Piscataquog Annual Water Use versus Stream Flow – Calendar Year 2005

The Piscataquog Water Management Planning Area includes the three branches of the Piscataquog River. The Piscataquog Designated River segments total 60.6 miles. The beginning of the Middle Branch is at the outlet of Scobie Pond in Francestown. The Middle Branch is 10.6 miles long. The beginning of the South Branch is in Francestown at the outlet of Pleasant Pond. The South Branch is 20.5 miles long. The Middle and South Branches join in New Boston. The beginning of the North Branch is the outlet of Deering Lake Dam. The designated portion of the North Branch is divided into three segments by Lake Horace and Everett Lake. The designated segments of the North Branch are 19.3 miles long. The South and North Branches join in Goffstown to form the main stem. The main stem continues 10.2 miles to its confluence with an undesignated segment of the Merrimack River. The assessment for the Piscataquog evaluates the North and South Branches separately. There were no registered water users in the Middle Branch subwatershed area in 2005 and so the Middle Branch is included as a tributary to the South Branch in its assessment.

Water use was reported by eight sources, three returns, and no transfers within the Piscataquog Water Management Planning Area. The eight reported sources are two golf course irrigation operations on the South Branch, one golf course irrigation operation in the North Branch watershed, and three hydropower facilities and two municipal water systems on the main stem. The water use by hydroelectric facilities located on the main stem below the confluence of the North and South Branch is not shown in the monthly graphs. Flow into a hydroelectric facility is expected to equal flow out and the General Standard does not apply to hydroelectric facilities between their point of withdrawal and point of return per Env-Ws 1903.02(d).

Water transferred from or to another watershed or water use from a source further than 500 feet from the designated river is not reported in the charts or included on the monthly graphs. Manchester Water Works transferred 8,807,923 gallons of water to the Hillsborough County Complex for institutional use in 2005 from outside the watershed. The Hillsborough County Complex transferred an unreported amount of water out of the watershed via the Goffstown sewer system to the Manchester POTW. Four additional sources used by St. Anselm College for irrigation were not included in this assessment because did they were not within 500 feet of a tributary to the Designated River. St. Anselm College received 4,179,979 gallons for irrigation during June, July, August, September, and October 2005. St. Anselm College used four wells for playing field irrigation (the highest use was 571,430,312 gallons in August 2005). The quantified unassessed water use from the four sources represents between 0.0 and 11 % of the monthly water use included in the assessment.

The Piscataquog Water Management Planning Area covers 180 square miles and includes two stream flow gages (USGS 01091500 PISCATAQUOG RIVER NEAR GOFFSTOWN, NH and USGS 01090800 PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH). However, these are partial-record stations maintained for the purposes of flood control operations. Reliability of the discharge information at low flows is variable and daily mean flow values are not published for these stations. Stream flow estimations for the Piscataquog were made instead by using three nearby continuous record gages—

> USGS 01094000 SOUHEGAN RIVER AT MERRIMACK, NH with a watershed area of 170 square miles,
> USGS 01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH with a watershed area of 68.1 square miles and

USGS 01085500 CONTOOCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH with a watershed area of 426.0 square miles.

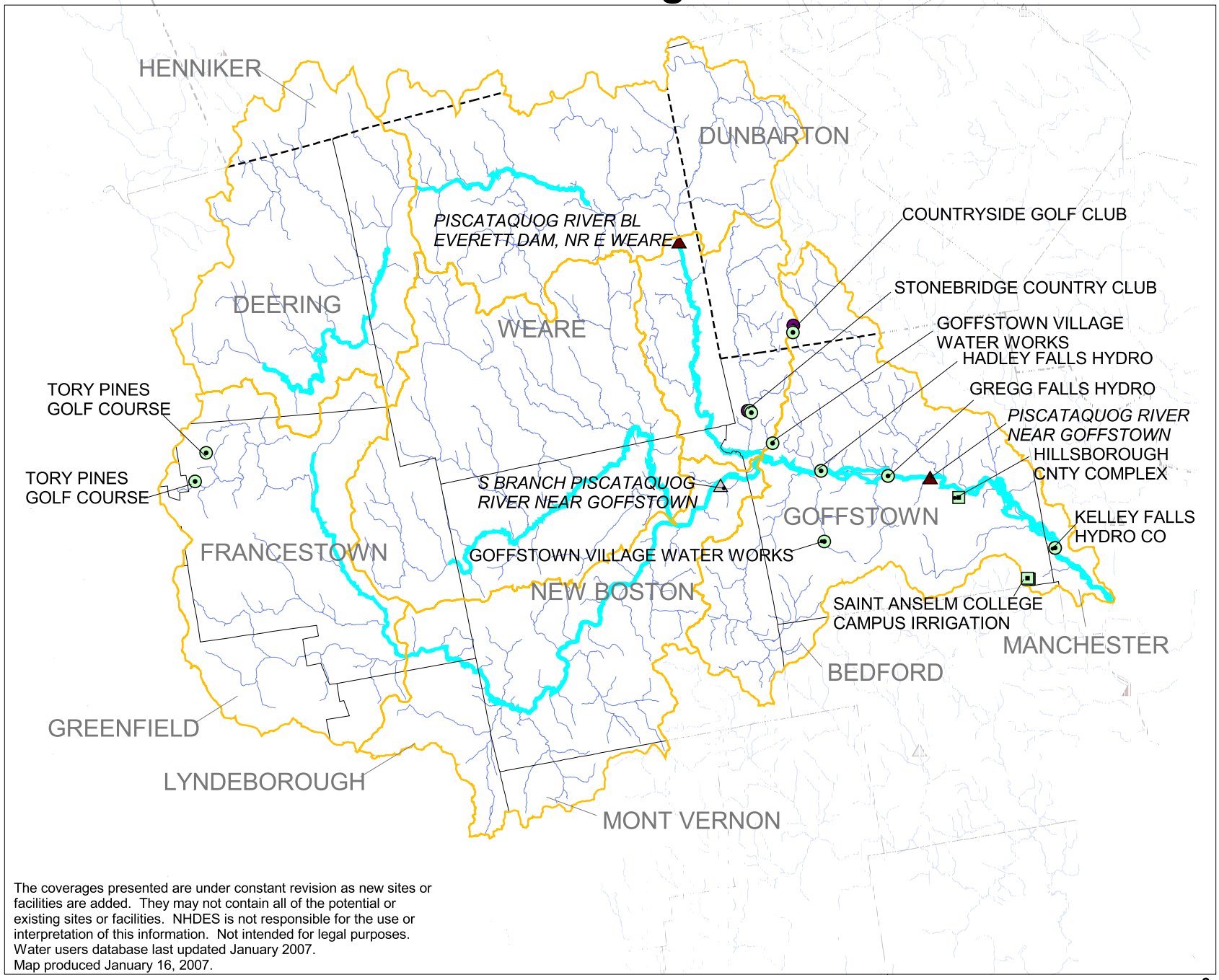
These gages are on rivers in watersheds adjacent to the Piscataquog. For this report the stream flow was transposed areal from the average of the surrogate gages to all impact points on the Designated River. There were no months when the General Standard was exceeded in the North Branch or Middle Branch. The General Standard was exceeded in the South Branch and main stem in August and September.

Piscataquog Designated River	River Miles not in Compliance with General Standard (0 at the mouth)	Length of River Miles not in Compliance with General Standard	Maximum value of Aggregate WU /Stream flow	Previously not in Compliance with the General Standard (2003 to present)	Unassessed Water Use outside 500' as a percent of the total Water Use
January	--	--	0.09%	--	0%
February	--	--	0.11%	--	0%
March	--	--	0.10%	--	0%
April	--	--	0.04%	--	0%
May	--	--	0.09%	--	0%
June	--	--	0.27%	--	5.2%
July	--	--	0.54%	2003 (SB, NB, MS) 2004 (MS)	9.9%
August	29.6 to 28.8 (SB) 0.12 to 0.0 (NB) 9.6 to 0.0 (MS)	0.78 (SB) 0.12 (NB) 9.6 (MS)	1.54%	--	11.0%
September	29.6 to 27.9 (SB) 9.6 to 0.0 (MS)	1.7 (SB) 9.6 (MS)	3.78%	--	8.5%
October	--	--	0.04%	--	0%
November	--	--	0.06%	--	0%
December	--	--	0.06%	--	0%

SB = South Branch; NB= North Branch; MB= Middle Branch; MS = Main stem

The Piscataquog Designated River drains into the Merrimack River at a location between the Upper and Lower Merrimack River Designated River segments. The results of this assessment are a component of Lower Merrimack River's assessment.

Piscataquog River Affected Water User Facilities: Source and Discharge Locations



Legend

Affected Water Users
- Source
- Discharge

Water Users
(outside of 500 ft from hydrology)
- Source
- Discharge

Stream Gages
- Active
- Inactive

- Designated Reach
- Hydrology
- State boundary
- Town boundary
- WMPA

N

0 1 2 3 4 Miles

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 January 2007.
Map produced January 16, 2007.

h:\water quality\instream flow\gisprojects\wmpa\Piscataquog_waterquality06.apr

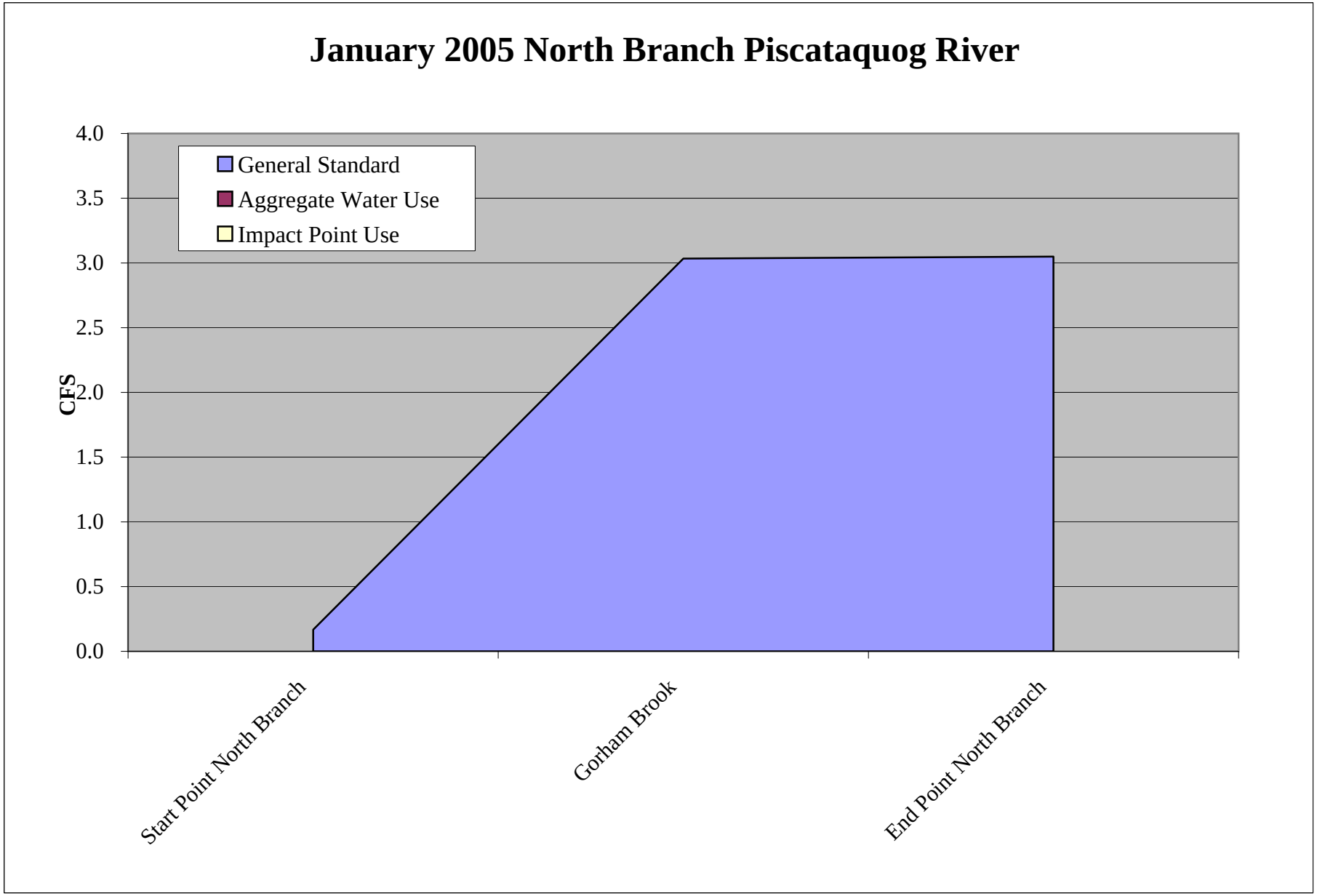
2005 North Branch Piscataquog Water Use in CFS															
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start Point North Branch			4.2												
COUNTRYSIDE GOLF CLUB		20304 20304-D01	75.8												
STONEBRIDGE COUNTRY CLUB	STONEBRIDGE COUNTRY CLUB	20721 20721-S02	75.8	0.00	0.00	0.00	0.00	0.00	0.21	0.23	0.33	0.25	0.10	0.00	0.00
STONEBRIDGE COUNTRY CLUB	STONEBRIDGE COUNTRY CLUB	20721 20721-D01	75.8												
STONEBRIDGE COUNTRY CLUB	STONEBRIDGE COUNTRY CLUB	20721 20721-S01	75.8												
Gorham Brook			75.8												
End Point North Branch			76.2												

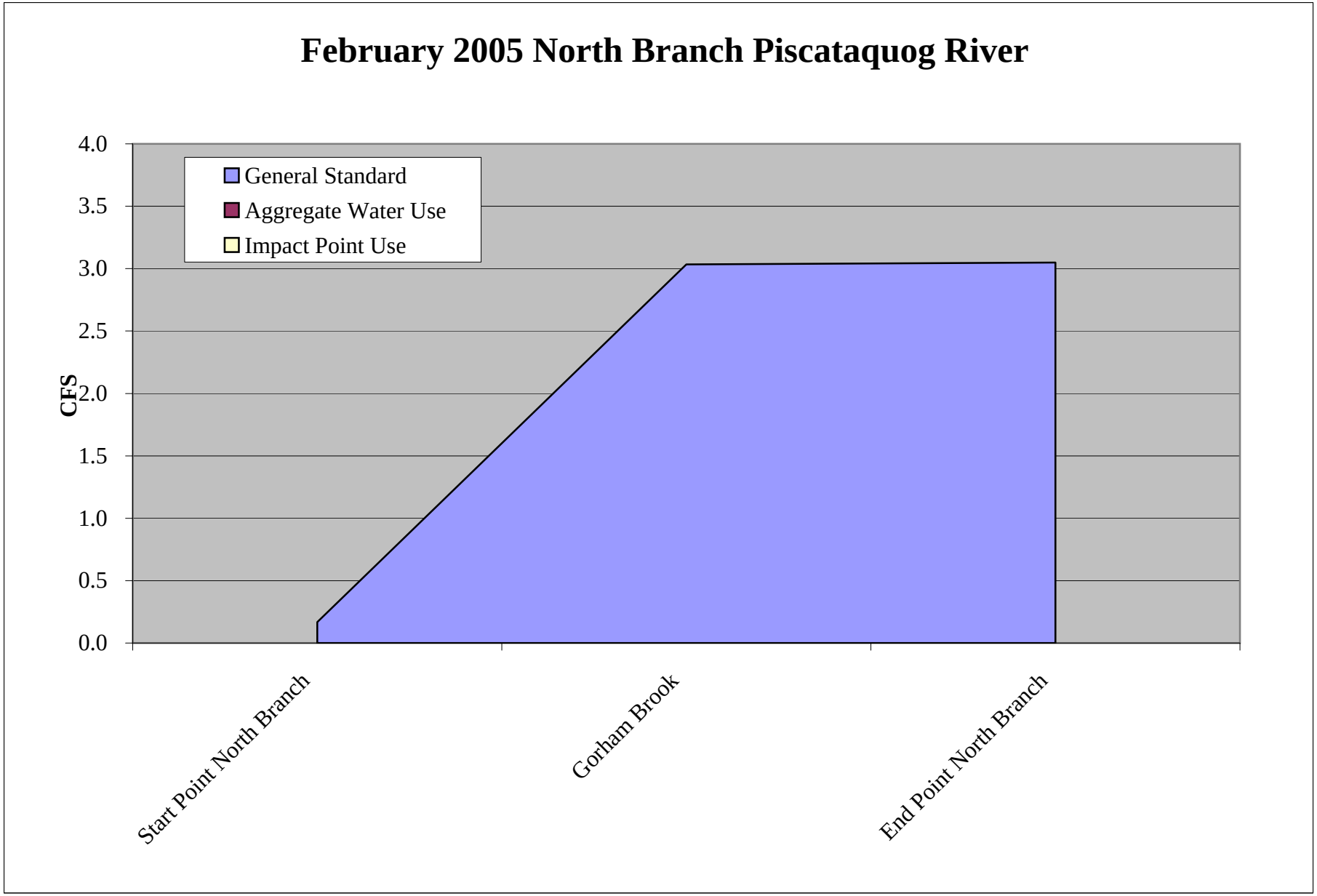
2005 North Branch Piscataquog Aggregate Water Use in CFS															
WU_NAME			DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start Point North Branch			4.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gorham Brook			75.8	0.00	0.00	0.00	0.00	0.00	0.21	0.23	0.33	0.25	0.10	0.00	0.00
End Point North Branch			76.2	0.00	0.00	0.00	0.00	0.00	0.21	0.23	0.33	0.25	0.10	0.00	0.00

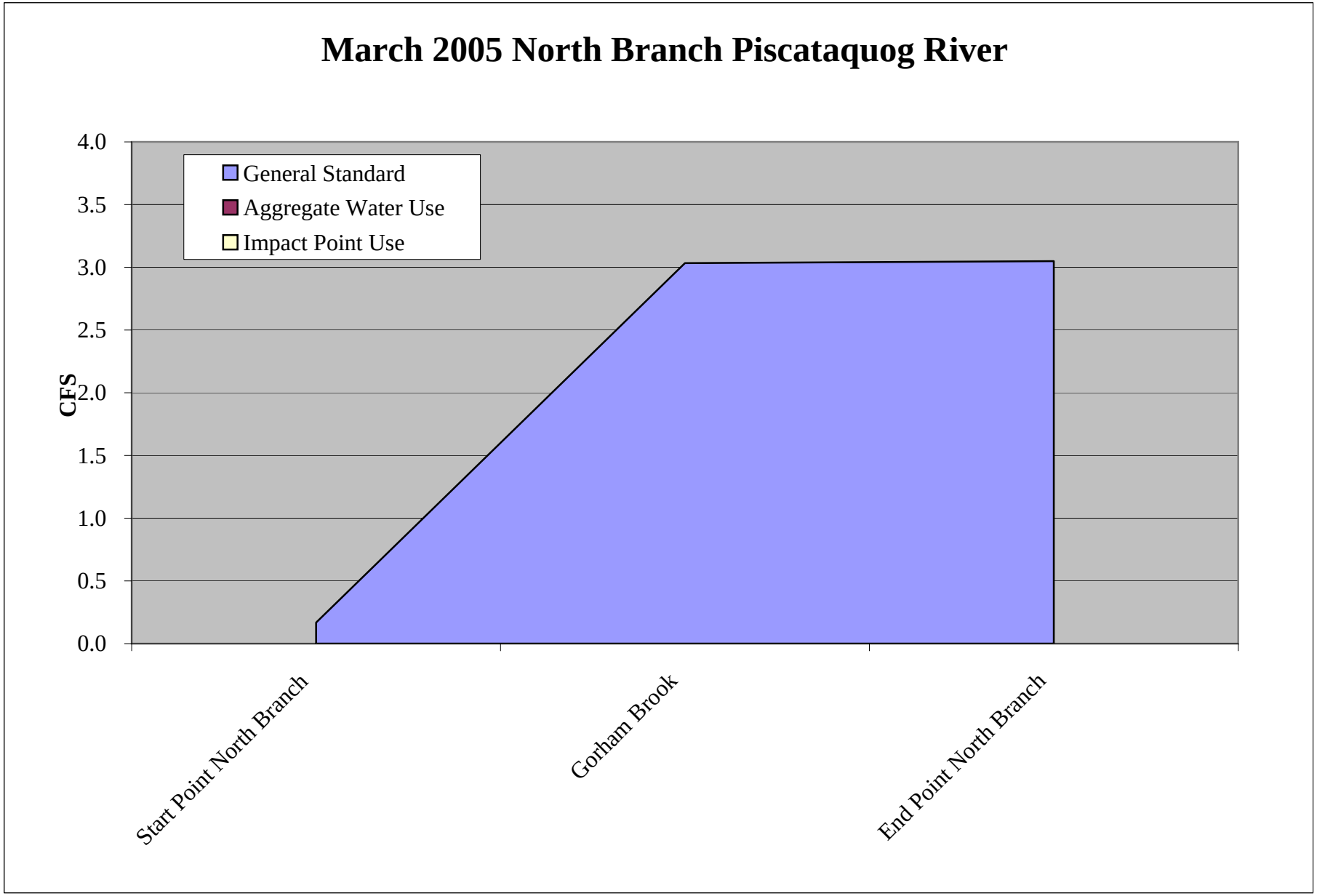
2004 North Branch Piscataquog Estimated Monthly Stream Flow at Each Impact Point in CFS	**Average of 01094000, 01082000, 01085500, and 01086000 for Piscataquog surrogate**	Calculated monthly mean streamflow in CFSM		**1.67**	**0.70**	**1.86**	**6.31**	**2.26**	**0.94**	**0.46**	**0.52**	**1.16**	**0.81**	**1.09**	**3.06**
WU_NAME			DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start North Branch			4.19	7.0	2.9	7.8	26	9.5	3.9	1.9	2.2	4.9	3.4	4.5	13
Gorham Brook			75.84	126	53	141	478	171	71	35	39	88	62	82	232
End point of North Branch			76.2	127	53	142	481	172	71	35	39	88	62	83	233

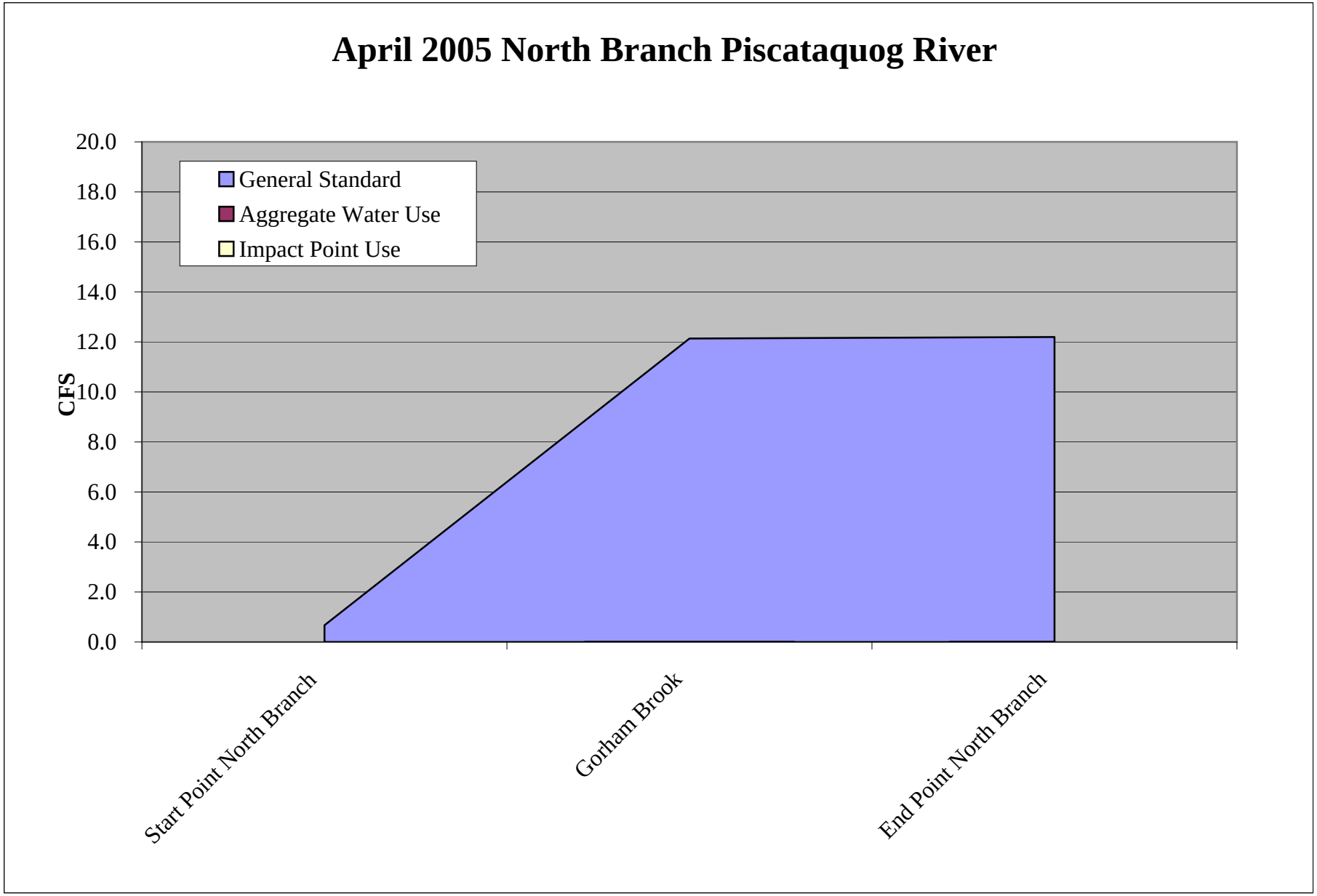
2005 North Branch Piscataquog Estimated Monthly General Standard at Each Impact Point in CFS	**Average of 01094000, 01082000, 01085500, and 01086000 for Piscataquog surrogate**	General Standard in cfsm		0.040	0.040	0.040	0.160	0.040	0.040	0.040	0.004	0.004	0.160	0.040	0.040
WU_NAME			DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start North Branch			4.19	0.2	0.2	0.2	0.7	0.2	0.2	0.2	0.0	0.0	0.7	0.2	0.2
Gorham Brook			75.84	3.0	3.0	3.0	12.1	3.0	3.0	3.0	0.3	0.3	12.1	3.0	3.0
End point of North Branch			76.2	3.0	3.0	3.0	12.2	3.0	3.0	3.0	0.3	0.3	12.2	3.0	3.0

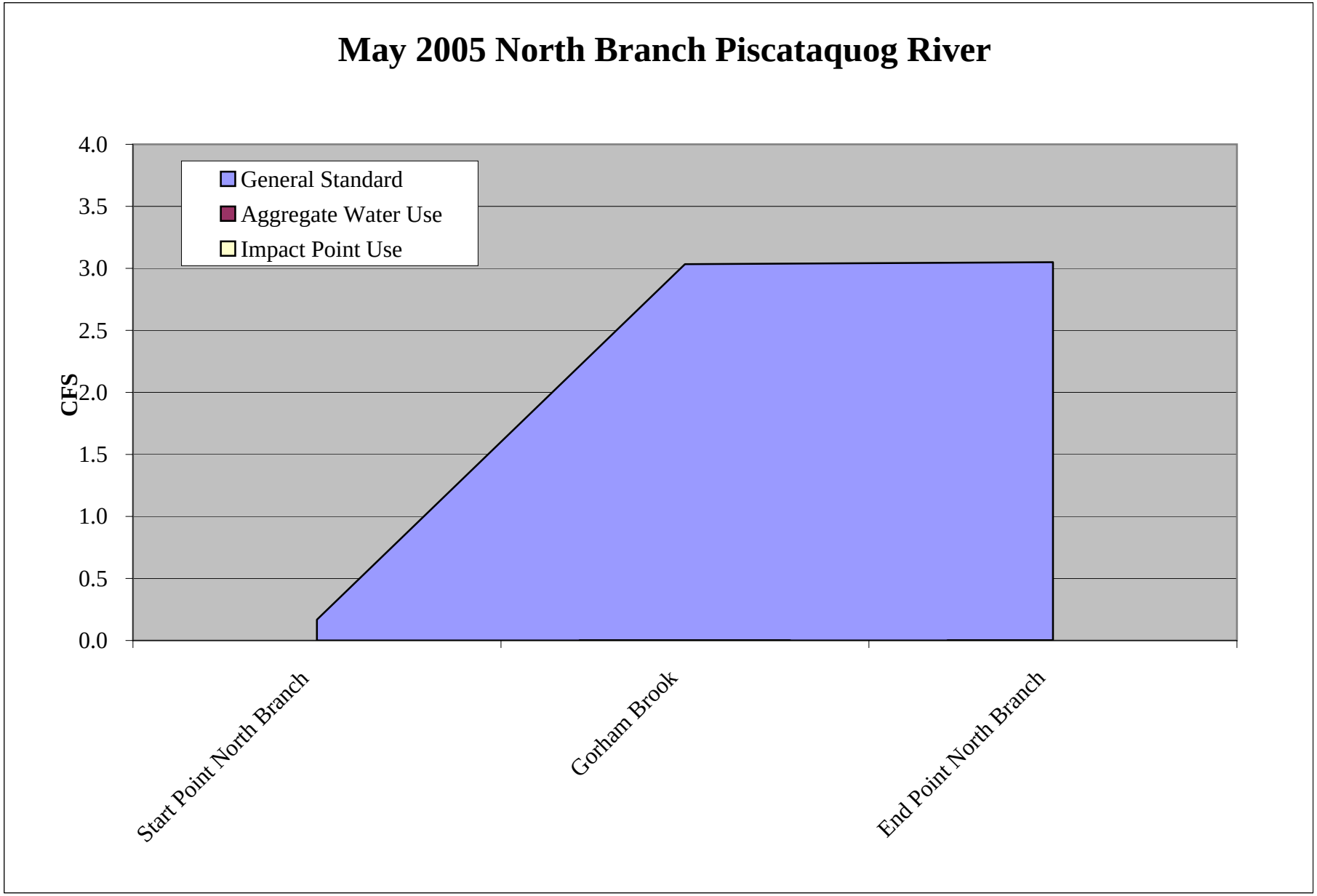
2005 North Branch Piscataquog Estimated Monthly Margin of the Aggregate Water Use Below the General Standard															
WU_NAME			DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start North Branch			4.19	0.17	0.17	0.17	0.67	0.17	0.17	0.17	0.02	0.02	0.67	0.17	0.17
Gorham Brook			75.84	3.03	3.03	3.03	12.13	3.03	2.82	2.80	(0.05)	0.03	12.04	3.03	3.03
End point of North Branch			76.2	3.05	3.05	3.05	12.19	3.05	2.84	2.82	(0.05)	0.03	12.10	3.05	3.05

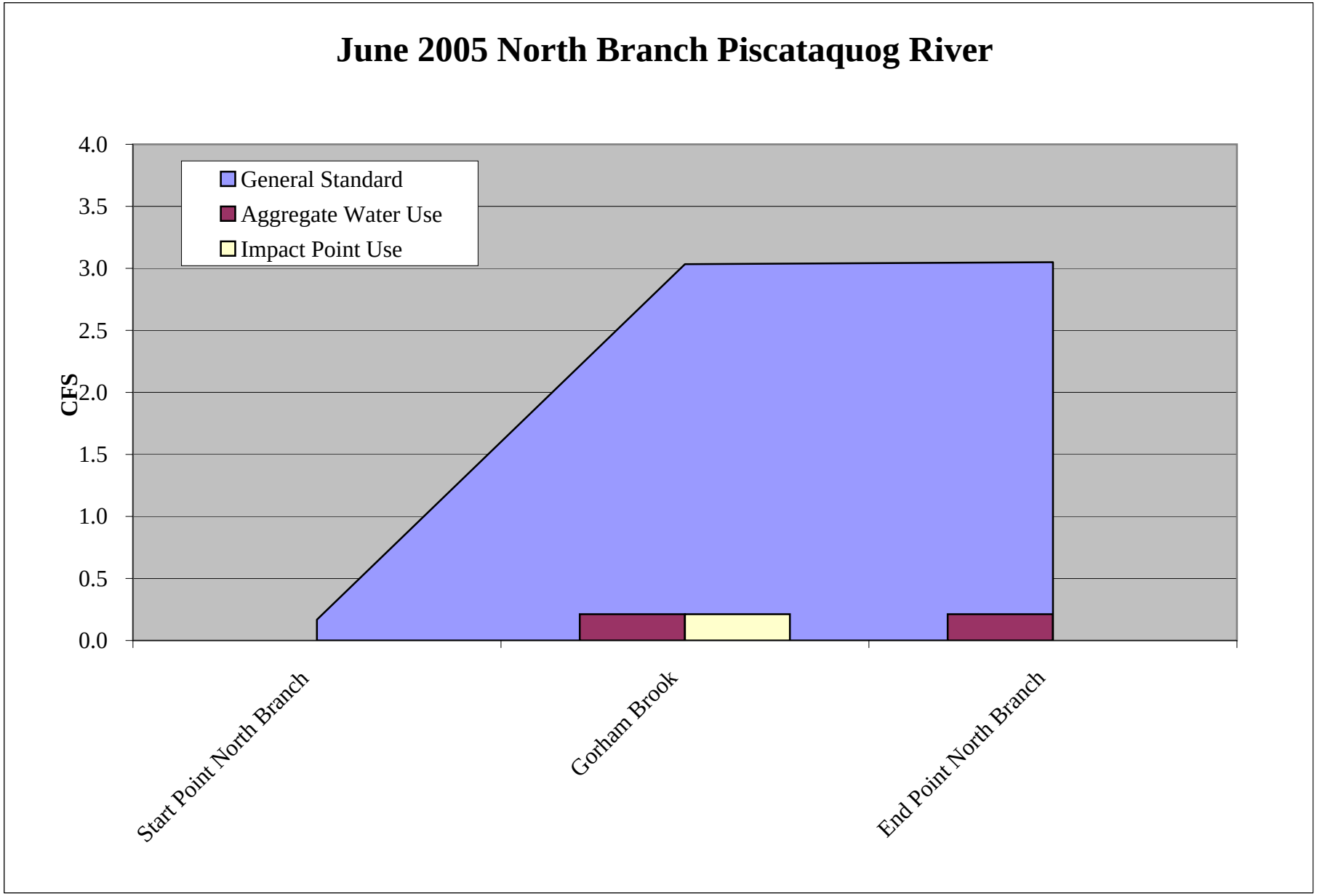

January 2005 North Branch Piscataquog River
General Standard
Aggregate Water Use
Impact Point Use
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Start Point North Branch
Gorham Brook
End Point North Branch

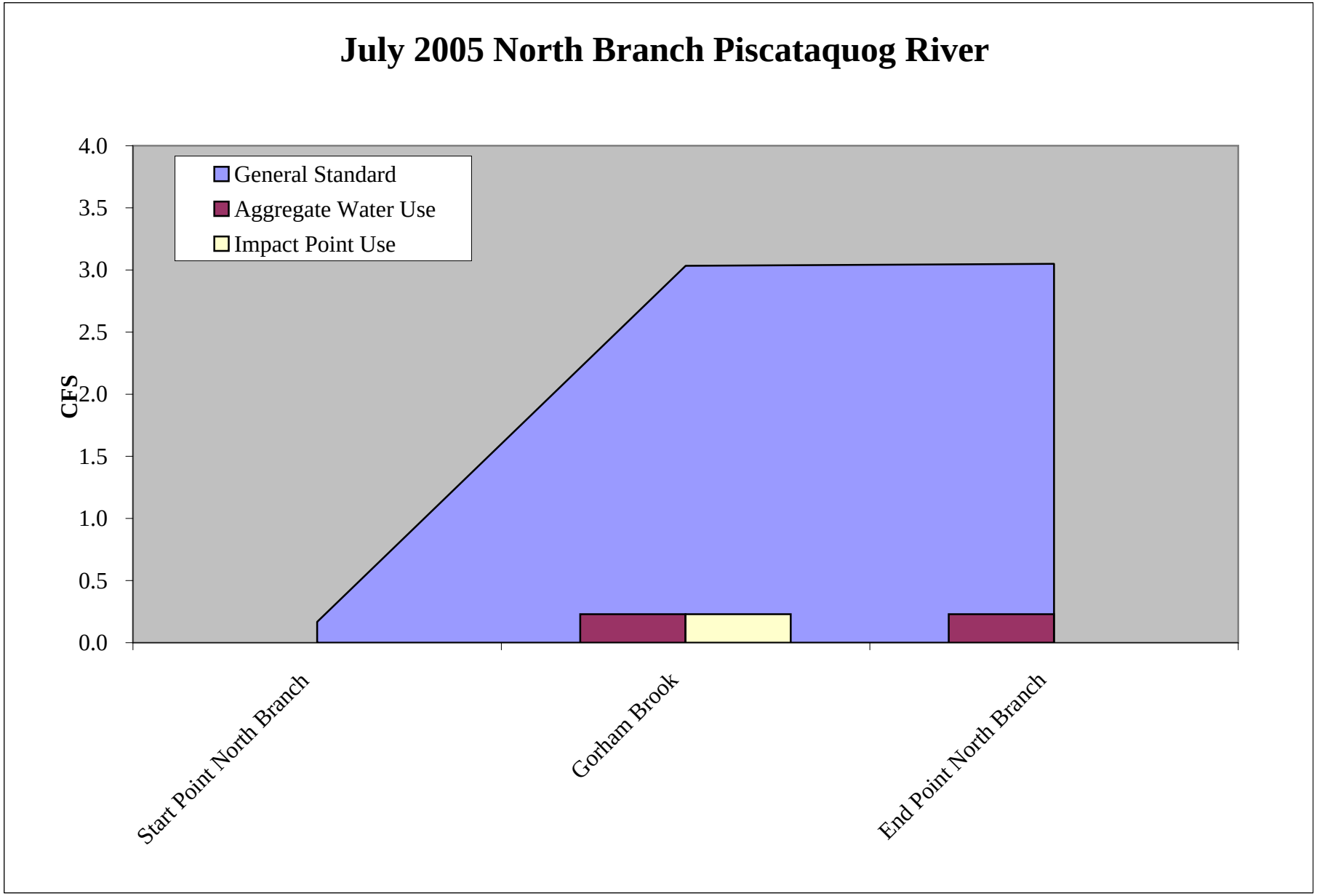

February 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch

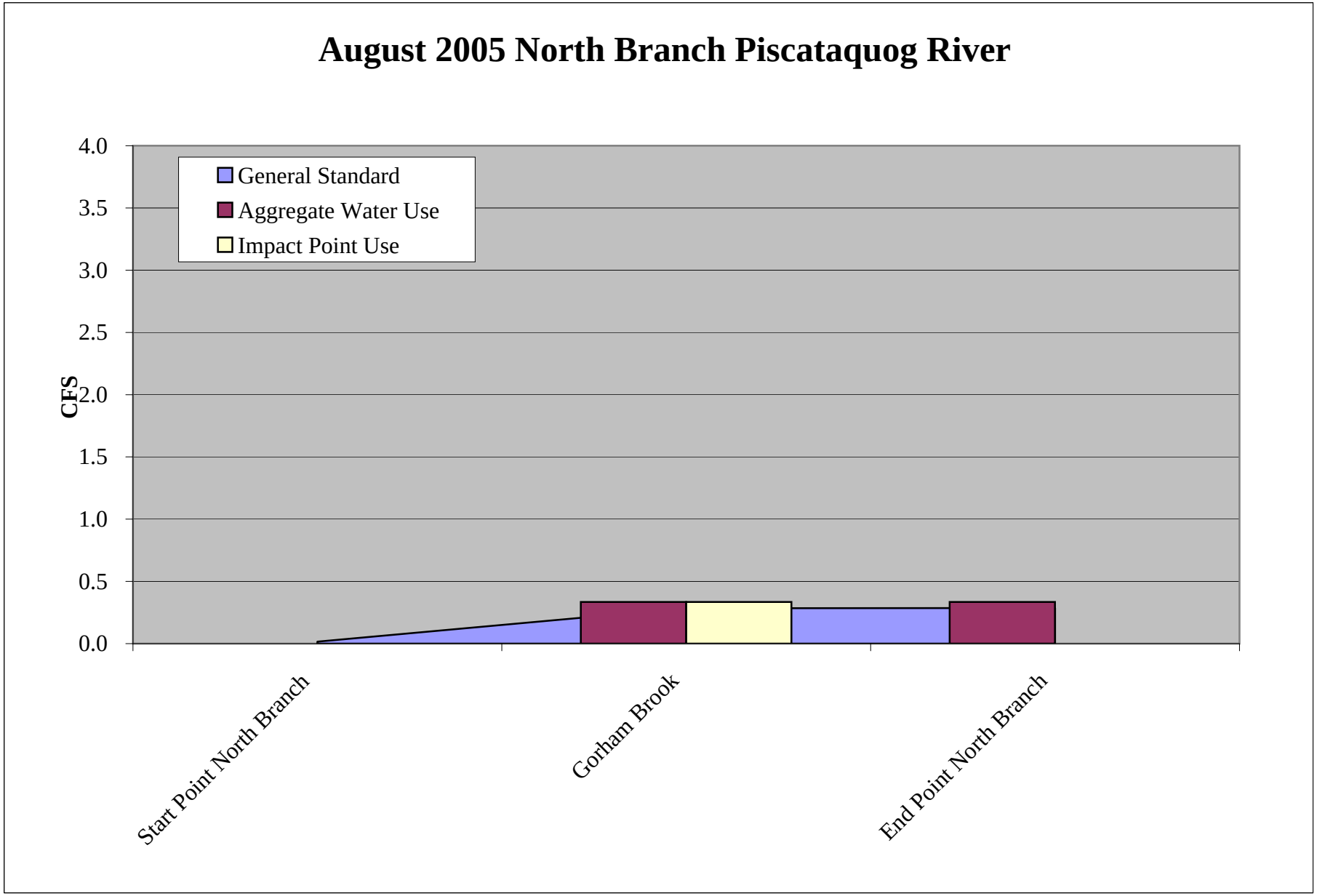

March 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch

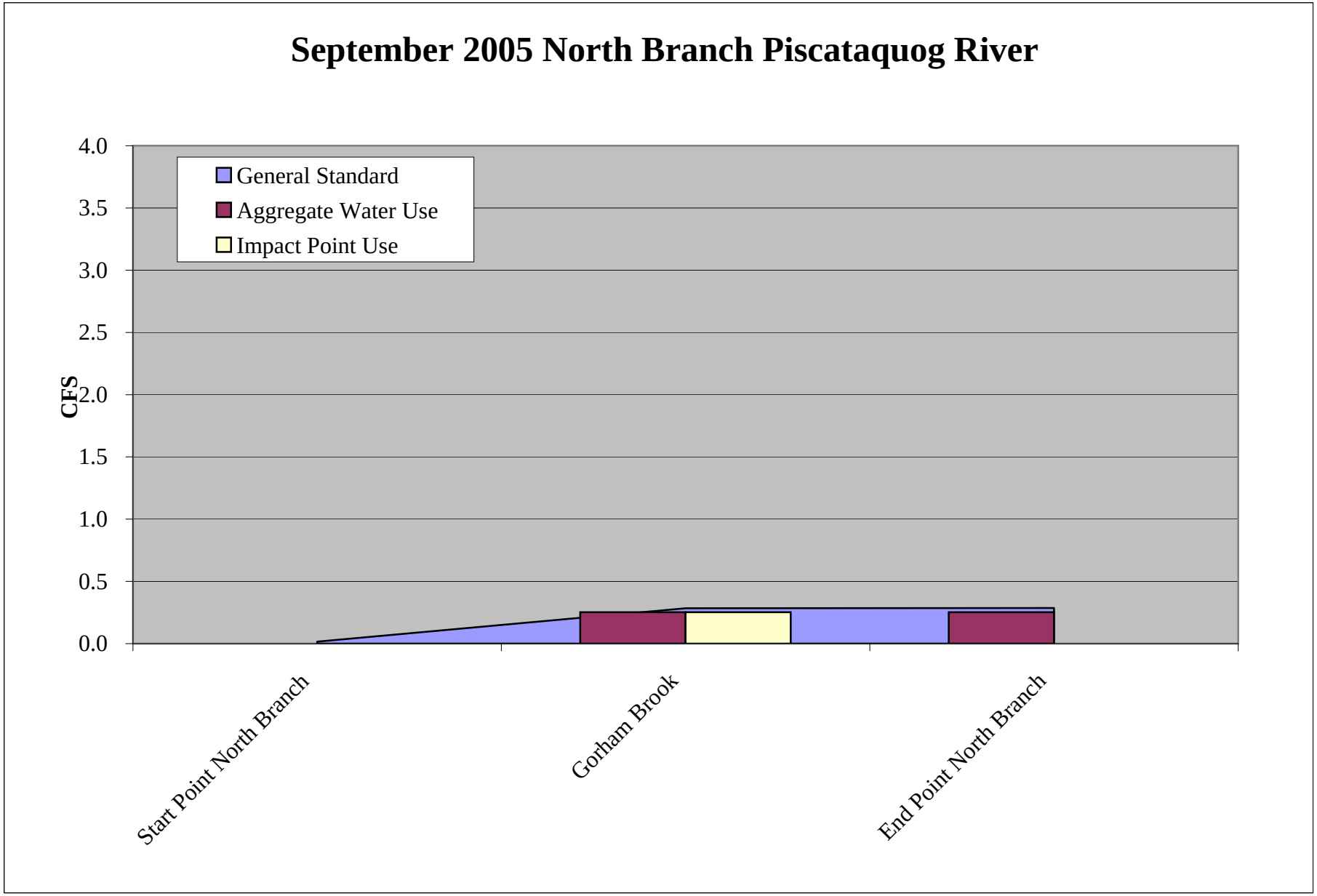

April 2005 North Branch Piscataquog River
CFS
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch

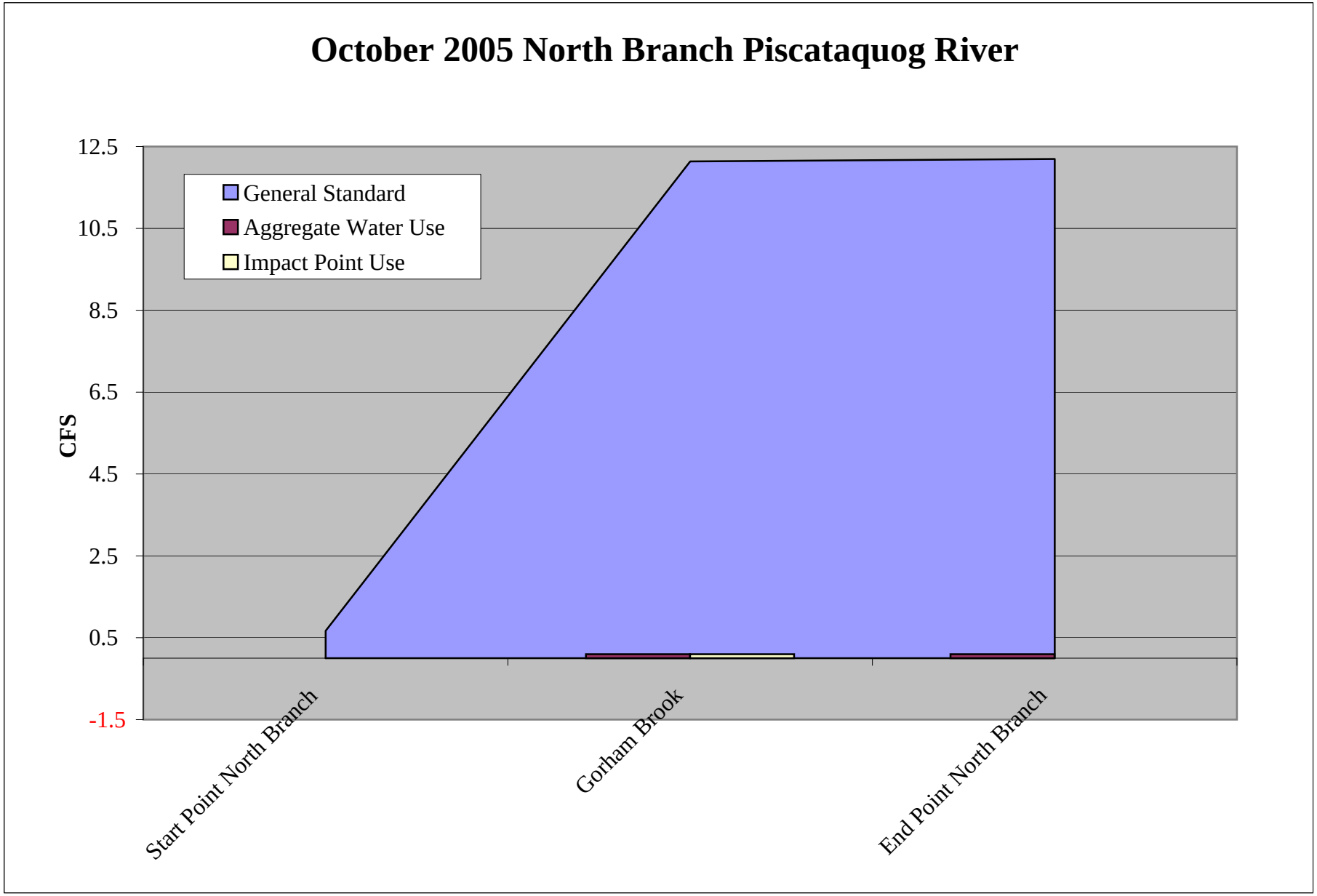

May 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch

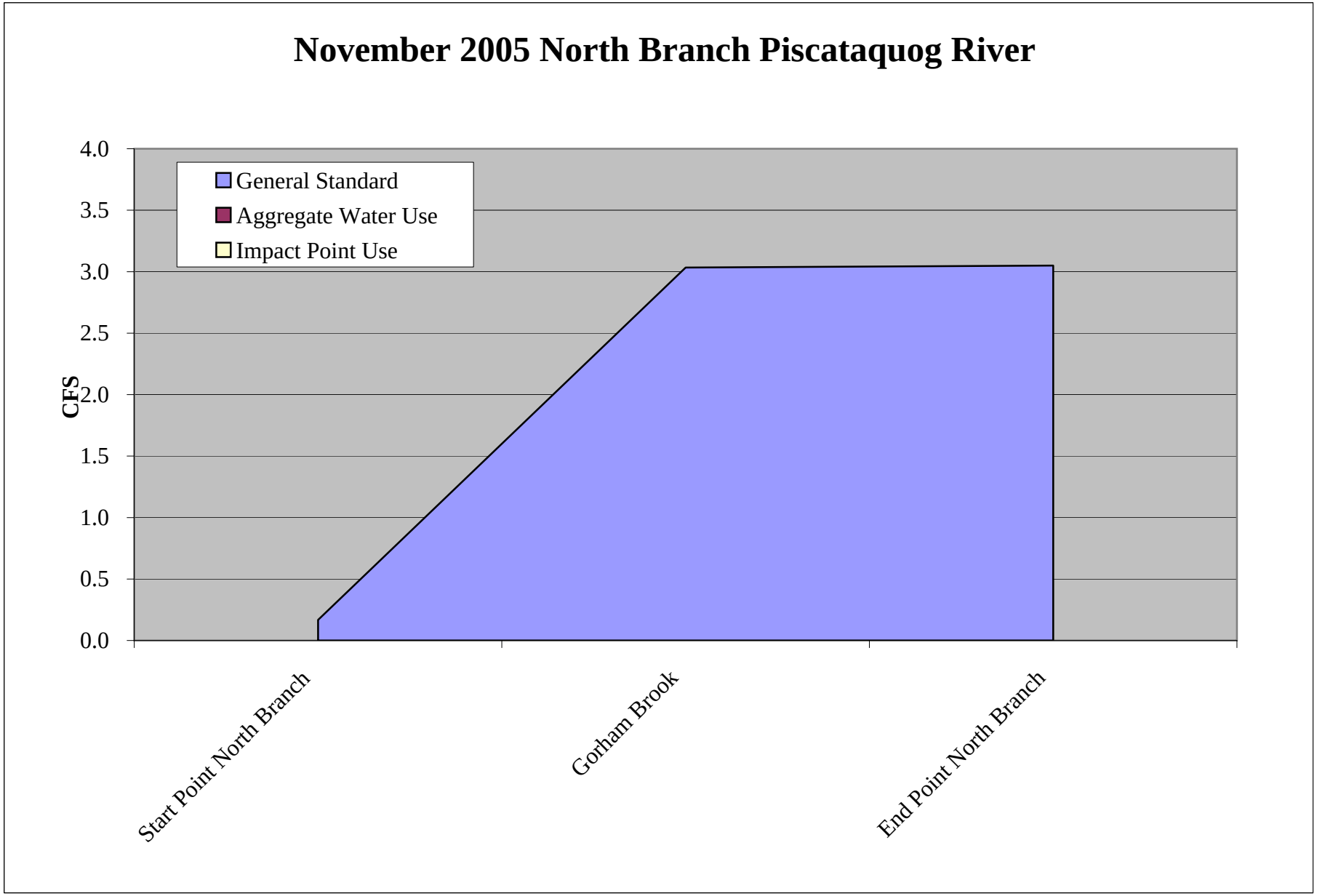

June 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch

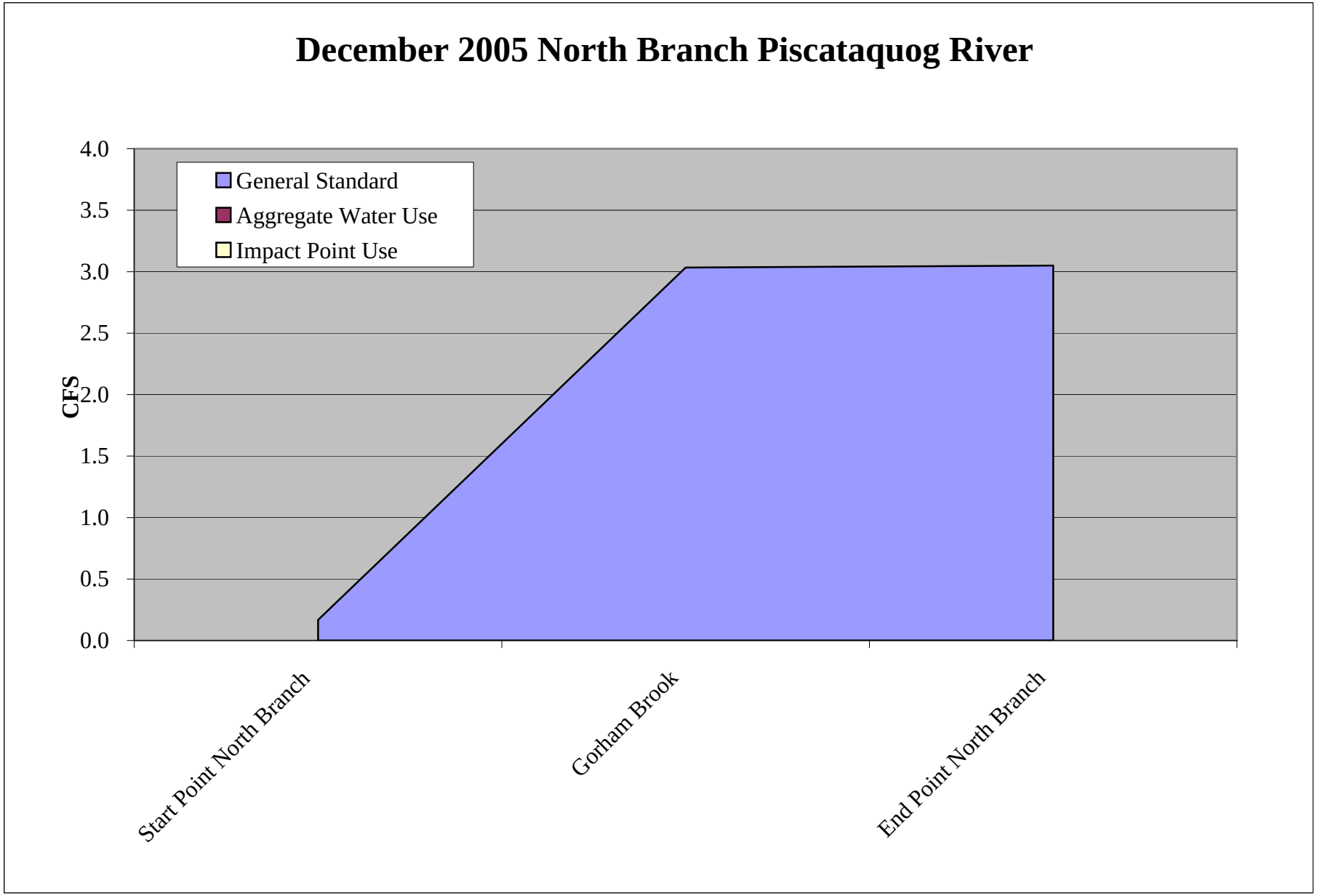

July 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch


August 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch


September 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch


October 2005 North Branch Piscataquog River
CFS
12.5
10.5
8.5
6.5
4.5
2.5
0.5
-1.5
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch


November 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch


December 2005 North Branch Piscataquog River
CFS
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start Point North Branch
Gorham Brook
End Point North Branch

2005 South B Piscataquog 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
Start point South Branch	Pleasant Pond		2.7	0	0	0	0	0	0	0	0	0	0	0	0
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S01	11.2	0	0	0	0	0.01	0.02	0.05	0.03	0.05	0	0	0
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S02	11.2	0	0	0	0	0.02	0.03	0.04	0.04	0.04	0	0	0
End point Middle Branch			41.4	0	0	0	0	0	0	0	0	0	0	0	0
End of North Branch			76.2	0	0	0	0	0.00	0.21	0.23	0.33	0.25	0.10	0	0
Confluence North and South Br	End Points Seg 1 North & South Branch		180.1	0	0	0	0.01	0.02	0.26	0.31	0.40	0.35	0.10	0	0
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S02	180.5	0	0	0	0	0	0	0	0.38	0.39	0.43	0.23	0
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S01	192.4	0.41	0.41	0.42	0.48	0.53	0.58	0.61	0.20	0.14	0	0.19	0.35
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-S01	193.7	117.12	148.45	139.33	122.29	82.30	85.96	84.48	16.50	0.65	4.24	75.54	45.60
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-D01	193.7	(117.12)	(148.45)	(139.33)	(122.29)	(82.30)	(85.96)	(84.48)	(16.50)	(0.65)	(4.24)	(75.54)	(45.60)
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-S01	197.7	327.83	354.61	437.00	576.08	409.88	276.62	144.51	34.25	1.86	459.68	510.08	366.84
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-D01	197.7	(327.83)	(354.61)	(437.00)	(576.08)	(409.88)	(276.62)	(144.51)	(34.25)	(1.86)	(459.68)	(510.08)	(366.84)
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-S01	216.0	287.47	240.61	220.50	181.35	171.57	111.33	63.27	0.26	1.64	92.65	89.17	111.18
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-D01	216.0	(287.47)	(240.61)	(220.50)	(181.35)	(171.57)	(111.33)	(63.27)	(0.26)	(1.64)	(92.65)	(89.17)	(111.18)
End point of DR	Confluence Merrimack and Piscataquog		217.5	0	0	0	0	0	0	0	0	0	0	0	0

2005 South B Piscataquog Aggregate Water Use in CFS

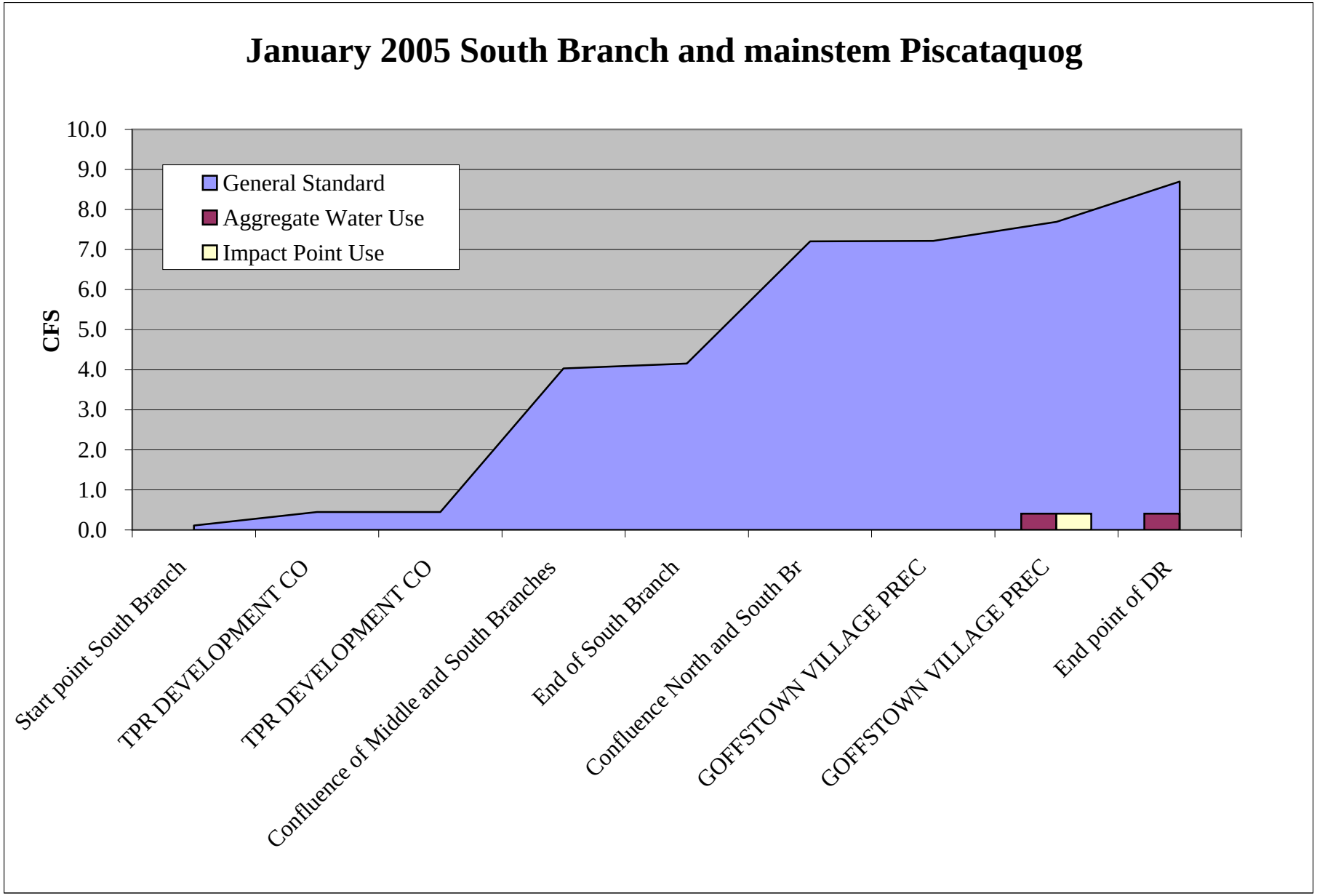
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start point South Branch	Pleasant Pond		2.7	0	0	0	0	0	0	0	0	0	0	0	0
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S01	11.2	0	0	0	0.002	0.006	0.024	0.049	0.032	0.054	0.004	0	0
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S02	11.2	0	0	0	0.005	0.023	0.051	0.084	0.067	0.097	0.007	0	0
Confluence of Middle and South Branches	Confluence Middle and South Branch		100.8	0	0	0	0.005	0.023	0.051	0.084	0.067	0.097	0.007	0	0
End of South Branch			103.9	0	0	0	0.005	0.023	0.051	0.084	0.067	0.097	0.007	0	0
Confluence North and South Br	End Points Seg 1 North & South Branch		180.1	0	0	0	0.007	0.024	0.263	0.313	0.402	0.349	0.105	0	0
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S02	180.5	0	0	0	0.0070	0.02	0.26	0.31	0.79	0.74	0.534	0	0
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S01	192.4	0.41	0.41	0.42	0.48	0.55	0.85	0.92	0.98	0.88	0.53	0.42	0.35
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-S01	193.7												
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-D01	193.7	0.41	0.41	0.42	0.48	0.55	0.85	0.92	0.98	0.88	0.53	0.42	0.35
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-S01	197.7												
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-D01	197.7	0.41	0.41	0.42	0.48	0.55	0.85	0.92	0.98	0.88	0.53	0.42	0.35
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-S01	216.0												
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-D01	216.0	0.41	0.41	0.42	0.49	0.58	0.90	1.01	1.05	0.98	0.54	0.42	0.35
End point of DR	Confluence Merrimack and Piscataquog		217.5	0.41	0.41	0.42	0.49	0.58	0.90	1.01	1.05	0.98	0.54	0.42	0.35

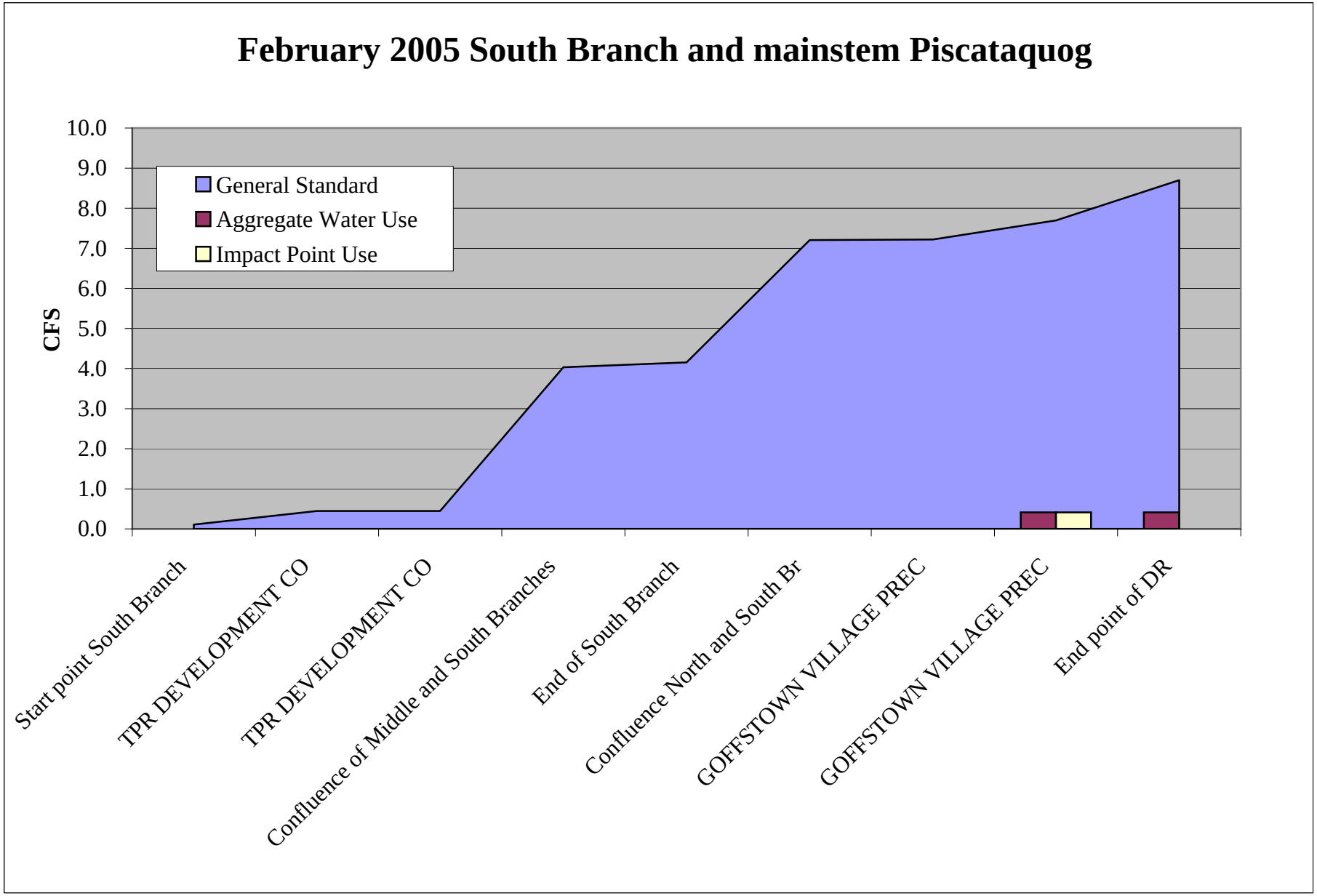
2005 South Br Piscataquog Estimated Monthly Stream Flow at Each Impact Point in CFS	**Average of 01094000, 01082000, 01085500, and 01086000 for Piscataquog surrogate**	**Calculated monthly mean streamflow in CFSM**		**2.36**	**1.88**	**2.19**	**6.49**	**3.22**	**1.69**	**1.38**	**0.39**	**0.23**	**6.66**	**3.59**	**3.33**
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start point South Branch	Pleasant Pond		2.7	6.4	5.1	6.0	17.6	8.7	4.6	3.8	1.1	0.6	18.1	9.8	9.0
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S01	11.2	26	21.0	24	72	36	19	15.4	4.4	3	74.4	40	37
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S02	11.2	26	21.0	24	72	36	19	15.4	4.4	3	74.4	40	37
End point Middle Branch			41.4	98	78	91	269	133	70	57	16	9	276	149	138
Confluence of Middle and South Branches	Confluence Middle and South Branch		100.8	238	190	221	654	324	171	139	39	23	671	362	336
End of South Branch			103.9	245	195	228	675	334	176	144	41	24	692	373	346
Confluence North and South Br	End Points Seg 1 North & South Branch		180.1	425	339	395	1170	579	305	249	70	41	1200	647	600
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S02	180.5	426	340	396	1172	580	306	250	70	41	1203	649	602
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S01	192.4	454	362	422	1249	619	326	266	75	44	1282	692	641
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-S01	193.7												
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-D01	193.7	457	364	425	1258	623	328	268	76	44	1291	696	646

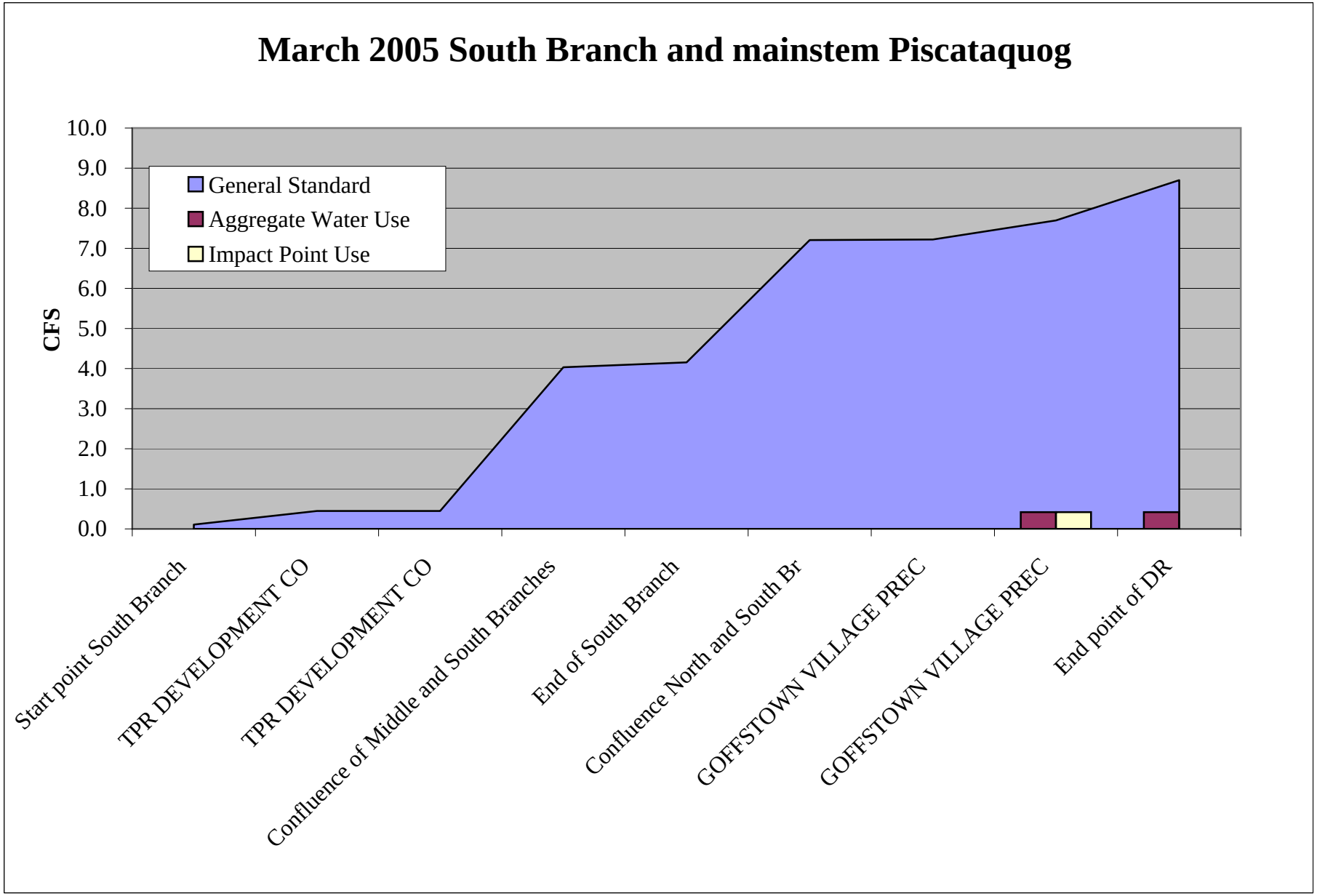
2005 South Br Piscataquog Estimated Monthly Stream Flow at Each Impact Point in CFS	**Average of 01094000, 01082000, 01085500, and 01086000 for Piscataquog surrogate**	**Calculated monthly mean streamflow in CFSM**		**2.36**	**1.88**	**2.19**	**6.49**	**3.22**	**1.69**	**1.38**	**0.39**	**0.23**	**6.66**	**3.59**	**3.33**
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-S01	197.7												
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-D01	197.7	466	372	434	1284	636	335	274	77	45	1318	711	659
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-S01	216.0												
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-D01	216.0	509	406	474	1403	695	366	299	84	49	1439	776	720
End point of DR	Confluence Merrimack and Piscataquog		217.5	513	409	477	1412	700	369	301	85	50	1449	782	725

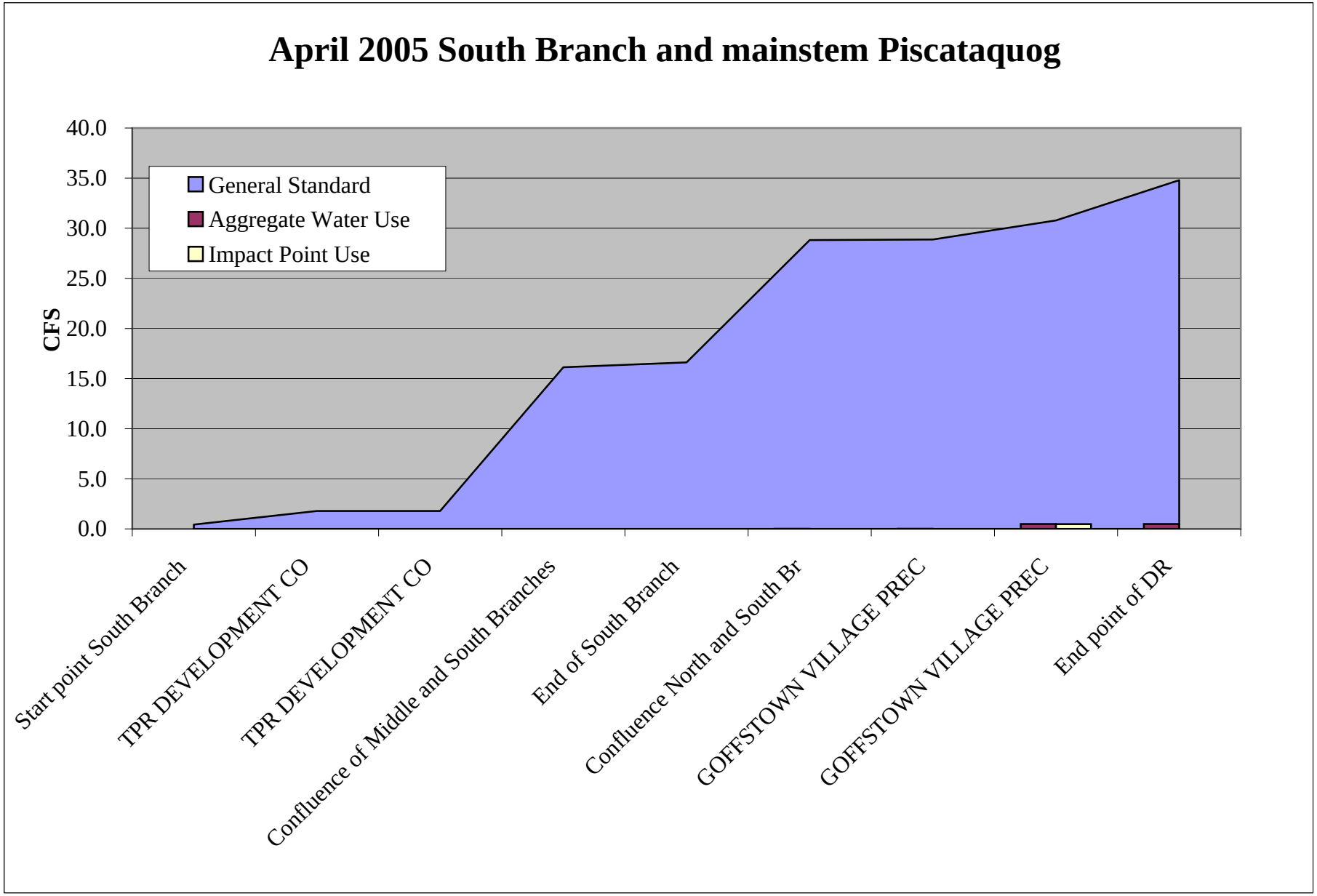
2005 South Br Piscataquog Estimated Monthly General Standard at Each Impact Point in CFS	**Average of 01094000, 01082000, 01085500, and 01086000 for Piscataquog surrogate**	**General Standard in cfsm**		**0.04**	**0.04**	**0.04**	**0.16**	**0.04**	**0.04**	**0.04**	**0.004**	**0.004**	**0.16**	**0.04**	**0.04**
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start point South Branch	Pleasant Pond		2.7	0.11	0.11	0.11	0.43	0.11	0.11	0.11	0.010	0.010	0.43	0.11	0.11
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S01	11	0.45	0.45	0.45	1.8	0.45	0.45	0.45	0.04	0.04	1.8	0.45	0.45
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S02	11	0.45	0.45	0.45	1.8	0.45	0.45	0.45	0.04	0.04	1.8	0.45	0.45
End point Middle Branch			41	1.7	1.7	1.7	6.6	1.7	1.7	1.7	0.16	0.16	6.6	1.7	1.7
Confluence of Middle and South Branches	Confluence Middle and South Branch		101	4.0	4.0	4.0	16	4.0	4.0	4.0	0.38	0.38	16	4.0	4.0
End of South Branch			104	4.2	4.2	4.2	17	4.2	4.2	4.2	0.39	0.39	17	4.2	4.2
Confluence North and South Br	End Points Seg 1 North & South Branch		180	7.2	7.2	7.2	29	7.2	7.2	7.2	0.68	0.68	29	7.2	7.2
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S02	180	7.2	7.2	7.2	29	7.2	7.2	7.2	0.68	0.68	29	7.2	7.2
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S01	192	7.7	7.7	7.7	31	7.7	7.7	7.7	0.72	0.72	31	7.7	7.7
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-S01	194												
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-D01	194	7.7	7.7	7.7	31	7.7	7.7	7.7	0.73	0.73	31	7.7	7.7
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-S01	198												
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-D01	198	7.9	7.9	7.9	32	7.9	7.9	7.9	0.74	0.74	32	7.9	7.9
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-S01	216												
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-D01	216	8.6	8.6	8.6	35	8.6	8.6	8.6	0.81	0.81	35	8.6	8.6
End point of DR	Confluence Merrimack and Piscataquog		217	8.7	8.7	8.7	35	8.7	8.7	8.7	0.82	0.82	35	8.7	8.7

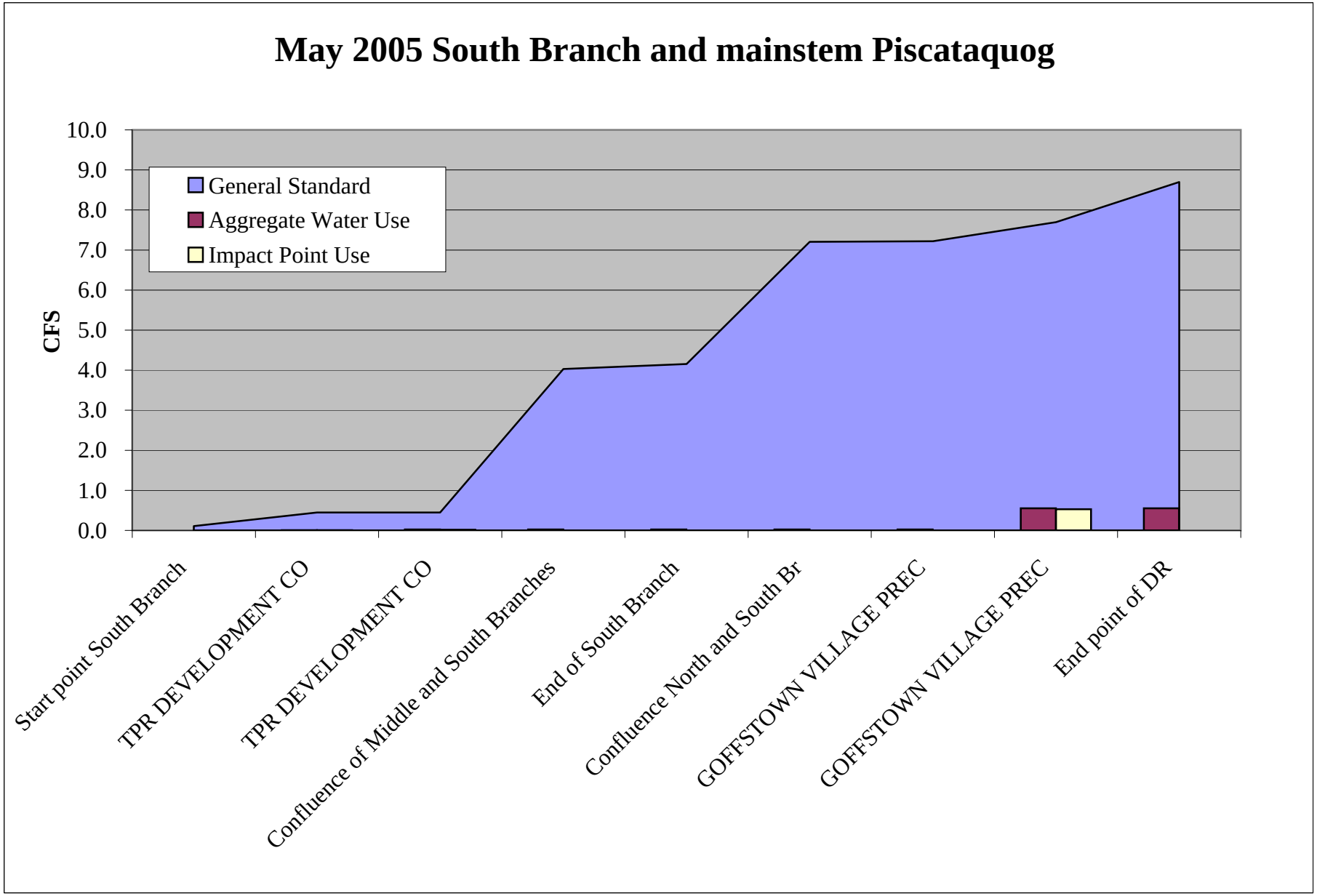
2005 South Br Piscataquog Estimated Monthly Margin of the Aggregate Water Use Below the General Standard															
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Start point South Branch	Pleasant Pond		2.71	0.11	0.11	0.11	0.43	0.11	0.11	0.11	0.01	0.01	0.43	0.11	0.11
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S01	11.16	0.45	0.45	0.45	1.8	0.44	0.42	0.40	0.01	(0.01)	1.78	0.45	0.45
TPR DEVELOPMENT CO	TORY PINES GOLF COURSE	20669 20669-S02	11.16	0.45	0.45	0.45	1.8	0.42	0.40	0.36	(0.03)	(0.05)	1.78	0.45	0.45
End point Middle Branch			41.4	1.7	1.7	1.7	6.6	1.6	1.6	1.6	0.09	0.06	6.6	1.7	1.7
Confluence of Middle and South Branches	Confluence Middle and South Branch		100.8	4.0	4.0	4.0	16.1	4.0	4.0	3.9	0.3	0.3	16.1	4.0	4.0
End of South Branch			103.87	4.2	4.2	4.2	16.6	4.1	4.1	4.1	0.3	0.3	16.6	4.2	4.2
Confluence North and South Br	End Points Seg 1 North & South Branch		180.11	7.2	7.2	7.2	28.8	7.2	6.9	6.9	0.3	0.3	28.7	7.2	7.2
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S02	180.47	7.2	7.2	7.2	28.9	7.2	7.0	6.9	(0.1)	(0.1)	28.3	7.0	7.2
GOFFSTOWN VILLAGE PREC	WATER WORKS	20337 20337-S01	192.37	7.3	7.3	7.3	30.3	7.1	6.8	6.8	(0.3)	(0.2)	30.2	7.3	7.3
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-S01	193.67												
HYDRODYNAMICS CORP	HADLEY FALLS HYDRO	20607 20607-D01	193.67	7.3	7.3	7.3	30.5	7.2	6.9	6.8	(0.3)	(0.2)	30.5	7.3	7.4
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-S01	197.74												
ALGONQUIN POWER CORP INC	GREGG FALLS HYDRO	20559 20559-D01	197.74	7.5	7.5	7.5	31.2	7.4	7.1	7.0	(0.2)	(0.1)	31.1	7.5	7.6
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-S01	215.95												
CHI OPERATIONS INC	KELLEY FALLS HYDRO CO	20464 20464-D01	215.95	8.2	8.2	8.2	34.1	8.1	7.8	7.7	(0.2)	(0.1)	34.0	8.2	8.3
End point of DR	Confluence Merrimack and Piscataquog		217.5	8.3	8.3	8.3	34.3	8.1	7.9	7.8	(0.2)	(0.1)	34.3	8.3	8.3

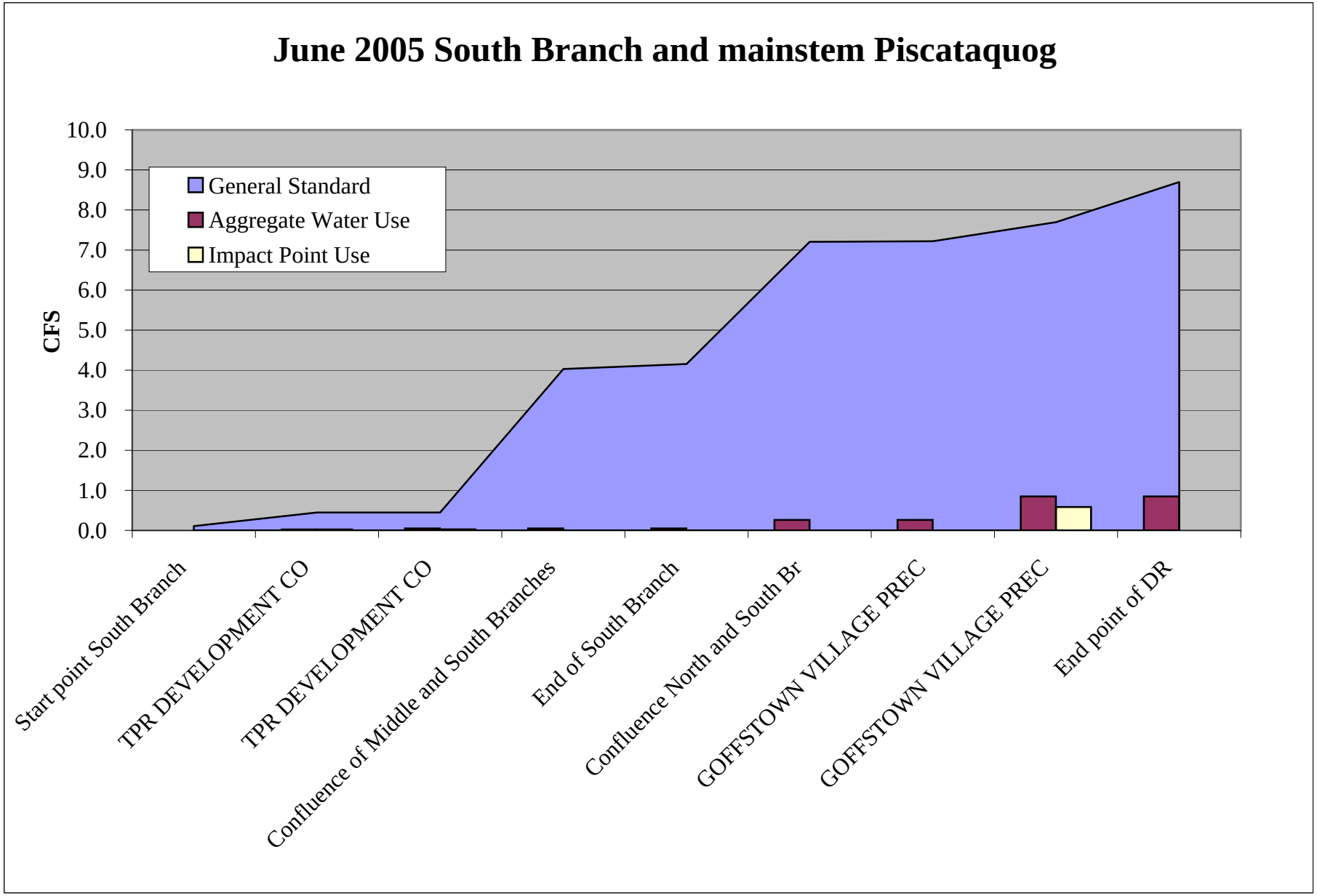

January 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR

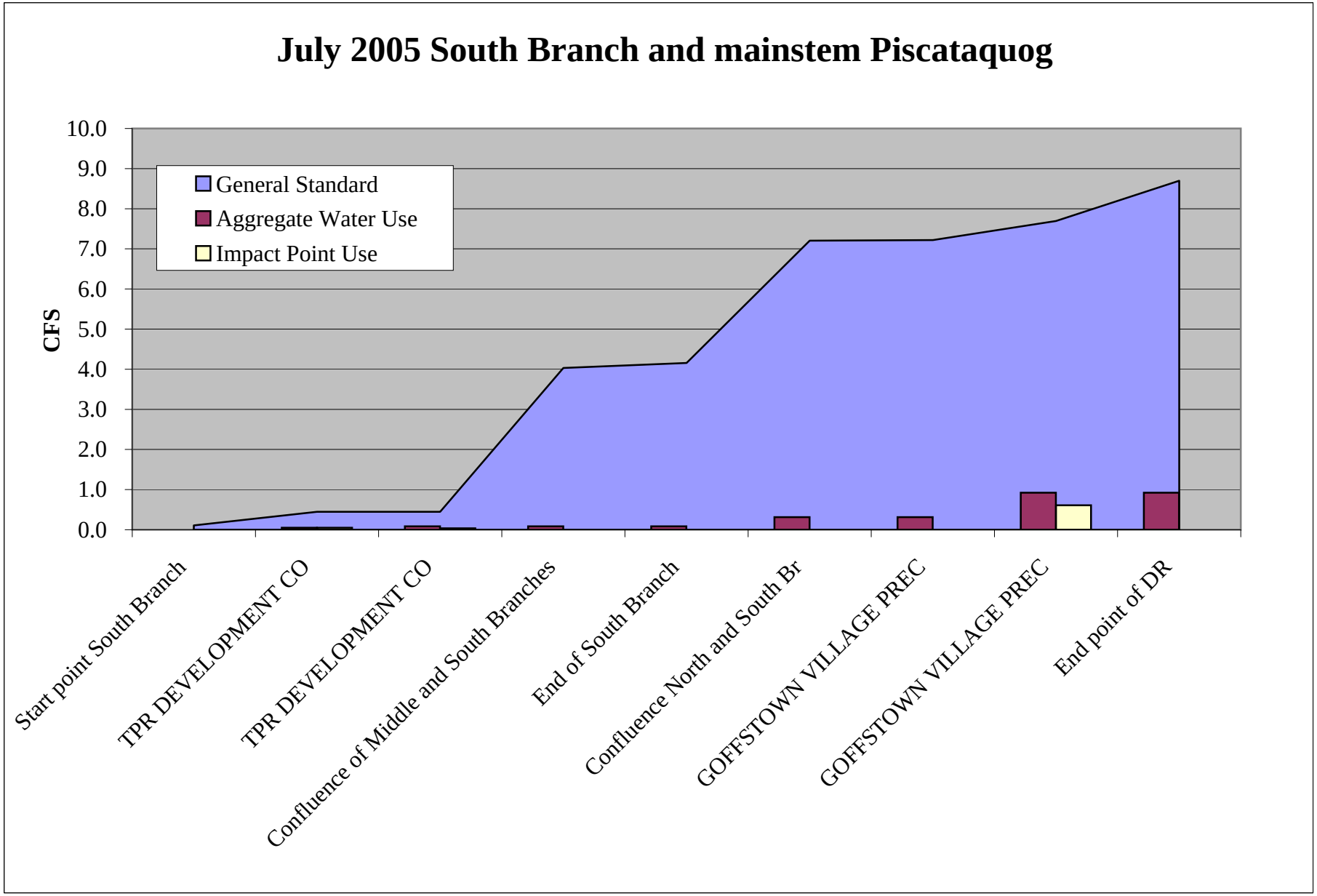

February 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR

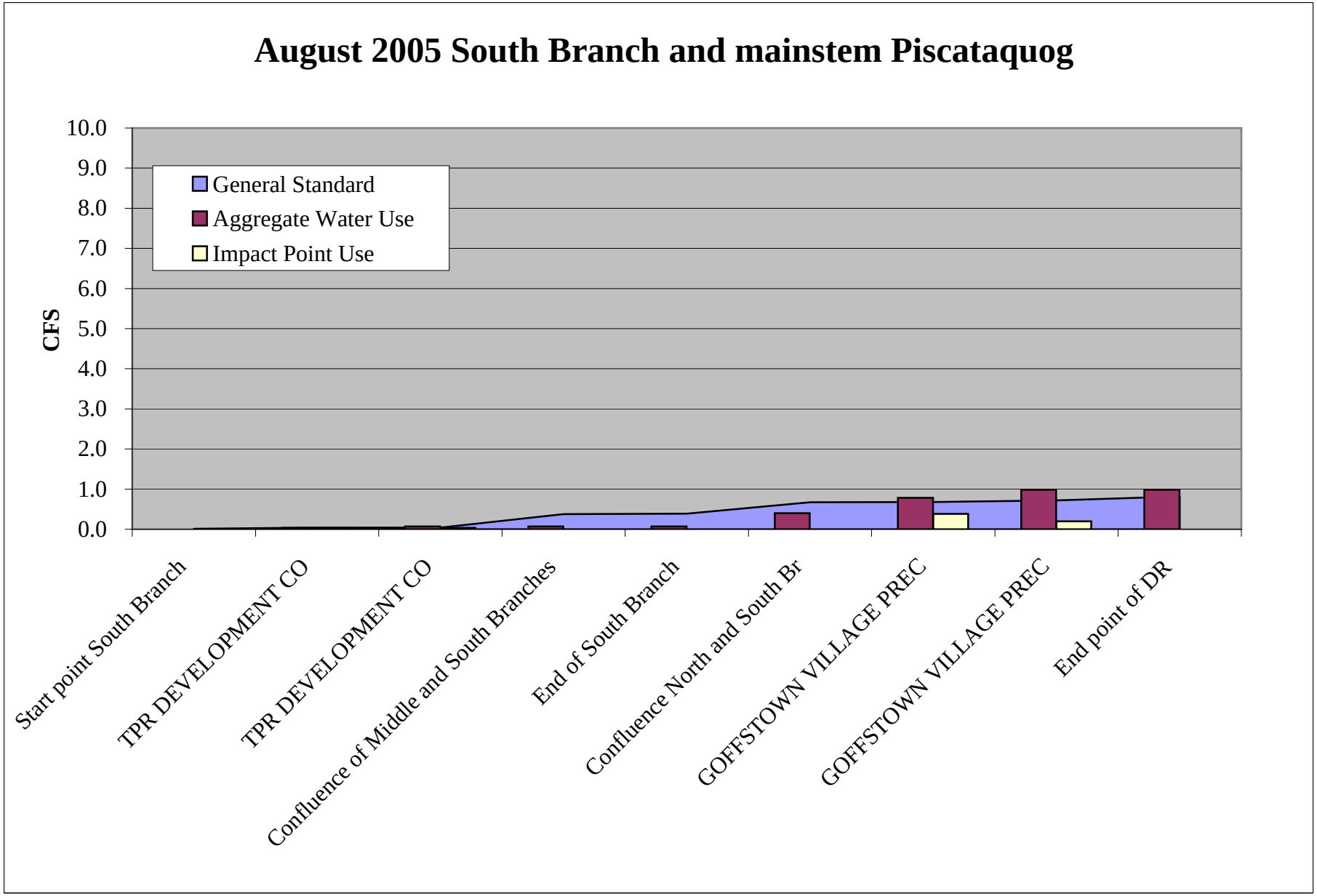

March 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR

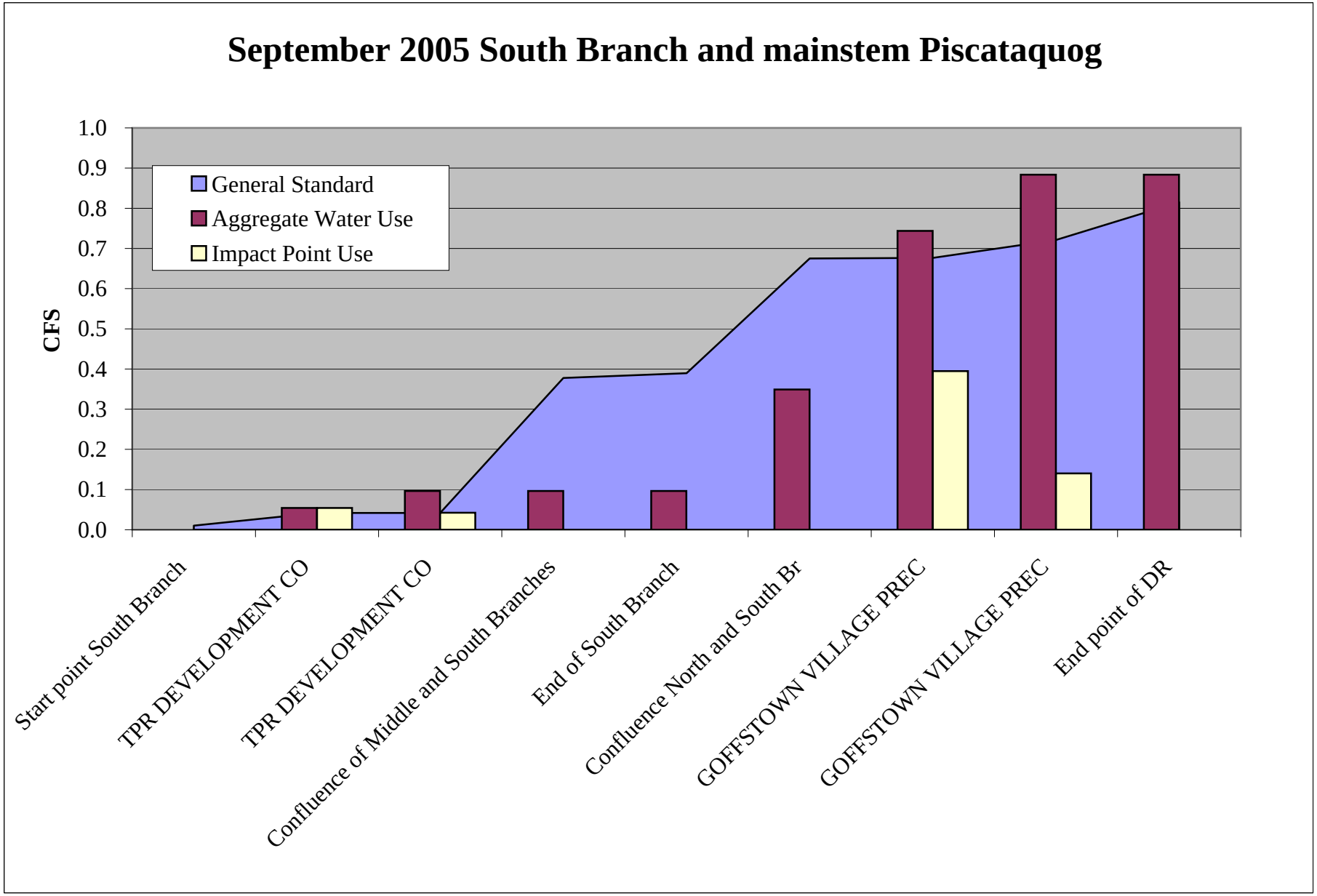

April 2005 South Branch and mainstem Piscataquog
CFS
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR

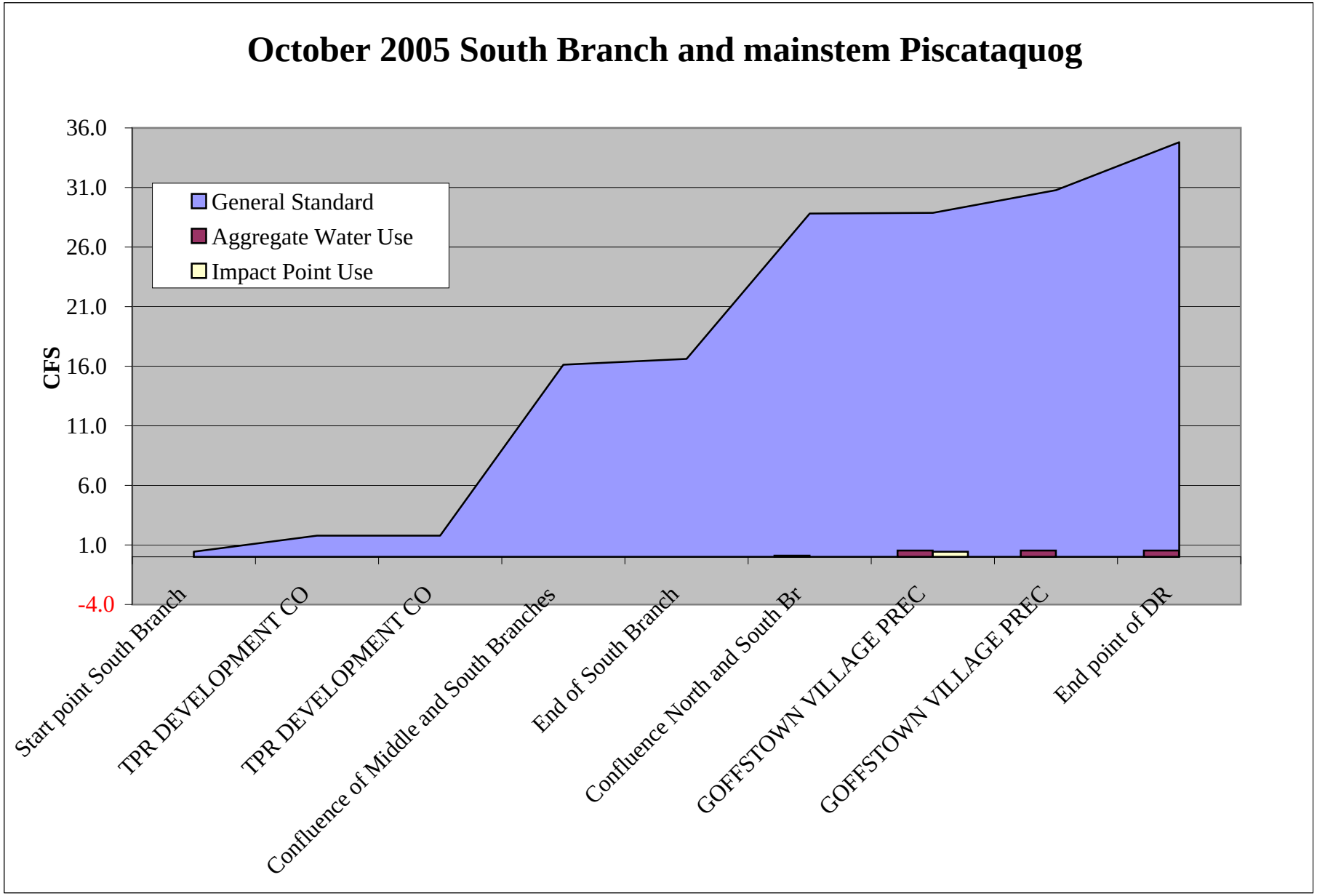

May 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR

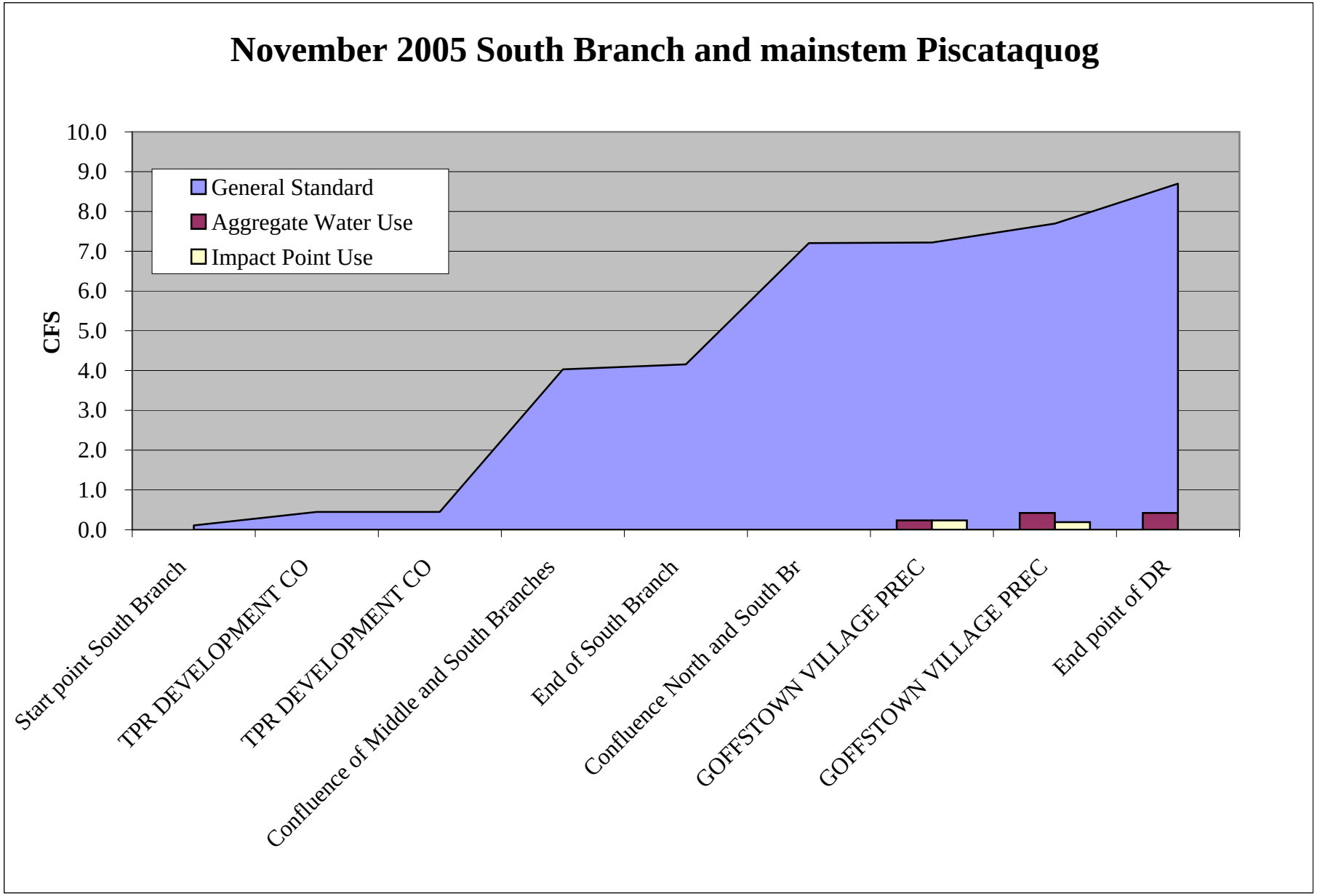

June 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR

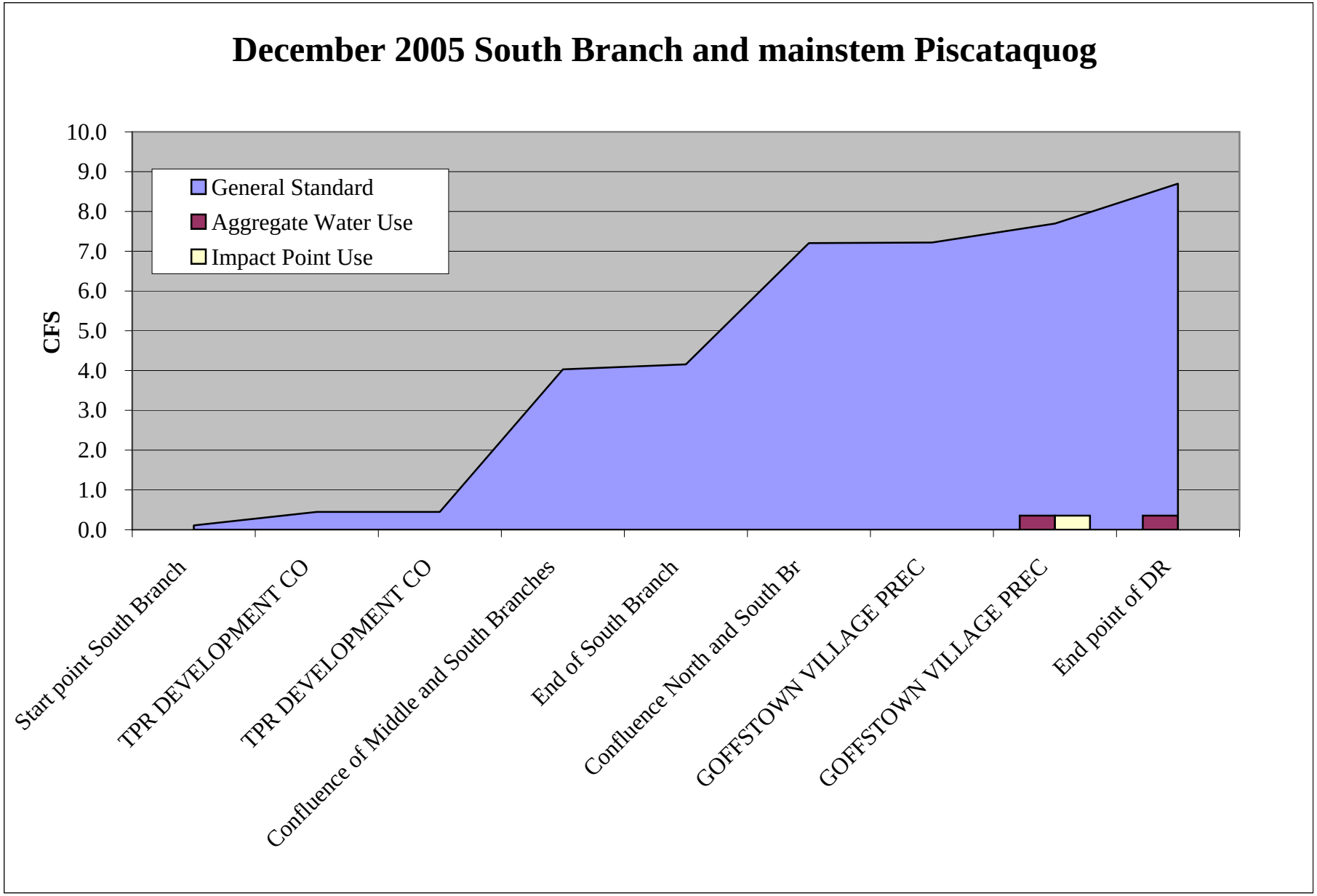

July 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR


August 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR


September 2005 South Branch and mainstem Piscataquog
CFS
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR


October 2005 South Branch and mainstem Piscataquog
CFS
36.0
31.0
26.0
21.0
16.0
11.0
6.0
1.0
-4.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR


November 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR


December 2005 South Branch and mainstem Piscataquog
CFS
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
General Standard
Aggregate Water Use
Impact Point Use
Start point South Branch
TPR DEVELOPMENT CO
TPR DEVELOPMENT CO
Confluence of Middle and South Branches
End of South Branch
Confluence North and South Br
GOFFSTOWN VILLAGE PREC
GOFFSTOWN VILLAGE PREC
End point of DR