

Contoocook Annual Water Use versus Stream Flow – Calendar Year 2004

Water use was reported by 59 sources, no transfers and 24 returns in the Contoocook Water Management Planning Area. The Contoocook Designated River is made up of two Designated River segments – the North Branch and the Contoocook River main stem. The North Branch watershed contains three registered sources and two registered, measured returns. All were included in this assessment. On the North Branch there are two hydroelectric facilities – Steeles Pond Hydro and Jackman Hydro. The Jackman Hydropower facility's intake is separated from its discharge location by 1.5 river miles and stream flow in this bypass reach is significantly curtailed. Water use by hydroelectric facilities are not shown in the monthly graphs because flow in is expected to equal flow out and because the General Standard does not apply to hydroelectric facilities between their point of withdrawal and point of return per Env-Ws 1903.02(d). The other source is the Hillsborough Water Works located near the headwaters of a tributary stream that impacts the North Branch near its mouth.

The main stem Contoocook River Water Management Planning Area has 14 hydroelectric dams registered as water users. Only the DD Bean and Son, Co. Inc. and EHC Hoague Sprauge Hydro facilities have water returns separate from their intakes. There are 23 registered sources that are public water supplies, one bottled-water facility source and four industrial/commercial use sources. Two sources are used for bio-energy production. Irrigation for golf courses makes up five sources and snowmaking at Pats Peak uses four sources. Three sources are for institutional use at Crotched Mountain Rehabilitation Center. Measured, reported returns include seven waste water treatment returns, one industrial discharge, as well as the 14 dam returns. A water withdrawal in the Contoocook Water Management Planning Area is exported from the basin. Concord Water Works removes water from the Contoocook River and discharges it outside the watershed to Penacook Lake for storage.

The North Branch was assessed as a separate Designated River and the results incorporated as a tributary into the main stem assessment. The North Branch of the Contoocook River begins at the outlet of Rye Pond in Stoddard and continues 19.1 miles to its confluence with main stem. The North Branch portion of the Contoocook Water Management Planning Area covers 121 square miles and contains no active stream gages. A gage on the Warner River was used for surrogate stream flow data for the North Branch of the Contoocook. This gage more closely matches the size and conditions of the North Branch than do the gages on the main stem Contoocook at Peterborough and West Hopkinton. Data from the USGS 01086000 WARNER RIVER AT DAVISVILLE, NH measuring 146 square miles was used to generate stream flow values for the North Branch by areal transposition. This data is an approximation, not an actual measure, of North Branch stream flow.

The main stem of the Contoocook River begins at the outlet of Poole Pond in Rindge and continues 75 miles to its mouth at its confluence with the Merrimack River at the boundary of Boscawen and Concord. The North Branch's confluence is at the main stem's river mile 35.4 (0 miles at the mouth). The Contoocook Water Management Planning Area covers 764 square miles and includes two streamflow gages that were used in this assessment –USGS 01082000 CONTOOCCOOK RIVER AT PETERBOROUGH, NH measuring 68.1 square miles of the Water Management Planning Area and USGS 01085500 CONTOOCCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH measuring 427 square miles. For the main stem assessment, stream flow was transposed areal using these gages for all impact points upstream of Hopkinton Dam gage. Stream

flow below the Hopkinton Dam gage used that gage's flow plus areally transposed flows using the Warner gage for the drainage area below the Hopkinton Dam gage.

The North Branch Contoocook Designated River was not in compliance with the General Standard July, August and October, 2004. During these months, the Designated River was not in compliance with the General Standard for 1.4 miles from the confluence of Beards Brook with the North Branch to the mainstem. Beards Brook drains Loon Pond which is used as Hillsborough's water supply.

In 2004, parts of the mainstem Contoocook Designated River were not in compliance with the General Standard during all the months except April. In July, the Designated River was not in compliance with the General Standard at several locations from beginning to end of the Designated River. During the other months except April, the river was not in compliance near the Jaffrey Water Works (20051-S03).

The General Standard usually increases continually from the headwaters to the end of a river—increasing with increased watershed area. The Contoocook River is heavily regulated by dams on both the mainstem and its tributaries. The General Standard varies markedly on the main stem Contoocook, in some months decreasing downstream and in others increasing more than during other months. This may reflect the variations in flow on the mainstem and from tributaries caused by storage and releases of water from impoundments.

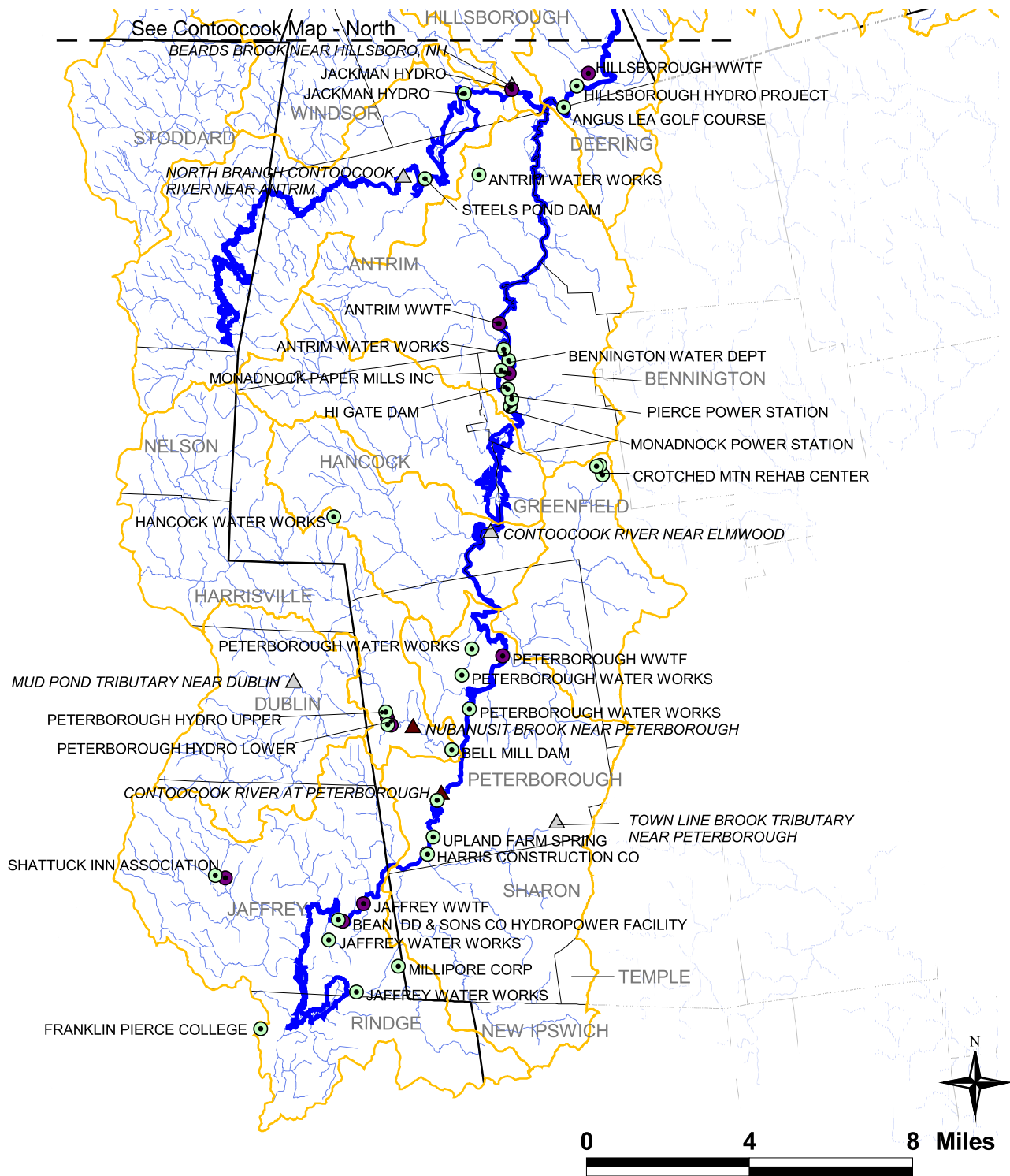
North Branch of the Contoocook Designated River	River Miles not in Compliance with General Standard (0 at the D/S end of the DR)	Length of River Miles not in Compliance with General Standard	Maximum value of Aggregate WU /Stream flow	2003 Months not in Compliance with the General Standard
January	--	--	0.21%	--
February	--	--	0.48%	--
March	--	--	0.18%	--
April	--	--	0.06%	--
May	--	--	0.19%	--
June	--	--	0.46%	--
July	1.4 to 0	1.4	0.84%	x
August	1.4 to 0	1.4	0.88%	--
September	--	--	0.50%	--
October	1.4 to 0	1.4	0.74%	--
November	--	--	0.34%	--
December	--	--	0.12%	--

Main Stem of the Contoocook Designated River	River Miles not in Compliance with General Standard (0 at the D/S end of the DR)	Length of River Miles not in Compliance with General Standard	Maximum value of Aggregate WU /Stream flow	2003 Months not in Compliance with the General
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				Standard
January	At 74.9	<0.01	2.5%	--
February	74.9 to 73.7	1.2	5.9%	x
March	74.9 to 74.7	0.2	2.4%	--
April	--	--	0.6%	--
May	74.9 to 74.7	0.2	2.0%	--
June	74.9 to 73.1; 69.2 to 67.6;	3.4	5.5%	--
July	74.9 to 63.1; 58.2 to 52.8; 56.5 to 53.4; 46.8 to 46.4; 46.0 to 41.8; 3.9 to 0.0	32.8	13.3%	x
August	74.9 to 73.4	1.5	8.8%	x
September	74.9 to 74.5	0.4	3.7%	x
October	74.9 to 73.4	1.5	4.8%	--
November	74.9 to 74.8	0.1	3.6%	x
December	74.9 to 74.7	0.2	1.5%	--

The Contoocook Designated River drains directly into the Upper Merrimack Designated River. The results of these assessments are a component of that river's assessment.

Contoocook River Affected Water User Facilities: Source and Discharge Locations - South



Legend

The coverages presented are under constant revision as new sites or facilities are added. They may not contain all of the potential or existing sites or facilities. NHDES is not responsible for the use or interpretation of this information. Not intended for legal purposes. Water users database last updated May 2005.

Map produced May 19, 2005

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Affected Water Users

- Source
- Discharge

Water Users (Outside 500 ft)

- Source
- Discharge

Affected Water Users (Outside WMPA)

- Source
- Discharge

Stream Gages

- ▲ Active
- △ Inactive



Designated Reach



Hydrology



State boundary



Town boundary



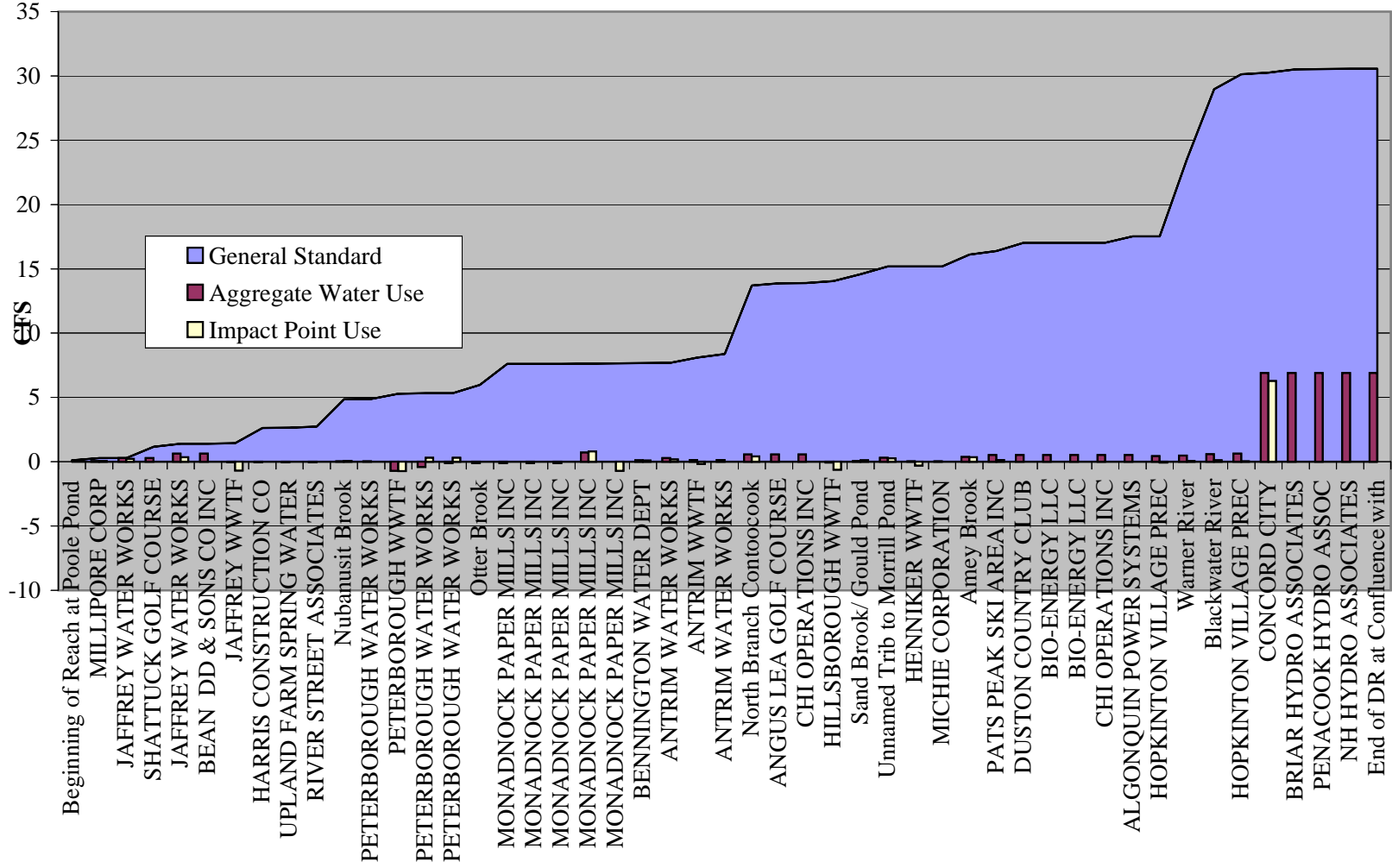
WMPA

BIO-ENERGY LLC		20199 20199-D01	425.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHI OPERATIONS INC	EHC HOAGUE SPRAUGE HYDRO	20465 20465-D01	425.9	(371.78)	(167.37)	(352.99)	(387.56)	(348.01)	(218.27)	(99.64)	(113.30)	(189.44)	(199.27)	(218.96)	(408.79)	
ALGONQUIN POWER SYSTEMS INC	HOPKINTON GENERATING STATION	20765 20765-S01	438.3	16.43	18.18	0.00	0.00	18.92	48.87	45.72	38.72	2.92	78.18	102.18	152.65	
ALGONQUIN POWER SYSTEMS INC	HOPKINTON GENERATING STATION	20765 20765-D01	438.3	(16.43)	(18.18)	0.00	0.00	(18.92)	(48.87)	(45.72)	(38.72)	(2.92)	(78.18)	(102.18)	(152.65)	
HOPKINTON VILLAGE PREC	CONTOOCCOOK WWTP	20090 20090-D01	438.3	(0.07)	(0.06)	(0.07)	(0.11)	(0.08)	(0.07)	(0.06)	(0.06)	(0.07)	(0.06)	(0.06)	(0.08)	
WARNER VILLAGE FIRE DIST	WASTE WATER TREAT PLANT	20274 20274-D01	587.4	(0.06)	(0.06)	(0.06)	(0.09)	(0.07)	(0.06)	(0.06)	(0.07)	(0.07)	(0.07)	(0.06)	(0.07)	
WARNER VILLAGE WATER DIST	WATER WORKS	20068 20068-S04	587.4	0.05	0.05	0.05	0.05	0.05	0.07	0.05	0.06	0.06	0.07	0.06	0.06	
WARNER VILLAGE WATER DIST	WATER WORKS	20068 20068-S02	587.4	0.06	0.05	0.04	0.06	0.06	0.06	0.08	0.08	0.06	0.06	0.05	0.05	
Warner River	Warner River		587.4	0.04	0.05	0.04	0.01	0.04	0.07	0.07	0.06	0.05	0.05	0.04	0.04	
LAKE SUNAPEE COUNTRY CLUB		20237 20237-S01	724.1	0.00	0.00	0.00	0.01	0.03	0.11	0.04	0.12	0.06	0.03	0.00	0.00	
COUNTRY CLUB OF NH	COUNTRY CLUB OF NH/SUTTON	20226 20226-S01	724.1	0.00	0.00	0.00	0.00	0.03	0.10	0.08	0.05	0.03	0.01	0.00	0.00	
ANDOVER VILLAGE DISTRICT	WATER WORKS	20001 20001-S01	724.1	0.10	0.20	0.11	0.11	0.16	0.14	0.13	0.11	0.13	0.13	0.09	0.09	
Blackwater River	Blackwater River		724.1	0.102	0.196	0.112	0.126	0.216	0.348	0.258	0.276	0.227	0.162	0.089	0.087	
HOPKINTON VILLAGE PREC		20023 20023-S01	753.1	0.03	0.04	0.03	0.03	0.04	0.06	0.05	0.05	0.05	0.04	0.03	0.04	
CONCORD CITY	WATER WORKS	20005 20005-S02	756.4	6.28	5.85	0.00	0.00	2.71	3.14	1.48	1.57	0.00	1.28	0.00	1.89	
BRIAR HYDRO ASSOCIATES	ROLFE CANAL HYDRO	20487 20487-S01	763.0	1094.16	455.89	1188.55	2017.44	1132.61	630.34	349.57	321.61	579.77	454.44	646.59	1670.96	
BRIAR HYDRO ASSOCIATES	ROLFE CANAL HYDRO	20487 20487-D01	763.0	(1094.16)	(455.89)	(1188.55)	(2017.44)	(1132.61)	(630.34)	(349.57)	(321.61)	(579.77)	(454.44)	(646.59)	(1670.96)	
PENACOOK HYDRO ASSOC	PENACOOK UPPER FALLS	20490 20490-S01	763.6	1070.23	492.69	1255.11	1915.82	1143.14	694.21	432.26	390.59	764.17	403.61	739.96	1687.36	
PENACOOK HYDRO ASSOC	PENACOOK UPPER FALLS	20490 20490-D01	763.6	(1070.23)	(492.69)	(1255.11)	(1915.82)	(1143.14)	(694.21)	(432.26)	(390.59)	(764.17)	(403.61)	(739.96)	(1687.36)	
NH HYDRO ASSOCIATES	PENACOOK LOWER FALLS	20489 20489-S01	763.9	1050.46	472.71	1188.55	1867.53	1101.15	689.94	419.49	374.04	726.06	505.13	727.87	1532.87	
NH HYDRO ASSOCIATES	PENACOOK LOWER FALLS	20489 20489-D01	763.9	(1050.46)	(472.71)	(1188.55)	(1867.53)	(1101.15)	(689.94)	(419.49)	(374.04)	(726.06)	(505.13)	(727.87)	(1532.87)	
End of DR at Confluence with Merrimack	End of DR at Confluence with Merrimack		764.0													
2004 Mainstem Contoocook Aggregate Water Use in CFS																
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Beginning of Reach at Poole Pond	Beginning of Reach at Poole Pond		2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
MILLIPORE CORP		20141 20141-S02	6.8	0.05	0.06	0.05	0.07	0.08	0.10	0.11	0.10	0.11	0.11	0.11	0.11	
JAFFREY WATER WORKS	WATER WORKS	20051 20051-S03	6.8	0.28	0.30	0.32	0.30	0.33	0.37	0.38	0.33	0.37	0.33	0.30	0.32	
SHATTUCK GOLF COURSE	SHATTUCK INN ASSOCIATION	20528 20528-S01	29.2	0.28	0.30	0.32	0.30	0.33	0.41	0.44	0.38	0.40	0.33	0.30	0.32	
JAFFREY WATER WORKS	WATER WORKS	20051 20051-S04	34.9	0.63	0.64	0.64	0.53	0.61	0.72	0.74	0.64	0.70	0.59	0.57	0.59	
BEAN DD & SONS CO INC	HYDROPOWER FACILITY	20425 20425-D01	34.9	0.63	0.64	0.64	0.53	0.61	0.72	0.74	0.64	0.70	0.59	0.57	0.59	
JAFFREY WWTF	WASTE WATER TREAT PLANT	20266 20266-D01	36.3	(0.04)	0.12	(0.13)	(0.99)	(0.35)	0.06	0.24	0.14	(0.01)	(0.03)	(0.08)	(0.39)	
HARRIS CONSTRUCTION CO		20172 20172-S01	65.8	(0.04)	0.12	(0.13)	(0.99)	(0.28)	0.15	0.35	0.23	0.20	0.19	0.05	(0.39)	
UPLAND FARM SPRING WATER	UPLAND FARM SPRING	20722 20722-S01	66.0	(0.04)	0.12	(0.08)	(0.97)	(0.28)	0.15	0.35	0.26	0.22	0.21	0.07	(0.38)	
RIVER STREET ASSOCIATES	NOONE FALLS HYDRO	20420 20420-D01	68.1	(0.04)	0.12	(0.08)	(0.97)	(0.28)	0.15	0.35	0.26	0.22	0.21	0.07	(0.38)	
Nubanusit Brook	Nubanusit Brook		121.2	0.03	0.20	(0.01)	(0.89)	(0.18)	0.25	0.45	0.34	0.31	0.30	0.14	(0.30)	
PETERBOROUGH WATER WORKS	PETERBOROUGH WATER WORKS	20059 20059-S02	122.1	0.03	0.37	0.17	(0.57)	0.09	0.55	0.68	0.73	0.47	0.33	0.18	(0.26)	
PETERBOROUGH WWTF	WASTE WATER TREAT PLANT	20290 20290-D01	132.2	(0.70)	(0.08)	(0.03)	(1.32)	(0.54)	(0.22)	0.08	0.11	(0.13)	(0.26)	(0.28)	(0.89)	
PETERBOROUGH WATER WORKS	PETERBOROUGH WATER WORKS	20059 20059-S04	133.5	(0.41)	0.16	0.39	(1.14)	(0.39)	0.10	0.37	0.48	(0.00)	(0.18)	(0.21)	(0.62)	
PETERBOROUGH WATER WORKS	PETERBOROUGH WATER WORKS	20059 20059-S01	133.5	(0.11)	0.49	0.49	(0.91)	(0.05)	0.44	0.67	0.68	0.48	0.28	0.12	(0.50)	
Otter Brook	Otter Brook		149.3	(0.10)	0.49	0.50	(0.87)	0.00	0.50	0.75	0.75	0.54	0.34	0.19	(0.45)	
MONADNOCK PAPER MILLS INC	MONADNOCK POWER STATION	20325 20325-D01	190.0	(0.10)	0.49	0.50	(0.87)	0.00	0.50	0.75	0.75	0.54	0.34	0.19	(0.45)	
MONADNOCK PAPER MILLS INC	PIERCE POWER STATION	20326 20326-D01	190.0	(0.10)	0.49	0.50	(0.87)	0.00	0.50	0.75	0.75	0.54	0.34	0.19	(0.45)	
MONADNOCK PAPER MILLS INC	HI GATE DAM	20327 20327-D01	190.2	(0.10)	0.49	0.50	(0.87)	0.00	0.50	0.75	0.75	0.54	0.34	0.19	(0.45)	
MONADNOCK PAPER MILLS INC	PAPER MILL	20324 20324-S02	190.8	0.71	1.35	1.37	(0.02)	0.76	1.29	1.31	1.63	1.40	1.25	1.06	0.46	
MONADNOCK PAPER MILLS INC	PAPER MILL	20324 20324-D01	190.9	0.01	0.60	0.63	(0.82)	0.06	0.59	0.80	0.93	0.63	0.41	0.28	(0.22)	
BENNINGTON WATER DEPT	WATER WORKS	20043 20043-S01	191.5	0.11	0.71	0.73	(0.72)	0.17	0.71	0.93	1.04	0.73	0.50	0.37	(0.13)	
ANTRIM WATER WORKS	ANTRIM WATER WORKS	20316 20316-S02	192.0	0.29	0.88	0.91	(0.53)	0.36	0.92	1.11	1.22	0.91	0.65	0.53	0.03	
ANTRIM WWTF	WASTE WATER TREAT PLANT	20315 20315-D01	202.7	0.13	0.75	0.74	(0.80)	0.18	0.77	0.97	1.09	0.76	0.53	0.41	0.03	
ANTRIM WATER WORKS	ANTRIM WATER WORKS	20316 20316-S01	209.6	0.13	0.75	0.74	(0.80)	0.18	0.77	0.97	1.09	0.76	0.53	0.41	0.03	
North Branch Contoocook	North Branch Contoocook		342.4	0.55	1.16	1.14	(0.38)	0.66	1.23	1.44	1.57	1.22	0.94	0.80	0.43	
ANGUS LEA GOLF COURSE	GOLF COURSE	20619 20619-S01	346.8	0.55	1.16	1.14	(0.37)	0.69	1.28	1.47	1.63	1.27	0.94	0.80	0.43	
CHI OPERATIONS INC	HILLSBOROUGH HYDRO PROJEC	20491 20491-D01	347.4	0.55	1.16	1.14	(0.37)	0.69	1.28	1.47	1.63	1.27	0.94	0.80	0.43	
HILLSBOROUGH WWTF	WASTE WATER TREAT PLANT	20289 20289-D01	351.0	(0.06)	0.99	0.50	(1.49)	0.05	0.72	1.01	1.15	0.72	0.46	0.30	(0.30)	
Sand Brook/ Gould Pond	Sand Brook/ Gould Pond		364.3	0.04	1.11	0.61	(1.39)	0.17	0.85	1.15	1.29	0.84	0.57	0.42	(0.18)	
Unnamed Trib to Morrill Pond	Unnamed Trib to Morrill Pond		379.5	0.31	1.40	0.88	(1.08)	0.47	1.19	1.48	1.59	1.21	0.87	0.76	0.13	
HENNIKER WWTF	WASTE WATER TREAT PLANT	20088 20088-D01	379.6	0.02	1.08	0.56	(1.51)	0.14	0.95	1.26	1.34	0.87	0.47	0.44	(0.18)	
MICHIE CORPORATION		20211 20211-S01	379.8	0.02	1.08	0.56	(1.31)	0.43	1.14	1.49	1.57	1.09	0.75	0.67	(0.02)	
Amey Brook	Amey Brook		402.8	0.37	1.28	0.78	(1.12)	0.70	1.47	1.80	1.85	1.38	0.95	0.92	0.54	
PATS PEAK SKI AREA INC	PATS PEAK SKI AREA	20256 20256-S04	409.7	0.51	1.28	0.78	(1.12)	0.70	1.47	1.80	1.85	1.38	0.95	0.92	1.29	
DUSTON COUNTRY CLUB	DUSTON COUNTRY CLUB	20711 20711-S01	425.7	0.51	1.28	0.78	(1.12)	0.71	1.52	1.84	1.92	1.41	0.95	0.92	1.29	
BIO-ENERGY LLC		20199 20199-S01	425.8	0.51	1.28	0.78	(1.12)	0.71	1.52	1.84	1.92	1.41	0.95	0.92	1.29	
BIO-ENERGY LLC		20199 20199-D01	425.8	0.51	1.28	0.78	(1.12)	0.71	1.52	1.84	1.92	1.41	0.95	0.92	1.29	
CHI OPERATIONS INC	EHC HOAGUE SPRAUGE HYDRO	20465 20465-D01	425.9	0.51	1.28	0.78	(1.12)	0.71	1.52	1.84	1.92	1.41	0.95	0.92	1.29	
ALGONQUIN POWER SYSTEMS INC	HOPKINTON GENERATING STATION	20765 20765-D01	438.3	0.51	1.28	0.78	(1.12)	0.71	1.52	1.84	1.92	1.41	0.95	0.92	1.29	
HOPKINTON VILLAGE PREC	CONTOOCCOOK WWTP	20090 20090-D01	438.3	0.44	1.22	0.71	(1.23)	0.63	1.45	1.78	1.86	1.35	0.89	0.86	1.21	
Warner River	Warner River		587.4	0.49	1.27	0.75	(1.22)	0.67	1.52	1.85	1.92	1.40	0.95	0.90	1.25	
Blackwater River	Blackwater River		724.1	0.59	1.47	0.87	(1.09)	0.89	1.87	2.11	2.20	1.63	1.11	0.99	1.34	
HOPKINTON VILLAGE PREC		20023 20023-S01	753.1	0.62	1.50	0.90	(1.06)	0.93	1.92	2.16	2.25	1.67	1.14	1.02	1.38	
CONCORD CITY	WATER WORKS	20005 20005-S02	756.4	6.91	7.35	0.90	(1.06)	3.64	5.07	3.64	3.82	1.67	2.42	1.02	3.26	
BRIAR HYDRO ASSOCIATES	ROLFE CANAL HYDRO	20487 20487-D01	763.0	6.91	7.35	0.90	(1.06)	3.64	5.07	3.64	3.82	1.67	2.42	1.02	3.26	
PENACOOK HYDRO ASSOC	PENACOOK UPPER FALLS	20490 20490-D01	763.6	6.91	7.35	0.90	(1.06)	3.64	5.07	3.64	3.82	1.67	2.42	1.02	3.26	

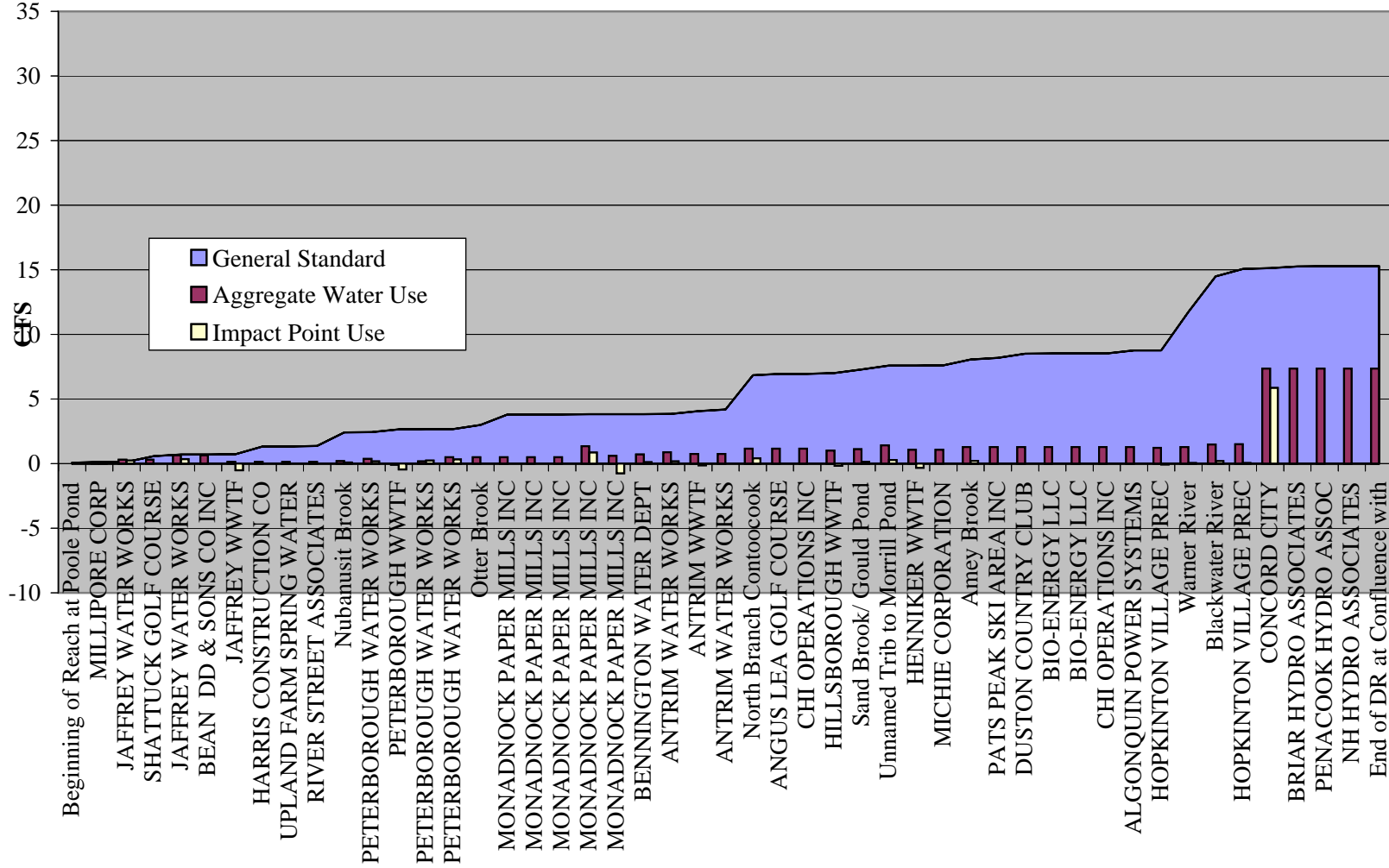
2004 Mainstem Contoocook Estimated Monthly Margin of the Aggregate Water Use Below the General Standard in CFS

WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	RIVERMILE
Beginning of Reach at Poole Pond	Beginning of Reach at Poole Pond		2.7	0.11	0.05	0.11	0.43	0.11	0.05	0.01	0.05	0.11	0.05	0.11	0.11	74.91
MILLIPORE CORP		20141 20141-S02	6.8	0.22	0.08	0.22	1.02	0.19	0.04	(0.08)	0.03	0.16	0.02	0.16	0.17	74.91
JAFFREY WATER WORKS	WATER WORKS	20051 20051-S03	6.8	(0.00)	(0.16)	(0.04)	0.80	(0.06)	(0.24)	(0.34)	(0.19)	(0.10)	(0.19)	(0.03)	(0.05)	74.91
SHATTUCK GOLF COURSE	SHATTUCK INN ASSOCIATION	20528 20528-S01	29.2	0.89	0.29	0.85	4.37	0.83	0.17	(0.30)	0.21	0.77	0.26	0.86	0.84	71.45
JAFFREY WATER WORKS	WATER WORKS	20051 20051-S04	34.9	0.76	0.06	0.75	5.06	0.78	(0.03)	(0.58)	0.06	0.69	0.10	0.83	0.81	69.25
BEAN DD & SONS CO INC	HYDROPOWER FACILITY	20425 20425-D01	34.9	0.76	0.06	0.76	5.06	0.78	(0.03)	(0.58)	0.06	0.69	0.10	0.83	0.81	68.48
JAFFREY WWTF	WASTE WATER TREAT PLANT	20266 20266-D01	36.3	1.50	0.61	1.59	6.79	1.80	0.67	(0.07)	0.59	1.46	0.76	1.53	1.84	67.58
HARRIS CONSTRUCTION CO		20172 20172-S01	65.8	2.68	1.20	2.77	11.51	2.91	1.17	(0.04)	1.08	2.43	1.73	2.58	3.02	64.84
UPLAND FARM SPRING WATER	UPLAND FARM SPRING	20722 20722-S01	66.0	2.68	1.20	2.72	11.53	2.92	1.17	(0.04)	1.06	2.41	1.10	2.57	3.02	64.47
RIVER STREET ASSOCIATES	NOONE FALLS HYDRO	20420 20420-D01	68.1	2.77	1.24	2.81	11.87	3.00	1.21	(0.03)	1.11	2.50	1.15	2.66	3.10	63.30
Nubanusit Brook	Nubanusit Brook		121.2	4.82	2.22	4.86	20.28	5.03	2.18	0.11	2.08	4.53	2.13	4.70	5.14	61.82
PETERBOROUGH WATER WORKS	PETERBOROUGH WATER WORKS	20059 20059-S02	122.1	4.86	2.08	4.71	20.11	4.79	1.90	(0.12)	1.71	4.42	2.12	4.71	5.15	60.35
PETERBOROUGH WWTF	WASTE WATER TREAT PLANT	20290 20290-D01	132.2	5.99	2.72	5.32	22.48	5.83	2.86	0.53	2.54	5.42	2.90	5.57	6.18	58.20
PETERBOROUGH WATER WORKS	PETERBOROUGH WATER WORKS	20059 20059-S04	133.5	5.75	2.50	4.95	22.50	5.73	2.57	0.25	2.19	5.34	2.85	5.55	5.96	56.52
PETERBOROUGH WATER WORKS	PETERBOROUGH WATER WORKS	20059 20059-S01	133.5	5.45	2.18	4.84	22.27	5.39	2.23	(0.05)	1.99	4.86	2.39	5.22	5.84	56.52
Otter Brook	Otter Brook		149.3	6.08	2.49	5.47	24.76	5.97	2.49	(0.05)	2.24	5.44	2.59	5.78	6.42	55.40
MONADNOCK PAPER MILLS INC	MONADNOCK POWER STATION	20325 20325-D01	190.0	7.70	3.30	7.10	31.26	7.60	3.30	0.14	3.05	7.06	3.46	7.41	8.05	48.16
MONADNOCK PAPER MILLS INC	PIERCE POWER STATION	20326 20326-D01	190.0	7.70	3.31	7.10	31.27	7.60	3.30	0.14	3.05	7.06	3.46	7.41	8.05	47.97
MONADNOCK PAPER MILLS INC	HI GATE DAM	20327 20327-D01	190.2	7.71	3.31	7.11	31.30	7.60	3.30	0.14	3.05	7.07	3.47	7.42	8.05	47.44
MONADNOCK PAPER MILLS INC	PAPER MILL	20324 20324-S02	190.8	6.93	2.47	6.26	30.55	6.87	2.53	(0.42)	2.19	6.23	2.57	6.57	7.17	46.81
MONADNOCK PAPER MILLS INC	PAPER MILL	20324 20324-D01	190.9	7.63	3.21	7.01	31.36	7.57	3.23	0.09	2.89	7.01	3.41	7.35	7.86	46.40
BENNINGTON WATER DEPT	WATER WORKS	20043 20043-S01	191.5	7.55	3.12	6.93	31.36	7.49	3.12	(0.04)	2.79	6.92	3.33	7.29	7.79	45.96
ANTRIM WATER WORKS	ANTRIM WATER WORKS	20316 20316-S02	192.0	7.39	2.96	6.78	31.25	7.32	2.92	(0.22)	2.62	6.78	3.19	7.15	7.65	45.34
ANTRIM WWTF	WASTE WATER TREAT PLANT	20315 20315-D01	202.7	7.97	3.30	7.36	33.22	7.92	3.29	(0.03)	2.96	7.34	3.29	7.70	8.08	44.25
ANTRIM WATER WORKS	ANTRIM WATER WORKS	20316 20316-S01	209.6	8.25	3.44	7.64	34.33	8.20	3.42	(0.00)	3.10	7.62	3.66	7.97	8.36	41.77
North Branch Contoocook	North Branch Contoocook		342.4	13.14	5.69	12.56	55.16	13.04	5.62	0.17	5.28	12.48	5.91	12.90	13.27	35.37
ANGUS LEA GOLF COURSE	GOLF COURSE	20619 20619-S01	346.8	13.32	5.78	12.73	55.85	13.18	5.66	0.15	5.31	12.60	5.99	13.07	13.44	34.30
CHI OPERATIONS INC	HILLSBOROUGH HYDRO PROJEC	20491 20491-D01	347.4	13.34	5.79	12.76	55.96	13.21	5.67	0.15	5.32	12.63	6.00	13.10	13.47	33.70
HILLSBOROUGH WWTF	WASTE WATER TREAT PLANT	20289 20289-D01	351.0	14.10	6.02	13.54	57.65	13.98	6.30	0.63	5.87	13.32	6.56	13.74	14.33	32.17
Sand Brook/ Gould Pond	Sand Brook/ Gould Pond		364.3	14.53	6.17	13.96	59.68	14.40	6.43	6.14	6.00	13.73	6.72	14.16	14.75	30.33
Unnamed Trib to Morrill Pond	Unnamed Trib to Morrill Pond		379.5	14.87	6.19	14.30	61.81	14.71	6.40	6.11	6.00	13.97	6.72	14.42	15.05	24.90
HENNIKER WWTF	WASTE WATER TREAT PLANT	20088 20088-D01	379.6	15.16	6.51	14.62	62.24	15.04	6.64	6.33	6.25	14.32	7.13	14.74	15.36	24.80
MICHIE CORPORATION		20211 20211-S01	379.8	15.17	6.52	14.63	62.08	14.76	6.45	6.10	6.03	14.10	6.84	14.52	15.21	24.14
Amey Brook	Amey Brook		402.8	15.74	6.77	15.33	65.56	15.41	6.58	6.25	6.20	14.73	7.10	15.19	15.57	22.49
PATS PEAK SKI AREA INC	PATS PEAK SKI AREA	20256 20256-S04	409.7	15.88	6.91	15.61	66.68	15.69	6.72	6.39	6.34	15.01	7.24	15.47	15.10	20.31
DUSTON COUNTRY CLUB	DUSTON COUNTRY CLUB	20711 20711-S01	425.7	16.52	7.23	16.25	69.24	16.32	7.00	6.68	6.60	15.61	7.56	16.11	15.74	18.38
BIO-ENERGY LLC		20199 20199-S01	425.8	16.52	7.23	16.25	69.25	16.32	7.00	6.68	6.60	15.62	7.56	16.12	15.74	18.13
BIO-ENERGY LLC		20199 20199-D01	425.8	16.52	7.23	16.25	69.25	16.32	7.00	6.68	6.60	15.62	7.56	16.12	15.74	18.13
CHI OPERATIONS INC	EHC HOAGUE SPRAUGE HYDRO	20465 20465-D01	425.9	16.53	7.23	16.26	69.27	16.33	7.00	6.68	6.60	15.62	7.57	16.12	15.75	18.08
ALGONQUIN POWER SYSTEMS INC	HOPKINTON GENERATING STATION	20765 20765-D01	438.3	17.02	7.48	16.75	71.24	16.82	7.25	6.93	6.85	16.12	7.81	16.61	16.24	12.59
HOPKINTON VILLAGE PREC	CONTOOCCOOK WWTP	20090 20090-D01	438.3	17.09	7.54	16.82	71.35	16.90	7.32	6.98	6.91	16.18	7.87	16.67	16.32	12.59
Warner River	Warner River		587.4	23.01	10.48	22.74	95.20	22.82	10.23	9.90	9.83	22.10	10.80	22.60	22.24	11.72
Blackwater River	Blackwater River		724.1	28.38	13.01	28.10	116.95	28.07	12.62	1.29	12.28	27.34	13.37	27.98	27.62	
HOPKINTON VILLAGE PREC		20023 20023-S01	753.1	29.50	13.56	29.22	121.55	29.19	13.14	1.38	12.81	28.45	13.92	29.10	28.75	6.04
CONCORD CITY	WATER WORKS	20005 20005-S02	756.4	23.35	7.77	29.36	122.09	26.62	10.06	(0.09)	11.31	28.58	12.71	29.24	27.00	3.94
BRIAR HYDRO ASSOCIATES	ROLFE CANAL HYDRO	20487 20487-D01	763.0	23.61	7.90	29.62	123.13	26.88	10.19	(0.06)	11.44	28.85	12.84	29.50	27.26	1.21
PENACOOK HYDRO ASSOC	PENACOOK UPPER FALLS	20490 20490-D01	763.6	23.64	7.92	29.64	123.23	26.91	10.20	(0.06)	11.45	28.87	12.85	29.52	27.28	0.87
NH HYDRO ASSOCIATES	PENACOOK LOWER FALLS	20489 20489-D01	763.9	23.65	7.92	29.66	123.28	26.92	10.21	(0.05)	11.46	28.88	12.85	29.53	27.29	0.23
End of DR at Confluence with Merrimack	End of DR at Confluence with Merrimack		764.0	23.65	7.93	29.66	123.30	26.92	10.21	(0.05)	11.46	28.89	12.86	29.54	27.30	0.00

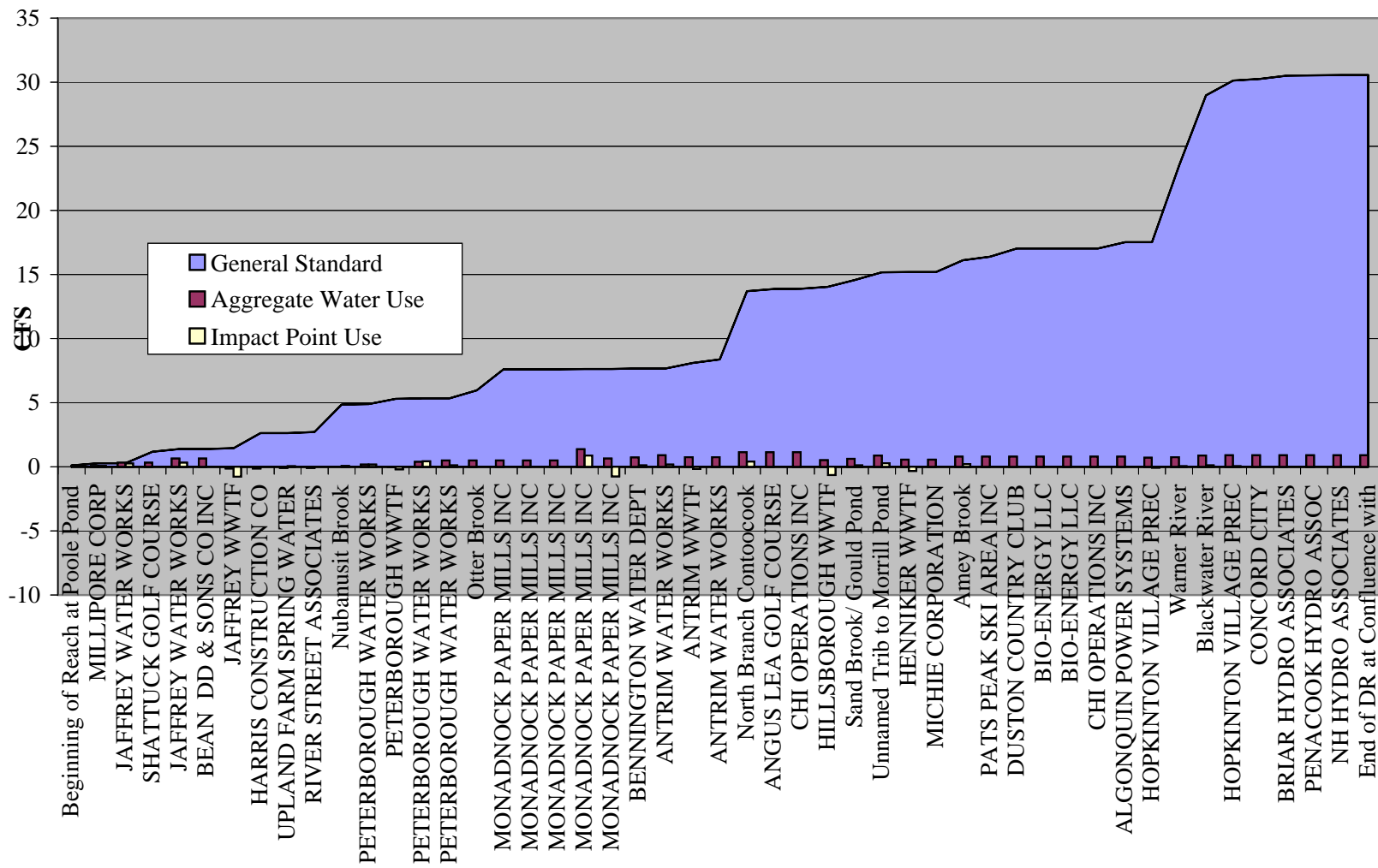
January 2004 MS Contocook



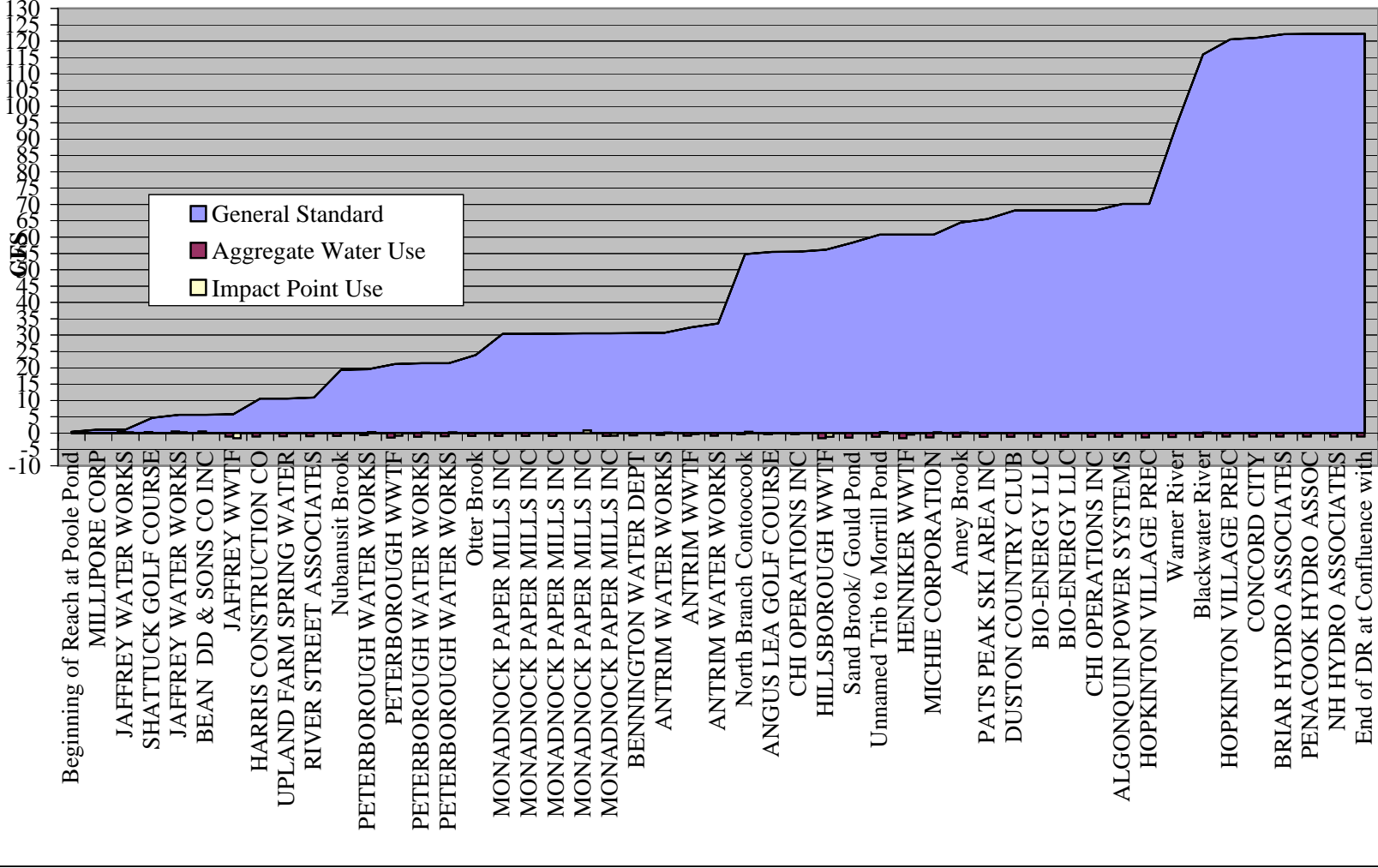
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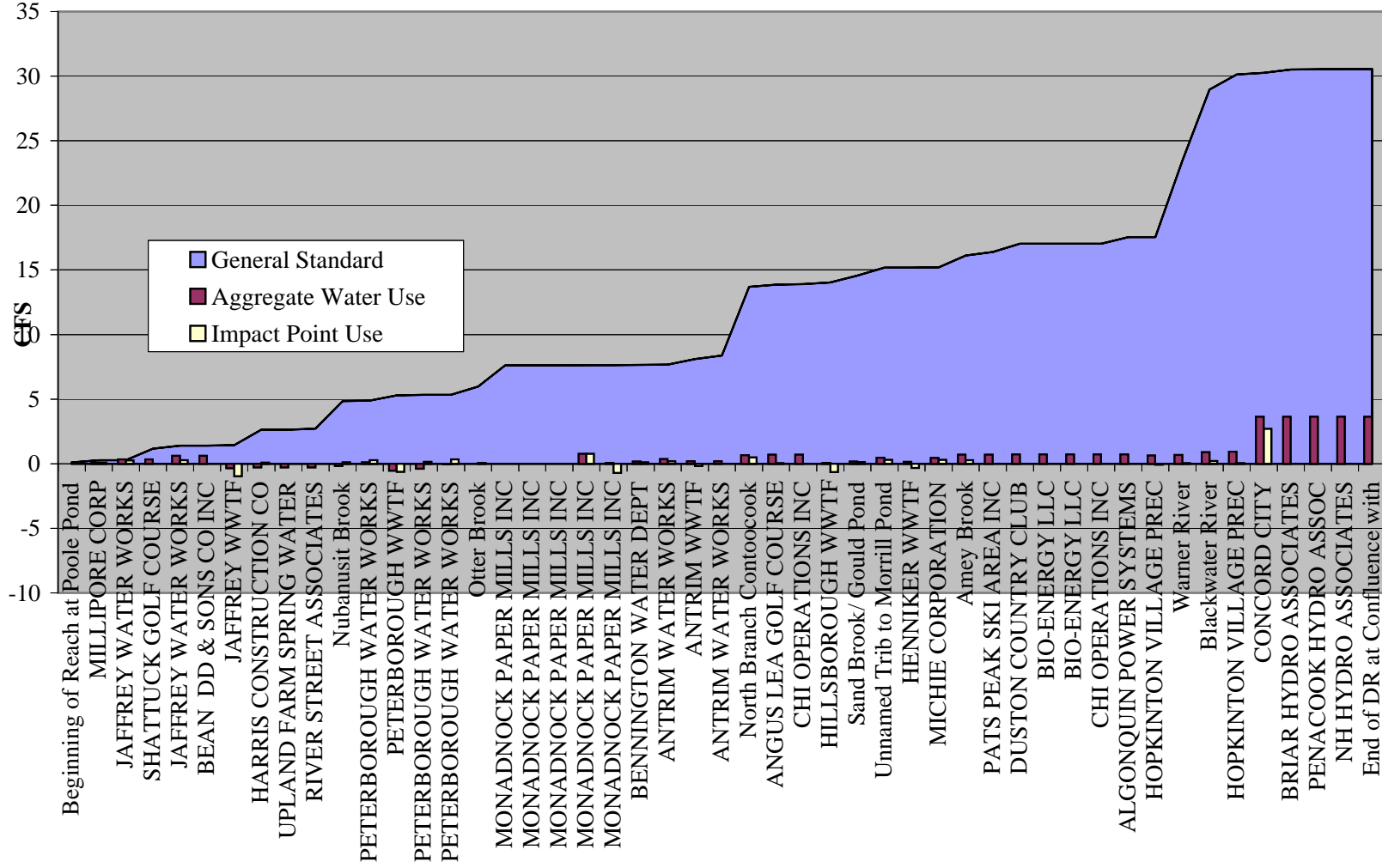
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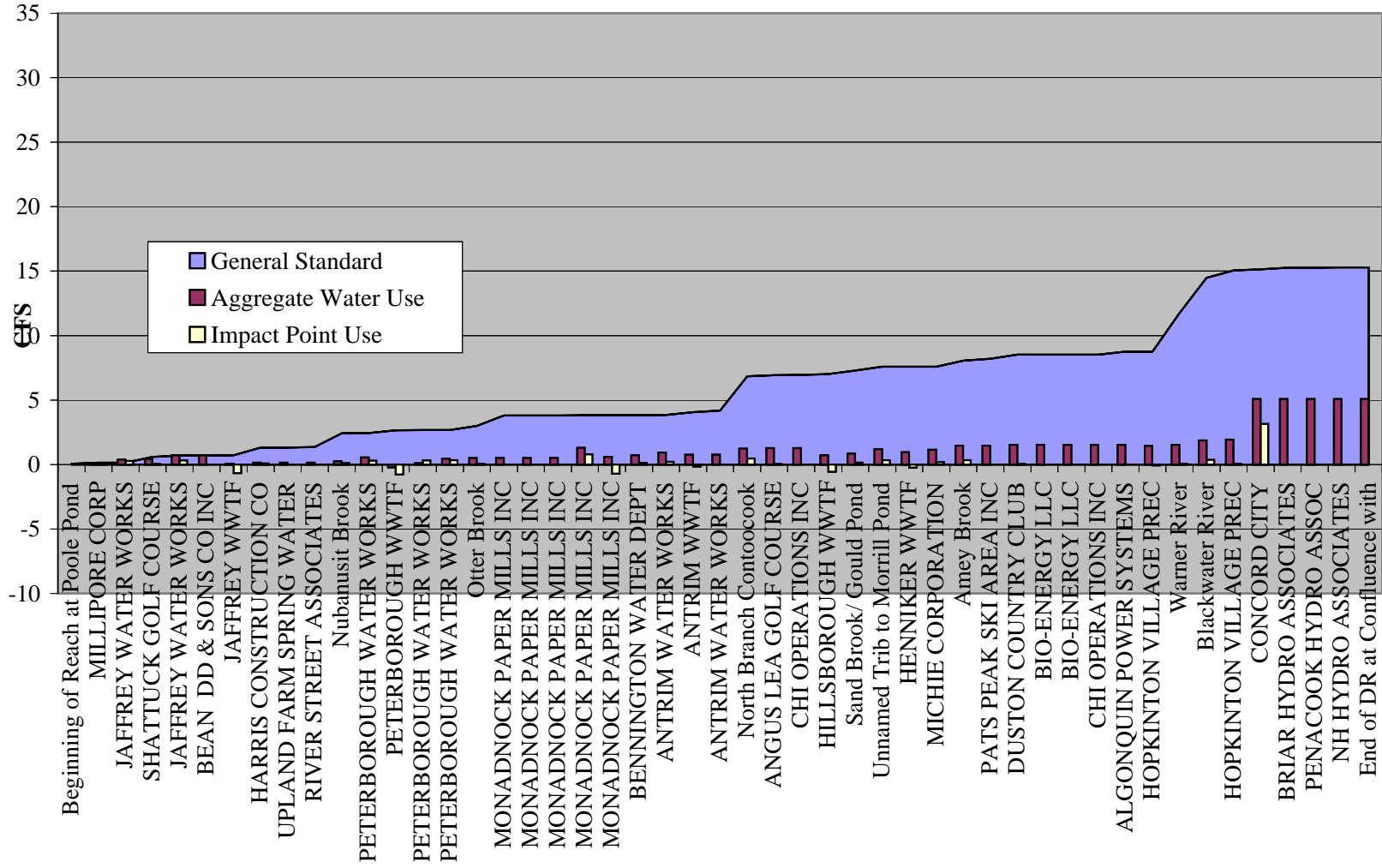
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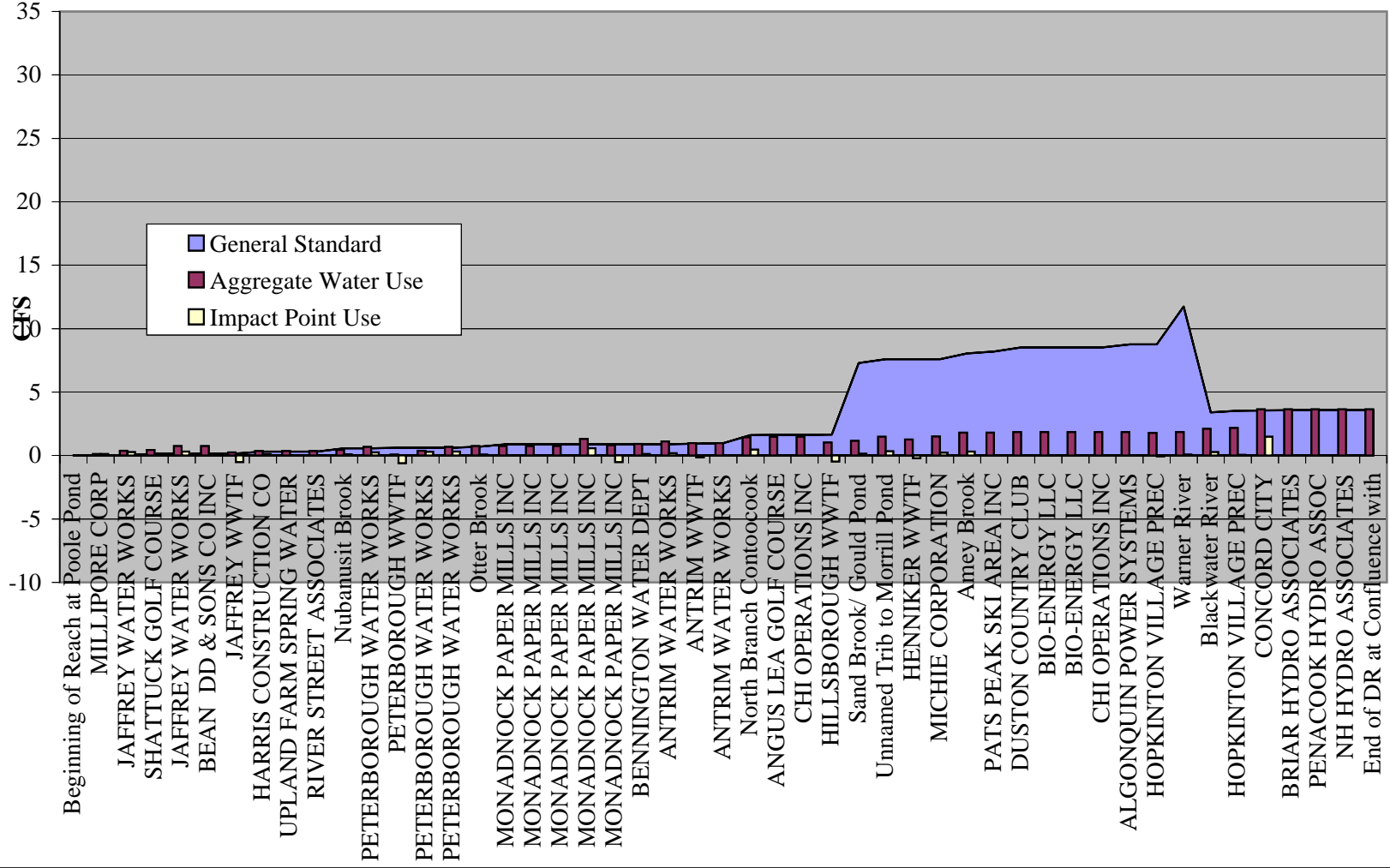
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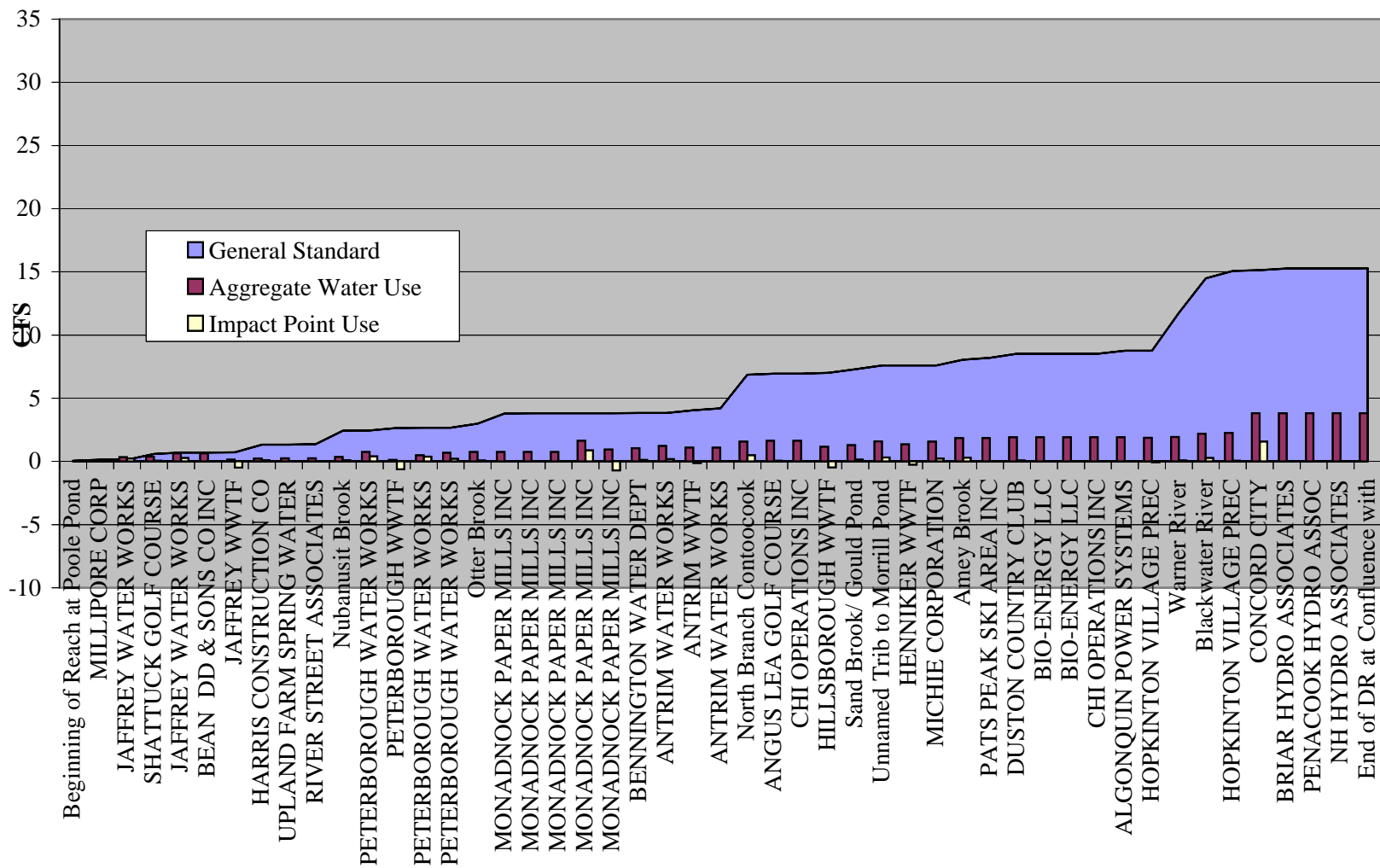
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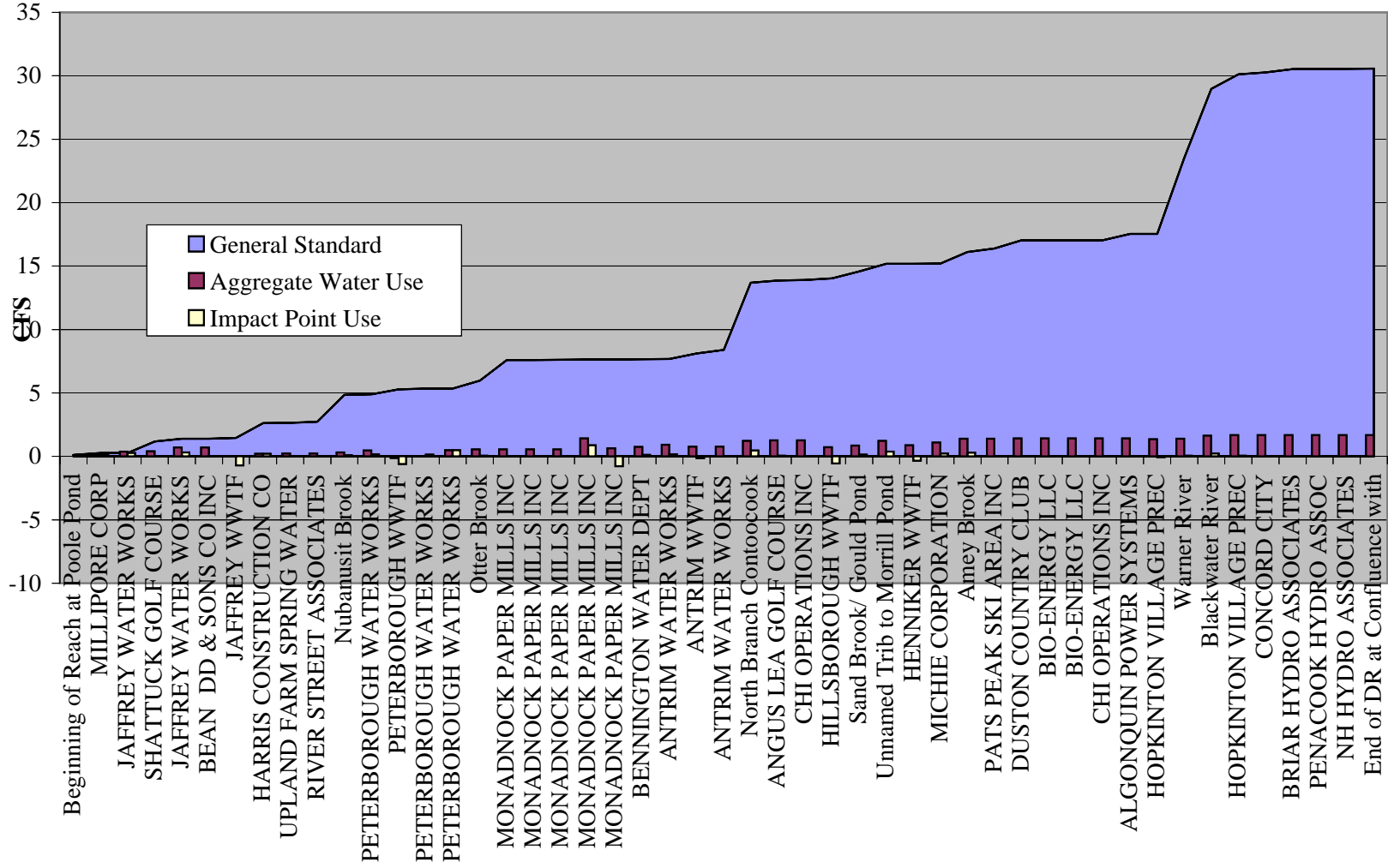
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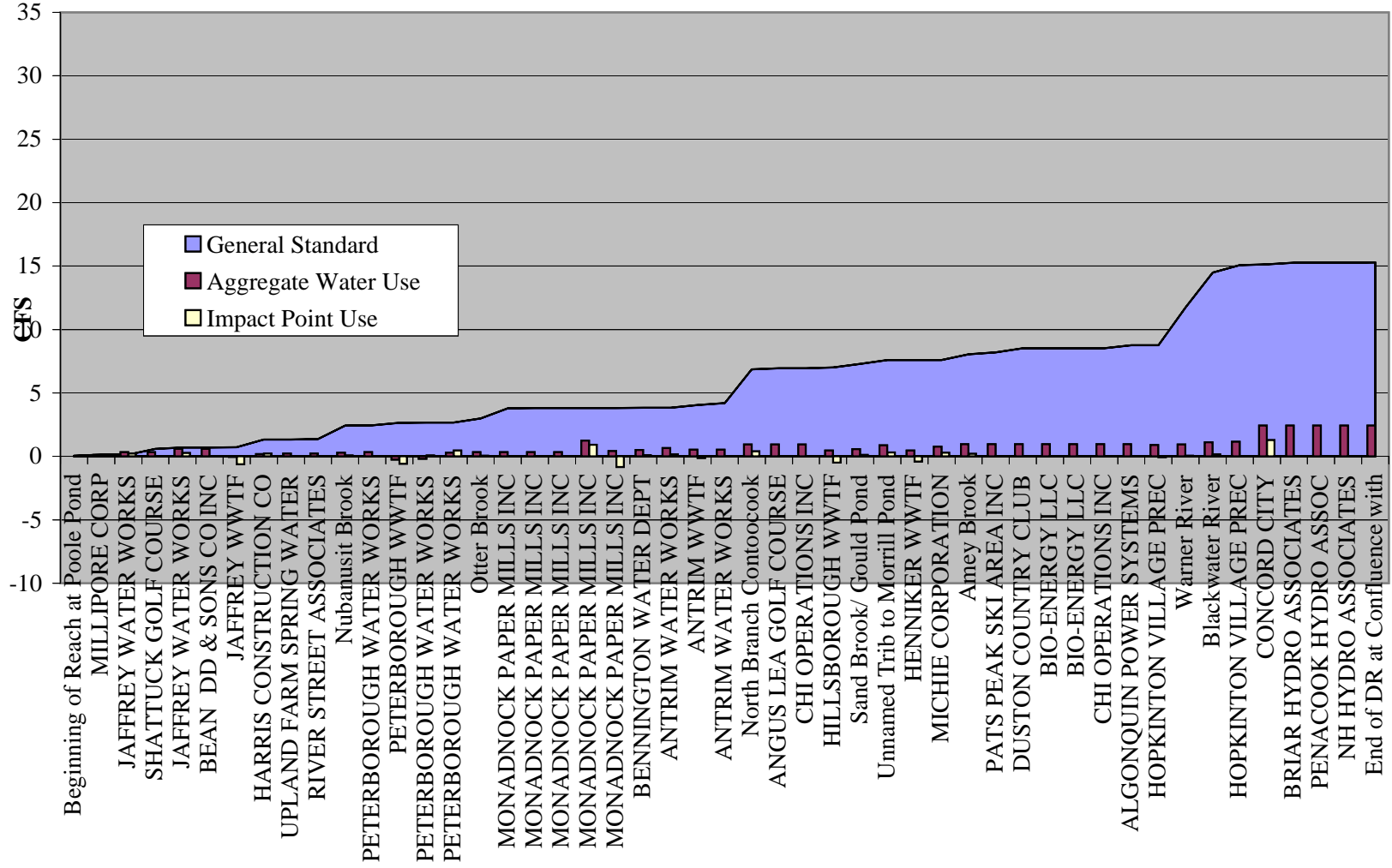
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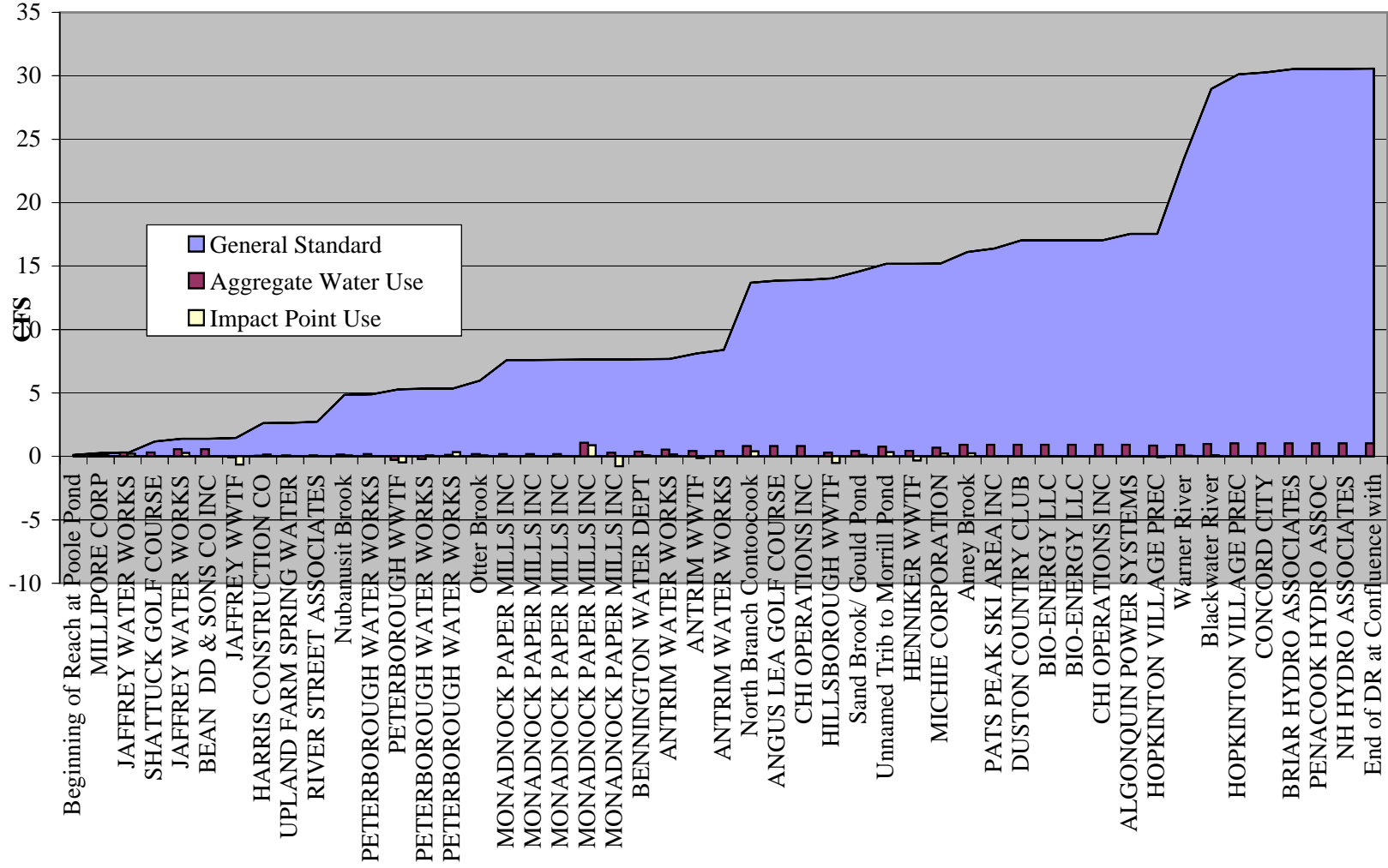
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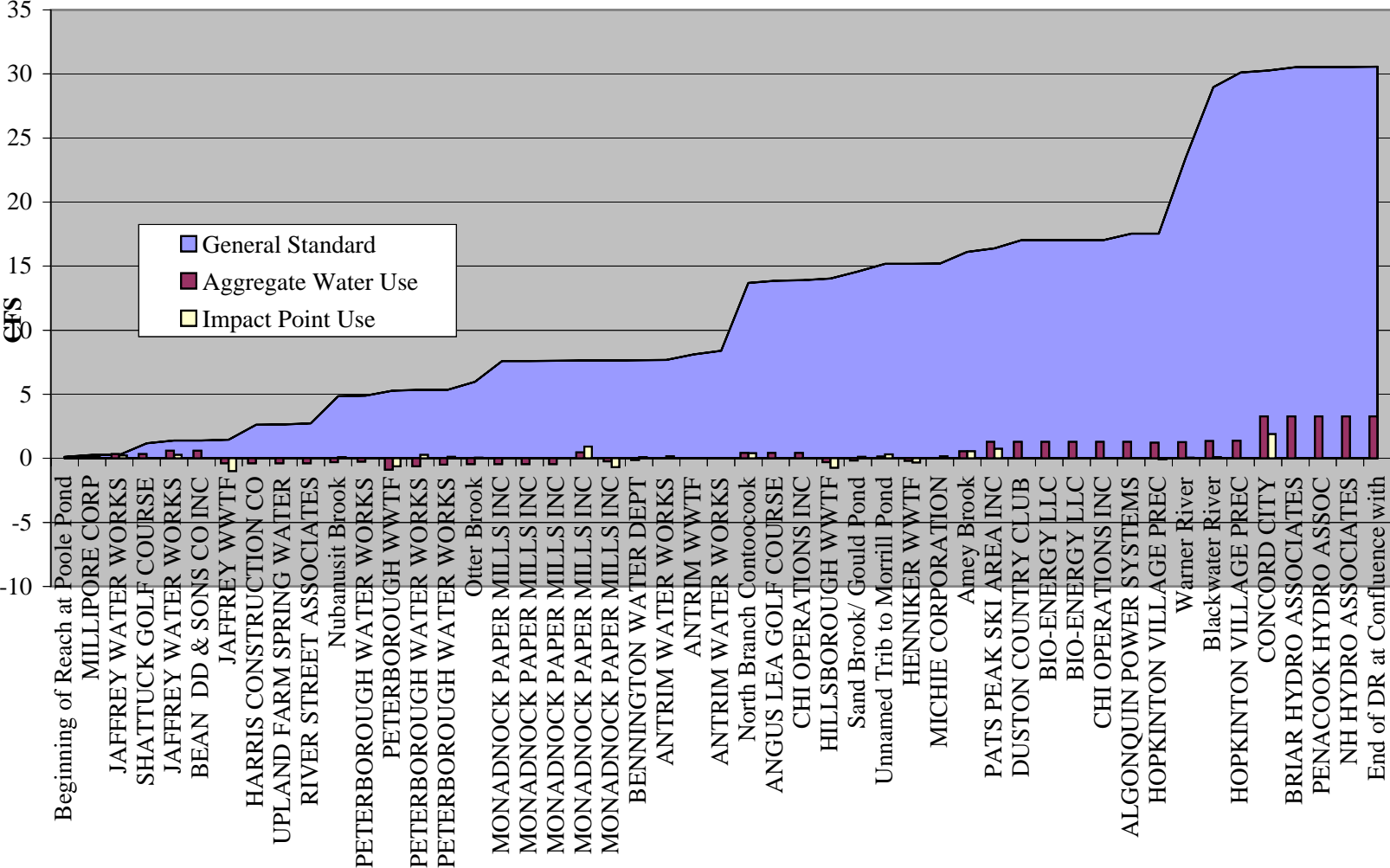
October 2004 MS Contocook



November 2004 MS Contoocook

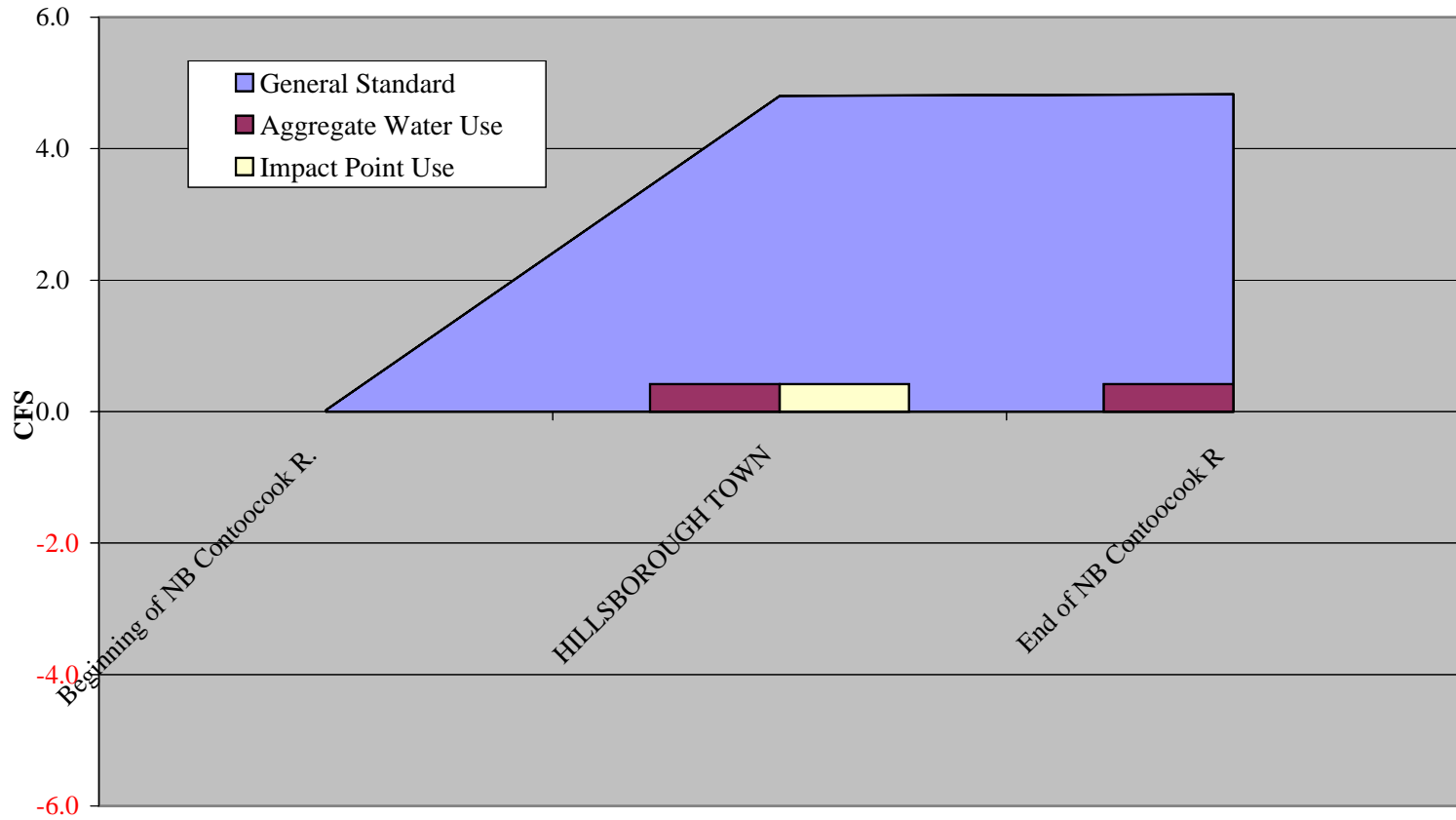


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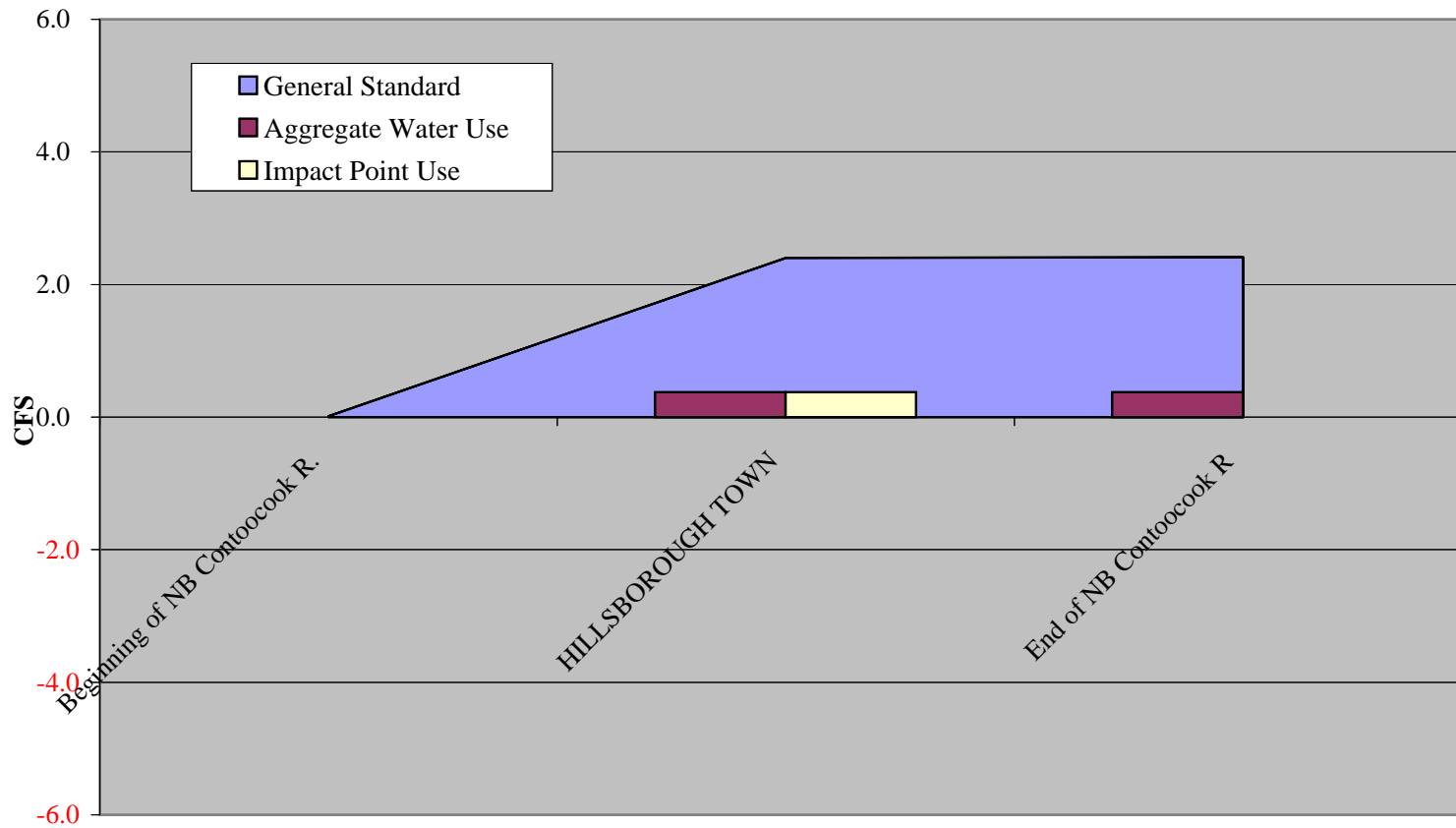


2004 No. Br. Contoocook Water Use in CFS															
WU_NAME	FACILITY	WUSD_ID	AREA_SQMI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning of Reach North Branch Contoocook R.	Rye Pond		0.64												
STEELES POND HYDRO	STEELES POND DAM	20604 20604-S01	57.24	4.9	2.1	1.7	4.1	3.8	3.8	46.3	66.3	38.0	49.3	47.4	84.6
STEELES POND HYDRO	STEELES POND DAM	20604 20604-D01	57.24	(4.9)	(2.1)	(1.7)	(4.1)	(3.8)	(3.8)	(46.3)	(66.3)	(38.0)	(49.3)	(47.4)	(84.6)
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-S01	63.01	177.9	28.9	49.5	250.0	88.2	40.4	11.4	27.8	134.7	75.8	85.3	227.4
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-D01	120.04	(177.9)	(28.9)	(49.5)	(250.0)	(88.2)	(40.4)	(11.4)	(27.8)	(134.7)	(75.8)	(85.3)	(227.4)
HILLSBOROUGH TOWN	HILLSBOROUGH WATER WORKS	20355 20355-S01	120.04	0.42	0.38	0.40	0.41	0.48	0.45	0.46	0.48	0.44	0.41	0.38	0.40
End of Reach North Branch Contoocook R	Confluence with Mainstem Contoocook		120.69												
2004 No. Br. Contoocook Aggregate Water Use in CFS															
WU_NAME	FACILITY	WUSD_ID	AREA_SQMI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning of Reach North Branch Contoocook R.	Rye Pond		0.64	0	0	0	0	0	0	0	0	0	0	0	0
STEELES POND HYDRO	STEELES POND DAM	20604 20604-S01	57.24												
STEELES POND HYDRO	STEELES POND DAM	20604 20604-D01	57.24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-S01	63.01												
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-D01	120.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HILLSBOROUGH TOWN	HILLSBOROUGH WATER WORKS	20355 20355-S01	120.04	0.42	0.38	0.40	0.41	0.48	0.45	0.46	0.48	0.44	0.41	0.38	0.40
End of Reach North Branch Contoocook R	Confluence with Mainstem Contoocook		120.69	0.42	0.38	0.40	0.41	0.48	0.45	0.46	0.48	0.44	0.41	0.38	0.40
2004 No. Br. Contoocook Estimated Monthly Stream Flow at Each Impact Point in CFS															
	USGS 01086000 WARNER RIVER AT DAVISVILLE, NH	Calculated monthly mean (cfsm)	146	1.66	0.65	1.82	5.40	2.09	0.81	0.46	0.46	0.73	0.46	0.92	2.67
WU_NAME	FACILITY	WUSD_ID	AREA_SQMI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning of Reach North Branch Contoocook R.	Rye Pond		0.64	1.1	0.4	1.2	3.5	1.3	0.5	0.3	0.3	0.5	0.3	0.6	1.7
STEELES POND HYDRO	STEELES POND DAM	20604 20604-S01	57.24	95.3	37.2	103.9	309.0	119.6	46.3	26.2	26.1	42.0	26.1	52.6	152.8
STEELES POND HYDRO	STEELES POND DAM	20604 20604-D01	57.24	95.3	37.2	103.9	309.0	119.6	46.3	26.2	26.1	42.0	26.1	52.6	152.8
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-S01	63.01	104.9	41.0	114.4	340.1	131.6	50.9	28.8	28.7	46.2	28.7	57.9	168.2
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-D01	120.04	199.8	78.1	217.9	647.9	250.8	97.0	54.8	54.7	88.0	54.7	110.3	320.4
HILLSBOROUGH TOWN	HILLSBOROUGH WATER WORKS	20355 20355-S01	120.04	199.8	78.1	217.9	647.9	250.8	97.0	54.8	54.7	88.0	54.7	110.3	320.4
End of Reach North Branch Contoocook R	Confluence with Mainstem Contoocook		120.69	200.9	78.5	219.1	651.4	252.1	97.5	55.1	55.0	88.4	55.0	110.9	322.2
2004 No. Br. Contoocook Estimated Monthly General Standard at Each Impact Point in CFS															
	USGS 01086000 WARNER RIVER AT DAVISVILLE, NH	General Standard in cfsm	146	0.04	0.02	0.04	0.16	0.04	0.02	0.0019	0.0019	0.02	0.0019	0.02	0.04
WU_NAME	FACILITY	WUSD_ID	AREA_SQMI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning of Reach North Branch Contoocook R.	Rye Pond		0.64	0.03	0.01	0.03	0.10	0.03	0.01	0.00	0.00	0.01	0.00	0.01	0.03
STEELES POND HYDRO	STEELES POND DAM	20604 20604-S01	57.24	2.3	1.1	2.3	9.2	2.3	1.1	0.1	0.1	1.1	0.1	1.1	2.3
STEELES POND HYDRO	STEELES POND DAM	20604 20604-D01	57.24	2.3	1.1	2.3	9.2	2.3	1.1	0.1	0.1	1.1	0.1	1.1	2.3
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-S01	63.01	2.5	1.3	2.5	10.1	2.5	1.3	0.1	0.1	1.3	0.1	1.3	2.5
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-D01	120.04	4.8	2.4	4.8	19.2	4.8	2.4	0.2	0.2	2.4	0.2	2.4	4.8
HILLSBOROUGH TOWN	HILLSBOROUGH WATER WORKS	20355 20355-S01	120.04	4.8	2.4	4.8	19.2	4.8	2.4	0.2	0.2	2.4	0.2	2.4	4.8
End of Reach North Branch Contoocook R	Confluence with Mainstem Contoocook		120.69	4.8	2.4	4.8	19.3	4.8	2.4	0.2	0.2	2.4	0.2	2.4	4.8
2004 No. Br. Contoocook Estimated Monthly Margin of the Aggregate Water Use Below the General Standard in CFS															
WU_NAME	FACILITY	WUSD_ID	AREA_SQMI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning of Reach North Branch Contoocook R.	Rye Pond		0.64	0.03	0.01	0.03	0.10	0.03	0.01	0.00	0.00	0.01	0.00	0.01	0.03
STEELES POND HYDRO	STEELES POND DAM	20604 20604-S01	57.24												
STEELES POND HYDRO	STEELES POND DAM	20604 20604-D01	57.24	2.3	1.1	2.3	9.2	2.3	1.1	0.11	0.1	1.1	0.1	1.1	2.3
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-S01	63.01												
PUBLIC SERVICE CO OF NH	JACKMAN HYDRO	20149 20149-D01	120.04	4.8	2.4	4.8	19.2	4.8	2.4	0.23	0.2	2.4	0.2	2.4	4.8
HILLSBOROUGH TOWN	HILLSBOROUGH WATER WORKS	20355 20355-S01	120.04	4.4	2.0	4.4	18.8	4.3	1.9	(0.2)	(0.3)	2.0	(0.2)	2.0	4.4
End of Reach North Branch Contoocook R	Confluence with Mainstem Contoocook		120.69	4.4	2.0	4.4	18.9	4.4	2.0	(0.2)	(0.3)	2.0	(0.2)	2.0	4.4

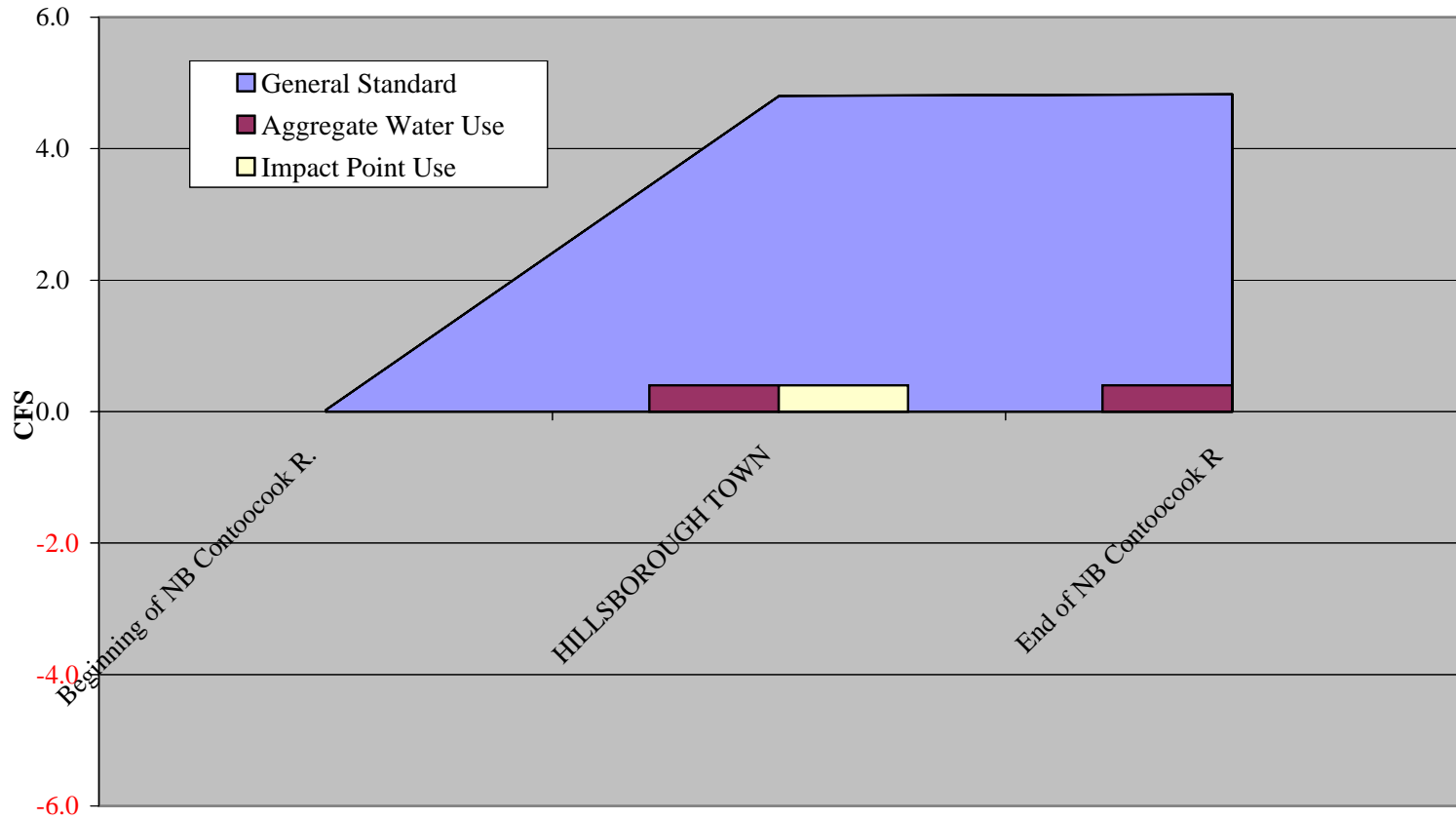
January 2004 North Branch Contoocook



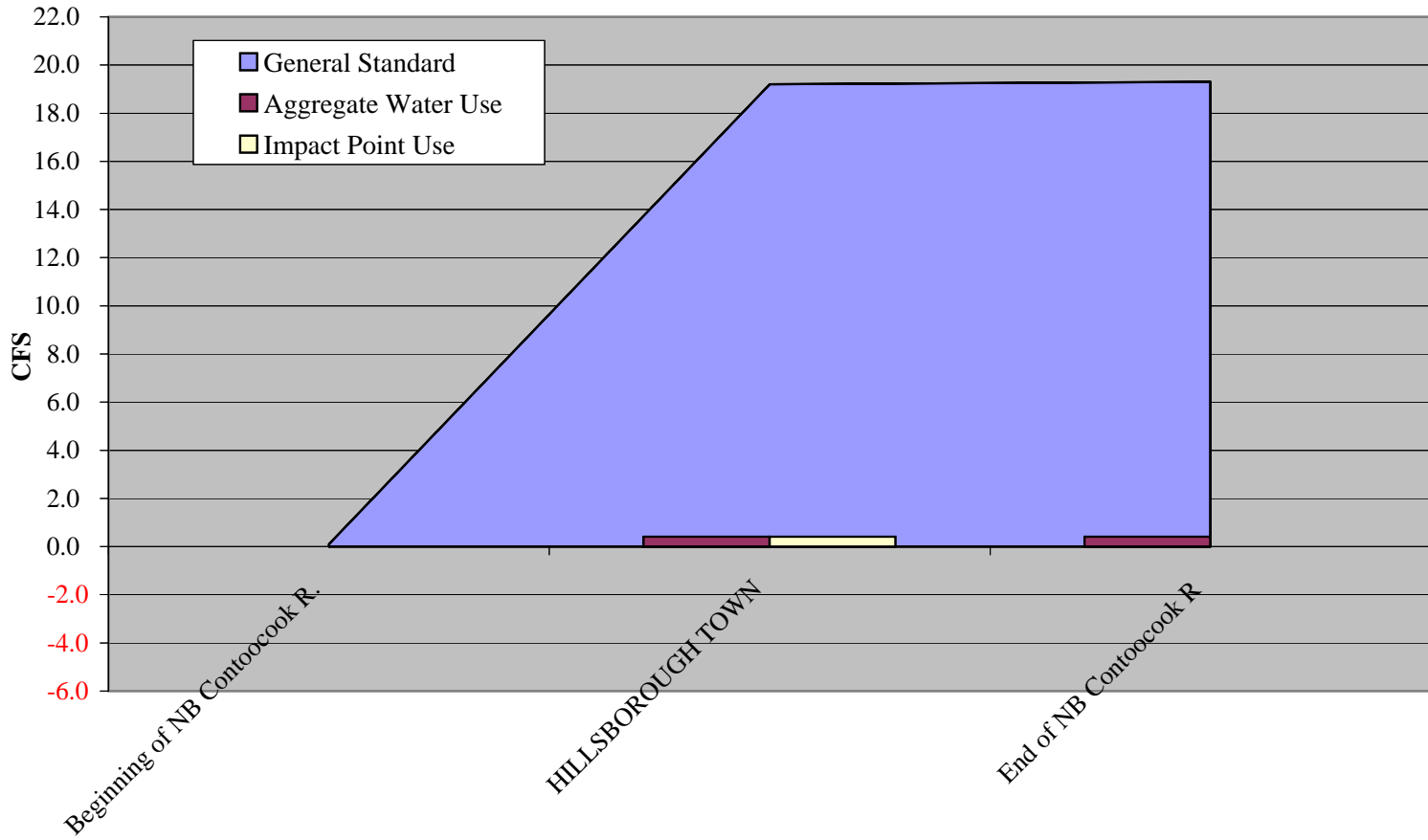
February 2004 North Branch Contoocook



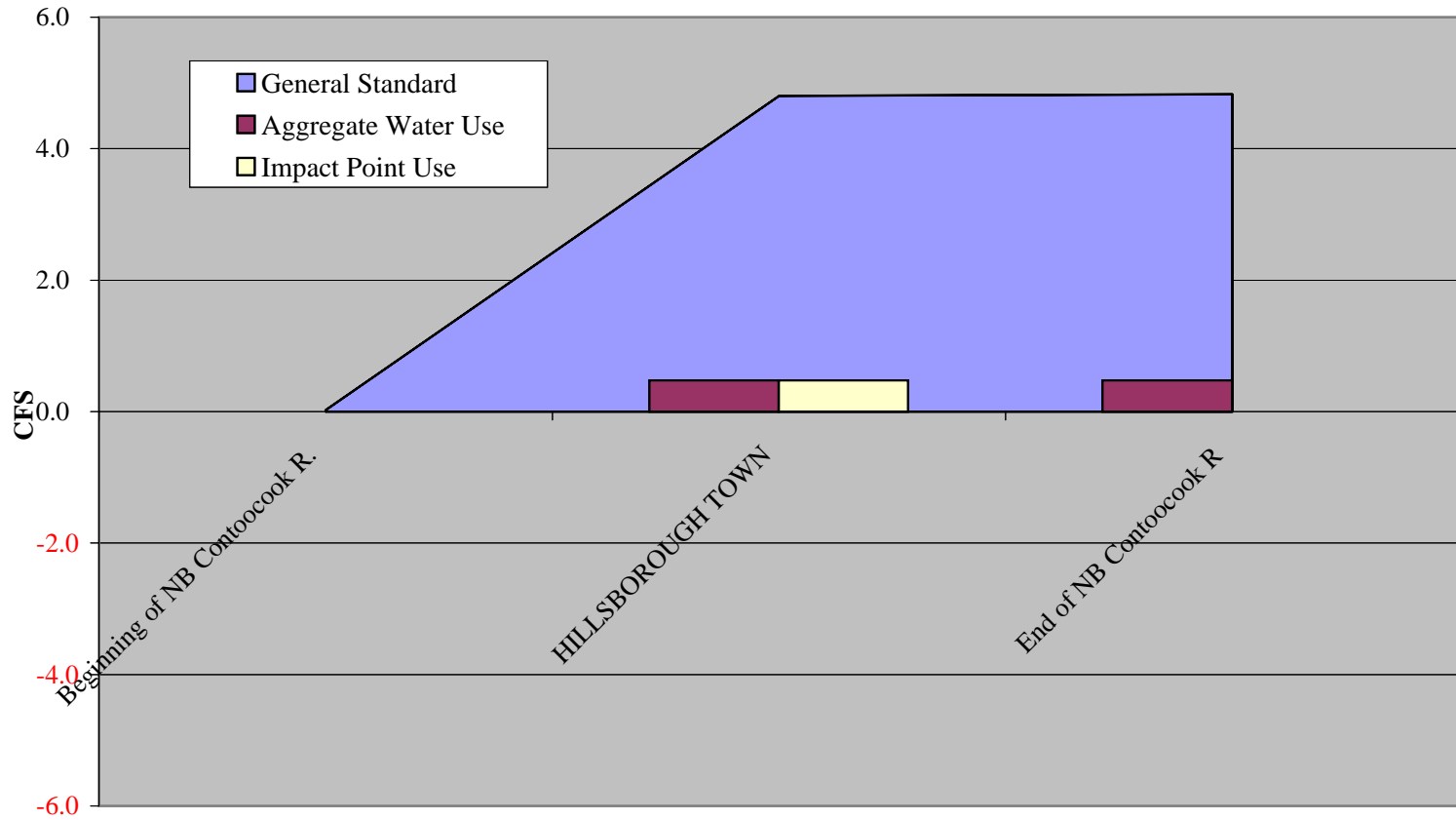
March 2004 North Branch Contoocook



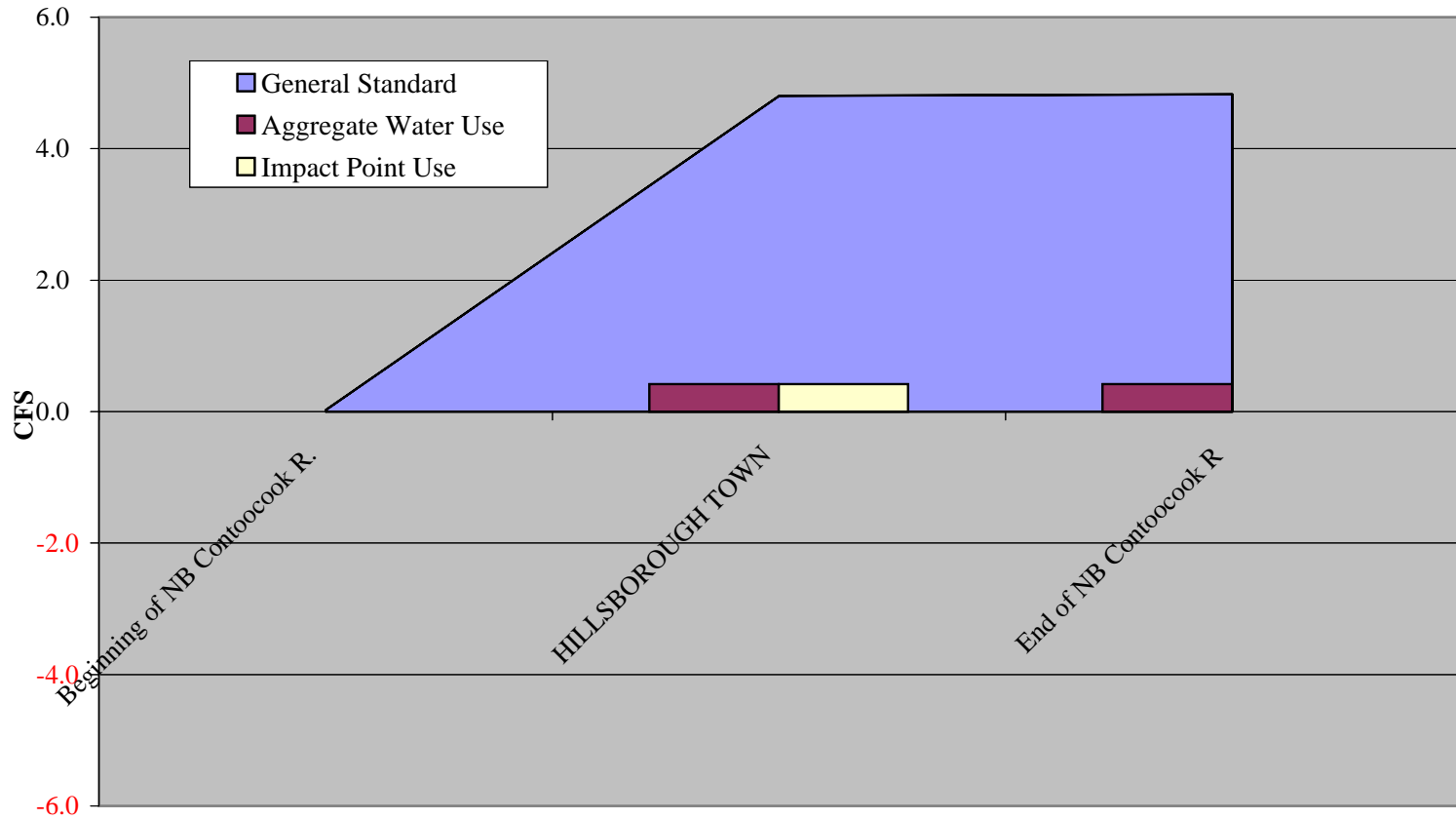
April 2004 North Branch Contoocook



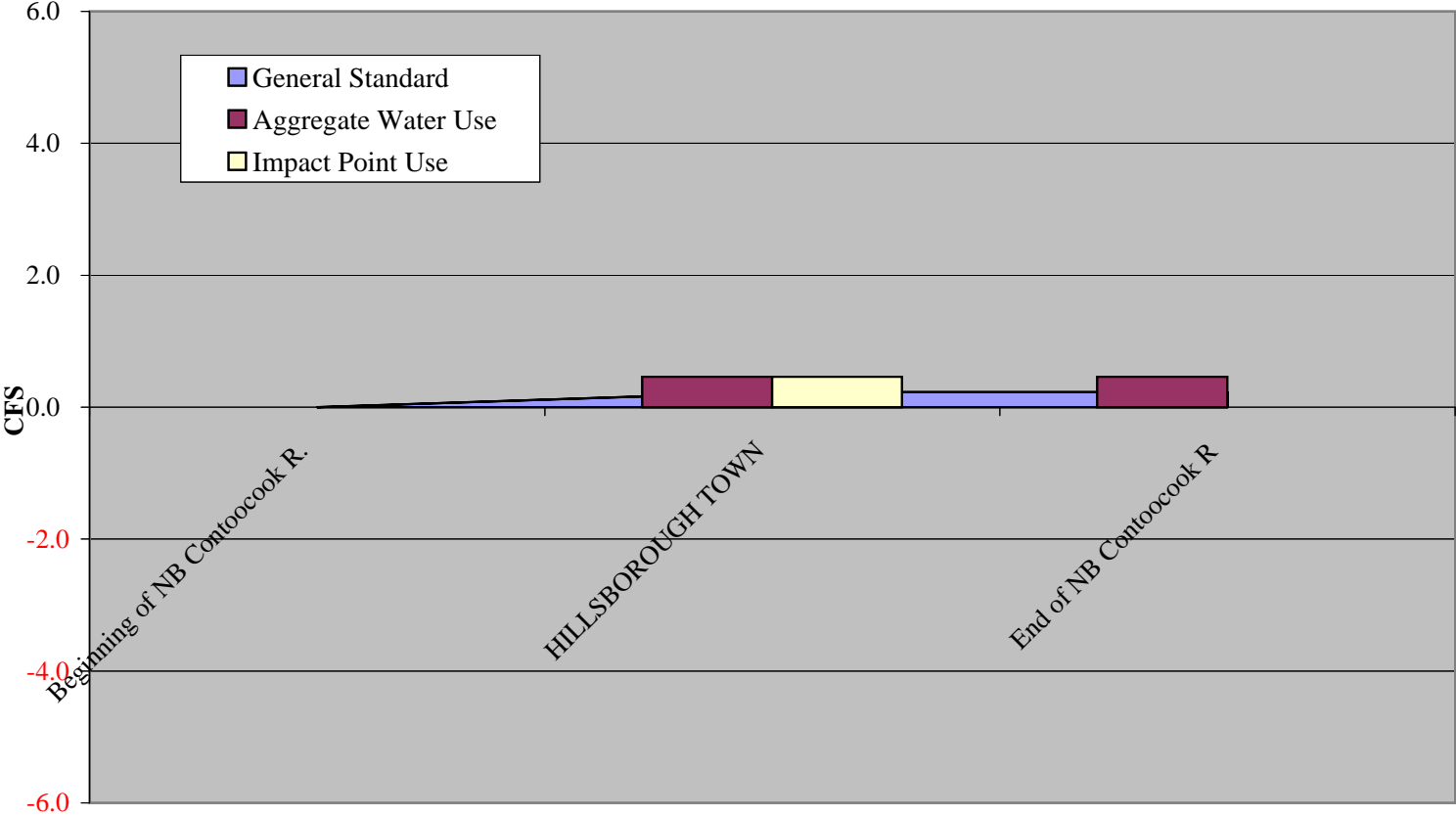
May 2004 North Branch Contoocook



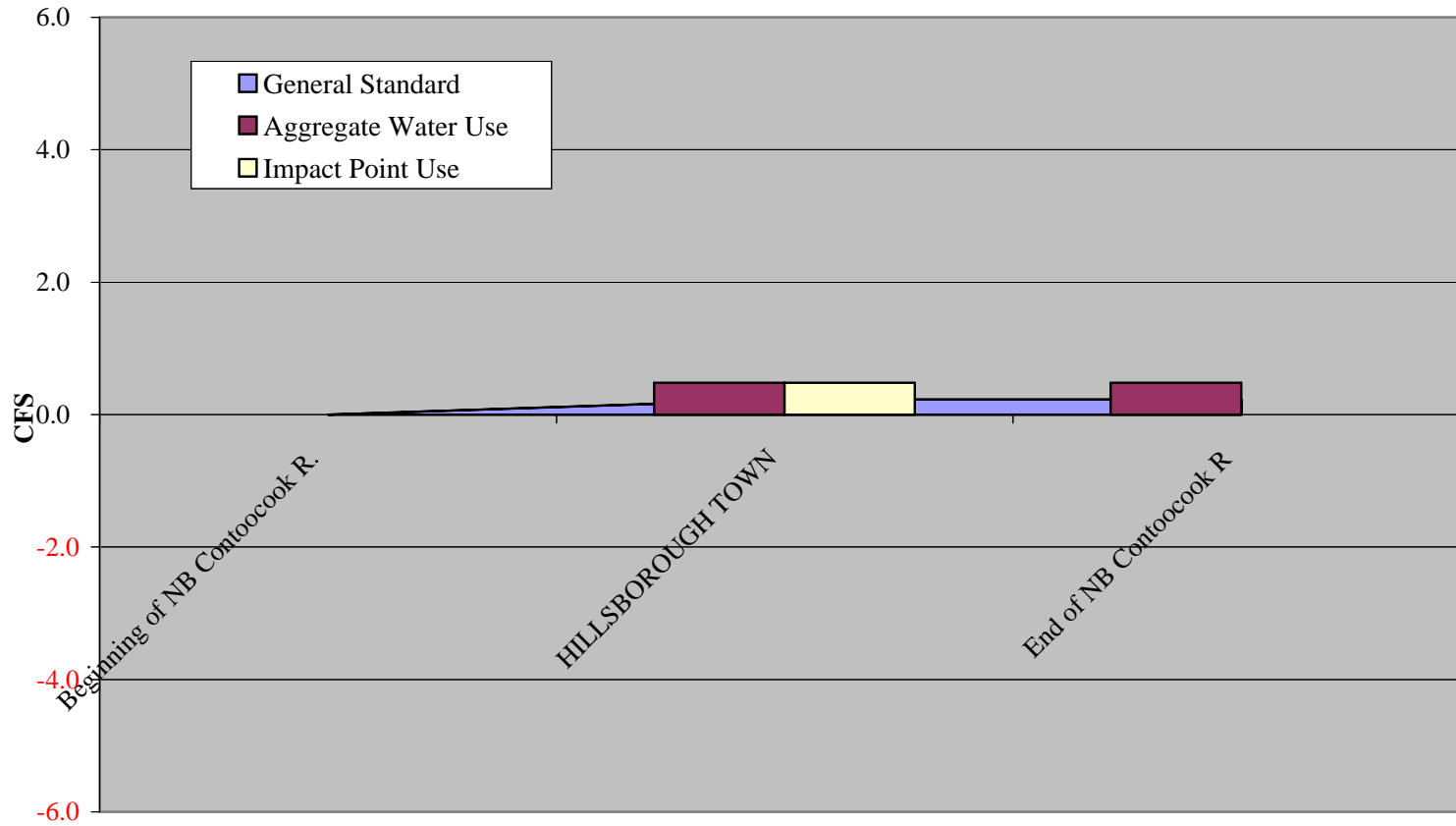
June 2004 North Branch Contoocook



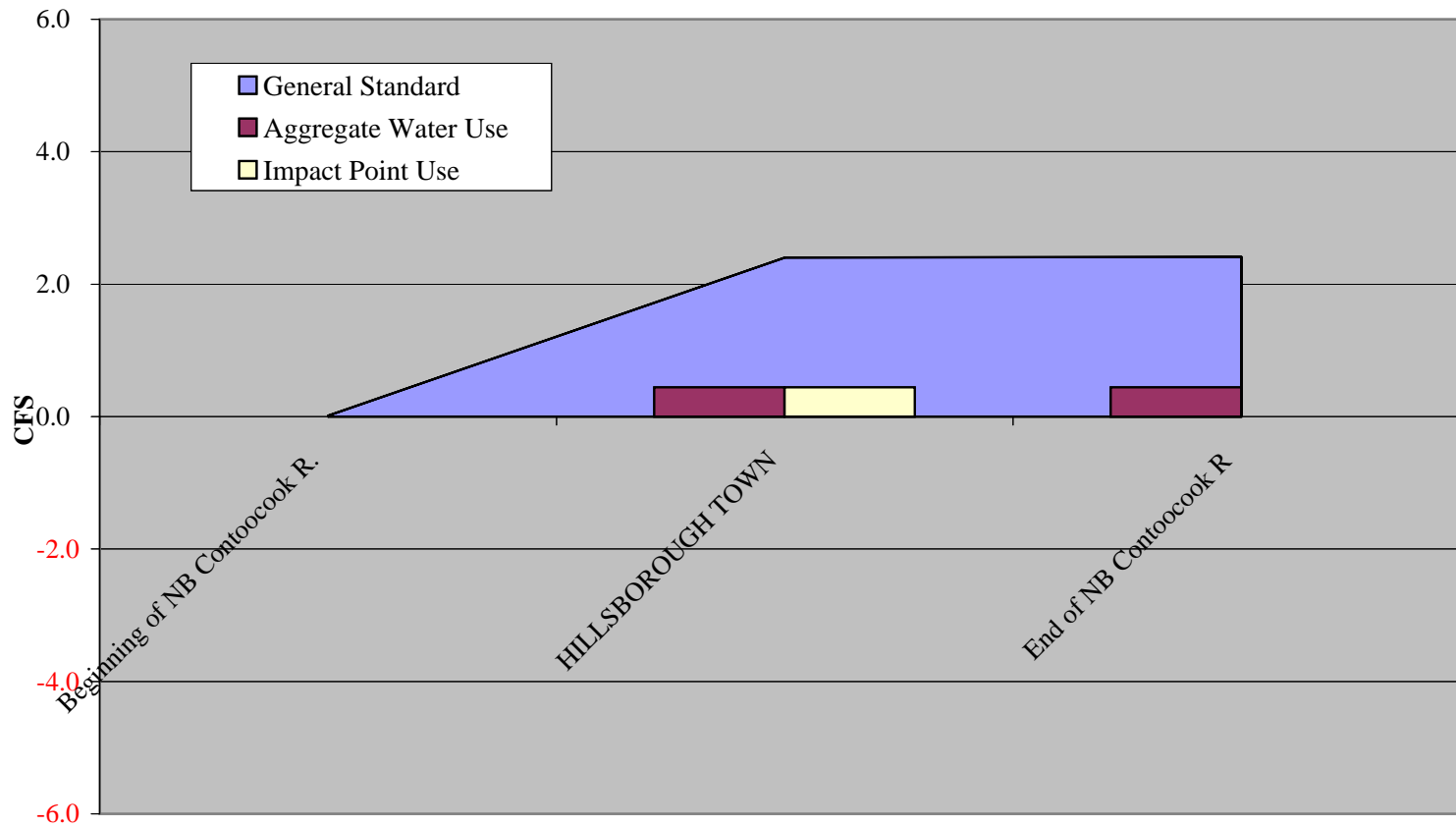
July 2004 North Branch Contoocook



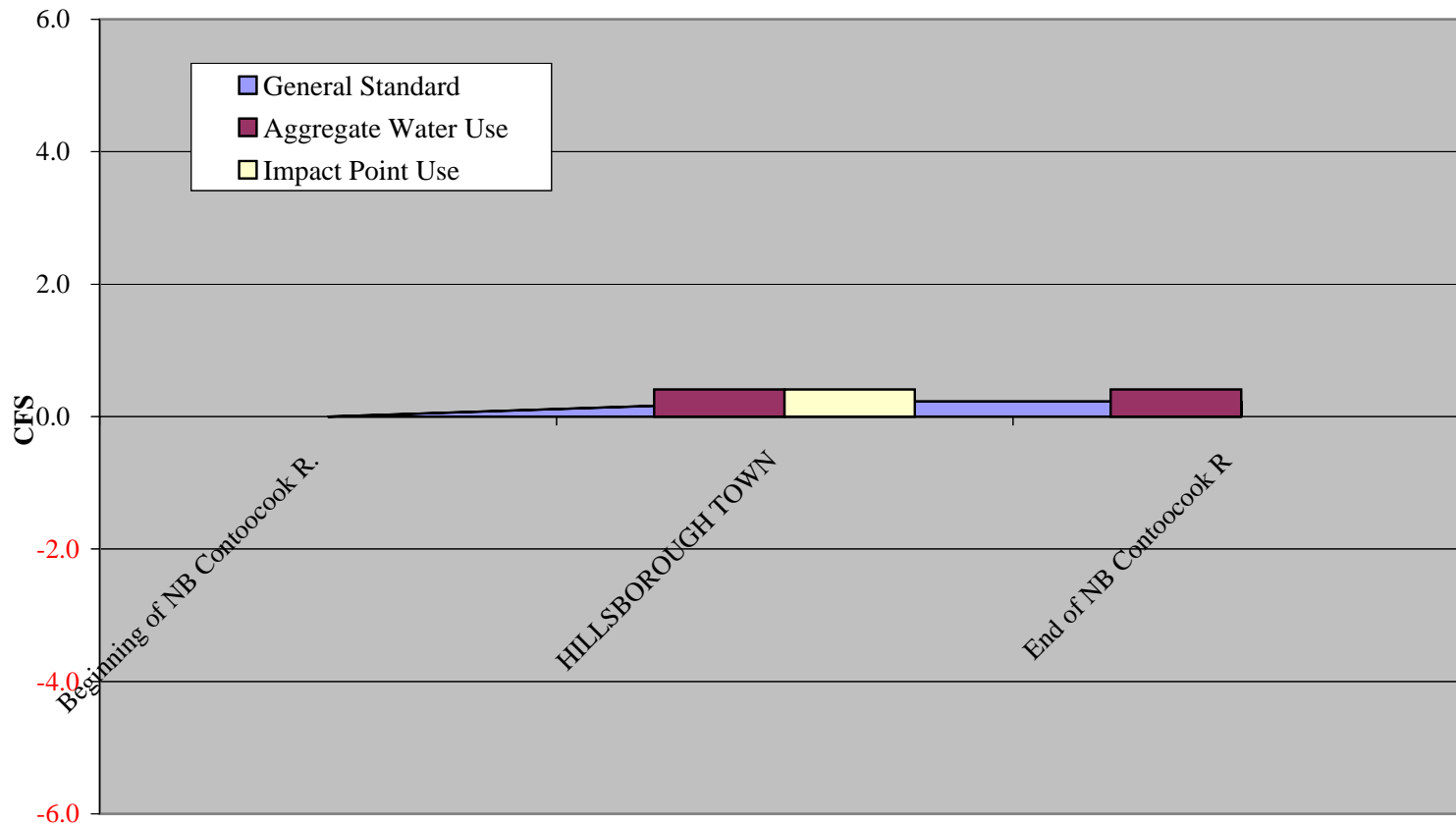
August 2004 North Branch Contoocook



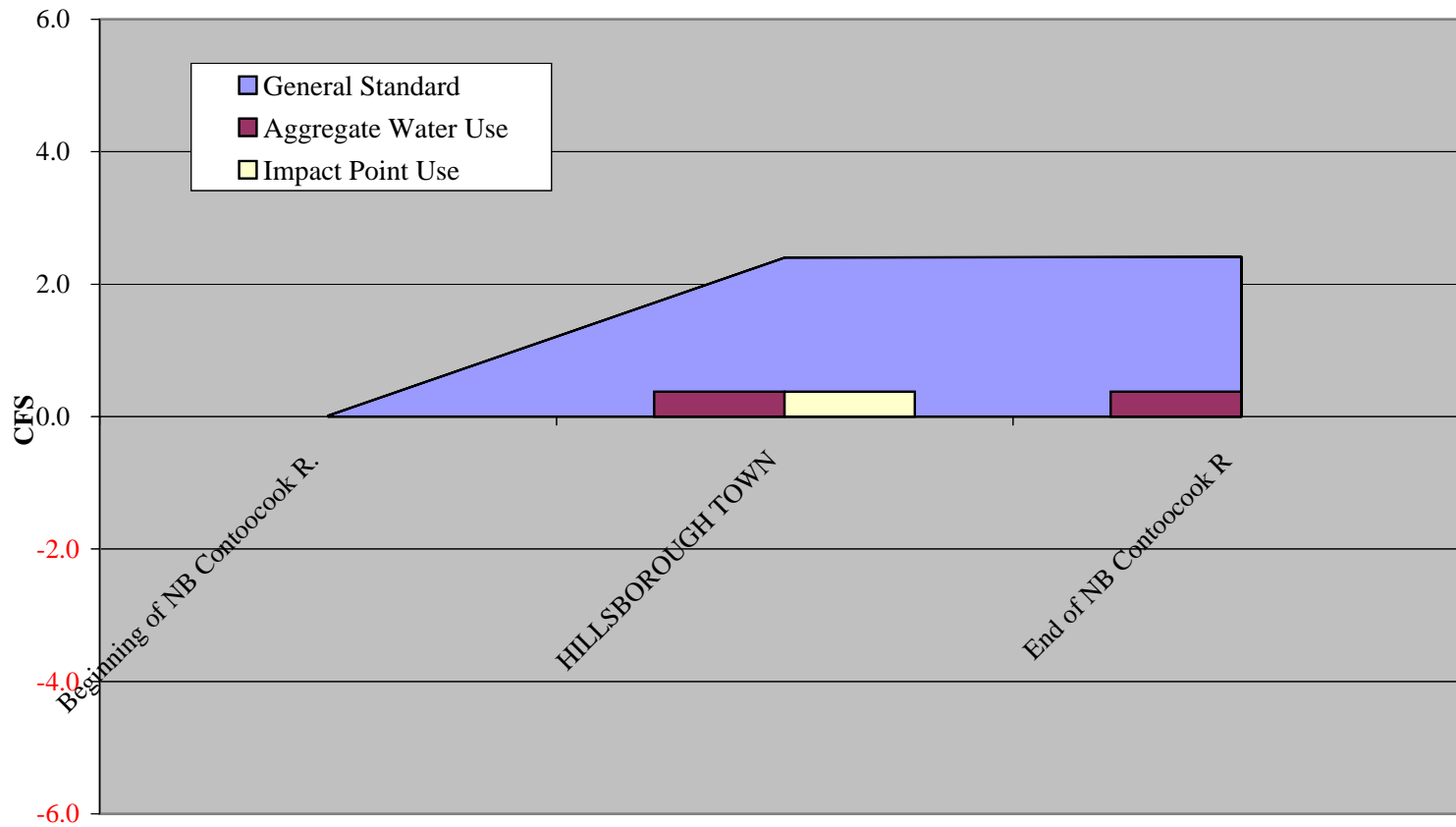
September 2004 North Branch Contoocook



October 2004 North Branch Contoocook



November 2004 North Branch Contoocook



December 2004 North Branch Contoocook

