.7	.22
0900	18.6	181	8.1	91	7.7	.62
0930	19.0	190	8.2	93	7.8	.84

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 102 - Bear Creek at South Valley View Road--Continued

DATE: October 17-19, 1977
DISCHARGE (ft^3/s): 7.8
WEATHER AND REMARKS: Clear and sunny. Stage changed about 0.05 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
October 17						
1600	16.6	--	8.8	95	7.2	0.10
1700	16.4	--	8.8	95	7.7	.07
1800	15.7	--	8.8	94	7.6	.03
1900	15.0	--	8.7	93	7.6	.0
2000	14.6	--	8.8	90	7.6	.0
2100	13.9	--	8.8	90	7.5	0
2200	13.5	--	9.0	91	7.5	0
2300	13.1	--	9.1	92	7.6	0
2400	12.7	--	9.0	90	7.6	0
October 18						
0100	12.4	--	9.0	89	7.6	0
0200	11.9	--	9.1	89	7.6	0
0300	11.5	--	9.1	88	7.6	0
0400	11.1	--	9.2	88	7.6	0
0500	10.7	--	9.3	89	7.6	0
0600	10.4	--	9.3	89	7.6	0
0700	10.0	--	9.4	88	7.6	0
0800	9.7	--	9.6	90	7.7	.05
0900	9.8	--	10.1	94	7.7	.08
1000	10.7	--	10.3	98	7.8	.12
1100	12.0	--	10.2	100	7.9	.15
1200	13.5	--	10.0	102	7.9	.20
1300	14.8	--	9.9	103	7.9	.65
1400	16.0	--	9.8	105	7.9	.78
1500	16.6	--	9.6	104	7.9	.65
1600	16.8	--	9.1	99	7.9	.10
1700	16.6	--	8.9	97	7.8	.06
1800	16.0	--	8.5	91	7.8	.03
1900	15.3	--	8.2	87	7.7	0
2000	14.8	--	8.0	84	7.6	0
2100	14.1	--	8.0	82	7.6	0
2200	13.7	--	8.1	83	7.6	0
2300	13.3	--	8.2	83	7.6	0
2400	12.9	--	8.3	83	7.6	0
October 19						
0100	12.7	--	8.2	82	7.6	0
0200	12.4	--	8.3	82	7.6	0
0300	12.0	--	8.4	83	7.6	0
0400	11.8	--	8.4	82	7.6	0
0500	11.4	--	8.6	83	7.6	0
0600	11.2	--	8.7	84	7.6	0
0700	11.0	--	8.8	85	7.6	0
0800	10.8	--	8.9	85	7.6	.05
0830	10.7	--	9.2	88	7.7	.10

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 108 - Bear Creek at Talent

DATE: June 29-30, 1977
DISCHARGE (ft^3/s): 31
WEATHER AND REMARKS: Clear and sunny. Stage fluctuated about 0.03 ft. Few trees to shade water; sandy bottom.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
June 29						
0935	15.3	179	9.4	98	7.6	--
1000	15.9	180	9.4	100	7.6	--
1100	17.4	179	9.5	104	7.7	--
1200	19.0	189	9.4	106	7.8	--
1300	21.3	192	9.1	107	7.9	--
1400	23.0	200	8.8	107	7.9	--
1500	23.8	186	8.6	106	8.0	--
1600	24.6	201	8.3	104	8.0	--
1700	24.6	201	8.0	100	7.9	--
1800	24.0	203	7.7	95	7.7	--
1900	23.1	200	7.2	88	7.6	--
2000	22.0	195	7.0	84	7.5	--
2100	21.1	197	6.9	81	7.5	--
2200	20.0	199	7.0	81	7.5	--
2300	19.1	200	7.2	81	7.5	--
2400	18.4	196	7.3	81	7.5	--
June 30						
0100	17.6	194	7.3	80	7.5	--
0200	16.8	194	7.5	81	7.5	--
0300	16.0	189	7.5	80	7.5	--
0400	15.4	190	7.7	81	7.5	--
0500	15.0	191	7.8	81	7.5	--
0600	14.4	185	8.0	82	7.5	--
0700	14.1	184	8.4	86	7.5	--
0745	14.1	184	9.0	92	7.6	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 108 - Bear Creek at Talent--Continued

DATE: August 16-17, 1977
DISCHARGE (ft^3/s): 43
WEATHER AND REMARKS: Hot and sunny. Stage fluctuated 0.09 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
August 16						
0900	18.7	217	8.2	92	7.6	--
1000	19.4	213	8.0	91	7.7	--
1100	20.3	210	7.8	90	7.8	--
1200	21.3	217	7.5	89	7.9	--
1300	23.2	223	7.3	89	7.9	--
1400	24.5	219	7.3	91	7.9	--
1500	24.9	217	7.5	94	7.9	--
1600	25.0	215	7.7	97	7.8	--
1700	25.0	213	7.5	89	7.8	--
1800	24.8	211	7.1	89	7.7	--
1900	24.5	212	6.8	85	7.6	--
2000	24.0	209	6.5	80	7.5	--
2100	23.3	208	6.4	78	7.5	--
2200	22.8	210	6.4	78	7.4	--
2300	22.0	218	6.4	77	7.4	--
2400	21.2	222	6.4	75	7.4	--
August 17						
0100	20.7	225	6.6	77	7.4	--
0200	20.3	222	6.8	79	7.4	--
0300	19.7	221	7.0	80	7.4	--
0400	19.1	217	7.1	80	7.5	--
0500	18.8	207	7.4	83	7.6	--
0600	18.6	207	7.5	84	7.6	--
0700	18.3	203	7.6	85	7.6	--
0800	18.3	204	7.9	88	7.7	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 108 - Bear Creek at Talent--Continued

DATE: October 19-20, 1977
DISCHARGE (ft^3/s): 11
WEATHER AND REMARKS: Clear and sunny. Stage fluctuated 0.06 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
October 19						
0900	11.6	550	8.2	79	7.1	--
1000	12.2	559	8.5	83	7.7	--
1100	12.6	554	8.6	85	7.8	--
1200	13.9	533	8.7	89	7.8	--
1300	14.8	521	8.8	91	7.9	--
1400	15.1	508	8.9	93	7.8	--
1500	15.6	498	8.7	92	7.8	--
1600	15.4	488	8.3	87	7.7	--
1700	15.2	494	7.8	81	7.6	--
1800	15.0	490	7.4	77	7.5	--
1900	14.7	491	7.1	73	7.4	--
2000	14.3	495	6.9	71	7.4	--
2100	14.0	508	6.9	70	7.4	--
2200	13.7	517	6.9	70	7.5	--
2300	13.4	525	7.0	70	7.5	--
2400	13.0	540	7.2	72	7.6	--
October 20						
0100	12.7	548	7.2	71	7.6	--
0200	12.3	546	7.3	72	7.6	--
0300	11.9	548	7.4	72	7.6	--
0400	11.5	558	7.5	72	7.6	--
0500	11.2	566	7.6	73	7.6	--
0600	11.0	566	7.6	72	7.6	--
0700	10.8	564	7.6	72	7.6	--
0800	10.7	555	7.6	72	7.6	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 104 - Bear Creek at Barnett Road

DATE: June 29-30, 1977
DISCHARGE (ft^3/s): 22
WEATHER AND REMARKS: Sunny and clear. Stage fluctuated 0.28 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
June 29						
0840	17.6	302	9.1	99	8.0	0.80
0900	18.0	299	9.1	100	8.1	.90
1000	19.1	294	9.3	105	8.4	1.1
1100	20.7	294	10.4	121	8.6	1.3
1200	22.8	286	11.5	139	8.8	1.4
1300	24.6	282	11.3	141	8.9	1.5
1400	26.1	279	11.0	141	9.0	1.4
1500	27.3	276	10.3	135	9.1	1.4
1600	28.1	277	9.7	129	9.1	1.2
1700	28.2	277	9.1	121	9.0	.95
1800	27.8	277	8.7	115	8.7	.62
1900	26.8	283	8.0	104	8.6	.12
2000	25.6	292	7.2	91	8.4	.10
2100	24.6	298	6.6	82	8.3	.05
2200	23.7	309	6.3	77	8.2	0
2300	22.8	317	6.2	75	8.0	0
2400	22.1	323	6.3	75	7.8	0
June 30						
0100	21.3	321	6.4	75	7.7	0
0200	20.6	322	6.5	75	7.7	0
0300	19.8	322	6.6	75	7.7	0
0400	19.2	328	6.7	76	7.7	0
0500	18.4	325	6.8	76	7.7	.05
0600	18.0	322	7.0	77	7.8	.18
0700	17.6	322	7.2	79	7.9	.21
0725	17.6	320	7.3	80	8.1	.21

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 104 - Bear Creek at Barnett Road--Continued

DATE: August 16-17, 1977
DISCHARGE (ft^3/s): 18
WEATHER AND REMARKS: Sunny, clear, and hot on August 16, cloudy on August 17. Stage fluctuated 0.12 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
August 16						
1040	20.3	305	11.8	136	8.5	1.1
1100	20.9	302	11.8	138	8.6	1.1
1200	22.8	291	11.7	141	8.8	1.2
1300	24.6	288	11.5	143	9.0	1.3
1400	26.0	284	11.0	141	9.0	1.2
1500	27.2	283	10.8	141	9.1	1.1
1600	27.6	285	10.1	133	9.2	.85
1700	27.9	282	9.4	125	9.2	.40
1800	27.5	282	8.3	109	9.1	.18
1900	27.4	282	7.4	97	9.0	.12
2000	26.5	288	6.6	85	8.8	.06
2100	25.6	294	6.2	79	8.6	.00
2200	24.6	303	6.1	76	8.4	0
2300	24.0	306	6.2	76	8.1	0
2400	23.0	309	6.3	76	8.0	0
August 17						
0100	22.4	310	6.4	77	7.9	0
0200	21.6	312	6.6	78	7.9	0
0300	21.0	313	6.7	78	7.9	0
0400	20.4	316	6.9	80	7.8	0
0500	19.8	316	7.1	81	7.8	0
0600	19.0	316	7.3	82	7.8	0
0700	18.6	314	7.6	85	7.9	.15
0800	18.4	308	8.0	89	8.0	.24
0900	18.7	308	8.8	98	8.1	.38
1000	19.1	305	9.3	105	8.3	.32

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 104 - Bear Creek at Barnett Road--Continued

DATE: October 19-20, 1977
DISCHARGE (ft^3/s): 23
WEATHER AND REMARKS: Sunny and clear. Stage fluctuated 0.02 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
October 19						
0930	10.3	--	12.3	115	8.1	0.42
1000	11.5	--	12.6	121	8.1	.48
1100	12.0	--	13.4	130	8.4	.88
1200	12.6	--	13.8	136	8.5	.88
1300	13.4	--	14.3	143	8.6	.75
1400	14.2	--	14.4	147	8.7	1.20
1500	14.8	--	14.0	144	8.8	1.1
1600	15.2	--	13.2	137	8.7	.90
1700	15.2	--	12.1	126	8.7	.65
1800	14.8	--	11.0	114	8.6	.45
1900	14.4	--	10.1	103	8.4	--
2000	14.0	--	9.7	98	8.2	--
2100	13.6	--	9.5	96	8.0	--
2200	13.2	--	9.5	95	7.9	--
2300	12.8	--	9.5	94	7.9	--
2400	12.4	--	9.7	95	7.8	--
October 20						
0100	12.2	--	9.8	96	7.8	--
0200	12.0	--	9.8	95	7.9	--
0300	11.6	--	9.9	95	7.9	--
0400	11.2	--	9.8	93	7.9	--
0500	11.0	--	9.7	92	7.9	--
0600	10.6	--	9.7	91	7.0	--
0700	10.4	--	9.9	93	7.8	--
0800	10.4	--	10.2	96	7.9	--
0820	10.2	--	10.3	96	7.9	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 105 - Bear Creek at Table Rock Road

DATE: June 30-July 1, 1977
DISCHARGE (ft^3/s): 2.1
WEATHER AND REMARKS: Sunny and hot. Stage fluctuated 0.17 ft, very slow velocity at bridge. Air temperature 32°C at 1730.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
June 30						
0920	19.2	299	7.1	79	7.6	--
1000	20.1	294	8.9	102	7.8	--
1100	21.4	284	11.8	138	8.2	--
1200	23.7	278	13.0	159	8.5	--
1300	26.1	270	14.0	179	8.7	--
1400	28.0	277	13.0	172	8.7	--
1500	29.1	273	12.4	168	8.7	--
1600	29.1	276	11.7	158	8.8	--
1700	29.1	273	11.0	149	8.8	--
1800	28.5	272	9.6	128	8.8	--
1900	27.9	270	8.2	108	8.8	--
2000	27.1	271	6.8	88	8.7	--
2100	26.6	272	5.8	75	8.5	--
2200	26.0	271	5.0	64	8.4	--
2300	25.2	280	4.3	54	7.9	--
2400	24.5	285	3.4	42	7.7	--
July 1						
0100	23.7	293	3.2	39	7.4	--
0200	23.1	296	2.9	35	7.3	--
0300	22.8	296	2.8	34	7.2	--
0400	22.5	299	2.6	31	7.1	--
0500	22.0	302	2.7	32	7.1	--
0600	21.9	297	2.7	32	7.1	--
0700	21.6	296	3.0	35	7.1	--
0750	21.3	289	4.1	48	7.0	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 105 - Bear Creek at Table Rock Road--Continued

DATE: August 17-18, 1977
DISCHARGE (ft^3/s): 11
WEATHER AND REMARKS: Fifty percent clouds in morning and haze in afternoon of August 17, cloudy in morning of August 18. Stage fluctuated 0.12 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
August 17						
0900	20.7	337	9.4	109	8.2	--
1000	21.2	328	10.3	120	8.5	--
1100	22.9	317	11.0	133	8.8	--
1200	24.0	314	11.6	142	9.0	--
1300	25.9	305	11.7	149	9.2	--
1400	27.2	303	11.4	148	9.3	--
1500	28.0	298	11.5	152	9.5	--
1600	28.6	299	11.5	154	9.5	--
1700	28.0	300	10.4	138	9.5	--
1800	27.0	300	9.2	119	9.4	--
1900	26.4	302	8.0	103	9.3	--
2000	25.7	308	6.8	87	9.2	--
2100	24.7	316	6.2	77	9.0	--
2200	23.8	319	5.8	71	8.7	--
2300	23.2	321	6.0	73	8.4	--
2400	22.6	322	6.1	73	8.2	--
August 18						
0100	22.3	322	6.2	74	8.0	--
0200	21.8	320	6.3	74	7.9	--
0300	21.4	315	6.6	77	7.9	--
0400	21.1	315	6.7	78	7.9	--
0500	20.8	309	7.0	81	7.9	--
0600	20.4	310	7.1	82	7.9	--
0700	19.9	312	7.4	84	7.9	--
0800	19.9	312	7.8	89	8.0	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 105 - Bear Creek at Table Rock Road--Continued

DATE: October 20-21, 1977
DISCHARGE (ft^3/s): 25
WEATHER AND REMARKS: Cloudy. Stage fluctuated 0.10 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
October 20						
0900	11.0	507	9.6	91	8.0	--
1000	11.7	526	12.2	117	8.4	--
1100	12.3	521	13.8	134	8.6	--
1200	12.5	528	14.1	138	8.7	--
1300	13.1	520	14.3	142	8.9	--
1400	13.9	508	14.8	149	8.9	--
1500	14.3	498	14.5	147	8.9	--
1600	14.0	495	13.1	132	8.9	--
1700	14.0	489	11.5	116	8.8	--
1800	13.7	506	10.6	106	8.8	--
1900	13.4	506	8.8	88	8.7	--
2000	13.3	506	8.5	85	8.6	--
2100	12.9	520	8.4	83	8.5	--
2200	12.4	528	8.5	83	8.4	--
2300	12.0	532	8.6	83	8.3	--
2400	11.6	540	8.9	85	8.2	--
October 21						
0100	11.3	540	9.1	87	8.1	--
0200	11.0	562	9.2	87	8.0	--
0300	10.7	570	9.4	88	7.9	--
0400	10.3	570	9.5	88	7.9	--
0500	10.0	578	9.6	89	7.9	--
0600	9.7	586	9.6	88	7.9	--
0700	9.4	586	9.7	88	7.9	--
0800	9.1	594	9.8	89	8.0	--
0820	9.1	594	9.9	90	8.0	--

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 109 - Bear Creek at Kirtland Road

DATE: June 30-July 1, 1977
DISCHARGE (ft^3/s): 14
WEATHER AND REMARKS: Cloudy all morning; partly cloudy in afternoon. Stage fluctuated 0.13 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
June 30						
0835	22.0	366	5.0	59	7.6	0.50
0900	22.0	366	5.2	61	7.6	.62
1000	22.2	366	5.6	66	7.6	.75
1100	22.6	362	6.0	72	7.6	1.0
1200	23.0	364	6.7	80	7.7	1.3
1300	24.0	357	7.4	90	7.8	1.3
1400	24.2	357	7.8	96	7.8	.75
1500	24.4	354	8.0	98	7.9	.58
1600	24.4	354	7.9	97	7.9	.58
1700	24.8	350	8.0	99	8.0	.50
1800	25.0	350	8.2	102	8.0	.22
1900	25.0	350	8.3	103	8.0	.10
2000	24.8	350	8.0	99	7.9	.02
2100	24.4	354	7.4	91	7.8	.00
2200	24.0	357	6.4	78	7.7	0
2300	24.0	357	5.8	71	7.7	0
2400	23.6	355	5.4	65	7.6	0
July 1						
0100	23.4	355	5.1	62	7.5	0
0200	23.2	354	4.9	59	7.4	0
0300	23.0	354	4.9	59	7.4	0
0400	22.8	354	4.7	56	7.4	0
0500	22.4	357	4.6	55	7.3	0
0600	22.2	360	4.6	54	7.3	.00
0700	22.0	355	4.7	55	7.3	.02
0750	22.0	355	4.9	58	7.2	.04

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 109 - Bear Creek at Kirtland Road--Continued

DATE: August 17-18, 1977
DISCHARGE (ft^3/s): 38
WEATHER AND REMARKS: Cloudy on mornings of August 17 and 18. Stage fluctuated 0.17 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
August 17						
1040	22.0	313	8.6	101	8.0	0.88
1100	22.0	313	8.6	101	8.0	.88
1200	22.8	312	9.0	108	8.2	.75
1300	23.6	314	9.6	116	8.4	1.2
1400	24.4	308	10.0	123	8.5	1.1
1500	25.2	310	10.3	128	8.5	1.1
1600	25.4	302	10.0	125	8.6	.82
1700	25.4	297	9.5	119	8.8	.55
1800	25.2	295	9.0	112	8.8	.38
1900	24.8	290	8.2	102	8.7	.08
2000	24.8	285	7.0	87	8.6	.02
2100	24.4	283	6.6	81	8.6	.00
2200	24.0	286	6.3	77	8.5	0
2300	23.6	288	6.1	74	8.5	0
2400	23.2	291	6.0	73	8.3	0
August 18						
0100	22.8	291	5.9	71	8.1	0
0200	22.4	294	5.8	69	8.0	0
0300	22.0	297	5.8	68	7.9	0
0400	21.6	300	5.8	68	7.8	0
0500	21.2	302	5.8	67	7.7	0
0600	20.8	302	5.8	67	7.7	.00
0700	20.6	305	5.8	67	7.8	.09
0800	20.4	305	6.1	70	7.9	.16
0900	20.6	305	7.1	82	8.0	.50
1000	20.8	302	7.7	89	8.1	.45

Table 9.--Bear Creek diel data--Continued

SITE NUMBER AND NAME: 109 - Bear Creek at Kirtland Road--Continued

DATE: October 20-21, 1977
DISCHARGE (ft^3/s): 41
WEATHER AND REMARKS: Cloudy. Stage fluctuated 0.11 ft.

Time (2400 hours)	Water temperature (°C)	Specific conductance (micromhos/cm at 25°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)	pH (units)	Pyrometer (calories/cm^2/min)
October 20						
0900	11.0	436	9.4	89	7.8	0.11
1000	11.1	432	10.0	94	7.9	.18
1100	11.2	429	11.2	105	8.0	.50
1200	11.6	416	12.8	122	8.1	.30
1300	12.0	398	13.8	133	8.3	.50
1400	12.4	389	14.7	143	8.5	.30
1500	12.8	380	14.3	140	8.5	.18
1600	13.0	378	13.3	131	8.6	.15
1700	13.2	377	12.8	126	8.6	.13
1800	13.2	377	12.3	121	8.7	.04
1900	13.2	380	11.6	115	8.7	.00
2000	13.0	386	10.7	105	8.7	0
2100	12.8	393	10.2	100	8.6	0
2200	12.5	409	10.0	97	8.6	0
2300	12.3	416	9.8	95	8.6	0
2400	12.0	423	9.6	92	8.5	0
October 21						
0100	11.8	426	9.4	90	8.5	0
0200	11.5	432	9.4	89	8.4	0
0300	11.2	432	9.4	89	8.3	0
0400	10.8	425	9.6	90	8.1	0
0500	10.6	430	9.7	90	8.0	0
0600	10.2	437	9.7	90	8.0	0
0700	10.0	437	9.7	89	7.9	.00
0800	9.8	434	9.8	90	7.9	.08
0830	9.7	436	9.9	90	7.9	.11

Table 10.--Chemical and biological data from Bear Creek diel studies

SITE NUMBER AND NAME: 107 - Bear Creek at Interstate 5 south of Ashland
DATE: June 28, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0830	64	1245	61	2150	66
Total ammonia as N	0825	.07	1245	.05	1845	.10
Total nitrate + nitrite as N	0825	.05	1245	.04	1845	.06
Total nitrite as N	0825	<.02	1245	<.02	1845	<.02
Total Kjeldahl nitrogen as N	0825	.3	1245	.3	1845	.3
Total orthophosphate as P	0825	.02	1245	.02	1845	.05
Total phosphate as P	0825	.09	1245	.09	1845	.07
Total organic carbon as C	0825	12	1245	11	1845	7

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	6-28-77 0825	6-29-77 0745	23 1/3	+0.0	-0.1

Indicator bacteria (colonies/100 ml)

Fecal coliform	180
Fecal streptococci	240
Total coliform	640

Suspended sediment

Concentration (mg/L)	13
Less than 0.062-mm diam (percent)	76

Biochemical oxygen demand (mg/L)

5-day	0.9
Ultimate	2.4

Periphyton

Chlorophyll (mg/m^2)

A	15
B	2.1

Biomass (g/m^2)

Dry weight	--
Dry weight less ash weight	--

Turbidity (JTU) at 1245 ---------- 6

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 107 - Bear Creek at Interstate 5 south of Ashland--Continued
DATE: August 15-16, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1415	63	1945	63	0700	67
Total ammonia as N	0930	.08	1240	.07	1935	.11
Dissolved nitrate + nitrite as N	0930	.06	1240	.04	1935	.05
Total Kjeldahl nitrogen as N	0930	<.2	1240	<.2	1935	<.2
Dissolved orthophosphate as P	0930	.02	1240	.02	1935	.02
Total phosphate as P	0930	.08	1240	.06	1935	.07
Total organic carbon as C	0930	2.0	1240	2.5	1935	3.0
Chemical oxygen demand	0930	10	1240	9	1935	9
Algal growth potential	--	--	1240	17	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	8-15-77 0930	8-16-77 0730	22	0.0	-0.3

Indicator bacteria (colonies/100 ml)

Fecal coliform	92
Fecal streptococci	300
Total coliform	280

Suspended sediment

Concentration (mg/L)	12

Biochemical oxygen demand (mg/L)

5-day	2.1
Ultimate	3.4

Periphyton

Chlorophyll (mg/m^2)

A	0.072
B	.097

Biomass (g/m^2)

Dry weight	5.5
Dry weight less ash weight	--

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 107 - Bear Creek at Interstate 5 south of Ashland--Continued
DATE: October 18, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0845	240	1300	240	1830	240
Total ammonia as N	0845	.12	1300	.10	1830	.08
Dissolved nitrate + nitrite as N	0845	.25	1300	.16	1830	.08
Dissolved nitrite as N	0845	<.02	1300	<.02	1830	<.02
Total Kjeldahl nitrogen as N	0845	.3	1300	.3	1830	.2
Dissolved orthophosphate as P	0845	.07	1300	.07	1830	.08
Total phosphate as P	0845	.11	1300	.11	1830	.11
Total organic carbon as C	0845	9	1300	11	1830	12
Chemical oxygen demand	0845	10	1300	8	1830	8
Algal growth potential	--	--	1300	4.6	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	10-17-77 1500	10-18-77 1500	24	+0.2	-0.4

Indicator bacteria (colonies/100 ml)

Fecal coliform	110
Fecal streptococci	2,000
Total coliform	750

Suspended sediment

Concentration (mg/L)	4

Biochemical oxygen demand (mg/L)

5-day	1.7
Ultimate	2.8

Periphyton

Chlorophyll (mg/m^2)

A	0.57
B	.11

Biomass (g/m^2)

Dry weight	230
Dry weight less ash weight	--

Turbidity (JTU) at 1300 ---------- 2

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 102 - Bear Creek at South Valley View Road
DATE: June 28, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0740	80	1245	83	2145	87
Total ammonia as N	0800	.51	1245	1.7	1800	1.8
Total nitrate + nitrite as N	0800	.40	1245	.65	1800	.70
Total nitrite as N	0800	.02	1245	.14	1800	.15
Total Kjeldahl nitrogen as N	0800	1.3	1245	1.8	1800	1.9
Total orthophosphate as P	0800	.26	1245	.87	1800	.76
Total phosphate as P	0800	.47	1245	.95	1800	.89
Total organic carbon as C	0800	4	1245	4.2	1800	4

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	6-28-77 0745	6-29-77 0730	23 3/4	+0.5	0.0

Indicator bacteria (colonies/100 ml)

Fecal coliform	270
Fecal streptococci	63
Total coliform	560

Suspended sediment

Concentration (mg/L)	24
Less than 0.062-mm diam (percent)	70

Biochemical oxygen demand (mg/L)

5-day	2.5
Ultimate	5.0

Periphyton

Chlorophyll (mg/m^2)

A	63
B	20

Biomass (g/m^2)

Dry weight	--
Dry weight less ash weight	--

Turbidity (JTU) at 1245 ---------- 7

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 102 - Bear Creek at South Valley View Road--Continued
DATE: August 15-16, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1500	84	1815	85	0615	79
Total ammonia as N	1000	1.9	1230	2.3	1820	1.7
Dissolved nitrate + nitrite as N	1000	.39	1230	.44	1820	.46
Total Kjeldahl as N	1000	2.5	1230	3.0	1820	2.7
Dissolved orthophosphate as P	1000	.70	1230	.98	1820	.74
Total phosphate as P	1000	.77	1230	.99	1820	.86
Total organic carbon as C	1000	5	1230	4.7	1820	4
Chemical oxygen demand	1000	16	1230	13	1820	16
Algal growth potential	--	--	1230	84	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	8-15-77 1025	8-16-77 0925	23	--	-1.3

Indicator bacteria (colonies/100 ml)

Fecal coliform	230
Fecal streptococci	260
Fecal coliform	360

Suspended sediment

Concentration (mg/L)	--

Biochemical oxygen demand (mg/L)

5-day	2.0
Ultimate	5.0

Periphyton

Chlorophyll (mg/m^2)

A	0.017
B	.004

Biomass (g/m^2)

Dry weight	4.5
Dry weight less ash weight	.6

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 102 - Bear Creek at South Valley View Road--Continued
DATE: October 18, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0905	170	1430	170	1800	180
Total ammonia as N	0920	1.6	1230	4.0	1800	4.7
Dissolved nitrate + nitrite as N	0920	.95	1230	1.5	1800	1.6
Dissolved nitrite as N	0920	.07	1230	.10	1800	.27
Total Kjeldahl nitrogen as N	0920	2.1	1230	5.3	1800	6.0
Dissolved orthophosphate as P	0920	.98	1230	2.1	1800	2.2
Total phosphate as P	0920	1.1	1230	2.2	1800	2.7
Total organic carbon as C	0920	16	1230	15	1800	17
Chemical oxygen demand	0920	10	1230	12	1800	11
Algal growth potential	--	--	1230	170	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	10-18-77 0900	10-19-77 0900	24	0.0	-0.4

Indicator bacteria (colonies/100 ml)

Fecal coliform	61
Fecal streptococci	740
Fecal coliform	960

Suspended sediment

Concentration (mg/L)	10

Biochemical oxygen demand (mg/L)

5-day	3.0
Ultimate	4.6

Periphyton

Chlorophyll (mg/m^2)

A	0.003
B	.001

Biomass (g/m^2)

Dry weight	9.5
Dry weight less ash weight	1.6

Turbidity (JTU) at 1430 ---------- 3

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 108 - Bear Creek at Talent
DATE: June 29-30, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0930	95	1245	95	2145	92	0745	89
Total ammonia as N	--	--	1245	.57	--	--	--	--
Total nitrate + nitrite as N	--	--	1245	.33	--	--	--	--
Total nitrite as N	--	--	1245	.14	--	--	--	--
Total Kjeldahl nitrogen as N	--	--	1245	.9	--	--	--	--
Total orthophosphate as P	--	--	1245	.52	--	--	--	--
Total phosphate as P	--	--	1245	.77	--	--	--	--
Total organic carbon as C	--	--	1245	4	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light dark bottle test	-- --	-- --	--	--	--

Indicator bacteria (colonies/100 ml)

Fecal coliform	240
Fecal streptococci	380
Total coliform	240

Suspended sediment

Concentration (mg/L)	380
Less than 0.062-mm diam (percent)	8

Biochemical oxygen demand (mg/L)

5-day	1.8
Ultimate	4.3

Periphyton

Chlorophyll (mg/m^2)

A	3.3
B	1.1

Biomass (g/m^2)

Dry weight	--
Dry weight less ash weight	--

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 108 - Bear Creek at Talent--Continued
DATE: August 16-17, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1405	93	1630	90	2000	94	0650	95
Total ammonia as N	1215	1.4	--	--	--	--	--	--
Dissolved nitrate + nitrite as N	1215	.86	--	--	--	--	--	--
Total Kjeldahl nitrogen as N	1215	1.6	--	--	--	--	--	--
Dissolved orthophosphate as P	1215	.48	--	--	--	--	--	--
Total phosphate as P	1215	.67	--	--	--	--	--	--
Total organic carbon as C	1215	3.8	--	--	--	--	--	--
Chemical oxygen demand	1215	25	--	--	--	--	--	--
Algal growth potential	1215	55	--	--	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	8-16-77 0850	8-17-77 0750	23	0.00	-0.05

Indicator bacteria (colonies/100 ml)

Fecal coliform	220
Fecal streptococci	1,500
Total coliform	900

Suspended sediment

Concentration (mg/L)	21

Biochemical oxygen demand (mg/L)

5-day	2.5
Ultimate	4.0

Periphyton

Chlorophyll (mg/m^2)

A	0.001
B	.000

Biomass (g/m^2)

Dry weight	4.7
Dry weight less ash weight	2.2

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 108 - Bear Creek at Talent--Continued
DATE: October 19-20, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1500	190	1800	180	0900	190
Total ammonia as N	1500	.97	--	--	--	--
Dissolved nitrate + nitrite as N	1500	2.6	--	--	--	--
Dissolved nitrite as N	1500	.06	--	--	--	--
Total Kjeldahl nitrogen as N	1500	1.6	--	--	--	--
Dissolved orthophosphate as P	1500	.98	--	--	--	--
Total phosphate as P	1500	1.3	--	--	--	--
Total organic carbon as C	1500	5	--	--	--	--
Chemical oxygen demand	1500	8	--	--	--	--
Algal growth potential	1500	120	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	10-19-77 1030	10-20-77 0800	21½	0.0	-0.1

Indicator bacteria (colonies/100 ml)

Fecal coliform	78
Fecal streptococci	280
Total coliform	520

Suspended sediment

Concentration (mg/L)	8

Biochemical oxygen demand (mg/L)

5-day	1.6
Ultimate	3.0

Periphyton

Chlorophyll (mg/m^2)

A	0.015
B	.000

Biomass (g/m^2)

Dry weight	11.4
Dry weight less ash weight	3.0

Turbidity (JTU) at 1500 2

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 104 - Bear Creek at Barnett Road
DATE: June 29, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0830	140	1230	130	2200	140
Total ammonia as N	--	--	1230	.14	--	--
Total nitrate + nitrite as N	--	--	1230	.40	--	--
Total nitrite as N	--	--	1230	.04	--	--
Total Kjeldahl nitrogen as N	--	--	1230	.6	--	--
Total orthophosphate as P	--	--	1230	.31	--	--
Total phosphate as P	--	--	1230	.42	--	--
Total organic carbon as C	--	--	1230	3	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	6-29-77 0830	6-30-77 0705	22½	-0.3	-1.7

Indicator bacteria (colonies/100 ml)

Fecal coliform	260
Fecal streptococci	230
Total coliform	380

Suspended sediment

Concentration (mg/L)	15

Biochemical oxygen demand (mg/L)

5-day	2.3
Ultimate	4.6

Periphyton

Chlorophyll (mg/m^2)

A	31
B	5.6

Biomass (g/m^2)

Dry weight	--
Dry weight less ash weight	--

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 104 - Bear Creek at Barnett Road--Continued
DATE: August 16-17, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1500	140	1715	150	1935	140	0605	150
Total ammonia as N	1230	.16	--	--	--	--	--	--
Dissolved nitrate + nitrite as N	1230	.24	--	--	--	--	--	--
Total Kjeldahl nitrogen as N	1230	.4	--	--	--	--	--	--
Dissolved orthophosphate as P	1230	.25	--	--	--	--	--	--
Total phosphate as P	1230	.36	--	--	--	--	--	--
Total organic carbon as C	1230	7.3	--	--	--	--	--	--
Chemical oxygen demand	1230	23	--	--	--	--	--	--
Algal growth potential	1230	.5	--	--	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	8-16-77 1045	8-17-77 1000	23¼	-1.4	-1.8

Indicator bacteria (colonies/100 ml)

Fecal coliform	170
Fecal streptococci	560
Total coliform	1,100

Suspended sediment

Concentration (mg/L)	12

Biochemical oxygen demand (mg/L)

5-day	2.6
Ultimate	5.2

Periphyton

Chlorophyll (mg/m^2)

A	0.12
B	.020

Biomass (g/m^2)

Dry weight	42
Dry weight less ash weight	6.6

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 104 - Bear Creek at Barnett Road--Continued
DATE: October 19-20, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1400	210	1830	210	0730	180
Total ammonia as N	1400	.12	--	--	--	--
Dissolved nitrate + nitrite as N	1400	1.9	--	--	--	--
Dissolved nitrite as N	1400	.08	--	--	--	--
Total Kjeldahl nitrogen as N	1400	.6	--	--	--	--
Dissolved orthophosphate as P	1400	.62	--	--	--	--
Total phosphate as P	1400	.79	--	--	--	--
Total organic carbon as C	1400	4	--	--	--	--
Chemical oxygen demand	1400	12	--	--	--	--
Algal growth potential	1400	87	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	10-19-77 0900	10-20-77 0830	23½	-0.8	-1.1

Indicator bacteria (colonies/100 ml)

Fecal coliform	140
Fecal streptococci	2,700B
Total coliform	550

Suspended sediment

Concentration (mg/L)	17

Biochemical oxygen demand (mg/L)

5-day	1.5
Ultimate	3.0

Periphyton

Chlorophyll (mg/m^2)

A	0.059
B	.052

Biomass (g/m^2)

Dry weight	15
Dry weight less ash weight	5.3

Turbidity (JTU) at 1400 -- 2

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 105 - Bear Creek at Table Rock Road
DATE: June 30, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0950	150	1245	140	2150	130
Total ammonia as N	--	--	1245	.22	--	--
Total nitrate + nitrite as N	--	--	1245	.04	--	--
Total nitrite as N	--	--	1245	<.02	--	--
Total Kjeldahl nitrogen as N	--	--	1245	1.2	--	--
Total orthophosphate as P	--	--	1245	.32	--	--
Total phosphate as P	--	--	1245	.51	--	--
Total organic carbon as C	--	--	1245	18	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	No data				

Indicator bacteria (colonies/100 mg)

Fecal coliform	320
Fecal streptococci	550
Total coliform	800

Suspended sediment

Concentration (mg/L)	11
Less than 0.062-mm diam (percent)	66

Biochemical oxygen demand (mg/L)

5-day	5.5
Ultimate	20

Periphyton

Chlorophyll (mg/m^2)

A	5.2
B	2.0

Biomass (g/m^2)

Dry weight	--
Dry weight less ash weight	--

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 105 - Bear Creek at Table Rock Road--Continued
DATE: August 17-18, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1400	150	1615	140	1825	140	0610	120
Total ammonia as N	1200	.19	--	--	--	--	--	--
Dissolved nitrate + nitrite as N	1200	.04	--	--	--	--	--	--
Total Kjeldahl nitrogen as N	1200	.5	--	--	--	--	--	--
Dissolved orthophosphate as P	1200	.25	--	--	--	--	--	--
Total phosphate as P	1200	.35	--	--	--	--	--	--
Total organic carbon as C	1200	8.4	--	--	--	--	--	--
Chemical oxygen demand	1200	31	--	--	--	--	--	--
Algal growth potential	1200	21	--	--	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	8-17-77 0900	8-18-77 0800	23	-0.6	-1.3

Indicator bacteria (colonies/100 ml)

Fecal coliform	330
Fecal streptococci	290
Total coliform	1,200

Suspended sediment

Concentration (mg/L)	12

Biochemical oxygen demand (mg/L)

5-day	2.7
Ultimate	6.6

Periphyton

Chlorophyll (mg/m^2)

A	0.038
B	.029

Biomass (g/m^2)

Dry weight	93
Dry weight less ash weight	25

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 105 - Bear Creek at Table Rock Road--Continued
DATE: October 20, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0900	220	1500	210	1815	220
Total ammonia as N	1200	.05	--	--	--	--
Dissolved nitrate + nitrite as N	1200	.97	--	--	--	--
Dissolved nitrite as N	1200	.04	--	--	--	--
Total Kjeldahl nitrogen as N	1200	.5	--	--	--	--
Dissolved orthophosphate as P	1200	.38	--	--	--	--
Total phosphate as P	1200	.50	--	--	--	--
Total organic carbon as C	1200	6	--	--	--	--
Chemical oxygen demand	1200	12	--	--	--	--
Algal growth potential	1200	67	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	10-20-77 1030	10-21-77 0830	22	-1.7	-1.7

Indicator bacteria (colonies/100 ml)

Fecal coliform	200
Fecal streptococci	140
Total coliform	--

Suspended sediment

Concentration (mg/L)	--
Less than 0.062-mm diam (percent)	--

Biochemical oxygen demand (mg/L)

5-day	2.2
Ultimate	4.8

Periphyton

Chlorophyll (mg/m^2)

A	0.60
B	.073

Biomass (g/m^2)

Dry weight	94
Dry weight less ash weight	19

Turbidity (JTU) at 1200 3

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 109 - Bear Creek at Kirtland Road
DATE: June 30, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0845	140	1230	140	2130	130
Total ammonia as N	--	--	1230	.58		
Total nitrate + nitrite as N	--	--	1230	.17	--	--
Total nitrite as N	--	--	1230	.09	--	--
Total Kjeldahl nitrogen as N	--	--	1230	1.3	--	--
Total orthophosphate as P	--	--	1230	.33	--	--
Total phosphate as P	--	--	1230	.47	--	--
Total organic carbon as C	--	--	1230	5	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	6-30-77 0840	7-1-77 0800	23 1/3	+2.5	-0.5

Indicator bacteria (colonies/100 ml)

Fecal coliform	94
Fecal streptococci	380
Total coliform	5,300

Suspended sediment

Concentration (mg/L)	14

Biochemical oxygen demand (mg/L)

5-day	2.4
Ultimate	9.0

Periphyton

Chlorophyll (mg/m^2)

A	1.15
B	.507

Biomass (g/m^2)

Dry weight	--
Dry weight less ash weight	--

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 109 - Bear Creek at Kirtland Road--Continued
DATE: August 17-18, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	1245	140	1500	130	1700	130	1945	130	0700	130
Total ammonia as N	1245	1.0	--	--	--	--	--	--	--	--
Dissolved nitrate + nitrite as N	1245	.47	--	--	--	--	--	--	--	--
Total Kjeldahl nitrogen as N	1245	1.2	--	--	--	--	--	--	--	--
Dissolved orthophosphate as P	1245	.27	--	--	--	--	--	--	--	--
Total phosphate as P	1245	1.0	--	--	--	--	--	--	--	--
Total organic carbon as C	1245	8.4	--	--	--	--	--	--	--	--
Chemical oxygen demand	1245	13	--	--	--	--	--	--	--	--
Algal growth potential	1245	47	--	--	--	--	--	--	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	8-17-77 1115	8-18-77 1000	22 3/4	+3.0	-0.3

Indicator bacteria (colonies/100 ml)

Fecal coliform	200
Fecal streptococci	300
Total coliform	640

Suspended sediment

Concentration (mg/L)	23

Biochemical oxygen demand (mg/L)

5-day	2.1
Ultimate	4.9

Periphyton

Chlorophyll (mg/m^2)

A	0.014
B	.003

Biomass (g/m^2)

Dry weight	130
Dry weight less ash weight	28

Table 10.--Chemical and biological data from Bear Creek diel studies--Continued

SITE NUMBER AND NAME: 109 - Bear Creek at Kirtland Road--Continued
DATE: October 20, 1977

Constituents (mg/L)	Time	Value	Time	Value	Time	Value
Alkalinity as $CaCO_3$	0815	190	1330	180	1830	170
Total ammonia as N	--	--	1330	.12	--	--
Dissolved nitrate + nitrite as N	--	--	1330	1.3	--	--
Dissolved nitrite as N	--	--	1330	.04	--	--
Total Kjeldahl nitrogen as N	--	--	1330	.6	--	--
Dissolved orthophosphate as P	--	--	1330	.24	--	--
Total phosphate as P	--	--	1330	.32	--	--
Total organic carbon as C	--	--	1330	5	--	--
Chemical oxygen demand	--	--	1330	11	--	--
Algal growth potential	--	--	1330	51	--	--

	Date and time test started	Date and time test stopped	Length of test (hr)	Light bottle (dissolved oxygen, mg/L)	Dark bottle (dissolved oxygen, mg/L)
Light-dark bottle test	10-20-77 0845	10-21-77 0815	23½	+0.4	-0.5

Indicator bacteria (colonies/100 ml)

Fecal coliform	200
Fecal streptococci	440
Total coliform	750

Suspended sediment

Concentration (mg/L)	--

Biochemical oxygen demand (mg/L)

5-day	2.1
Ultimate	3.8

Periphyton

Chlorophyll (mg/m^2)

A	0.034
B	.006

Biomass (g/m^2)

Dry weight	25
Dry weight less ash weight	5.5

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies

Site number and name: 107 - Bear Creek at Interstate 5 south of Ashland

Date: June 28, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Melosira varians		15	1.2
Cyclotella meneghiniana		8	.6
Pennales	Pennate diatoms		
Fragilariaceae			
Diatoma vulgare		84	6.6
Fragilaria construens		38	3.0
Achnanthacene			
Achnanthes linearis		8	.6
A. minutissima		8	.6
Cocconeis placentula euglypta		61	4.7
Rhoicophenia curvata		145	11.2
Naviculaceae			
Navicula cryptocephala		419	32.5
N. tripunctata		122	9.5
Gomphonemataceae			
Gomphoneis herculeana		8	.6
Gomphoneme angustata		114	8.8
G. parvulum		8	.6
G. sp.		8	.6
Cymbellaceae			
Amphora perpusilla		8	.6
Cymbella minuta		30	2.3
C. prostrata		8	.6
C. sinuata		15	1.2
Epithemia sorex		69	5.4
Nitzschiaceae			
Nitzschia acicularis		8	.6
N. spp.		53	4.1
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Oscillatoriales			
Nostocaceae			
Anabaena sp.		53	4.1
	Total	1,290	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 107 - Bear Creek at Interstate 5 south of Ashland--continued

Date: August 15, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Oocystaceae			
Oocystis pusilla		2	0.6
Zygnematales			
Desmidiaceae	Desmids		
Cosmarium sp.		4	1.2
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella stelligera		2	.6
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		2	.6
Achnanthaceae			
Achnanthes linearis		2	.6
A. minutissima		2	.6
Cocconeis pediculus		4	1.2
C. placentula euglypta		82	25.5
Rhoicosphenia curvata		46	14.3
Naviculaceae			
Navicula cryptocephala		72	22.4
N. tripunctata		25	7.8
Gomphonemaceae			
Gomphonema angustata		11	3.5
G. sp.		4	1.2
Cymbellaceae			
Cymbella prostrata		8	2.5
Epithemia sorex		27	8.4
Nitzschiaceae			
Nitzschia sp.		8	2.5
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Oscillatoriales			
Oscillatoriaceae			
Oscillatoria sp.		17	5.3
Nostocaceae			
Anabaena sp.		2	.6
Misc. Blue-green algae		2	.6
	Total	322	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 107 - Bear Creek at Interstate 5 south of Ashland--continued

Date: October 18, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		31	0.9
Pennales	Pennate diatoms		
Fragilariaceae			
Diatoma vulgare		61	1.7
Fragilaria construens		31	.9
Synedra ulna		31	.9
Achnanthaceae			
Achnanthes linearis		31	.9
Cocconeis placentula euglypta		367	10.2
Rhoicosphenia curvata		153	4.3
Naviculaceae			
Navicula cryptocephala		796	22.2
N. tripunctata		581	16.2
N. sp.		122	3.4
Gomphonemaceae			
Gomphoneis herculeana		31	.9
Gomphonema parvulum		92	2.5
G. simus		61	1.7
G. sp.		92	2.5
Cymbellaceae			
Amphora perpusilla		31	.9
Cymbella angustata		31	.9
C. sinuata		31	.9
Nitzschiaceae			
Nitzschia dissipata		673	18.7
N. frustulum		31	.9
N. sp.		245	6.8
Misc. diatoms		61	1.7
	Total	3,583	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 102 - Bear Creek at South Valley View Road

Date: June 28, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Oocystaceae			
Ankistrodesmus braunii		58	7.3
Ulotrichales			
Coleochaetaceae			
Coleochaete soluta		657	83.0
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Achnanthaceae			
Achnanthes minutissima		6	.8
Cocconeis placentula euglypta		6	.8
Rhoicophenia curvata		12	1.5
Naviculaceae			
Navicula cryptocephala		23	2.9
Gomphonemaceae			
Gomphoneme parvulum		17	2.1
Cymbellaceae			
Cymbella minuta		6	.8
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Chroococcales			
Chroococcaceae			
Aphanocapsa rivularis		6	.8
	Total	791	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 102 - Bear Creek at South Valley Road--continued

Date: August 15, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Oocystaceae			
Ankistrodesmus braunii		3	0.7
A. spiralis		30	7.2
Ulotrichales			
Coleochaetaceae			
Coleochaete soluta		3	.7
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Achnanthaceae			
Cocconeis placentula euglypta		3	.7
Naviculaceae			
Navicula biconica		152	36.5
N. cryptocephala		3	.7
Gomphonemaceae			
Gomphonema parvulum		5	1.2
Cymbellaceae			
Cymbella minuta		3	.7
Nitzschiaceae			
Nitzschia sp.		3	.7
Misc. diatom		3	.7
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Chroococcales			
Chroococcaceae			
Anacystis sp.		209	50.2
	Total	417	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 102 - Bear Creek at South Valley View Road--continued

Date: October 18, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Characiaceae			
Characium ambiguum		27	16.5
Ulotrichales			
Coleochaetaceae			
Coleochaete soluta		2	1.2
EUGLENOPHYTA	Euglenoids		
EUGLENOPHYCEAE			
Euglenales			
Euglenaceae			
Trachelomonas sp.		2	1.2
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		3	1.8
Pennales	Pennate diatoms		
Fragilariaceae			
Fragilaria sp.		2	1.2
Achnanthaceae			
Achnanthes lanceolata		3	1.8
A. linearis		5	3.1
Cocconeis pediculus		2	1.2
C. placentula euglypta		6	3.7
Rhoicosphenia curvata		13	7.9
Naviculaceae			
Navicula biconica		22	13.5
N. cryptocephala		6	3.7
N. sp.		3	1.8
Gomphonemataceae			
Gomphonema parvulum		36	22.1
G. sp.		5	3.1
Cymbellaceae			
Amphora perpusilla		2	1.2
Cymbella minuta		2	1.2
Nitzschiaceae			
Nitzschia dissipata		2	1.2
N. frustulum		2	1.2
N. spp.		5	3.1
Misc. diatoms		8	4.9
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Chroococcales			
Chroococcaceae			
Microcystis aeruginosa		2	1.2
Oscillatoriales			
Oscillatoriaceae			
Oscillatoria sp.		3	1.8
	Total	163	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 108 - Bear Creek at Talent

Date: June 29, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Characiaceae			
Characium ambiguum		14	7.1
Oocystaceae			
Quadrigula sp.		12	6.1
Ulotrichales			
Coleochaetaceae			
Coleochaete soluta		2	1.0
EUGLENOPHYTA	Euglenoids		
EUGLENOPHYCEAE			
Euglenales			
Euglenaceae			
Trachelomonas sp.		2	1.0
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Fragilariaceae			
Diatoma vulgare		2	1.0
Achnanthaceae			
Achnanthes lanceolata		18	9.2
Cocconeis pediculus		5	2.6
C. placentula euglypta		24	12.2
Rhoicosphenia curvata		4	2.0
Naviculaceae			
Navicula biconica		12	6.1
N. cryptocephala		32	16.2
N. gregaria		4	2.0
N. pupula		4	2.0
N. tripunctata		7	3.6
Gomphonemaceae			
Gomphonema parvulum		18	9.1
G. sp.		2	1.0
Cymbellaceae			
Amphora perpusilla		5	2.6
Nitzschiaceae			
Nitzschia frustulum		9	4.6
N. sp.		14	7.1
Misc. diatoms		5	2.5
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Oscillatoriales			
Nostocaceae			
Anabaena sp.		2	1.0
	Total	197	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 108 - Bear Creek at Talent--continued

Date: August 16, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Characiaceae			
Characium ambiguum		1	1.3
Oocystaceae			
Quadrigula sp.		1	1.3
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Fragilariaceae			
Fragilaria construens		1	1.3
Achnanthaceae			
Achnanthes lanceolata		1	1.3
A. linearis		1	1.3
Cocconeis pediculus		1	1.3
C. placentula euglypta		41	53.2
Rhoicosphenia curvata		4	5.2
Naviculaceae			
Navicula biconica		2	2.6
N. cryptocephala		7	9.1
N. tripunctata		2	2.6
Gomphonemaceae			
Gomphonema angustata		2	2.6
G. sp.		3	3.9
Cymbellaceae			
Cymbella sinuata		1	1.3
Epithemiaceae			
Epithemia sorex		1	1.3
Nitzschiaceae			
Nitzschia frustulum		1	1.3
N. sp.		1	1.3
Surirellaceae			
Surirella ovata		1	1.3
Misc. diatom		3	3.9
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Chroococcales			
Chroococcaceae			
Anacystis sp.		2	2.6
	Total	77	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 108 - Bear Creek at Talent--continued

Date: October 19, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Cladophorales			
Cladophoraceae			
Cladophora glomerata		6	2.0
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Achnanthaceae			
Achnanthes lanceolata		19	6.3
Cocconeis pediculus		3	1.0
Cocconeis placentula		69	22.8
Rhoicosphenia curvata		6	2.0
Naviculaceae			
Navicula biconica		17	5.6
N. cryptocephala		91	30.0
N. gregaria		11	3.6
N. tripunctata		17	5.6
Gomphonemaceae			
Gomphonema angustata		3	1.0
G. parvulum		3	1.0
Cymbellaceae			
Amphora perpusilla		3	1.0
Cymbella minuta		6	2.0
Epithemiaceae			
Epithemia sorex		3	1.0
Nitzschiaceae			
Nitzschia acicularis		8	2.6
N. frustulum		22	7.3
N. sp.		8	2.6
Misc. diatom		8	2.6
	Total	303	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 104 - Bear Creek at Barnett Road

Date: June 29, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Zygnematales			
Desmidiaceae	Desmids		
Cosmarium sp.		13	3.5
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		10	2.7
Stephanodiscus sp.		10	2.7
Pennales	Pennate diatoms		
Achnanthaceae			
Achnanthes lanceolata		3	.8
Cocconeis pediculus		57	15.1
C. placentula		155	41.1
Rhoicosphenia curvata		10	2.7
Naviculaceae			
Navicula cryptocephala		16	4.2
N. tripunctata		3	.8
N. sp.		10	2.7
Gomphonemaceae			
Gomphonema parvulum		38	10.1
G. sp.		3	.8
Cymbellaceae			
Cymbella minuta		3	.8
C. sinuata		3	.8
Epithemiaceae			
Epithemia sorex		10	2.7
Nitzschiaceae			
Nitzschia frustulum		6	1.6
N. sp.		10	2.7
Surirellaceae			
Surirella ovata		3	.8
Misc. diatoms		13	3.4
	Total	376	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 104 - Bear Creek at Barnett Road--continued

Date: August 16, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Scenedesmaceae			
Scenedesmus acutiformis		10	0.6
Ulotrichales			
Coleochaetaceae			
Coleochaeta soluta		10	.6
Zygnematales			
Desmidiaceae	Desmids		
Cosmarium sp.		42	2.5
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		115	6.8
Achnanthaceae			
Cocconeis placentula euglypta		10	.6
Naviculaceae			
Navicula cryptocephala		1,064	62.6
N. sp.		21	1.2
Gomphonemaceae			
Gomphonema angustata		10	.6
G. parvulum		104	6.1
Epithemiaceae			
Epithemia sorex		21	1.2
Nitzschiaceae			
Nitzschia frustulum		125	7.4
N. spp.		115	6.8
Misc. diatom		10	.6
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Oscillatoriales			
Oscillatoriaceae			
Oscillatoria sp.		21	1.2
Nostocaceae			
Anabaena sp.		21	1.2
	Total	1,699	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 104 - Bear Creek at Barnett Road--continued

Date: October 19, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		26	1.1
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		13	.5
Achnanthaceae			
Achnanthes lanceolata		7	.3
Cocconeis placentula euglypta		13	.5
Rhoicosphenia curvata		7	.3
Naviculaceae			
Navicula biconica		86	3.7
N. cryptocephala		152	6.5
Gomphonemaceae			
Gomphonema angustata		20	.8
G. parvulum		20	.8
Cymbellaceae			
Cymbella sinuata		7	.3
Nitzschiaceae			
Nitzschia frustulum		1,801	77.1
N. palea		145	6.2
N. spp.		26	1.1
Surirellaceae			
Surirella ovata		7	.3
Misc. diatoms		7	.3
	Total	2,337	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 105 - Bear Creek at Table Rock Road

Date: June 30, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Ulotrichales			
Coleochaetaceae			
Coleochaete soluta		638	34.8
Zygnematales			
Desmidiaceae	Desmids		
Cosmarium sp.		15	.8
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		608	33.2
Pennales	Pennate diatoms		
Achnanthaceae			
Cocconeis pediculus		8	.4
C. placentula euglypta		75	4.1
Naviculaceae			
Navicula cryptocephala		45	2.5
Gomphonemaceae			
Gomphonema parvulum		225	12.3
Nitzschiaceae			
Nitzschia frustulum		128	7.0
N. spp.		30	1.6
Misc. diatoms		8	.4
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Chroococcales			
Chroococcaceae			
Anacystis sp.		53	2.9
	Total	1,833	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 105 - Bear Creek at Table Rock Road--continued

Date: August 17, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Oocystaceae			
Ankistrodesmus falcatus		29	0.6
Scenedesmaceae			
Scenedesmus quadricauda		14	.3
Hydrodictyaceae			
Pediastrum sp.		14	.3
Ulotrichales			
Chaetophoraceae			
Microthamnion strictissimum		58	1.3
Zygnematales			
Desmidiaceae	Desmids		
Cosmarium sp.		29	.6
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		202	4.4
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		938	20.5
Achnanthaceae			
Cocconeis pediculus		14	.3
C. placentula euglypta		43	1.0
Naviculaceae			
Navicula capitata		14	.3
N. cryptocephala		433	9.5
Gomphonemaceae			
Gomphonema parvulum		245	5.4
Cymbellaceae			
Cymbella minuta		29	.6
Nitzschiaceae			
Nitzschia frustulum		447	9.8
N. spp.		924	20.2
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Chroococcales			
Chroococcaceae			
Chroococcus sp.		29	.6
Oscillatoriales			
Oscillatoriaceae			
Lyngbya nordgaardii		664	14.6
Oscillatoria agardhii		29	.6
O. limnetica		418	9.1
	Total	4,573	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 105 - Bear Creek at Table Rock Road--continued

Date: October 20, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Ulotrichales			
Chaetophoraceae			
Microthamnion strictissimum		225	0.5
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Melosira varians		75	.2
Cyclotella meneghiniana		1,878	4.5
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		225	.5
Achnanthaceae			
Achnanthes lanceolata		1,202	2.9
Cocconeis placentula euglypta		601	1.4
Naviculaceae			
Navicula capitata		300	.7
N. cryptocephala		4,507	10.7
N. pupula		75	.2
Gomphonemaceae			
Gomphonema angustata		225	.5
G. parvulum		1,502	3.6
Nitzschiaceae			
Nitzschia frustulum		2,779	6.6
N. palea		7,737	18.4
N. spp.		20,507	48.9
Surirellaceae			
Surirella ovata		150	.4
	Total	41,988	100.0

Table 11.--Taxa and Numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 109 - Bear Creek at Kirtland Road

Date: June 30, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Scenedesmaceae			
Scenedesmus quadricauda		7	1.0
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		207	30.4
Pennales	Pennate diatoms		
Achnanthaceae			
Cocconeis placentula euglypta		80	11.7
Rhoicosphenia curvata		27	4.0
Naviculaceae			
Navicula biconica		7	1.0
N. cryptocephala		80	11.7
Gomphonemaceae			
Gomphonema angustata		40	5.9
G. parvulum		100	14.7
Cymbellaceae			
Amphora perpusilla		7	1.0
Cymbella minuta		20	2.9
Nitzschiaceae			
Nitzschia frustulum		40	5.9
N. spp.		60	8.8
Surirellaceae			
Surirella ovata		7	1.0
	Total	682	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 109 - Bear Creek at Kirtland Road - continued

Date: August 17, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHLOROPHYTA	Green algae		
CHLOROPHYCEAE			
Chlorococcales			
Scenedesmaceae			
Scenedesmus quadricauda		75	0.5
Hydrodictyaceae			
Pediastrum duplex		75	.5
Ulotrichales			
Chaetophoraceae			
Microthamnion strictissimum		829	5.2
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Centrales	Centric diatoms		
Coscinodiscaceae			
Cyclotella meneghiniana		452	2.9
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		829	5.2
Achanthaceae			
Achnanthes lanceolata		301	1.9
Cocconeis pediculus		75	.5
C. placentula euglypta		452	2.9
Rhoicosphenia curvata		226	1.4
Naviculaceae			
Navicula capitata		75	.5
N. cryptocephala		2,938	18.6
N. pupula		75	.5
Gomphonemaceae			
Gomphonema parvulum		1,356	8.5
Cymbellaceae			
Cymbella minuta		75	.5
Nitzschiaceae			
Nitzschia frustulum		904	5.7
N. palea		1,733	10.9
N. spp.		4,972	31.4
Misc. diatoms		75	.5
CYANOPHYTA	Blue-green algae		
MYXOPHYCEAE			
Oscillatoriales			
Oscillatoriaceae			
Lyngbya nordgaardii		75	.5
Oscillatoria limnetica		226	1.4
	Total	15,818	100.0

Table 11.--Taxa and numbers of periphyton from Bear Creek diel studies--Continued

Site number and name: 109 - Bear Creek at Kirtland Road--continued

Date: October 20, 1977

DIVISION CLASS Order Family Genus species	Common name	Cell count per in^2 (in thousands)	Percent of total
CHRYSOPHYTA			
BACILLARIOPHYCEAE	Diatoms		
Pennales	Pennate diatoms		
Fragilariaceae			
Synedra ulna		74	0.2
Achnanthaceae			
Cocconeis placentula euglypta		442	1.4
Rhoicosphenia curvata		74	.2
Naviculaceae			
Navicula biconica		4,130	13.0
N. capitata		74	.2
N. cryptocephala		2,877	9.1
Gomphonemaceae			
Gomphonema angustata		295	.9
G. parvulum		1,918	6.1
Cymbellaceae			
Cymbella minuta		74	.2
Nitzschiaceae			
Nitzschia frustulum		11,211	35.4
N. spp.		10,547	33.3
	Total	31,716	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies

Site number and name: 107 - Bear Creek at Interstate 5 south of Ashland

Date: June 28, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ANNELIDA			
OLIGOCHAETA	Aquatic earthworms	1	1.2
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	2	2.3
Chironomidae	Midges	58	67.4
Trichoptera	Caddis flies		
Limnephilidae (pupae)			
Glyphopsyche		1	1.2
Odonata	Dragonflies		
Coenagrionidae	Damsel flies	1	1.2
Coleoptera	Beetles		
Elmidae	Riffle beetles	1	1.2
Ephemeroptera	May flies		
Tricorythidae			
Tricorythodes		9	10.4
Ephemerellidae			
Ephemerella		13	15.1
	Total	81	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 107 - Bear Creek at Interstate 5 south of Ashland

Date: August 15, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ANNELIDA			
OLIGOCHAETA	Aquatic earthworms	2	1.8
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	5	4.5
Empidade (larvae)	Dance flies	1	.9
(pupae)		1	.9
Chironomidae	Midges	4	3.6
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		6	5.4
Limnephilidae (pupae)		3	2.7
Glossosomatidae			
Glossosoma		1	.9
Ephemeroptera	May flies		
Tricorythidae			
Tricorythodes		1	.9
Ephemerellidae			
Ephemerella		11	9.9
Baetidae			
Baetis		75	67.6
MOLLUSCA			
GASTROPODA	Snails		
Basommatophora			
Lymnaeidae	Pond snails		
Lymnaea		1	.9
	Total	111	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 107 - Bear Creek at Interstate 5 south of Ashland

Date: October 18, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ANNELIDA			
OLIGOCHAETA	Aquatic earthworms	4	2.0
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	4	2.0
Chironomidae	Midges	33	16.6
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		87	43.7
Brachycentridae			
Micrasema		1	.5
Limnephilidae (pupae)		2	1.0
Glyphopsyche			
Glossosomatidae			
Glossosoma		3	1.5
Plecoptera	Stone flies		
Chloroperlidae			
Alloperla		1	.5
Coleoptera	Beetles		
Elmidae	Riffle beetles	16	8.1
Ephemeroptera	May flies		
Tricorythidae			
Tricorythodes		4	2.0
Baetidae			
Baetis		40	20.1
MOLLUSCA			
GASTROPODA	Snails		
Mesogastropoda			
Pleuroceridae			
Goniobasis		1	.5
Basommatophora			
Physidae	Pond snails		
Physa		3	1.5
	Total	199	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies

Site number and name: 102 - Bear Creek at South Valley View Road

Date: June 28, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square feet)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	58	31.0
Chironomidae	Midges	128	68.5
Coleoptera	Beetles		
Elmidae	Riffle beetles	1	.5
	Total	187	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 102 - Bear Creek at South Valley View Road

Date: August 15, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square feet)	Percent of total
ANNELIDA			
OLIGOCHAETA	Aquatic earthworms	1	0.2
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	478	78.6
Empididae (larvae)	Dance flies	2	.3
Chironomidae	Midges	8	1.3
Coleoptera	Beetles		
Elmidae	Riffle beetles	1	.2
Ephemeroptera	May flies		
Baetidae			
Baetis		117	19.2
MOLLUSCA			
GASTROPODA	Snails		
Basommatopliora			
Lymnacidae	Pond snails		
Lymnaea		1	.2
		608	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 102 - Bear Creek at South Valley View Road

Date: October 18, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square feet)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	273	64.7
(pupae)		90	21.3
Chironomidae	Midges	21	5.0
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		2	.5
Odonata	Dragonflies		
Coenagrionidae	Damsel flies	3	.7
Coleoptera	Beetles		
Elmidae	Riffle beetles	1	.2
Ephemeroptera	May flies		
Baetidae			
Baetis		28	6.6
MOLLUSCA			
GASTROPODA	Snails		
Basommatopliora			
Physidae	Pond snails		
Physa		2	.5
Lymnaeidae	Pond snails		
Lymnaea		2	.5
	Total	422	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 108 - Bear Creek at Talent

Date: June 29, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	8	13.1
(pupae)		4	6.6
Chironomidae	Midges	26	42.6
Coleoptera	Beetles		
Elmidae	Riffle beetles	5	8.2
Ephemeroptera	May flies		
Baetidae			
Baetis		18	29.5
	Total	61	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 108 - Bear Creek at Talent

Date: August 16, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	79	54.5
(pupae)		1	.7
Chironomidae	Midges	13	9.0
Odonata	Dragonflies		
Coenagrionidae	Damsel flies	1	.7
Coleoptera	Beetles		
Elmidae	Riffle beetles	6	4.1
Ephemeroptera	May flies		
Baetidae			
Baetis		40	27.6
MOLLUSCA			
GASTROPODA	Snails		
Basommatophora			
Physidae	Pond snails		
Physa		5	3.4
	Total	145	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 108 - Bear Creek at Talent

Date: October 19, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	94	39.0
Chironomidae	Midges	12	5.0
Lepidoptera	Lepidopterans		
Pyralididae			
Cataclysta		1	.4
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		25	10.4
Coleoptera	Beetles		
Elmidae	Riffle beetles	11	4.5
Psephenidae	Water pennies	1	.4
Eubrianax		1	.4
Ephemeroptera	May flies		
Baetidae			
Baetis		93	38.6
MOLLUSCA			
GASTROPODA	Snails		
Basommatophora			
Physidae	Pond snails		
Physa		4	1.7
	Total	241	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 104 - Bear Creek at Barnett Road

Date: June 29, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Empididae (larvae)	Dance flies	1	1.3
Chironomidae	Midges	31	40.8
Coleoptera	Beetles		
Elmidae	Riffle beetles	21	27.6
Ephemeroptera	May flies		
Baetidae			
Baetis		23	30.3
	Total	76	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 104 - Bear Creek at Barnett Road

Date: August 16, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
PLATYHELMINTHES	Flatworms		
TURBELLARIA		1	0.6
ARTHROPODA			
INSECTA			
Diptera			
Chironomidae	Midges	51	30.7
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		73	44.0
(pupae)		12	7.2
Odonata	Dragonflies		
Coenagrionidae	Damsel flies	1	.6
Coleoptera	Beetles		
Elmidae	Riffle beetles	21	12.7
Ephemeroptera	May flies		
Baetidae			
Baetis		7	4.2
	Total	166	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 104 - Bear Creek at Barnett Road

Date: October 19, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	2	3.7
Chironomidae	Midges	11	20.4
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		7	12.9
Ephemeroptera	May flies		
Baetidae			
Baetis		34	63.0
	Total	54	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 105 - Bear Creek at Table Rock Road

Date: June 30, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ANNELIDA			
OLIGOCHAETA	Aquatic earthworms	1	0.8
ARTHROPODA			
INSECTA			
Diptera			
Chironomidae	Midges	47	36.7
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		70	54.7
Coleoptera	Beetles		
Elmidae	Riffle beetles	4	3.1
Ephemeroptera	May flies		
Tricorythidae			
Tricorythodes		1	.8
Ephemerellidae			
Ephemerella		1	.8
Baetidae			
Baetis		4	3.1
	Total	128	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 105 - Bear Creek at Table Rock Road

Date: August 17, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Chironomidae	Midges	56	84.9
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		6	9.1
Coleoptera	Beetles		
Elmidae	Riffle beetles	3	4.5
Ephemeroptera	May flies		
Baetidae			
Baetis		1	1.5
	Total	66	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 105 - Bear Creek at Table Rock Road

Date: October 20, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
PLATYHELMINTHES	Flatworms	1	2.1
TURBELLARIA		1	2.1
ANNELIDA			
OLIGOCHAETA	Aquatic earthworms	1	2.1
ARTHROPODA			
INSECTA			
Diptera			
Simuliidae (larvae)	Black flies	1	2.1
Chironomidae	Midges	14	29.1
Ephemeroptera	May flies		
Baetidae			
Baetis		31	64.6
	Total	48	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 109 - Bear Creek at Kirtland Road

Date: June 30, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Empididae (larvae)	Dance flies	2	2.2
Chironomidae	Midges	38	41.3
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		18	19.6
Coleoptera	Beetles		
Elmidae	Riffle beetles	21	22.8
Ephemerellidae			
Ephemerella		2	2.2
Baetidae			
Baetis		11	11.9
	Total	92	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 109 - Bear Creek at Kirtland Road

Date: August 17, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
PLATYHELMINTHES	Flatworms		
TURBELLARIA		1	1.2
ARTHROPODA			
INSECTA			
Diptera			
Tipulidae	Crane flies	1	1.2
Chironomidae	Midges	62	76.5
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		9	11.1
Coleoptera	Beetles		
Elmidae	Riffle beetles	4	5.0
Ephemeroptera	May flies		
Baetidea			
Baetis		4	5.0
	Total	81	100.0

Table 12.--Taxa and numbers of benthic invertebrates from Bear Creek diel studies--Continued

Site number and name: 109 - Bear Creek at Kirtland Road

Date: October 20, 1977

PHYLUM CLASS Order Family Genus species	Common name	Organism count (total/ square foot)	Percent of total
ARTHROPODA			
INSECTA			
Diptera			
Chironomidae	Midges	26	72.2
Trichoptera	Caddis flies		
Hydropsychidae			
Hydropsyche (larvae)		1	2.8
Coleoptera	Beetles		
Elmidae	Riffle beetles	2	5.6
Ephemeroptera	May flies		
Baetidae			
Baetis		7	19.4
	Total	36	100.0

Table 13.--Daily precipitation, in inches, for water year 1977

[NR, no record; --, no rainfall]

Station number and name: P1 - Ashland rain gage on Science No. 1 Building, Southern Oregon State College

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.08	--	0.01	0.12	NR	--	0.06	0.51	0.02	0.18	--	--
2	.06	--	.01	.48	NR	0.12	--	.04	--	--	--	--
3	--	--	--	.07	NR	.03	--	.19	--	--	--	--
4	--	--	--	.02	NR	--	--	.03	.02	--	--	--
5	--	--	--	.06	NR	--	--	.30	--	--	--	--
6	--	--	--	--	NR	--	--	.12	--	--	--	--
7	--	--	--	--	NR	--	--	--	--	--	0.24	--
8	.01	--	.41	.03	NR	.01	.37	--	--	--	--	--
9	.01	--	--	--	NR	.31	.01	.06	--	--	--	--
10	--	--	.01	--	NR	--	--	.28	.21	--	--	--
11	--	--	.06	.22	NR	--	--	.13	.06	--	--	--
12	--	.01	.04	--	NR	.06	--	.01	.15	--	--	--
13	.01	.14	.02	.01	NR	--	.10	--	.01	--	--	--
14	.01	.19	--	--	--	--	--	.06	NR	--	--	--
15	--	.03	--	--	--	--	--	.18	NR	--	--	--
16	--	--	--	--	--	--	.02	.29	NR	--	--	0.07
17	--	.01	--	.01	--	--	--	.03	NR	--	--	.01
18	--	--	.01	--	--	.03	--	.06	NR	--	--	--
19	--	--	.04	--	--	.02	--	--	NR	--	--	.12
20	--	--	.04	--	.04	--	--	--	NR	--	--	.08
21	--	--	.02	NR	.41	--	--	--	NR	--	--	--
22	--	--	.01	NR	.01	--	--	.53	NR	--	--	--
23	--	--	--	NR	.26	.45	--	.18	NR	--	--	.34
24	.03	--	.01	NR	--	--	--	.11	NR	--	.09	.02
25	--	.01	.01	NR	.01	.01	.07	--	NR	--	.09	--
26	--	--	--	NR	.06	--	--	.49	NR	--	.01	--
27	.01	--	.01	NR	.02	.05	--	--	NR	--	--	.31
28	--	--	.01	NR	.18	--	--	--	NR	--	--	1.16
29	.04	.01	--	NR		--	--	.02	--	--	--	.03
30	--	.01	--	NR		--	.02	.02	--	--	--	--
31	.07		--	NR		--		--		--	--	

Table 13.--Daily precipitation, in inches, for water year 1977--Continued

Station number and name: P2 - Rain gage on Medical Center Building near Red Lion Inn

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	0.01	--	0.08	--	--	--	0.32	0.03	0.18	--	--
2	NR	--	--	.50	--	0.26	--	.02	--	--	--	--
3	NR	.01	--	.12	0.01	.01	--	.18	--	--	--	--
4	NR	.01	--	.07	--	--	--	--	--	--	--	--
5	NR	.01	--	.02	--	--	--	.06	.03	--	--	--
6	NR	.01	--	--	--	--	--	.14	.02	--	--	--
7	--	.01	--	.03	--	.04	--	.01	--	--	0.39	--
8	--	.01	0.25	.07	--	.04	0.12	--	--	--	--	--
9	--	--	--	.05	--	.41	.01	.02	--	--	--	--
10	--	--	--	.02	--	.01	--	.16	.12	--	--	--
11	--	--	--	.49	--	--	--	.05	.01	--	--	--
12	--	--	.01	--	--	.02	--	--	.18	--	--	--
13	--	.14	--	--	--	--	.09	--	.06	--	--	--
14	--	.25	--	--	--	--	--	--	.01	--	--	--
15	--	.07	.01	--	--	--	--	.12	--	--	--	--
16	--	--	.01	--	--	--	--	.14	--	--	--	0.02
17	--	--	.01	--	--	--	--	.01	--	--	--	--
18	--	--	.03	--	.01	.01	--	.12	.10	--	--	--
19	--	--	.05	--	--	.01	--	--	--	--	--	.11
20	--	--	.01	--	.01	--	--	--	--	--	--	.13
21	--	--	--	--	.32	--	--	--	--	--	--	--
22	--	--	.01	--	.04	--	--	.63	.05	--	--	.01
23	--	--	--	--	.08	.33	--	.06	--	--	--	.20
24	--	.01	--	--	NR	--	--	.01	--	--	.12	--
25	--	.03	.06	--	NR	--	.16	.06	--	--	.13	--
26	--	--	.07	--	NR	--	--	.20	--	--	--	--
27	--	--	.01	--	NR	.03	--	--	--	--	--	.83
28	--	--	--	--	NR	--	.04	--	--	--	--	3.39
29	--	--	--	--		--	.20	.02	--	--	--	.05
30	--	--	--	--		--	.12	.02	--	--	--	.01
31	--		--	--		--		--		--	--	

Table 13.--Daily precipitation, in inches, for water year 1977--Continued

Station number and name: P3 - McAndrews Road rain gage

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	NR	NR	NR	NR	NR	NR	NR	--	0.10	--	--
2	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	--
3	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	--
4	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	--
5	NR	NR	NR	NR	NR	NR	NR	NR	--	.01	--	--
6	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	--
7	NR	NR	NR	NR	NR	NR	NR	NR	--	--	0.24	--
8	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	--
9	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	--
10	NR	NR	NR	NR	NR	NR	NR	NR	0.10	--	--	--
11	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	NR
12	NR	NR	NR	NR	NR	NR	NR	NR	.11	--	--	NR
13	NR	NR	NR	NR	NR	NR	NR	NR	.03	--	--	NR
14	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	NR
15	NR	NR	NR	NR	NR	NR	NR	NR	--	--	--	NR
16	NR	NR	NR	NR	NR	NR	NR	0.07	--	--	--	NR
17	NR	NR	NR	NR	NR	NR	NR	--	--	--	--	NR
18	NR	NR	NR	NR	NR	NR	NR	.27	.06	--	--	NR
19	NR	NR	NR	NR	NR	NR	NR	--	--	--	--	NR
20	NR	NR	NR	NR	NR	NR	NR	--	--	--	--	NR
21	NR	NR	NR	NR	NR	NR	NR	--	--	--	--	--
22	NR	NR	NR	NR	NR	NR	NR	.46	--	--	--	--
23	NR	NR	NR	NR	NR	NR	NR	.05	--	--	--	.23
24	NR	NR	NR	NR	NR	NR	NR	--	--	--	.08	--
25	NR	NR	NR	NR	NR	NR	NR	.03	--	--	.07	--
26	NR	NR	NR	NR	NR	NR	NR	.16	--	--	--	--
27	NR	NR	NR	NR	NR	NR	NR	--	--	--	--	.96
28	NR	NR	NR	NR	NR	NR	NR	--	.01	--	--	3.77
29	NR	NR	NR	NR		NR	NR	--	--	--	--	.06
30	NR	NR	NR	NR		NR	NR	--	--	--	--	--
31	NR		NR	NR		NR		--		--	--	

Table 13.--Daily precipitation, in inches, for water year 1977--Continued

Station number and name: P4 - Sage Road rain gage at station 14358495 site

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
L	NR	--	--	0.09	NR	NR	--	0.28	--	0.19	--	--
2	NR	--	--	.45	NR	NR	--	.01	--	--	--	--
3	NR	0.01	--	.08	NR	NR	--	.18	--	--	--	--
4	NR	.01	--	.08	NR	NR	--	--	--	--	--	--
5	NR	.01	--	.03	NR	NR	--	.02	--	--	--	--
6	NR	.01	--	--	NR	NR	--	.09	--	--	--	--
7	NR	.01	--	--	NR	0.05	--	.01	--	--	0.20	--
8	NR	.01	0.19	--	NR	.15	0.12	--	--	--	--	--
9	NR	--	.01	--	NR	.37	--	--	--	--	--	--
10	NR	.01	--	--	NR	--	--	.13	0.17	--	--	--
11	NR	--	.01	.46	NR	--	--	.05	.02	--	--	--
12	NR	--	--	NR	NR	--	--	--	.19	--	--	--
13	NR	.15	.01	NR	NR	--	.03	--	.06	--	--	--
14	NR	.27	.01	NR	NR	--	--	.02	.01	--	--	--
15	NR	.06	--	NR	NR	--	--	.06	--	--	--	--
16	NR	--	.01	NR	NR	--	--	.01	--	--	--	0.03
17	NR	.01	--	NR	NR	--	--	.02	--	--	--	.02
18	NR	--	.02	NR	NR	--	--	.13	.13	--	--	--
19	NR	.01	.02	NR	NR	.02	--	.01	--	--	--	.13
20	NR	--	--	NR	0.05	--	--	--	--	--	--	.10
21	NR	--	--	NR	.50	--	--	--	--	--	--	--
22	NR	.01	--	NR	.03	--	--	.74	--	--	--	--
23	NR	--	--	NR	.18	.32	--	.15	--	--	--	.21
24	NR	.01	.03	NR	.14	--	--	--	--	--	.09	.01
25	NR	--	--	NR	--	--	.09	.04	--	--	.12	--
26	NR	--	.05	NR	.03	--	.01	.14	--	--	--	--
27	NR	--	--	NR	.05	.01	.01	--	--	--	--	.78
28	NR	--	--	NR	.12	--	.10	--	--	--	--	3.07
29	NR	--	--	NR		--	.27	--	--	--	--	.03
30	NR	--	--	NR		--	.04	--	.01	--	--	.01
31	NR		--	NR		--		--		--	--	

Table 13.--Daily precipitation, in inches, for water year 1977--Continued

Station number and name: P5 - Sage Road rain gage at 1135 Lozier Lane

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	NR	--	0.11	--	--	--	0.34	--	0.21	--	NR
2	NR	--	--	.47	--	0.26	--	.02	--	--	--	NR
3	NR	0.01	--	.11	--	.04	--	.24	--	--	--	NR
4	NR	--	--	.09	--	--	--	.01	--	--	--	NR
5	NR	--	--	.02	--	--	--	.06	--	--	--	NR
6	NR	--	--	.05	--	--	--	.15	--	--	--	NR
7	NR	--	--	--	--	.05	--	--	--	--	0.34	NR
8	NR	--	0.03	--	--	.08	0.13	.04	--	--	--	NR
9	--	--	.21	--	--	.35	--	--	0.01	--	--	NR
10	--	--	--	--	--	.01	--	.10	.14	--	--	NR
11	--	--	--	.41	--	.01	--	.06	.01	--	--	NR
12	--	--	--	--	--	.04	.02	--	.33	--	--	NR
13	--	.02	--	.01	--	--	.06	--	.08	--	--	NR
14	--	.16	--	--	--	--	--	--	--	--	--	NR
15	--	.22	--	--	--	--	--	.03	--	--	--	NR
16	--	--	.02	--	--	--	--	.07	--	--	--	NR
17	--	--	.02	--	--	--	--	.06	.03	--	--	NR
18	--	--	.07	--	--	.02	--	.11	--	--	--	NR
19	--	--	.01	--	--	--	--	--	--	--	--	NR
20	--	--	--	--	0.04	--	--	--	--	--	--	NR
21	--	--	--	--	.51	--	--	--	--	--	--	NR
22	--	--	--	--	.03	--	--	.68	--	--	--	NR
23	--	--	--	--	.32	.29	--	.12	--	--	--	NR
24	0.16	.01	--	--	.02	--	--	.01	--	--	.13	NR
25	--	--	--	--	--	--	.07	.06	--	--	.13	NR
26	--	--	.09	--	.06	--	.01	.20	--	--	--	NR
27	--	--	.01	--	.04	.02	.01	--	--	--	--	NR
28	.01	--	--	--	.12	.01	.10	--	--	--	--	NR
29	.04	--	--	--		--	.19	--	--	--	--	NR
30	--	--	--	--		--	.02	--	--	--	NR	NR
31	.07		--	--		--		--		--	NR	

Table 13.--Daily precipitation, in inches, for water year 1977--Continued

Station number and name: P6 - Upton Road rain gage on Central Point School Motor Pool Building

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	NR	--	0.16	--	0.03	--	0.25	--	0.31	--	--
2	NR	NR	--	.40	--	.38	NR	.01	--	--	--	--
3	NR	0.01	--	.11	--	.07	NR	.22	--	--	--	--
4	NR	.01	--	.09	--	.01	NR	.03	--	--	--	--
5	NR	.01	0.03	.01	--	--	NR	.03	--	--	--	--
6	NR	.01	--	.06	--	--	0.01	.10	--	--	--	--
7	NR	.02	--	.04	--	.01	.12	.01	--	--	0.11	--
8	NR	.01	.24	.05	--	.01	.03	--	--	--	.01	--
9	NR	--	--	.05	--	NR	--	--	--	--	--	--
10	NR	.01	.01	.01	--	NR	--	.04	0.13	--	--	--
11	NR	--	--	.46	--	NR	--	.03	--	--	--	--
12	NR	--	--	--	--	NR	--	--	--	--	--	--
13	NR	.13	--	--	--	NR	--	--	.11	--	--	--
14	NR	.22	.01	--	--	NR	--	--	.01	--	--	--
15	NR	.07	--	--	--	--	--	.07	--	--	--	--
16	NR	--	.01	--	--	--	--	.14	--	--	--	0.03
17	NR	.01	.03	--	--	--	--	--	--	--	--	--
18	NR	--	.05	--	--	.01	--	.22	.09	--	--	.01
19	NR	.01	--	--	--	.03	--	--	--	--	--	.15
20	NR	--	--	--	--	--	--	--	--	--	--	.11
21	NR	.01	--	--	.48	--	--	--	--	--	--	--
22	NR	--	.02	--	.03	.01	--	.39	--	--	--	--
23	NR	.01	.01	--	.24	.33	--	.76	--	--	--	.31
24	NR	--	.07	--	.01	.01	--	--	--	--	.12	.01
25	NR	.02	--	--	.01	--	.05	--	--	--	.15	--
26	NR	.01	.05	--	--	--	--	.10	--	--	--	--
27	NR	.04	--	--	--	.01	--	--	--	--	--	.60
28	NR	.03	--	--	.03	--	.04	--	--	--	--	2.98
29	NR	--	--	--		.02	.18	--	--	--	--	.02
30	NR	--	--	--		.01	.06	--	--	--	--	--
31	NR		.04	--		--		--		--	--	

Table 14.--Mean daily discharge, in cubic feet per second, for water year 1977

[E/, estimated; NR, no record]

Station number and name: 14352010 - Unnamed tributary to Bear Creek in Ashland

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	0.02	0.02	NR	0.02	0.03	0.04	0.29	0.04	0.15	0.03	0.02
2	NR	.02	.02	NR	.02	.06	.02	.03	.03	.02	.02	.03
3	NR	.02	.02	NR	.02	.04	.02	.14	.03	.02	.03	.02
4	NR	.02	.02	NR	.02	.03	.02	.03	.03	.02	.03	.02
5	NR	.02	.02	.05	.02	.03	.03	.18	.03	.03	.03	.02
6	NR	.02	.02	.03	.02	.03	.02	.08	.03	.03	.03	.02
7	NR	.02	.02	.03	.02	.03	.02	.03	.03	.03	.07	.02
8	NR	.02	.26	.03	.02	.02	.19	.03	.03	.03	.03	.02
9	NR	.03	.03	.02	.02	.22	.03	.05	.03	.03	.03	.03
10	NR	.03	.02	.02	.02	.03	.03	.12	.09	.02	.04	.02
11	NR	.02	.02	.14	.02	.03	.02	.10	.04	.03	.03	.02
12	NR	.03	.02	.03	.02	.04	.02	.03	.05	.03	.04	.03
13	NR	.10	.02	.03	.02	.03	.07	.03	.03	.03	.03	.02
14	.02	.12	.02	.02	.02	.02	.03	.04	.03	.03	.03	.02
15	.04	.04	.02	.02	.02	.02	.03	.09	.03	.03	.03	.02
16	.02	.02	.02	.02	.02	.02	.04	.16	.04	.03	.03	.03
17	.02	.02	.02	.02	.02	.02	.03	.04	.04	.03	.03	.03
18	.02	.02	.02	.02	.02	.02	.02	.05	.02	.03	.02	.02
19	.02	.02	.02	.03	.02	.02	.02	.03	.02	.03	.03	.05
20	.04	.02	.02	.02	.03	.02	.02	.03	.03	.04	.02	.03
21	.02	.03	NR	.02	.28	.02	.02	.03	.03	.03	.02	.02
22	.02	.02	NR	.02	.02	.03	.02	.28	.04	.03	.02	.02
23	.02	.02	NR	.02	.16	.32	.02	.10	.04	.02	.02	.13
24	.03	.02	NR	.02	.03	.02	.03	.16	.04	.02	.05	.05
25	.02	.02	NR	.02	.03	.02	.04	.04	.02	.02	.05	.03
26	.02	.02	NR	.02	.03	.02	.03	.34	.02	.03	.03	.02
27	.02	.02	NR	.02	.03	.04	.03	.04	.04	.03	.02	.18
28	.02	.02	NR	.02	.14	.03	.03	.03	.03	.03	.02	1.0
29	.02	.02	NR	.02		.02	.03	.03	.05	.03	.02	.14
30	.02	.02	NR	.02		.02	.03	.03	.03	.03	.02	.04
31	.05		NR	.02		.02		.03		.03	.03	

Table 14.--Mean daily discharge, in cubic feet per second, for water year 1977--Continued

Station number and name: 14357501 - Combined sewer outflow to Bear Creek in Medford

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	.06	.06	.08	NR	.09	NR	.71	.13	.62	.21	.23
2	NR	.07	.05	.40	.09	.58	NR	.22	.13	.21	.24	.23
3	NR	.07	.05	.11	.07	.12	NR	.45	.14	.17	.20	.23
4	NR	.07	.04	.08	.07	.09	NR	.13	.13	.15	.23	.36
5	NR	.06	.04	.06	.07	.07	NR	.18	.12	.19	.23	.22
6	NR	.06	.05	.05	.07	.08	.09	.40	.19	.26	.20	.23
7	.10	.06	.05	.04	.07	.15	.10	.14	.20	.20	1.0	.22
8	.09	.06	.22	.04	.07	.10	.27	.12	.16	.24	.25	.19
9	.09	.06	.05	.04	.08	1.0	.12	.13	.16	.20	.30	.24
10	.08	.06	.06	NR	.07	.11	.10	.36	.38	.18	.31	.20
11	.09	.06	.05	1.1	.08	.11	.12	.23	.17	.23	.25	.16
12	.09	.07	.05	.13	.08	.11	.10	.13	.54	.22	.26	.25
13	.08	.14	.05	NR	.08	.09	.23	.11	.33	.22	.26	.25
14	.09	.17	.05	NR	.08	.08	.11	.12	.20	.21	.20	.22
15	.09	.09	.05	NR	.08	.09	.10	.26	.21	.25	.28	.19
16	.08	.05	.05	NR	.08	.08	.09	.26	.19	.23	.26	.21
17	.07	.06	.04	NR	.08	.09	.09	.14	.22	.16	.24	.14
18	.08	.06	.04	NR	.08	.10	.11	.35	.34	.22	.25	.14
19	.08	.06	.04	NR	.08	.08	.10	.14	.18	.21	.27	.33
20	.07	.06	.05	NR	.08	.09	.09	.14	.20	.23	.20	.42
21	.08	.05	.06	NR	.75	.09	.10	.14	.21	.23	.17	.16
22	.08	.06	.06	NR	.12	.09	.10	1.3	.24	.21	.19	.14
23	.07	.06	.05	NR	.48	.72	.10	.26	.22	.21	.18	.47
24	.14	.06	.05	NR	.13	.10	.09	.17	.29	.18	.41	.22
25	.08	.05	.06	NR	.10	.11	.37	.18	.19	.22	.39	.20
26	.07	.05	.08	NR	.12	.10	.12	.68	.20	.19	.18	.20
27	.07	.05	.07	NR	.13	.10	.12	.17	.25	.29	.20	NR
28	.07	.06	.06	NR	.32	NR	.16	.13	.24	.17	.23	NR
29	.08	.05	.05	NR		NR	.53	.13	.22	.21	.23	NR
30	.06	.05	.05	NR		NR	.29	.13	.20	.19	.27	NR
31	.10		.06	NR		NR		.16		.17	.19	

Table 14.--Mean daily discharge, in cubic feet per second, for water year 1977--Continued

Station number and name: 14357506 - Storm sewer outflow to Bear Creek at McAndrews Road in Medford

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.41	0.04	0.04
2	NR	NR	NR	NR	NR	NR	NR	NR	NR	.03	.05	.04
3	NR	NR	NR	NR	NR	NR	NR	NR	NR	.02	.05	.02
4	NR	NR	NR	NR	NR	NR	NR	NR	NR	.01	.06	.03
5	NR	NR	NR	NR	NR	NR	NR	NR	NR	.02	.06	.03
6	NR	NR	NR	NR	NR	NR	NR	NR	NR	.02	.03	.04
7	NR	NR	NR	NR	NR	NR	NR	NR	NR	.02	.92	.04
8	NR	NR	NR	NR	NR	NR	NR	NR	NR	.03	.04	.04
9	NR	NR	NR	NR	NR	NR	NR	NR	NR	.02	.04	.04
10	NR	NR	NR	NR	NR	NR	NR	NR	0.51	.02	.06	.03
11	NR	NR	NR	NR	NR	NR	NR	NR	.04	.03	.04	.03
12	NR	NR	NR	NR	NR	NR	NR	NR	.56	.04	.04	.04
13	NR	NR	NR	NR	NR	NR	NR	NR	.10	.03	.03	.05
14	NR	NR	NR	NR	NR	NR	NR	NR	.03	.03	.03	.05
15	NR	NR	NR	NR	NR	NR	NR	NR	.03	.03	.05	.03
16	NR	NR	NR	NR	NR	NR	NR	NR	.03	.02	.06	.04
17	NR	NR	NR	NR	NR	NR	NR	0.03	.02	.02	.07	.03
18	NR	NR	NR	NR	NR	NR	NR	.38	.22	.03	.04	.02
19	NR	NR	NR	NR	NR	NR	NR	.03	.03	.04	.04	.24
20	NR	NR	NR	NR	NR	NR	NR	.02	.03	.03	.07	.28
21	NR	NR	NR	NR	NR	NR	NR	.02	.03	.04	.03	.03
22	NR	NR	NR	NR	NR	NR	NR	2.0	.04	.04	.05	.04
23	NR	NR	NR	NR	NR	NR	NR	.17	.05	.02	.06	.45
24	NR	NR	NR	NR	NR	NR	NR	.04	.04	.03	.25	.10
25	NR	NR	NR	NR	NR	NR	NR	NR	.02	.04	.23	.03
26	NR	NR	NR	NR	NR	NR	NR	NR	.02	.04	.04	.05
27	NR	NR	NR	NR	NR	NR	NR	NR	.05	.04	.03	1.70
28	NR	NR	NR	NR	NR	NR	NR	NR	.05	.04	.02	NR
29	NR	NR	NR	NR		NR	NR	NR	.05	.04	.03	NR
30	NR	NR	NR	NR		NR	NR	NR	.05	.02	.04	NR
31	NR		NR	NR		NR		NR		.03	.04	

Table 14.--Mean daily discharge, in cubic feet per second, for water year 1977--Continued

Station number and name: 14358495 - Unnamed tributary to Bear Creek at Sage Road near Medford

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	NR	0.42	NR	NR	<0.40	0.56	.34	3.8	1.4	5.5	5.7	9.7
2	NR	NR	NR	NR	<.40	.60	.34	4.7	1.4	4.4	4.2	7.2
3	NR	NR	NR	.65	<.40	.61	.34	4.3	1.0	3.1	3.6	9.7
4	NR	NR	NR	.44	<.40	.59	.34	3.3	1.3	3.8	5.4	8.8
5	NR	NR	NR	.56	<.40	.59	.34	3.1	1.3	4.0	3.5	7.7
6	NR	NR	NR	.34	<.40	.59	.34	2.6	1.4	1.1	1.3	6.6
7	NR	NR	NR	.32	<.40	.59	.34	2.3	2.4	2.3	4.3	7.3
8	.69	NR	NR	.30	<.40	.59	.36	1.9	2.3	4.0	4.7	9.9
9	NR	NR	NR	.30	<.40	1.3	<.40	1.6	2.4	4.1	3.3	8.7
10	NR	NR	NR	<.30	<.40	.69	<.40	1.3	2.3	4.7	8.0	12
11	NR	NR	NR	.97	<.40	.66	.44	2.3	1.5	3.2	7.5	12
12	NR	NR	NR	.93	<.40	.65	.45	2.3	2.7	.89	7.3	16
13	NR	NR	NR	.45	<.40	.65	.42	1.6	3.8	.97	6.4	10
14	NR	NR	.42	<.40	<.40	.65	.42	1.4	3.0	1.2	7.0	8.3
15	NR	NR	NR	<.40	<.40	.65	.53	1.5	3.2	2.7	4.4	7.3
16	NR	NR	NR	<.40	<.40	.65	.76	2.3	3.5	3.6	2.5	9.2
17	NR	NR	NR	<.40	<.40	.65	1.1	2.9	3.2	3.5	3.7	8.5
18	NR	NR	NR	<.40	<.40	.65	1.1	2.9	3.8	4.4	6.6	5.4
19	NR	NR	NR	<.40	<.40	.65	1.0	2.1	3.4	3.0	4.2	7.5
20	NR	NR	NR	<.40	<.40	.65	.84	1.4	2.9	3.0	6.6	9.7
21	NR	NR	NR	<.40	.53	.65	.84	1.4	2.3	2.7	8.5	6.9
22	NR	NR	NR	<.40	.51	.65	.84	3.2	1.1	2.6	12	8.3
23	NR	.42	NR	<.40	.59	.61	.72	3.7	1.6	2.3	7.0	8.5
24	NR	NR	NR	<.40	.60	.34	.72	2.5	1.6	2.5	6.2	10
25	NR	NR	NR	<.40	.59	.34	.89	2.4	1.3	3.8	15	5.2
26	NR	NR	NR	<.40	.56	.34	1.3	2.9	1.7	3.3	12	7.7
27	NR	NR	NR	<.40	.56	.34	1.3	2.3	1.1	1.5	7.7	9.0
28	NR	NR	NR	<.40	.56	.34	.80	2.0	1.1	1.7	7.5	50
29	NR	NR	NR	<.40		.34	1.6	1.9	2.4	2.3	9.0	38
30	NR	NR	NR	<.40		.34	2.8	1.4	3.3	4.3	9.0	9.5
31	NR		NR	<.40		.34		1.4		6.2	10	

Table 14--Mean daily discharge, in cubic feet per second, for water year 1977--Continued

Station number and name: 14358499 - Unnamed tributary to Bear Creek at Upton Road in Central Point

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.04	0.04	0	0.05	NR	0	0.04	0.18	0.04	0.26	0.04	0.04
2	.04	.04	0	.42	NR	.13	.04	.07	.04	.04	.04	.04
3	.04	.04	0	.06	NR	.05	.04	.23	.04	.04	.04	.04
4	.04	.04	0	.05	NR	0	.04	.04	.04	.04	.04	.04
5	.04	.04	0	.06	NR	0	.04	.04	.04	.04	.04	.04
6	.04	.04	0	0	NR	0	.04	.08	.04	.04	.04	.04
7	.04	.04	0	.04	NR	0	.04	.04	.04	.04	.04	.04
8	.04	.04	0.08	.05	NR	.05	.06	.04	.04	.05	.04	.04
9	.04	.04	.04	.06	NR	.60	.04	.04	.04	.04	.04	.04
10	.04	.04	.04	.05	NR	.04	.04	.04	.05	.04	.04	.04
11	.04	.04	.04	E/.68	NR	.04	.04	.04	.06	.04	.04	.04
12	.04	.04	.04	NR	NR	.04	.04	.04	.04	.05	.04	.04
13	.04	.06	.04	NR	NR	.04	.04	.04	.12	.05	.04	.04
14	.04	.11	.04	NR	NR	.04	.04	.04	.04	.04	.04	.04
15	.04	.05	.04	NR	NR	.04	.04	.04	.05	.04	.04	.04
16	.04	.04	.04	NR	NR	.04	.04	.07	.04	.04	.04	.04
17	.04	.04	.04	NR	NR	.04	.04	.04	.04	.04	.04	.04
18	.04	.04	.04	NR	NR	.04	.04	.23	.07	.04	.04	.04
19	.04	.04	.04	NR	NR	.04	.04	.04	.04	.04	.04	.10
20	.04	.04	.04	NR	NR	.04	.04	.04	.04	.04	.04	.10
21	.04	.04	.04	NR	0.21	.04	.04	.04	.04	.04	.04	.04
22	.04	.04	.04	NR	.04	.04	.04	1.1	.04	.04	.04	.04
23	.04	.04	.04	NR	.15	.34	.04	.25	.04	.04	.04	.17
24	.04	NR	.04	NR	.06	.04	.04	.04	.04	.04	.05	.18
25	.04	NR	.04	NR	NR	.04	.04	.04	.04	.04	.11	.04
26	.04	NR	.04	NR	.04	.04	.04	.06	.04	.04	.04	.04
27	.05	NR	.04	NR	.05	.04	.04	.04	.04	.04	.04	.56
28	.04	NR	.04	NR	.07	.04	.04	.04	.04	.04	.04	7.2
29	.04	NR	.04	NR		.04	.20	.04	.04	.04	.04	.81
30	.04	NR	.04	NR		.04	.05	.04	.04	.04	.04	.10
31	.07		.04	NR		.04		.04		.04	.04	

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages

[E, estimated]

STATION NUMBER AND NAME: 14352010 - Unnamed tributary to Bear Creek in Ashland

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter								Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Dissolved	Total
Baseline samples																								
July 20, 1976																								
1050	--	--	--	--	--	--	--	--	260	1,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September 1, 1976																								
1010	--	0.13	300	2	2	--	--	--	200B	2,400	--	21.0	8.0	7.3	--	--	201	0.26	--	1.4	--	--	--	--
September 22, 1976																								
1035	1.56	.02	291	3	7	--	--	--	150B	9,200	--	18.0	8.5	8.6	--	--	199	.11	--	1.3	--	--	--	--
November 22, 1976																								
1200	1.57	.02	340	1	0	--	--	--	9B	50B	240B	11.0	9.5	7.7	170	22	271	--	0.18	--	1.7	0.45	--	--
August 25, 1977																								
0940	1.79	.16	95	80	127	--	--	--	--	--	--	--	--	6.5	25	230	103	--	.42	--	.01	1.9	--	--
Storm event: March 23, 1977																								
0110	1.61	.05	420	2	1	--	4.9	6.1	70	--	--	9.0	--	8.1	170	--	245	--	--	--	--	--	--	--
0140	1.61	.05	390	2	--	--	--	--	--	--	--	--	--	8.1	170	12	--	--	.18	--	2.0	.53	--	--
0210	1.61	.05	390	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0240	1.61	.05	390	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0310	1.61	.05	390	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0340	1.61	.05	400	20	--	--	13	24	--	--	--	--	--	8.0	170	--	255	--	--	--	--	--	--	--
0410	1.72	.14	270	40	537	--	32	44	41B	5,700	1,000	--	--	7.6	93	--	--	--	--	--	--	--	--	--
0440	2.40	2.51	111	120	786	--	--	--	--	--	--	--	--	6.8	28	260	111	--	2.2	--	.61	2.5	--	--
0500	2.40	2.51	112	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0530	2.40	2.51	122	60	537	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0540	2.40	2.51	53	85	303	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0610	2.40	2.51	45	60	--	--	11	18	--	--	--	--	--	6.5	13	--	42	--	--	--	--	--	--	--
0640	2.40	2.51	53	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0655	2.32	2.05	52	85	210	--	6.9	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

RAINFALL: Total (in) 0.28. Maximum intensity (in/hr): 5 min, 0.12; 15 min, 0.12; 30 min, 0.12.
PEAK DISCHARGE (ft^3/s): 2.51.
REMARKS: At 0530, began snowing in upper part of basin.

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14352010 - Unnamed tributary to Bear Creek in Ashland--Continued

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter								Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Dissolved	Total
Storm event: May 18, 1977																								
RAINFALL: Total (in) 0.06. Maximum intensity (in/hr): 5 min, 0.12; 15 min, 0.08; 30 min, 0.06.																								
PEAK DISCHARGE (ft^3/s): 0.61.																								
1420	1.68	0.10	220	75	105	--	24	--	8,800	29,000B	--	--	8.8	8.1	75	140	156	--	0.57	--	0.60	1.5	--	--
1425	1.68	.10	205	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1440	1.84	.31	132	140	340	--	28	--	--	--	--	--	--	7.7	44	210	107	--	.79	--	.59	2.5	--	--
1450	1.96	.59	93	120	320	--	24	--	3,400	28,000B	15,000	--	--	6.8	28	--	--	--	--	--	--	--	--	--
1500	1.94	.53	74	240	--	--	--	--	--	--	--	--	8.5	--	--	--	--	--	--	--	--	--	--	--
1510	1.90	.44	71	120	--	--	26	--	2,600	34,000B	--	14.5	--	7.3	26	--	--	--	--	--	--	--	--	--
1520	1.82	.28	75	110	195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1530	1.76	.19	80	130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1540	1.70	.12	94	120	--	--	18	--	--	--	--	--	--	6.9	64	--	--	--	--	--	--	--	--	--
Storm event: July 1, 1977																								
RAINFALL: Total (in) 0.17. Maximin intensity (in/hr): 5 min, 0.36; 15 min, 0.24; 30 min, 0.18.																								
PEAK DISCHARGE (ft^3/s): 2.51.																								
0745	1.75	.19	148	--	995	--	E85	E230	>200,000	>24,000	--	--	--	7.9	49	--	185	--	--	--	--	--	--	--
0845	2.36	2.21	73	--	--	--	53	108	--	--	--	--	--	7.7	30	250	81	--	.98	--	.03	4.0	--	--
0905	2.17	1.10	84	--	172	--	33	69	--	--	--	--	--	7.7	34	--	--	--	--	--	--	--	--	--
0925	1.97	.48	138	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1005	1.77	.14	142	--	514	--	41	86	--	--	--	--	--	--	--	--	127	--	.92	--	.10	.70	--	--
Storm event: August 24,1977																								
RAINFALL: Total (in) 0.08. Maximum intensity (in/hr): 5 min, 0.12; 15 min, 0.12; 30 min, 0.08.																								
PEAK DISCHARGE (ft^3/s): 0.59.																								
0535	1.70	.07	280	100	559	--	--	--	20,000	17,000	260,000	--	--	--	--	--	190	--	--	--	--	--	--	--
0545	1.86	.26	225	130	624	--	E85	E180	--	--	--	--	--	6.9	46	610	239	--	1.7	--	.05	7.2	--	--
0555	1.94	.42	225	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0635	1.84	.23	190	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0655	1.95	.44	150	70	214	--	E90	>300	--	--	--	--	--	6.7	27	600	162	--	.62	--	.03	8.9	--	--
0715	1.84	.23	175	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0745	1.71	.08	160	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0755	1.68	.06	170	25	83	--	--	--	--	--	--	--	--	--	--	--	255	--	--	--	--	--	--	--

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14357501 - Combined sewer outflow to Bear Creek in Medford

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter								Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Dissolved	Total
Baseline samples																								
July 20, 1976																								
1025	--	E0.10	--	--	--	--	--	--	>2,000	9,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August 30, 1976																								
1330	10.11	.12	305	8	44	--	--	--	55,000B	90,000	--	24.0	--	6.8	--	--	212	0.73	--	1.8	--	--	--	--
September 23, 1976																								
1420	10.13	.15	226	5	8	--	--	--	28,000	9,000B	--	20.0	6.3	7.7	--	--	156	1.0	--	1.4	--	--	--	--
November 22, 1976																								
1300	10.08	.07	400	8	10	--	--	--	73,000B	6,100	240,000B	19.0	5.6	7.5	130	37	282	--	5.2	--	1.5	3.0	--	--
February 25, 1977																								
1450	10.25	.07	390	20	16	--	26	42	11,000	3,400	--	6.5	--	7.8	120	28	236	--	2.4	1.6	1.6	1.7		
Storm event: February 26, 1977																								
RAINFALL: Total (in) 0.04. Maximum intensity (in/hr): 5 min, 0.12; 15 min, 0.04; 30 min, 0.04. PEAK DISCHARGE (ft^3/s): 0.46.																								
0830	10.36	.19	290	180	266	--	E37	E62	16,000	110,000	18,000	12.5	--	7.6	72	93	203	--	.92	--	1.6	3.3	--	--
0900	10.38	.22	290	120	106	--	E30	E60	--	--	--	14.5	--	7.6	80	--	205	--	--	--	--	--	--	--
0930	10.38	.22	260	150	71	--	30	49	--	--	--	14.5	--	7.5	74	--	--	--	--	--	--	--	--	--
1000	10.36	.19	270	75	67	--	E37	E59	--	--	--	15.0	--	7.5	79	--	196	--	--	--	--	--	--	--
Samples collected during base-flow conditions: June 8, 1977																								
REMARKS: At 0700, intense diesel odor coming from pipe. Dead fish near outflow. At 0815, heavy oil slick on Bear Creek.																								
0600	10.29	.11	370	6	3	--	--	--	--	--	--	--	--	7.3	130	--	--	--	--	--	--	--	--	--
0700	10.29	.11	375	3	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0800	10.30	.12	340	5	7	--	--	--	--	--	--	--	--	7.3	120	--	227	--	--	--	--	--	--	--
0815	10.35	.17	345	6	18	--	--	--	34,000B	140,000	70,000	--	3.7	7.2	110	19	231	--	.66	--	1.4	2.0	12	--
0900	10.33	.15	339	4	5	--	--	--	--	--	--	21.0	4.0	--	--	--	--	--	--	--	--	--	--	--
1000	10.29	.11	382	6	6	--	--	--	--	--	--	21.0	3.9	7.3	130	--	254	--	--	--	--	--	--	--
1100	10.29	.11	339	3	8	--	--	--	--	--	--	21.0	3.9	--	--	--	--	--	--	--	--	--	--	--
1200	10.35	.17	297	3	5	--	--	--	29,000	33,000	--	20.0	5.9	7.5	100	21	198	--	.99	--	1.2	2.0	16	--

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14357501 - Combined sewer outflow to Bear Creek in Medford--Continued

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment: Concentration (mg/L)	Suspended sediment: Less than 0.062-mm diameter (percent)	BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter: Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Lead (ug/L): Dissolved	Lead (ug/L): Total
Samples collected during base-flow conditions: July 7, 1977																								
REMARKS: At 0925, fecal coliform plate contained many red colonies, possibly Klebsiella.																								
0915	--	--	320	--	--	--	--	--	--	--	--	21.0	5.8	7.1	--	--	--	--	--	--	--	--	--	--
0925	10.46	0.35	305	11	18	--	--	--	310	8,100	--	21.0	7.7	6.8	51	54	232	--	0.50	--	0.98	0.71	--	--
0945	--	--	420	--	--	--	10	30	--	--	--	21.0	5.6	7.2	--	--	--	--	--	--	--	--	--	--
1025	--	--	310	--	--	--	--	--	--	--	--	20.0	5.8	7.2	--	--	--	--	--	--	--	--	--	--
1050	--	--	275	--	--	--	--	--	--	--	--	19.0	5.7	7.3	--	--	--	--	--	--	--	--	--	--
1100	10.39	.23	280	3	15	--	6.5	22	53,000	31,000	--	19.0	5.7	7.4	95	29	176	--	.94	--	1.5	1.2	--	--
1120	--	--	300	--	--	--	--	--	--	--	--	19.0	5.6	7.4	--	--	--	--	--	--	--	--	--	--
1140	10.41	.26	317	7	12	--	6.0	22	--	--	--	20.0	6.3	7.5	120	--	227	--	--	--	--	--	--	--
Samples collected during base-flow conditions: August 19, 1977																								
0900	10.34	.16	300	--	15	--	--	--	--	--	--	24.0	4.2	7.1	--	--	--	--	--	--	--	--	--	--
1000	10.37	.20	240	--	11	--	--	--	--	--	--	23.5	5.3	7.0	--	--	--	--	--	--	--	--	--	--
1100	10.37	.20	245	4	12	--	5.0	9.8	18,000	11,000	60,000B	22.0	5.3	7.1	85	38	158	--	.42	--	.37	.69	17	<100
1130	--	--	270	--	13	--	--	--	--	--	--	22.0	4.7	7.0	--	--	--	--	--	--	--	--	--	--
1200	10.36	.19	250	--	9	--	--	--	--	--	--	22.0	4.9	6.7	--	--	--	--	--	--	--	--	--	--
Storm event: August 24, 1977																								
RAINFALL: Total (in) 0.12. Maximum intensity (in/hr): 5 min, 0.12; 15 min, 0.12; 30 min, 0.10. PEAK DISCHARGE (ft^3/s): 3.60.																								
0725	10.55	.56	210	10	29	--	--	--	--	--	--	22.0	5.4	7.0	56	--	--	--	--	--	--	--	--	--
0735	10.55	.56	--	--	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0740	10.54	.53	210	--	30	--	--	--	--	--	--	22.0	5.3	--	--	--	--	--	--	--	--	--	--	--
0745	10.54	.53	--	--	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0750	10.53	.51	175	40	97	--	53	110	2,500B	310,000	47,000	22.0	6.8	7.0	39	290	--	--	.71	--	.45	4.1	--	500
0755	10.52	.48	--	--	83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0800	10.57	.61	165	--	88	--	--	--	--	--	--	22.0	6.7	--	--	--	--	--	--	--	--	--	--	--
0805	10.68	.96	--	--	61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0810	10.69	.99	180	--	71	--	--	--	--	--	--	23.0	6.5	--	--	--	--	--	--	--	--	--	--	--
0815	10.74	1.2	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0825	10.69	1.0	170	35	67	--	48	96	--	--	--	22.5	6.5	7.0	37	260	168	--	.53	--	.53	4.2	--	300
Storm event: August 25, 1977																								
RAINFALL: Showers.																								
0915	10.80	1.45	104	40	68	--	--	--	--	--	--	--	--	6.1	20	140	93	--	.40	--	.38	1.6	60	300

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14358495 - Unnamed tributary to Bear Creek at Sage Road near Medford

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment: Concentration (mg/L)	Suspended sediment: Less than 0.062-mm diameter (percent)	BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter: Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Lead (ug/L): Dissolved	Lead (ug/L): Total
Baseline samples																								
July 20, 1976																								
1005	0.14	0.23	--	--	--	--	--	--	660	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August 30, 1976																								
1345	--	2.93	260	4	45	--	--	--	2,100B	1,100	--	20.0	5.8	7.0	--	--	177	0.23	--	0.07	--	--	--	--
September 21, 1976																								
1105	.58	1.65	224	3	8	--	--	--	210	1,300	--	16.0	6.4	8.0	--	--	171	.15	--	.24	--	--	--	--
November 23, 1976																								
1130	--	7.5	425	1	13	--	--	--	< 9	42B	590	6.0	9.1	7.6	180	22	282	--	0.18	--	0.75	0.96	--	--
Storm event: January 11, 1977																								
RAINFALL: Total (in) 0.46. Maximum intensity (in/hr): 5 min, --; 15 min, 0.32; 30 min, 0.28.																								
PEAK DISCHARGE (ft^3/s): 5.53.																								
1830	.32	1.33	--	320	68	--	17	27	--	--	--	4.0	6.5	--	--	--	--	--	--	--	--	--	--	--
1835	.32	1.33	430	--	124	--	12	21	7,500B	--	> 10,000	--	--	7.9	140	110	256	--	.21	--	.82	3.4	--	--
1855	.60	3.72	440	100	485	--	18	27	--	--	--	--	--	7.6	130	--	--	--	--	--	--	--	--	--
1915	.69	4.84	400	400	1,500	--	41	81	--	--	--	2.0	--	7.4	120	--	--	--	--	--	--	--	--	--
1935	.72	5.25	310	1,200	1,720	--	E30	E52	--	--	--	--	--	7.3	90	--	198	--	--	--	--	--	--	--
1955	.63	4.08	225	950	1,250	--	E32	E45	--	--	--	2.0	--	7.2	80	--	--	--	--	--	--	--	--	--
2035	.52	2.89	235	270	428	--	21	30	--	--	--	2.0	8.7	7.3	52	190	151	--	.58	--	2.9	6.5	--	--
2055	.44	2.17	240	250	291	--	15	24	>40,000	23,000	>200,000	2.0	--	7.2	49	--	--	--	--	--	--	--	--	--
2115	.52	2.89	255	180	279	--	14	20	--	--	--	--	--	7.3	51	--	--	--	--	--	--	--	--	--
2135	.51	2.80	260	180	266	--	15	24	--	--	--	--	--	7.2	52	--	168	--	--	--	--	--	--	--
2155	.49	2.61	270	200	239	--	15	22	>40,000	20,000	>200,000	--	--	7.2	56	--	--	--	--	--	--	--	--	--

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14358495 - Unnamed tributary to Bear Creek at Sage Road near Medford--Continued

Storm event: March 2-3, 1977

RAINFALL: Total (in) 0.23. Maximum intensity (in/hr): 5 min, --; 15 min, 0.08; 30 min, 0.06.
PEAK DISCHARGE (ft^3/s): 0.93.
REMARKS: Fecal coliform plates were covered with red colonies believed to be Klebsiella.

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter									Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N		Total Kjeldahl nitrogen as N	Dissolved	Total
																				Dissolved	Total			
March 2																									
1720	0.14	0.56	600	10	18	--	10	17	4,800	2,200	--	7.0	--	8.0	180	81	376	--	0.24	--	0.53	5.5	--	--
1840	.18	.69	650	120	536	--	>70	E190	4,000B	130,000	21,000	7.0	2.9	--	--	550	--	--	.60	--	.02	8.1	--	--
1910	.20	.76	600	130	689	--	E64	E130	--	--	--	--	--	7.6	190	--	--	--	--	--	--	--	--	--
1940	.20	.76	350	150	486	--	E37	E54	--	--	--	--	--	--	--	--	244	--	--	--	--	--	--	--
2010	.18	.69	340	150	--	--	--	--	--	--	--	--	--	7.3	98	--	--	--	--	--	--	--	--	--
2040	.17	.65	320	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2110	.16	.61	310	100	298	--	E28	E42	--	53,000	--	--	--	7.4	120	--	206	--	--	--	--	--	--	--
2140	.15	.59	360	110	--	--	--	--	--	--	--	--	--	7.4	88	--	--	--	--	--	--	--	--	--
2210	.15	.59	400	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2240	.21	.80	420	75	276	--	E33	E48	--	--	--	--	--	7.4	110	--	--	--	--	--	--	--	--	--
2310	.24	.93	430	140	782	--	E52	E77	--	--	--	--	--	--	--	--	266	--	--	--	--	--	--	--
2340	.24	.93	420	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March 3																								
0010	.23	.89	370	150	--	--	--	--	--	--	--	--	--	7.4	100	--	--	--	--	--	--	--	--	--
0040	.22	.84	370	85	211	--	E27	E39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0110	.20	.76	370	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0140	.18	.69	380	120	--	--	--	--	--	--	--	--	--	7.5	100	--	--	--	--	--	--	--	--	--
0210	.18	.69	390	65	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0240	.18	.69	400	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0310	.18	.69	400	90	--	--	--	--	--	--	--	--	--	7.5	82	--	--	--	--	--	--	--	--	--
0340	.17	.65	380	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0410	.16	.61	380	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0440	.16	.61	390	75	--	--	--	--	--	--	--	--	--	7.5	100	--	--	--	--	--	--	--	--	--
1045	.15	.59	490	20	29	--	--	--	--	--	--	--	8.0	--	--	--	--	--	--	--	--	--	--	--

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14358495 - Unnamed tributary to Bear Creek at Sage Road near Medford--Continued

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter									Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Dissolved	Total
Storm event: March 9, 1977																									
RAINFALL: Total (in) 0.37. Maximum intensity (in/hr): 5 min, --; 15 min, 0.36; 30 min, 0.26.																									
PEAK DISCHARGE (ft^3/s): 3.30.																									
REMARKS: Fecal coliform plates covered with red colonies believed to be Klebsiella.																									
0045	0.18	0.69	460	70	190	--	36	53	1,400B	29,000	--	7.0	--	7.7	160	240	260	--	0.80	--	0.42	0.02	--	--
0115	.41	1.9	460	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0145	.43	2.1	370	240	--	--	90	120	--	--	--	--	--	7.5	120	--	--	--	--	--	--	--	--	--
0200	.41	1.9	220	320	2,110	--	--	--	3,700B	76,000	280,000	--	--	--	--	950	--	--	1.4	--	.67	.07	--	--
0215	.43	2.1	210	550	--	--	--	--	--	--	--	--	--	--	--	--	123	--	--	--	--	--	--	--
0240	.41	1.9	210	360	1,050	--	--	--	--	--	--	7.0	--	--	--	--	--	--	--	--	--	--	--	--
0315	.38	1.7	200	110	--	--	16	41	--	--	--	--	--	7.3	56	--	115	--	--	--	--	--	--	--
0345	.48	2.5	270	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0415	.54	3.1	280	230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0445	.54	3.1	240	220	1,090	--	25	44	--	--	--	--	--	7.4	59	--	--	--	--	--	--	--	--	--
0515	.51	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0545	.50	2.7	290	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0615	.49	2.6	290	90	--	--	13	16	7,000B	72,000	--	--	--	7.5	64	--	155	--	--	--	--	--	--	--
Storm event: March 23, 1977																									
RAINFALL: Total (in) 0.32. Maximum intensity (in/hr): 5 min, --; 15 min, 0.20; 30 min, 0.14.																									
PEAK DISCHARGE (ft^3/s): 1.39.																									
REMARKS: Fecal coliform plates covered with red colonies believed to be Klebsiella; at 0730, oil on surface of water.																									
0410	--	.65	475	20	--	--	2.4	3.3	--	--	--	--	--	7.7	170	--	263	--	--	--	--	--	--	--
0445	.17	.66	475	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0530	.17	.66	580	130	450	83	22	33	2,400	--	--	7.0	--	7.8	190	320	342	--	.90	--	.48	9.0	--	--
0600	.21	.80	620	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0630	.28	1.10	410	160	--	--	47	75	--	--	--	8.0	--	7.4	130	--	--	--	--	--	--	--	--	--
0700	.31	1.30	330	240	1,040	69	--	--	1,100	140,000	270,000	8.0	--	--	--	--	--	--	--	--	--	--	--	--
0730	.31	1.30	250	270	1,050	51	47	72	--	--	--	--	--	7.4	75	830	169	--	.87	--	.86	8.7	--	--
0800	.25	.97	270	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0830	.21	.80	270	70	164	68	16	22	--	--	--	8.0	--	7.1	75	--	169	--	--	--	--	--	--	--

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14358499 - Unnamed tributary to Bear Creek at Upton Road in Central Point

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter								Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Dissolved	Total
Baseline samples																								
July 20, 1976																								
0915	--	--	--	--	--	--	--	--	4,300B	8,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November 23, 1976																								
1230	--	7.10	540	15	18	--	--	--	910	950	5,600	7.0	10.7	7.7	200	26	355	--	0.29	--	4.7	1.2	--	--
Storm event: January 11, 1977																								
RAINFALL: Total (in) 0.46. Maximum intensity (in/hr): 5 min, 0.36; 15 min, 0.28; 30 min, 0.26.																								
PEAK DISCHARGE (ft^3/s): 14.1.																								
1700	0.12	.04	540	--	--	--	2.5	12	--	--	--	4.0	--	8.1	51	--	--	--	--	--	--	--	--	--
1710	.12	.04	480	--	222	--	3.2	16	>7,500	500	>10,000	4.0	--	8.2	170	66	296	--	.15	0.42	.43	1.4	--	--
1715	.79	2.1	--	--	1,620	--	--	--	--	--	--	4.0	11.8	--	--	--	--	--	--	--	--	--	--	--
1720	.91	2.8	165	240	--	--	21	31	--	--	--	4.0	--	7.5	52	--	116	--	--	--	--	--	--	--
1730	.91	2.8	150	260	874	--	10	16	--	--	--	4.0	--	7.2	26	--	--	--	--	--	--	--	--	--
1750	.91	2.8	54	350	746	--	18	29	--	--	--	4.0	--	7.1	20	--	--	--	--	--	--	--	--	--
1815	.92	2.9	46	300	1,060	--	E34	E56	--	--	--	4.0	--	6.9	18	--	--	--	--	--	--	--	--	--
1835	.92	2.9	44	350	894	--	8	22	--	--	--	4.0	--	6.9	16	--	--	--	--	--	--	--	--	--
1855	2.43	14	39	310	687	--	8.5	14	--	--	--	4.0	10.8	6.8	15	210	44	--	.57	--	.31	2.9	--	--
1900	2.43	14	45	230	535	--	--	--	>40,000	56,000	>200,000	--	--	--	--	--	--	--	--	--	--	--	--	--
1915	2.22	12	40	220	476	--	8.5	12	--	--	--	4.0	--	6.9	13	--	--	--	--	--	--	--	--	--
1935	1.96	10	42	180	368	--	7.2	12	--	--	--	4.0	--	6.8	15	--	--	--	--	--	--	--	--	--
1955	1.83	9.6	48	200	327	--	7.6	12	>40,000	15,200	>200,000	4.0	--	--	--	--	--	--	--	--	--	--	--	--
2015	1.67	8.3	56	220	356	--	7.0	9.4	--	--	--	4.0	--	6.9	16	--	46	--	--	--	--	--	--	--
2040	1.52	7.2	66	180	624	--	7.2	12	--	--	--	4.0	--	7.0	20	--	--	--	--	--	--	--	--	--
Storm event: February 26, 1977																								
RAINFALL: Showers.																								
PEAK DISCHARGE (ft^3/s): 0.24.																								
0905	.29	.21	320	25	79	--	5.8	12	3,600	18,000	--	7.0	10.0	8.1	180	13	198	--	.18	3.1	4.9	.99	--	--
0945	.25	.15	185	120	38	--	11	22	1,800	17,000	3,600	8.0	--	7.6	62	--	122	--	--	1.6	--	--	--	--
1015	.21	.11	128	100	61	--	8.7	24	--	--	--	8.0	--	7.4	43	43	90	--	.20	1.0	1.1	.94	--	--
1050	.18	.08	130	75	59	--	8.3	23	--	--	--	9.0	8.7	7.4	44	--	90	--	--	1.1	--	--	--	--

Table 15.--Hydrologic data collected at precipitation and storm-water-runoff gages--Continued

STATION NUMBER AND NAME: 14358499 - Unnamed tributary to Bear Creek at Upton Road in Central Point--Continued

Time (2400 hours)	Stage (ft)	Discharge (ft^3/s)	Specific conductance (micromhos/cm at 25°C)	Turbidity (JTU)	Suspended sediment		BOD_5 (mg/L)	BOD_u (mg/L)	Fecal coliform (count/100 ml)	Fecal streptococci (count/100 ml)	Total coliform (count/100 ml)	Temperature (°C)	Dissolved oxygen (mg/L)	pH (units)	Milligrams per liter								Lead (ug/L)	
					Concentration (mg/L)	Less than 0.062-mm diameter (percent)									Alkalinity (mg/L as $CaCO_3$)	COD	Dissolved solids	Dissolved orthophosphate as P	Total phosphorus as P	Nitrate + nitrite as N: Dissolved	Nitrate + nitrite as N: Total	Total Kjeldahl nitrogen as N	Dissolved	Total
Storm event: March 9, 1977																								
RAINFALL: Total (in) 0.38.																								
PEAK DISCHARGE (ft^3/s): 3.48.																								
REMARKS: Rainfall data from Medford Experiment Station.																								
0030	0.95	3.1	87	330	1,000	--	19	35	18,000B	64,000	--	8.0	9.2	7.8	41	220	49	--	0.95	--	0.66	0.51	--	--
0100	.71	1.7	45	120	--	--	8.4	21	4,300	--	20,000B	--	--	7.1	16	--	20	--	--	--	--	--	--	--
0110	.69	1.6	51	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0130	.94	3.0	48	90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0150	.89	2.7	48	70	--	--	4.2	8.5	--	--	--	--	--	7.0	16	--	--	--	--	--	--	--	--	--
0210	.73	1.8	46	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0230	.71	1.7	50	60	135	--	--	--	--	--	--	7.0	10.4	--	--	--	--	--	--	--	--	--	--	--
0250	.86	2.5	52	55	--	--	5.1	9.5	--	--	--	--	--	7.0	18	--	--	--	--	--	--	--	--	--
0315	.95	3.1	46	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0330	.91	2.8	43	60	168	--	--	--	--	--	--	7.0	10.5	--	--	--	--	--	--	--	--	--	--	--
0350	.81	2.2	46	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0410	.73	1.8	53	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0430	.64	1.4	63	70	133	--	--	--	--	--	--	7.0	--	--	--	--	31	--	--	--	--	--	--	--
0435	.64	1.4	57	70	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0450	.53	.88	59	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0510	.45	.58	63	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0530	.39	.40	69	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0550	.34	.29	76	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0610	.31	.24	84	60	--	--	--	--	--	--	--	7.0	--	--	--	--	--	--	--	--	--	--	--	--
0630	.29	.21	92	60	69	--	9.6	15	--	--	--	7.0	9.9	7.0	26	44	49	--	.48	--	.90	.03	--	--