Water-Data Report 2013

04265432 GRASS RIVER AT CHASE MILLS, NY

St. Lawrence Basin
Grass Subbasin

LOCATION.--Lat 44°50′48″, long 75°04′41″ referenced to North American Datum of 1983, St. Lawrence County, NY, Hydrologic Unit 04150304, on right bank 15 ft downstream from bridge on County Highway 36 at Chase Mills, and 21 mi upstream from mouth.

DRAINAGE AREA.--598 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2003 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 259.19 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft^3/s, Sept. 18, 2005, gage height, 7.53 ft; maximum gage height, 10.08 ft, Mar. 10, 2005 (ice jam); minimum discharge, 50 ft^3/s, Sept. 8, 9, 2007, gage height, 3.90 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 2	2345	ice jam	*7.58
Apr 13	2145	*5,220	6.42

Minimum discharge, 196 ft^3/s, Feb. 8, gage height, 4.47 ft.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 04265432, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/04265432.2013.pdf

04265432 GRASS RIVER AT CHASE MILLS, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	289	494	e398	e686	e3,960	e606	e1,610	731	715	1,640	688	238
2	624	573	e426	e666	e4,140	e620	e1,560	668	1,040	1,170	583	292
3	907	646	471	e647	e3,110	e596	e1,430	607	2,280	1,070	616	317
4	746	803	794	e635	2,130	e559	e1,350	552	1,620	2,020	651	562
5	598	850	1,200	e629	1,390	e542	e1,260	500	1,050	2,270	645	543
6	550	748	e1,570	e630	e700	506	1,190	457	769	1,980	554	465
7	1,010	626	1,560	e619	e440	470	1,040	436	862	1,400	459	389
8	1,230	543	1,180	e577	e371	450	1,040	408	1,630	985	390	333
9	934	489	944	e573	e350	474	1,600	401	1,710	775	337	294
10	691	444	910	e573	e531	477	2,490	388	1,370	668	324	320
11	535	435	e1,450	e623	e556	e626	3,090	444	1,780	743	542	513
12	461	439	e1,610	e692	e568	e1,440	3,250	771	3,930	1,660	649	1,480
13	435	440	1,480	e799	e593	e2,470	4,690	771	4,480	1,670	642	1,880
14	474	529	1,110	e905	e593	e2,590	4,610	642	3,610	1,130	552	1,240
15	779	612	908	e1,010	574	e2,340	3,550	558	2,560	822	605	836
16	1,150	552	e843	e1,070	e531	e1,960	2,850	495	1,620	604	672	647
17	1,010	485	e837	e1,050	e527	e1,590	2,800	455	1,260	485	561	643
18	786	444	e868	e985	471	e1,340	3,160	404	1,100	436	455	646
19	673	420	e1,080	e902	485	1,120	2,940	364	984	645	383	542
20	878	401	e1,310	e845	444	e1,010	2,710	343	785	1,410	325	447
21	1,360	388	e1,520	e809	422	923	2,680	357	632	1,270	284	392
22	1,240	387	e1,590	e733	418	820	2,460	572	524	920	262	706
23	1,030	381	e1,510	e679	426	747	2,020	1,590	461	638	269	1,310
24	834	371	e1,390	e622	417	e679	1,520	2,130	481	478	339	1,030
25	680	384	e1,270	e576	435	e632	1,200	2,620	527	411	384	740
26	590	393	e1,110	e500	428	e627	1,100	2,670	482	391	345	563
27	507	372	e963	e439	457	e646	1,070	2,620	437	354	299	458
28	469	364	e801	e420	555	e694	984	2,370	477	327	273	391
29	419	350	e760	e421	---	e781	888	1,750	1,100	352	269	346
30	441	e364	e733	e484	---	e917	799	1,200	2,090	529	265	317
31	438	---	e712	e1,630	---	e1,100	---	911	---	750	248	---
Total	22,768	14,727	33,308	22,429	26,022	30,352	62,941	29,185	42,366	30,003	13,870	18,880
Mean	734	491	1,074	724	929	979	2,098	941	1,412	968	447	629
Max	1,360	850	1,610	1,630	4,140	2,590	4,690	2,670	4,480	2,270	688	1,880
Min	289	350	398	420	350	450	799	343	437	327	248	238
Cfsm	1.23	0.82	1.80	1.21	1.55	1.64	3.51	1.57	2.36	1.62	0.75	1.05
In.	1.42	0.92	2.07	1.40	1.62	1.89	3.92	1.82	2.64	1.87	0.86	1.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,305	1,293	1,572	1,299	830	1,662	2,240	1,231	747	660	433	649
Max	2,851	2,281	2,425	2,220	1,524	2,881	3,577	3,167	1,412	1,016	950	1,793
(WY)	(2006)	(2004)	(2009)	(2008)	(2006)	(2011)	(2008)	(2011)	(2013)	(2009)	(2004)	(2005)
Min	505	491	1,074	500	443	793	1,042	715	369	210	130	112
(WY)	(2005)	(2013)	(2013)	(2011)	(2011)	(2005)	(2010)	(2008)	(2012)	(2012)	(2007)	(2007)

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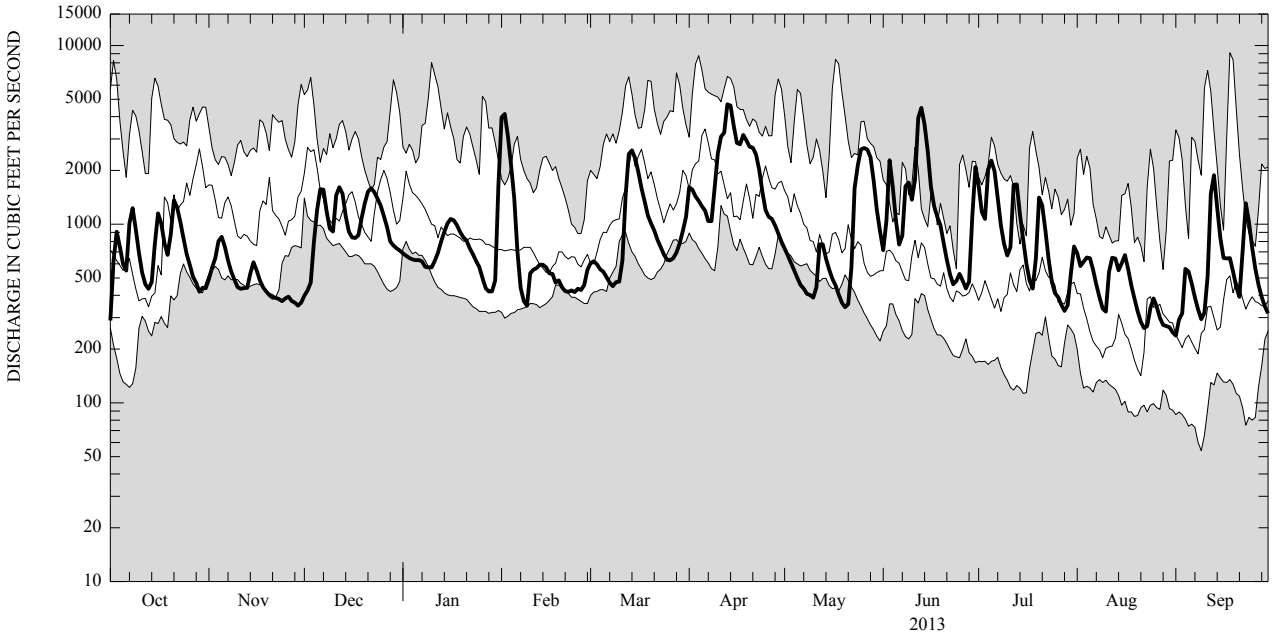
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 2003 - 2013	
Annual total	300,251		346,851			
Annual mean	820		950		1,162	
Highest annual mean					1,548	2011
Lowest annual mean					887	2012
Highest daily mean	3,530	Apr 25	4,690	Apr 13	9,110	Sep 18, 2005
Lowest daily mean	86	Sep 3	238	Sep 1	54	Sep 9, 2007
Annual seven-day minimum	94	Aug 29	269	Aug 27	69	Sep 4, 2007
Annual runoff (cfsm)	1.37		1.59		1.94	
Annual runoff (inches)	18.68		21.58		26.40	
10 percent exceeds	1,850		1,910		2,560	
50 percent exceeds	615		647		775	
90 percent exceeds	160		382		278	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--
NUTRIENT DATA: 2013 (b).
SEDIMENT DATA: 2013 (b).

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 2

[%, percent; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; WS, Surface water; <, less than]

Date	Sample start time	Medium code	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)
05-21-2013	**1330**	WS	755	24.0	343	10.0	105	7.7	343	17.2
06-18-2013	**1415**	WS	755	21.0	1,090	10.1	111	7.5	133	19.7
07-09-2013	**1130**	WS	755	23.0	778	8.2	101	7.1	76	25.3
08-20-2013	**1130**	WS	761	28.5	325	9.4	109	7.2	84	22.6

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 2

[%, percent; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; WS, Surface water; <, less than]

Date	Sample start time	Sampling method (82398)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Suspended sediment concentration, mg/L (80154)
05-21-2013	**1330**	Multiple verticals	0.022	0.252	0.001	< .004	0.010	0.42	2
06-18-2013	**1415**	Multiple verticals	.038	.360	.005	.015	.034	.85	2
07-09-2013	**1130**	Single vertical	.027	.088	.004	.012	.032	.59	2
08-20-2013	**1130**	Single vertical	< .010	< .040	< .001	< .004	.019	.42	1