

**01389890 PASSAIC RIVER AT DUNDEE DAM, AT CLIFTON, NJ**

PASSAIC RIVER BASIN

LOCATION.--Lat 40°53'09", long 74°07'42" referenced to North American Datum of 1983, Garfield City, Passaic County, NJ, Hydrologic Unit 02030103, on left bank, 900 ft east of Clifton, 1200 ft upstream of Dundee Dam in Garfield, 0.7 mi downstream from the bridge on US Route 46 in Elmwood Park, and 0.7 mi upstream from the bridge on Outwater Lane (Ackerman Avenue) in Garfield.

DRAINAGE AREA.--805 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 1970-71, 1986-87, 1992-1997, 2004 published as 01389895 Passaic River at Outwater Lane, at Garfield, NJ. Continuous-record gaging station, April 2007 to current year. Historical peaks for water years 1810, 1877-1879, 1881-1882, 1884, 1886, 1888-1891, 1893, 1896, 1902, and 1904 were published in annual reports of the New Jersey State Geologist using stage records collected by the Dundee Water-Power and Land Company and flow-over-dam computations. Peak stages for water years 1936, 1938, and 1945 were published in reports of the USGS.

GAGE.--Water-stage recorder and crest-stage gage above a dam. Datum of gage is 24.52 ft above NGVD of 1929. Stage records were collected by the Dundee Water-Power and Land Company for the period 1877 through at least 1904.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Significant fluctuations at medium and low flow due to operation of hydroelectric plants at Beatties Dam in Little Falls and Passaic (Great) Falls in Paterson. Flow regulated by reservoirs in Rockaway (see 01379990 and 01380900), Pequannock (see 01382100, 01382200, 01382300, 01382380, and 01382400), Wanaque (see 01383000, 01384002, and 01386990), and Ramapo River subbasins. Large diversions for municipal supply from Passaic River above Beatties Dam (see 01389492), and from Rockaway (see 01380800), Pequannock (see 01382370), Pompton (see 01388490), Ramapo (see 01387990), and Wanaque (see 01386980) Rivers. In addition, the New Jersey-American Water Company (formerly Commonwealth Water Company) diverts from Canoe Brook near Summit (see 01379529) and from Passaic River (see 01379510); that company, the city of East Orange, and others also divert water for municipal supply by pumping wells in the basin. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct 10, 1903 reached a stage of 8.40 ft, discharge, 35,800 ft<sup>3</sup>/s (computed as flow over dam by the New Jersey State Geologist's office).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 12	0515	*5,800	*2.96
No other peak greater than base discharge			

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e400	1,170	1,020	2,490	715	619	941	e550	400	1,720	1,560	857
2	310	1,050	1,140	2,220	642	635	1,110	562	346	1,680	2,070	740
3	219	888	1,120	1,930	662	613	1,510	621	400	1,700	2,320	595
4	157	760	1,040	1,730	695	589	1,810	643	854	1,640	2,230	466
5	152	640	923	1,510	622	554	1,800	777	1,070	1,490	1,960	411
6	160	614	812	1,320	560	542	1,910	1,150	1,200	1,230	1,860	388
7	162	591	707	1,800	523	560	1,950	2,600	1,100	944	1,690	371
8	237	583	621	2,010	606	608	1,790	2,670	1,010	875	1,460	366
9	245	550	546	1,860	776	736	1,570	2,790	1,780	785	1,240	353
10	224	501	595	1,750	892	926	1,280	2,590	1,710	662	1,290	341
11	206	445	1,240	1,670	931	1,030	1,190	2,410	1,800	568	982	448
12	191	381	4,930	1,530	1,100	906	1,050	2,180	2,340	616	904	724
13	181	439	5,400	1,360	1,330	812	918	1,890	2,290	587	997	763
14	173	624	5,710	1,180	1,380	734	727	1,630	2,170	522	927	670
15	170	1,210	5,220	1,020	1,260	654	691	1,390	2,590	412	881	568
16	167	1,710	4,600	e800	1,130	629	662	1,240	3,180	417	713	478
17	168	1,600	4,180	595	999	599	623	1,290	2,720	383	553	428
18	158	1,470	3,650	674	927	562	573	1,430	3,460	866	455	385
19	152	1,340	3,220	675	964	557	516	1,190	3,770	803	391	366
20	150	1,200	2,930	659	983	558	542	981	3,660	648	364	348
21	144	1,050	2,640	611	931	548	1,070	831	3,680	1,260	397	330
22	130	898	2,330	590	824	512	1,050	664	3,640	932	1,400	324
23	142	775	2,030	572	744	478	1,120	580	3,410	789	1,450	324
24	143	654	1,930	556	695	456	1,240	516	3,090	655	1,270	309
25	209	807	2,590	518	644	425	1,130	473	2,620	583	1,210	268
26	698	911	2,660	478	593	435	1,010	424	2,270	527	1,180	252
27	659	919	2,660	459	571	562	885	364	1,990	669	1,030	528
28	1,250	817	2,830	637	586	564	754	385	1,750	679	968	550
29	1,570	680	3,020	887	---	667	e655	515	1,490	1,090	1,230	538
30	1,540	723	2,990	954	---	850	e595	535	1,740	1,110	935	442
31	1,320	---	2,790	835	---	967	---	488	---	1,310	930	---
<b>Total</b>	11,787	26,000	78,074	35,880	23,285	19,887	32,672	36,359	63,530	28,152	36,847	13,931
<b>Mean</b>	380	867	2,519	1,157	832	642	1,089	1,173	2,118	908	1,189	464
<b>Max</b>	1,570	1,710	5,710	2,490	1,380	1,030	1,950	2,790	3,770	1,720	2,320	857
<b>Min</b>	130	381	546	459	523	425	516	364	346	383	364	252

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2007 - 2009, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	420	717	2,102	1,500	2,139	2,130	2,344	1,204	1,000	635	804	427
<b>Max</b>	459	867	2,519	1,843	3,401	3,619	4,800	1,338	2,118	908	1,189	653
<b>(WY)</b>	(2008)	(2009)	(2009)	(2008)	(2008)	(2008)	(2007)	(2008)	(2009)	(2009)	(2009)	(2008)
<b>Min</b>	380	566	1,686	1,157	832	642	1,089	1,100	391	333	240	165
<b>(WY)</b>	(2009)	(2008)	(2008)	(2009)	(2009)	(2009)	(2009)	(2007)	(2007)	(2008)	(2008)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 2007 - 2009	
<b>Annual total</b>	511,758		406,404			
<b>Annual mean</b>	1,398		1,113		1,212	
<b>Highest annual mean</b>					1,310	2008
<b>Lowest annual mean</b>					1,113	2009
<b>Highest daily mean</b>	7,370	Mar 10	5,710	Dec 14	14,800	Apr 18, 2007
<b>Lowest daily mean</b>	107	Jul 22	130	Oct 22	56	Oct 6, 2007
<b>Annual seven-day minimum</b>	134	Aug 23	146	Oct 18	64	Oct 2, 2007
<b>Maximum peak flow</b>			5,800	Dec 12	15,100	Apr 18, 2007
<b>Maximum peak stage</b>			2.96	Dec 12	4.93	Apr 18, 2007
<b>10 percent exceeds</b>	3,350		2,320		2,690	
<b>50 percent exceeds</b>	904		817		824	
<b>90 percent exceeds</b>	168		365		209	

