50114000 RIO CERRILLOS BLW LAGO CERRILLOS NR PONCE, PR

RIO BUCANA BASIN

LOCATION.--Lat 18°04′24″, long 66°34′53″ referenced to North American Datum of 1927, Ponce Municipio, PR, Hydrologic Unit 21010004, on right bank off State Road 139, 0.8 mi (1.3 km) below Lago Cerrillos Dam, 2.3 mi (3.7 km) upstream from Quebrada Ausubo, and 4.6 mi (7.4 km) northeast of Plaza Degetau in Ponce.

DRAINAGE AREA.--17.8 mi^2, (46.1 km^2), excludes 17.4 mi^2 (45.1 km^2) upstream from Lago Cerrillos Dam.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February to April 1964 (monthly measurements only), May 1964 to June 1985. July 1985 to April 1991 (semi-monthly measurements only), May 1991 to current year.

GAGE.--Water-stage recorder, satellite telemetry at station. Datum of gage is 253.1 ft (77.145 m) above NGVD 1929. Prior to March 22, 1977, at site 0.15 mi (0.24 km) upstream and datum 9.9 ft (3.018 m) higher.

REMARKS.--No estimated daily discharge during the water year. Records good. Flow regulated by Lago Cerrillos Dam since May 1991. Prior to June 1985, some low-flow regulation by construction upstream. Maximum discharge prior to regulation, 22,400 ft^3/s (634 m^3/s), September 16, 1975, gage height, 11.20 ft (3.41 m), site and datum then in use from floodmarks, from rating curve extended above 150 ft^3/s (4.25 m^3/s), on basis of slope-area measurements of peak flow; minimum discharge prior to regulation, 2.2 ft^3/s (0.062 m^3/s), May 28, 1967.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 50114000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/50114000.2012.pdf

50114000 RIO CERRILLOS BLW LAGO CERRILLOS NR PONCE, PR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.8	8.1	25	16	11	11	18	44	27	26	124	27
2	5.6	7.6	25	16	11	11	19	44	27	26	120	27
3	5.6	7.7	25	16	11	11	19	44	27	26	120	27
4	5.5	7.7	25	16	11	11	19	40	27	26	122	27
5	5.5	7.3	25	14	11	11	19	30	27	26	118	27
6	5.5	7.1	25	13	11	11	19	29	27	26	118	27
7	5.4	8.3	17	13	11	11	19	551	27	26	118	26
8	5.3	7.2	13	13	11	11	19	378	28	26	118	26
9	5.0	15	13	13	11	11	238	32	28	26	119	26
10	4.9	25	13	13	11	11	229	32	27	26	119	26
11	5.1	27	13	12	11	10	94	31	27	26	119	27
12	5.2	26	13	13	11	11	94	31	27	27	120	27
13	5.9	25	13	13	11	11	96	31	27	26	87	26
14	5.2	25	13	13	11	11	96	31	27	26	58	25
15	5.1	25	13	13	11	10	96	31	27	26	57	26
16	5.2	25	13	13	11	10	95	32	27	26	57	25
17	5.2	25	13	13	8.1	10	63	157	27	26	44	25
18	5.2	25	13	13	6.3	11	41	237	27	27	26	25
19	5.3	25	13	13	6.2	12	39	95	26	25	26	25
20	5.2	25	13	13	6.2	11	41	95	26	25	27	26
21	213	25	13	13	6.3	9.8	41	96	26	25	27	25
22	519	25	13	13	6.7	10	41	96	26	25	26	25
23	395	25	13	13	6.6	42	42	95	26	25	27	25
24	46	25	13	9.8	6.3	102	43	95	26	26	30	25
25	7.9	25	13	6.6	6.6	102	44	49	26	26	28	26
26	8.0	25	13	5.6	6.6	56	44	27	26	26	27	26
27	8.0	25	13	7.5	7.7	19	44	26	26	26	27	27
28	7.9	25	13	11	11	20	44	27	26	26	27	120
29	8.0	25	14	11	11	19	44	26	26	26	27	280
30	8.0	25	15	11	---	19	44	26	26	27	27	276
31	8.0	---	15	11	---	18	---	27	---	61	27	---
Total	1,335.5	604.0	484	384.5	271.6	633.8	1,804	2,585	800	839	2,117	1,378
Mean	43.1	20.1	15.6	12.4	9.37	20.4	60.1	83.4	26.7	27.1	68.3	45.9
Max	519	27	25	16	11	102	238	551	28	61	124	280
Min	4.9	7.1	13	5.6	6.2	9.8	18	26	26	25	26	25
Ac-ft	2,650	1,200	960	763	539	1,260	3,580	5,130	1,590	1,660	4,200	2,730
Cfsm	2.42	1.13	0.88	0.70	0.53	1.15	3.38	4.68	1.50	1.52	3.84	2.58
In.	2.79	1.26	1.01	0.80	0.57	1.32	3.77	5.40	1.67	1.75	4.42	2.88

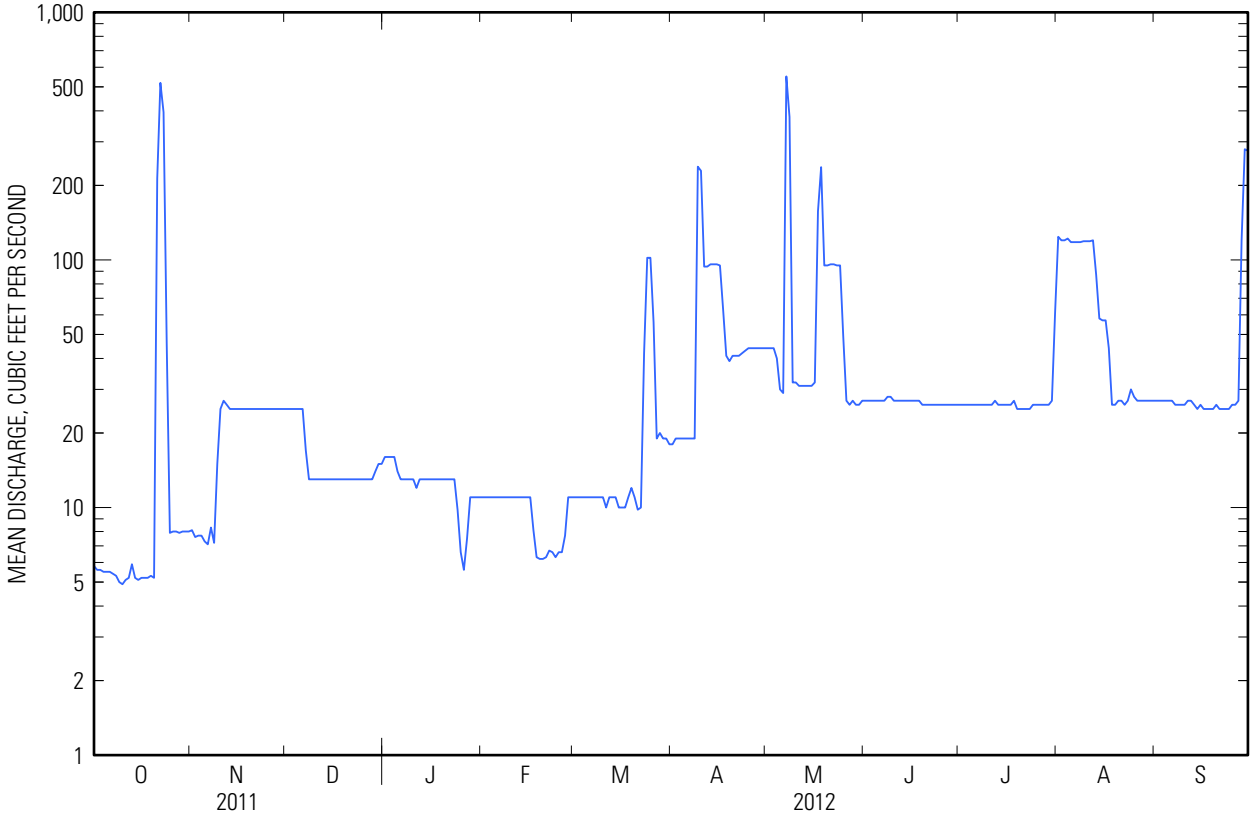
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	80.2	38.6	18.2	11.7	7.91	8.00	12.3	33.5	25.6	23.9	48.1	84.2
Max	335	137	67.3	74.2	14.7	20.4	60.1	127	107	94.3	199	316
(WY)	(2006)	(2000)	(2008)	(1992)	(1992)	(2012)	(2012)	(2001)	(1999)	(2001)	(2011)	(2001)
Min	2.65	2.84	3.54	2.32	1.55	0.97	2.68	3.16	2.44	2.41	2.41	2.11
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2010)	(2002)	(2004)	(2002)	(2002)	(2002)

50114000 RIO CERRILLOS BLW LAGO CERRILLOS NR PONCE, PR—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1991 - 2012	
Annual total	18,311.0		13,236.4			
Annual mean	50.2		36.2		33.3	
Highest annual mean					92.8	2001
Lowest annual mean					3.07	2003
Highest daily mean	2,100	Aug 23	551	May 7	2,810	Oct 8, 2010
Lowest daily mean	4.9	Oct 10	4.9	Oct 10	0.42	Feb 8, 2007
Annual seven-day minimum	5.2	Oct 6	5.2	Oct 6	0.80	Mar 19, 2003
Maximum peak flow			1,520	May 7	24,000	Oct 7, 1985
Maximum peak stage			5.25	May 7	20.83	Oct 7, 1985
Annual runoff (ac-ft)	36,320		26,250		24,090	
Annual runoff (cfsm)	2.82		2.03		1.87	
Annual runoff (inches)	38.27		27.66		25.39	
10 percent exceeds	96		94		80	
50 percent exceeds	13		25		7.5	
90 percent exceeds	7.7		7.7		3.1	



50114000 RIO CERRILLOS BLW LAGO CERRILLOS NR PONCE, PR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 4

[MF, membrane filter; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; ng/L, nanograms per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Calcium, water, unfiltered, recoverable, mg/L (00916)	Magnesium, water, unfiltered, recoverable, mg/L (00927)
11-02-2011	**0815**	7.4	7.9	7.9	243	24.5	< 2.0	--	--
01-31-2012	**1125**	10	9.4	8.5	238	25.2	< 2.0	32.2	5.49
05-16-2012	**0755**	32	8.7	8.0	246	24.5	< 2.0	--	--
08-08-2012	**0845**	114	7.9	7.8	219	25.5	< 2.0	30.8	5.41

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 4

[MF, membrane filter; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; ng/L, nanograms per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Hydrogen ion, water, unfiltered, calculated, mg/L (00191)	Ammonia, water, unfiltered, mg/L as N (00610)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Fecal coliform, M-FC MF (0.7 micron) method, water, col/100 mL (31625)	Total coliform, M-Endo MF method, immediate, water, col/100 mL (31501)
11-02-2011	**0815**	0.00001	< .02	0.269	0.001	0.009	0.33	100	390
01-31-2012	**1125**	M	< .02	.092	.001	.014	.21	40	460
05-16-2012	**0755**	.00001	< .02	.148	< .001	.015	< .25	40	220
08-08-2012	**0845**	.00002	.03	< .040	< .001	.025	.15	44	260

50114000 RIO CERRILLOS BLW LAGO CERRILLOS NR PONCE, PR—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
Part 3 of 4
[MF, membrane filter; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; ng/L, nanograms per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, unfiltered, recover-able, µg/L (01034)	Copper, water, unfiltered, recover-able, µg/L (01042)	Lead, water, unfiltered, recover-able, µg/L (01051)	Mercury, water, unfiltered, ng/L (50286)	Zinc, water, filtered, µg/L (01090)	Arsenic, water, unfiltered, µg/L (01002)	Cyanide, water, unfiltered, milligrams per liter (00720)	Selenium, water, unfiltered, µg/L (01147)
11-02-2011	**0815**	--	--	--	--	--	--	--	--	--
01-31-2012	**1125**	< .016	< .6	1.2	< .04	.42	< 1.4	.50	< .0050	.149
05-16-2012	**0755**	--	--	--	--	--	--	--	--	--
08-08-2012	**0845**	< .016	< .6	< .70	< .04	.77	< 1.4	.52	E .0023	.080

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
Part 4 of 4
[MF, membrane filter; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; ng/L, nanograms per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Methylene blue active sub-stances, water, unfiltered, recover-able, mg/L (38260)
11-02-2011	**0815**	--
01-31-2012	**1125**	< .050
05-16-2012	**0755**	--
08-08-2012	**0845**	< .050