

Exeter Annual Water Use versus Stream Flow – Calendar Year 2005

Water use was reported by twelve sources and no discharges in the Exeter Water Management Planning Area. The Water Management Planning Area has no operating hydropower facilities, however there is an inactive hydropower facility in Brentwood (DES #029.01). The Water Management Planning Area includes two industrial (aggregate) facilities each with two sources, two sources at a golf course, and two water supply system sources. The Sherwood Forest Mobile Home Park is using its drilled wells again after temporarily receiving water during 2004 from a transfer from Exeter Water Works.

Four sources were not included in this assessment because they did not meet the definition of an Affected Water User. These sources include two agricultural ponds used for irrigation, a bottled water supply, and a community water supply and two agricultural sources that were not used in 2004. The annual water use during 2005 reported for the remaining two sources was 6,909,031 gallons (923,544 ft³). This use represented 7 to 37 % of the monthly water use included in the assessment.

Unassessed Water Users (Source > 500 feet from perennial stream)	Unassessed Annual Water Use (gallons)
Liberty Tree Community WS	6,739,031
Pine Brook Spring Water	170,000
J & F Farms (Source 3)	0
J & F Farms (Source 4)	0
Total	6,909,031



The beginning of the Designated River is at its headwaters at the Route 102 bridge in Chester and the end is at its confluence with Great Brook in Exeter—a distance of 33.5 miles. The Exeter Water Management Planning Area covers 76 square miles and includes a streamflow gage in Brentwood (USGS 01073587 EXETER RIVER AT HAIGH ROAD, NEAR BRENTWOOD, NH) measuring 63.5 square miles of the WMPA. For this report the streamflow was transposed areally from the gage to all impact points on the Designated River. A value for 7Q10 at the Exeter gage was estimated by averaging 7Q10 values from the adjacent Lamprey River and nearby Oyster River watershed gages. The Designated River was not in compliance with the General Standard in 2005 during August and September for the 28.8 miles from Colby Pond at the Hampstead Area Water Company to the end of the designated reach.

Exeter 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 assessed Water Use
January	--	--	0.10%	--	37.2%
February	--	--	0.08%	--	29.6%
March	--	--	0.07%	--	15.8%
April	--	--	0.114%	--	8.6%
May	--	--	0.16%	--	6.9%
June	--	--	0.29%	--	10.0%
July	--	--	0.7%	2003, 2004	8.6%
August	28.8 to 0.0	28.8	3.2%	2003	8.6%
September	28.8 to 0.0	28.8	5.57%	2003	7.8%
October	--	--	0.1%	--	7.7%
November	--	--	0.18%	--	8.1%
December	--	--	0.09%	--	8.6%



Exeter Affected Water User Facilities: Source and Discharge Locations

Legend

Affected Water Users


-  Source
-  Discharge


Stream Gages

-  Active
-  Inactive

 Designated Reach

 Hydrology

 State boundary

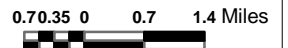
 Town boundary

 WMPA



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.

Map Document: (H:\Water Quality\Instream Flow\GIS Projects\WMPAs\exeter_waterquality06.mxd)
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2005 Exeter 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 Designated Reach			0.6												
HAMPSTEAD AREA WATER CO	COLBY POND	20768 20768-S01	18.3	0.043	0.036	0.032	0.057	0.052	0.056	0.056	0.093	0.064	0.047	0.053	0.057
AGGREGATE INDUSTRIES	RAYMOND PLANT	20642 20642-S02	45.2	0.000	0.000	0.000	0.005	0.054	0.050	0.052	0.057	0.052	0.050	0.050	0.044
AGGREGATE INDUSTRIES	RAYMOND PLANT	20642 20642-S01	45.2	0.000	0.000	0.000	0.167	0.175	0.160	0.168	0.152	0.167	0.162	0.160	0.141
AGGREGATE INDUSTRIES	COASTAL CONCRETE OF NH	20641 20641-S02	45.2	0.005	0.006	0.003	0.010	0.016	0.020	0.012	0.014	0.012	0.010	0.011	0.007
AGGREGATE INDUSTRIES	COASTAL CONCRETE OF NH	20641 20641-S01	45.2	0.005	0.006	0.003	0.010	0.016	0.020	0.012	0.014	0.012	0.010	0.011	0.007
Ford Way Brook			45.2												
SHERWOOD FOREST MBL HOME		20468 20468-S01	75.4	0.033	0.070	0.128	0.084	0.082	0.052	0.029	0.034	0.028	0.036	0.031	0.023
APPLE HILL GOLF CLUB	APPLE HILL GOLF CLUB	20712 20712-S02	87.8	0.000	0.000	0.000	0.000	0.000	0.002	0.007	0.007	0.004	0.000	0.000	0.000
APPLE HILL GOLF CLUB	APPLE HILL GOLF CLUB	20712 20712-S01	87.8	0.000	0.000	0.000	0.000	0.001	0.006	0.024	0.023	0.013	0.002	0.000	0.000
APPLE HILL GOLF CLUB	APPLE HILL GOLF CLUB	20712 20712-D01	87.8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Great Brook	Water use on Great Brook		87.8												
End Designated Reach	Confluence Exeter and Squamscot		87.8												

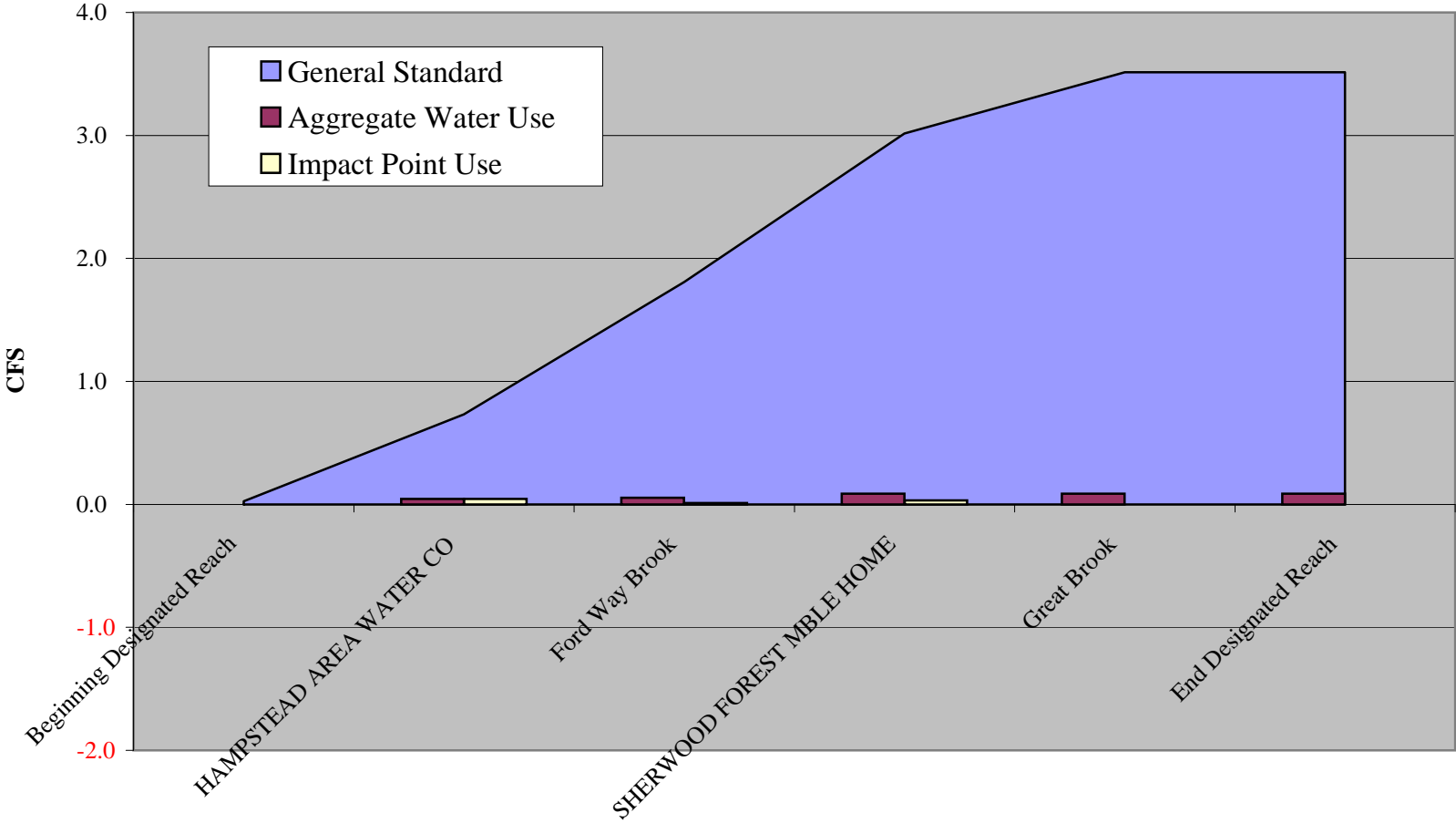
2005 Exeter Aggregate Water Use in CFS															
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning Designated Reach			0.65	0	0	0	0	0	0	0	0	0	0	0	0
HAMPSTEAD AREA WATER CO	COLBY POND	20768 20768-S01	18.31	0.043	0.036	0.032	0.057	0.052	0.056	0.056	0.093	0.064	0.047	0.053	0.057
Ford Way Brook			45.20	0.053	0.048	0.038	0.250	0.313	0.305	0.300	0.329	0.307	0.279	0.284	0.256
SHERWOOD FOREST MBL HOME		20468 20468-S01	75.40	0.086	0.118	0.166	0.334	0.395	0.357	0.330	0.363	0.335	0.316	0.315	0.279
Great Brook	Water use on Great Brook		87.83	0.086	0.118	0.166	0.334	0.396	0.365	0.361	0.393	0.352	0.318	0.315	0.279
End Designated Reach	Confluence Exeter and Squamscot		87.83	0.086	0.118	0.166	0.334	0.396	0.365	0.361	0.393	0.352	0.318	0.315	0.279

2005 Exeter Estimated Monthly Stream Flow at Each Impact Point 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 Designated Reach			0.65	1.6	1.7	1.9	3.1	2.8	1.5	0.61	0.15	0.079	3.3	2.2	3.9
HAMPSTEAD AREA WATER CO	COLBY POND	20768 20768-S01	18.31	45	47	55	89	79	42	17	4.2	2.2	93	63	111
Ford Way Brook			45.20	111	117	137	219	195	104	43	10	5.5	230	156	274
SHERWOOD FOREST MBL HOME		20468 20468-S01	75.40	185	195	228	366	326	174	72	17	9.2	384	260	457
Great Brook	Water use on Great Brook		87.83	215	227	265	426	380	203	84	20	10.7	447	303	532
End Designated Reach	Confluence Exeter and Squamscot		87.83	215	227	265	426	380	203	84	20	10.7	447	303	532

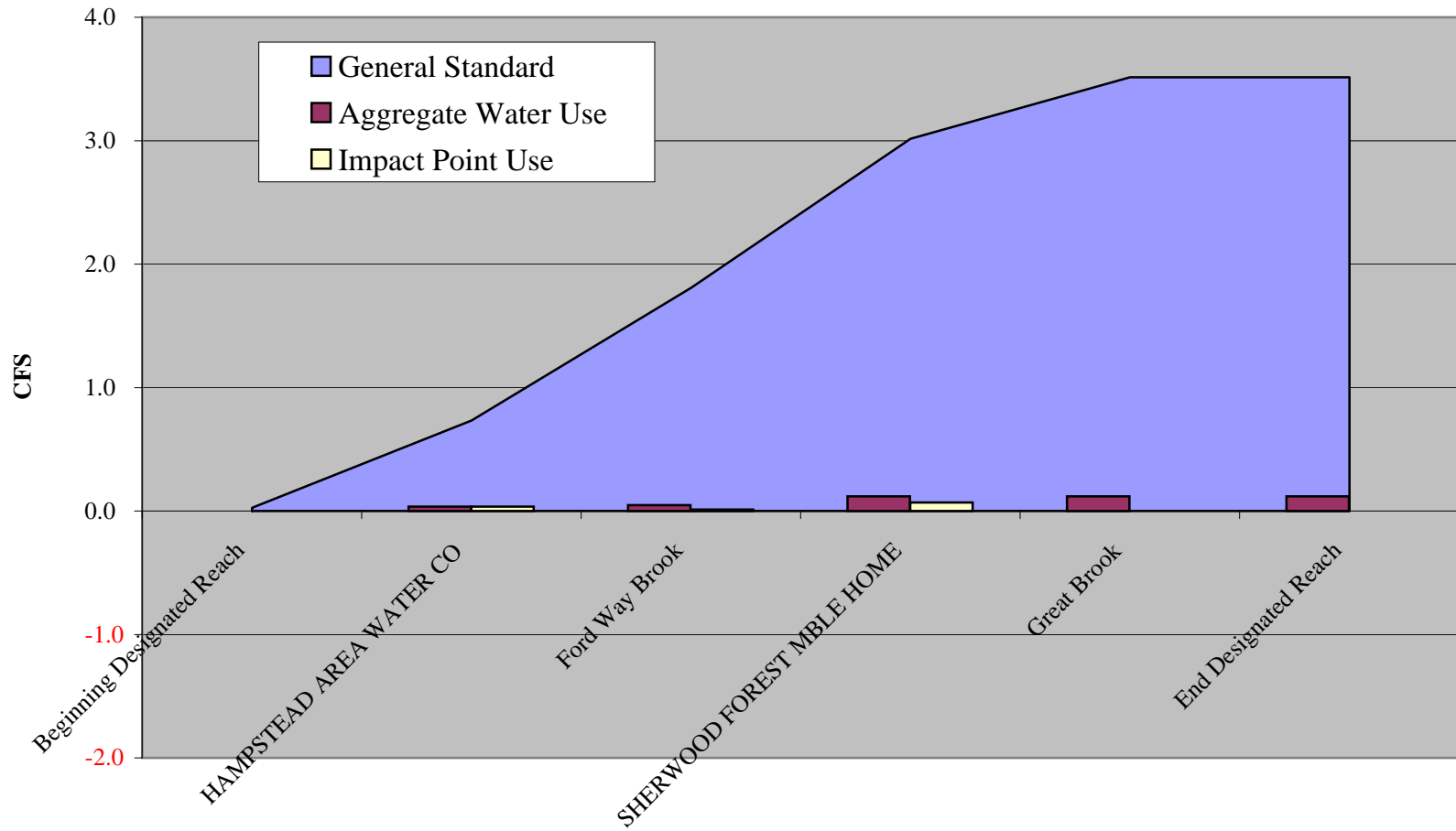
2005 Exeter Estimated Monthly General Standard at Each Impact Point in CFS															
WU_NAME	FACILITY	WUSD_ID	DA on DR (SQ MILE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Beginning Designated Reach			0.65	0.026	0.026	0.026	0.10	0.10	0.026	0.013	0.00066	0.00066	0.10	0.026	0.10
HAMPSTEAD AREA WATER CO	COLBY POND	20768 20768-S01	18.31	0.73	0.73	0.73	2.9	2.9	0.73	0.37	0.019	0.019	2.9	0.73	2.9
Ford Way Brook			45.20	1.8	1.8	1.8	7.2	7.2	1.8	0.9	0.0	0.0	7.2	1.8	7.2
SHERWOOD FOREST MBL HOME		20468 20468-S01	75.40	3.0	3.0	3.0	12	12	3.0	1.5	0.08	0.08	12	3.0	12
Great Brook	Water use on Great Brook		87.83	3.5	3.5	3.5	14	14	3.5	1.8	0.090	0.090	14	3.5	14
End Designated Reach	Confluence Exeter and Squamscot		87.83	3.5	3.5	3.5	14	14	3.5	1.8	0.090	0.090	14	3.5	14

2005 Exeter 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
Beginning Designated Reach			0.65	0.026	0.026	0.026	0.103	0.103	0.026	0.013	0.001	0.001	0.103	0.026	0.103
HAMPSTEAD AREA WATER CO	COLBY POND	20768 20768-S01	18.31	0.69	0.70	0.70	2.87	2.88	0.68	0.310	(0.07)	(0.05)	2.88	0.68	2.87
Ford Way Brook	Water use at confluence		45.20	1.8	1.76	1.8	7.0	6.9	1.5	0.60	(0.28)	(0.26)	6.95	1.52	7.0
SHERWOOD FOREST MBL HOME		20468 20468-S01	75.40	2.9	2.9	2.9	11.7	11.7	2.7	1.18	(0.29)	(0.26)	11.7	2.7	11.8
Great Brook	Water use on Great Brook		87.83	3.4	3.4	3.3	13.7	13.7	3.1	1.40	(0.30)	(0.26)	13.7	3.2	13.8
End Designated Reach	Confluence Exeter and Squamscot		87.83	3.4	3.4	3.3	13.7	13.7	3.1	1.40	(0.30)	(0.26)	13.7	3.2	13.8

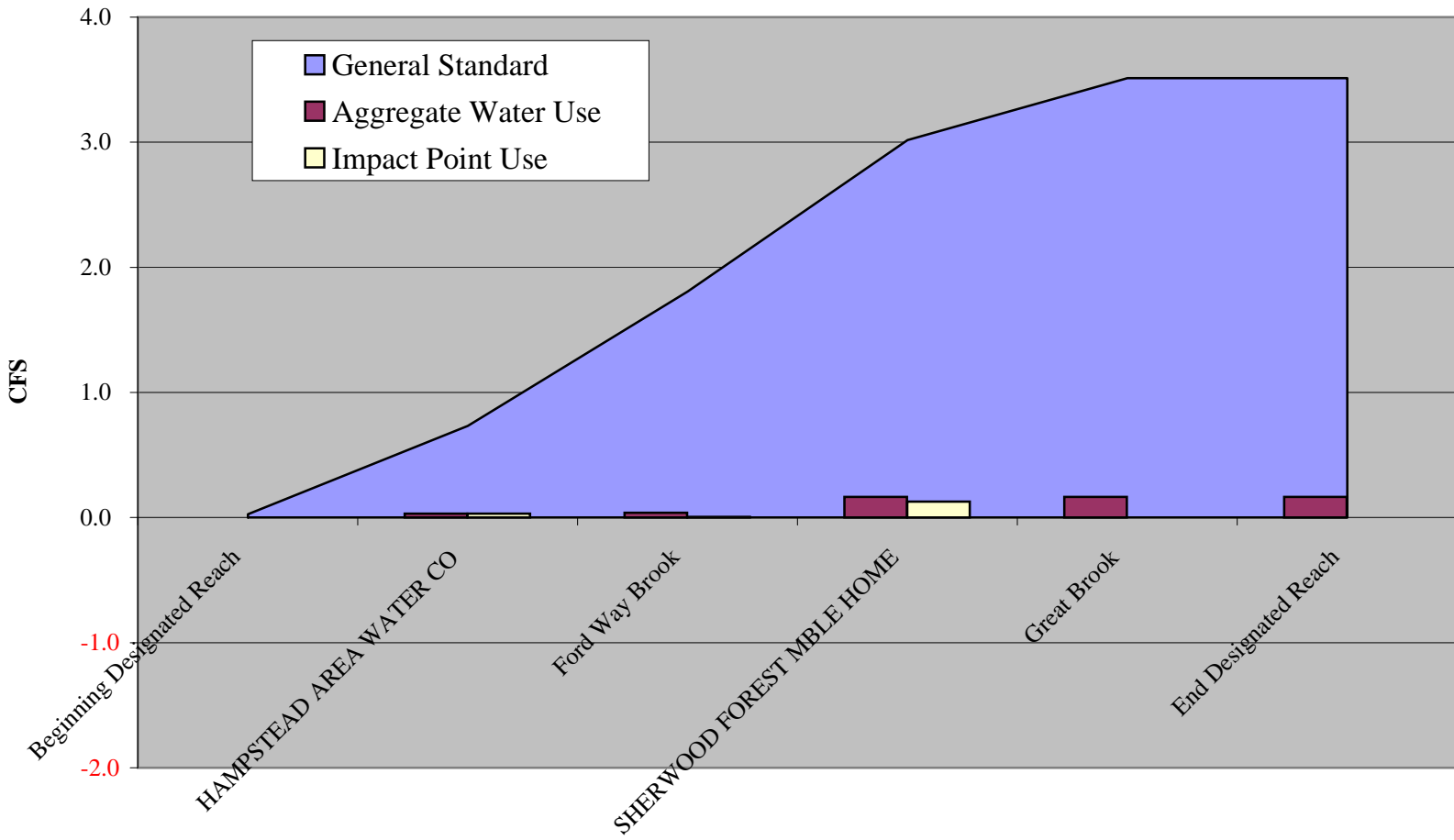
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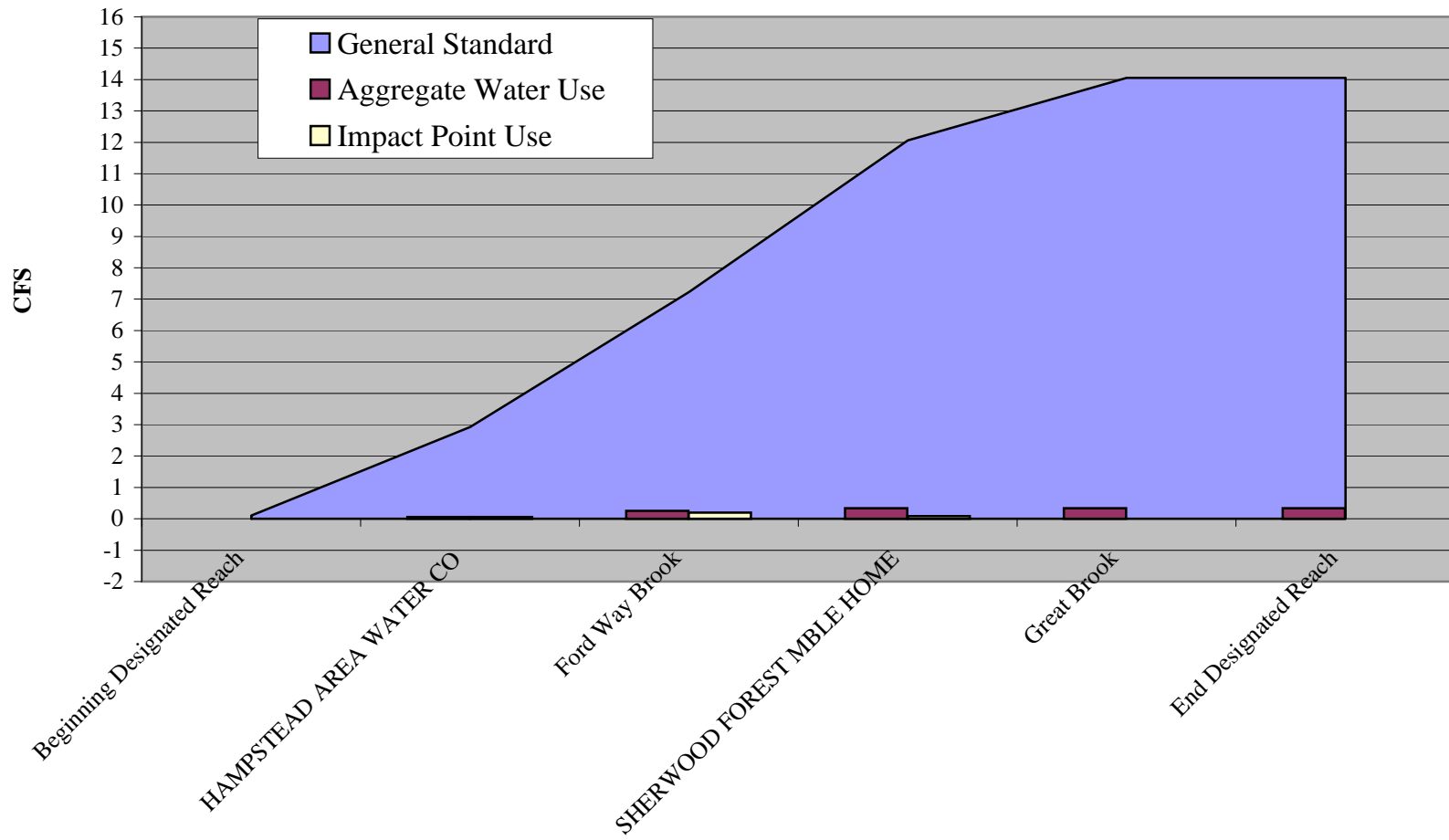
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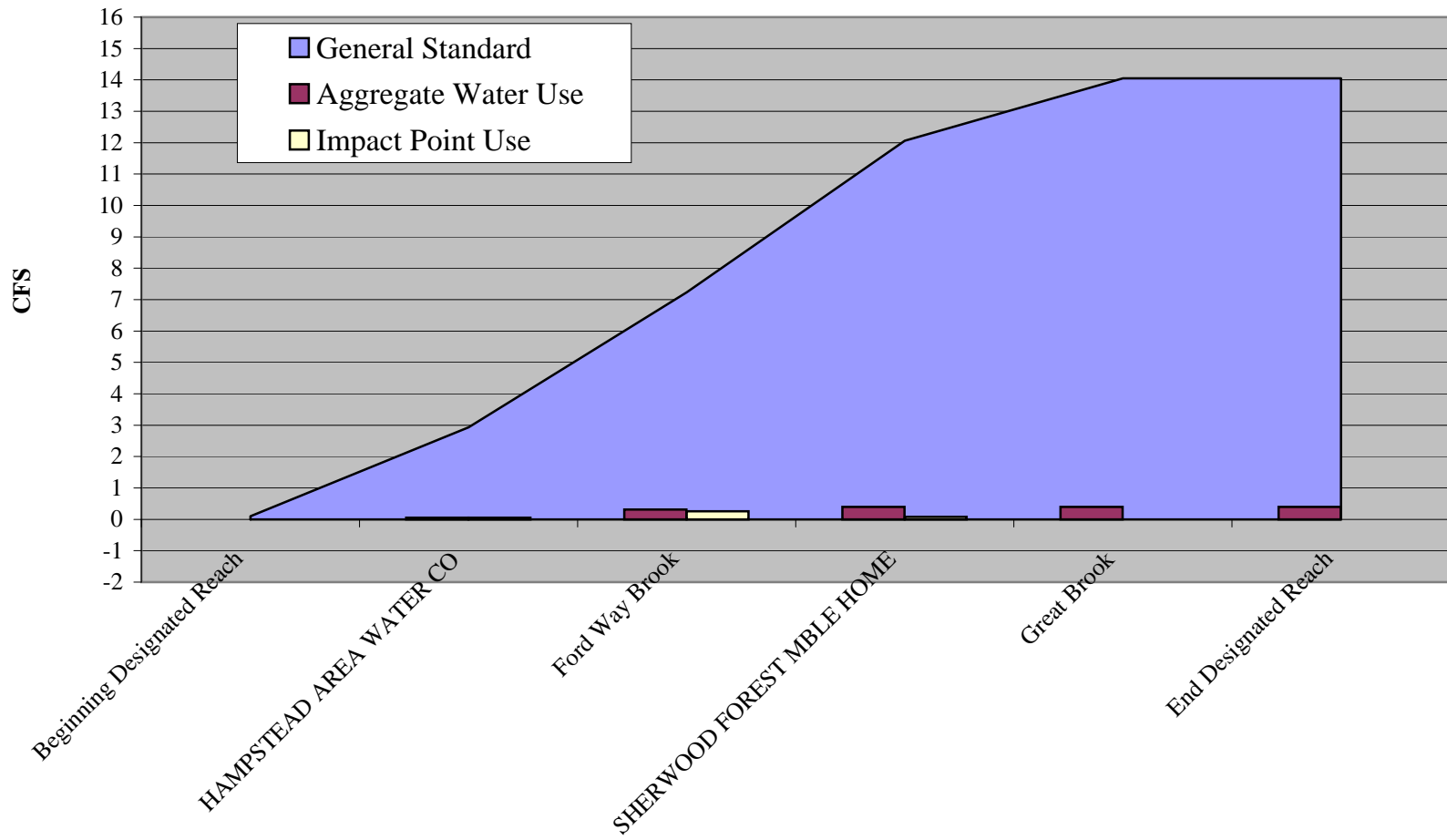
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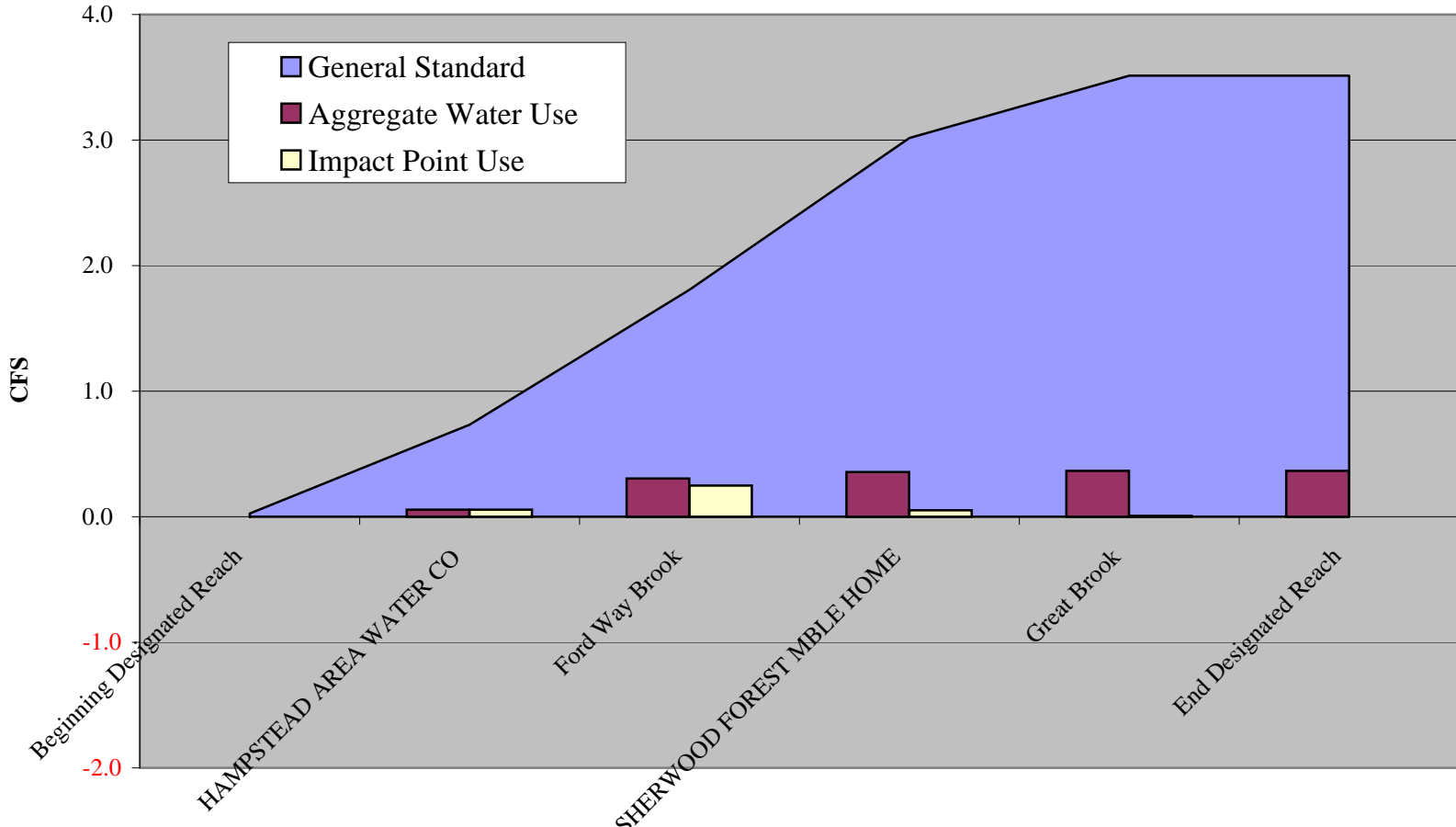
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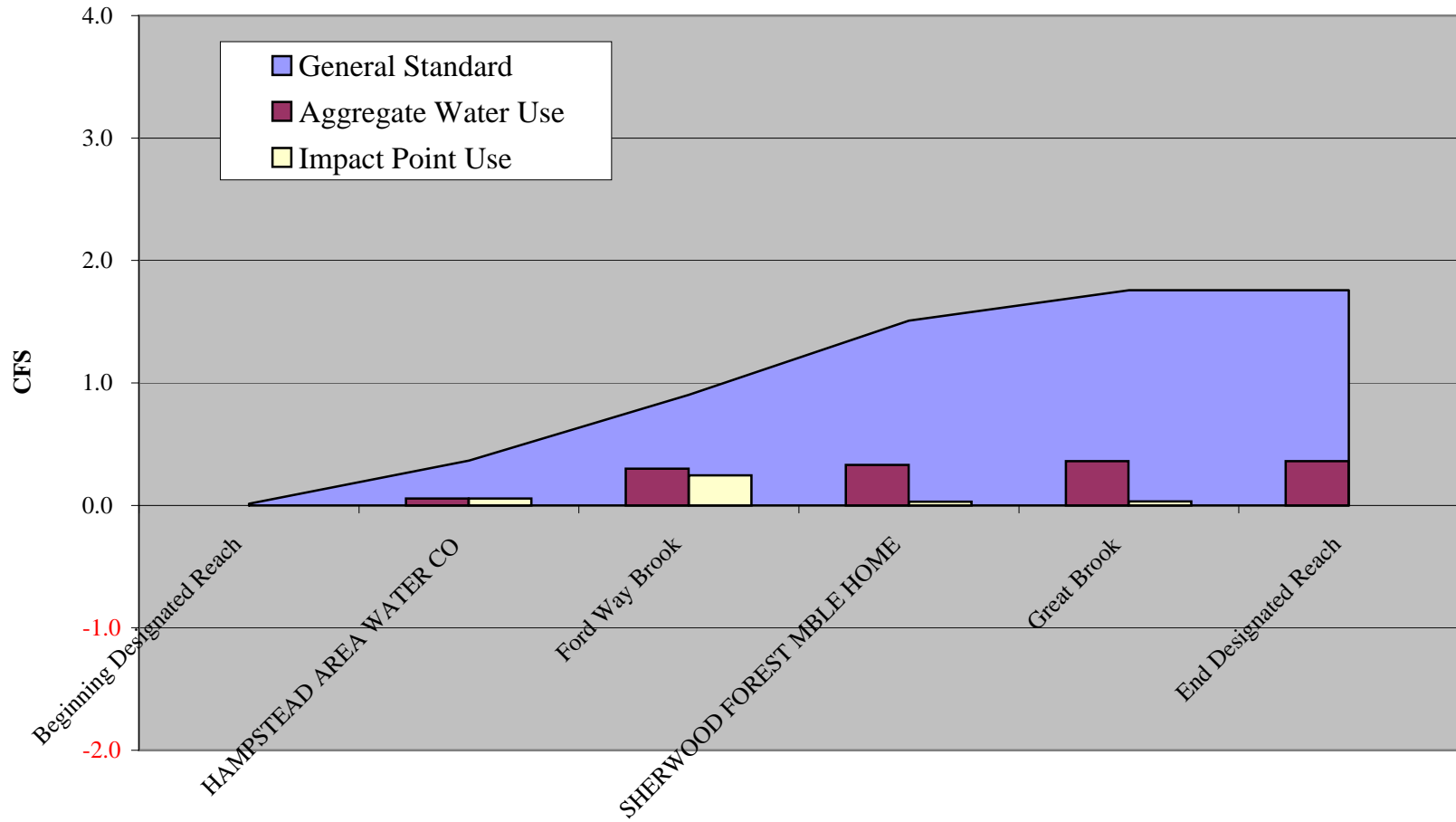
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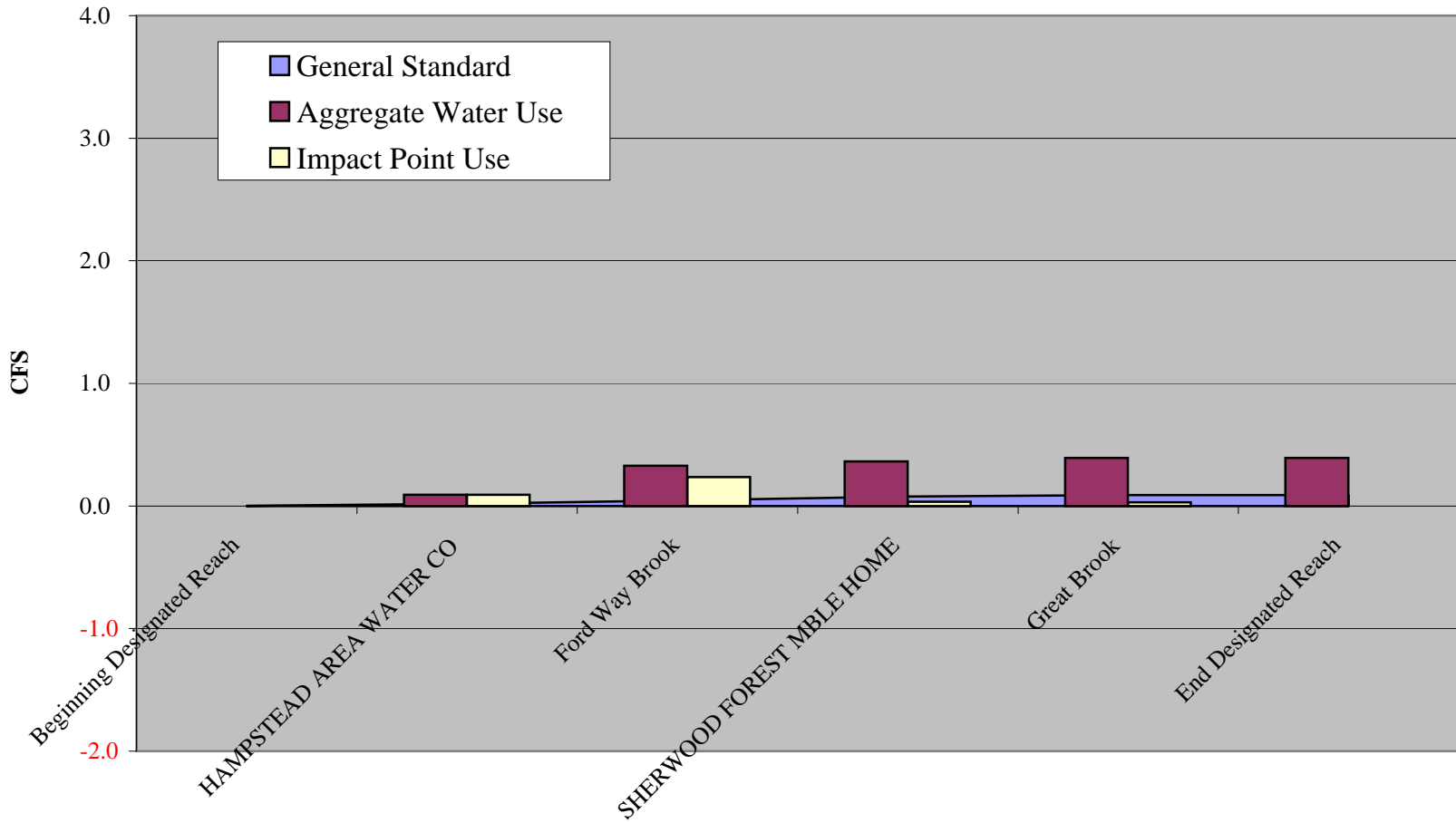
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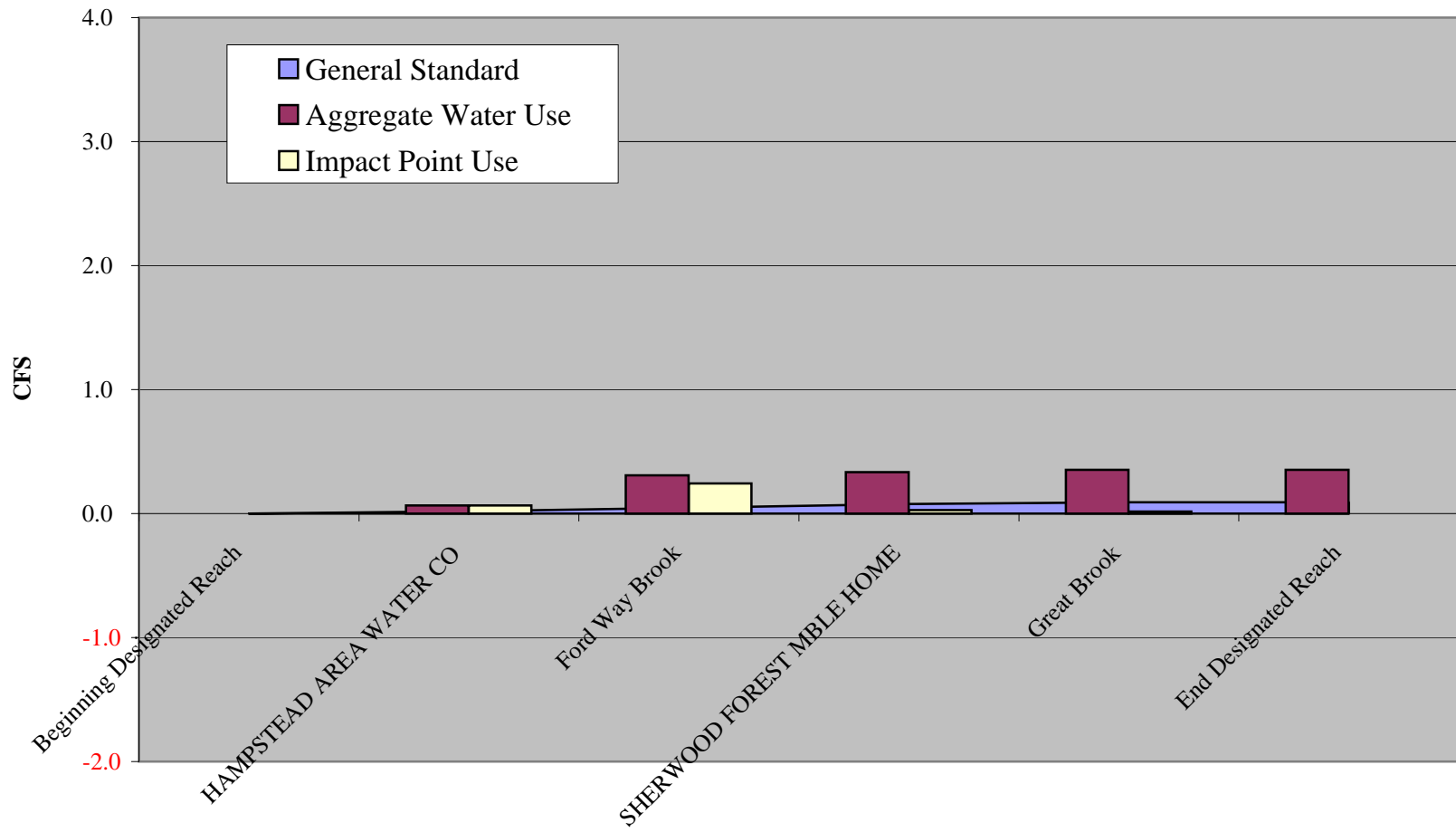
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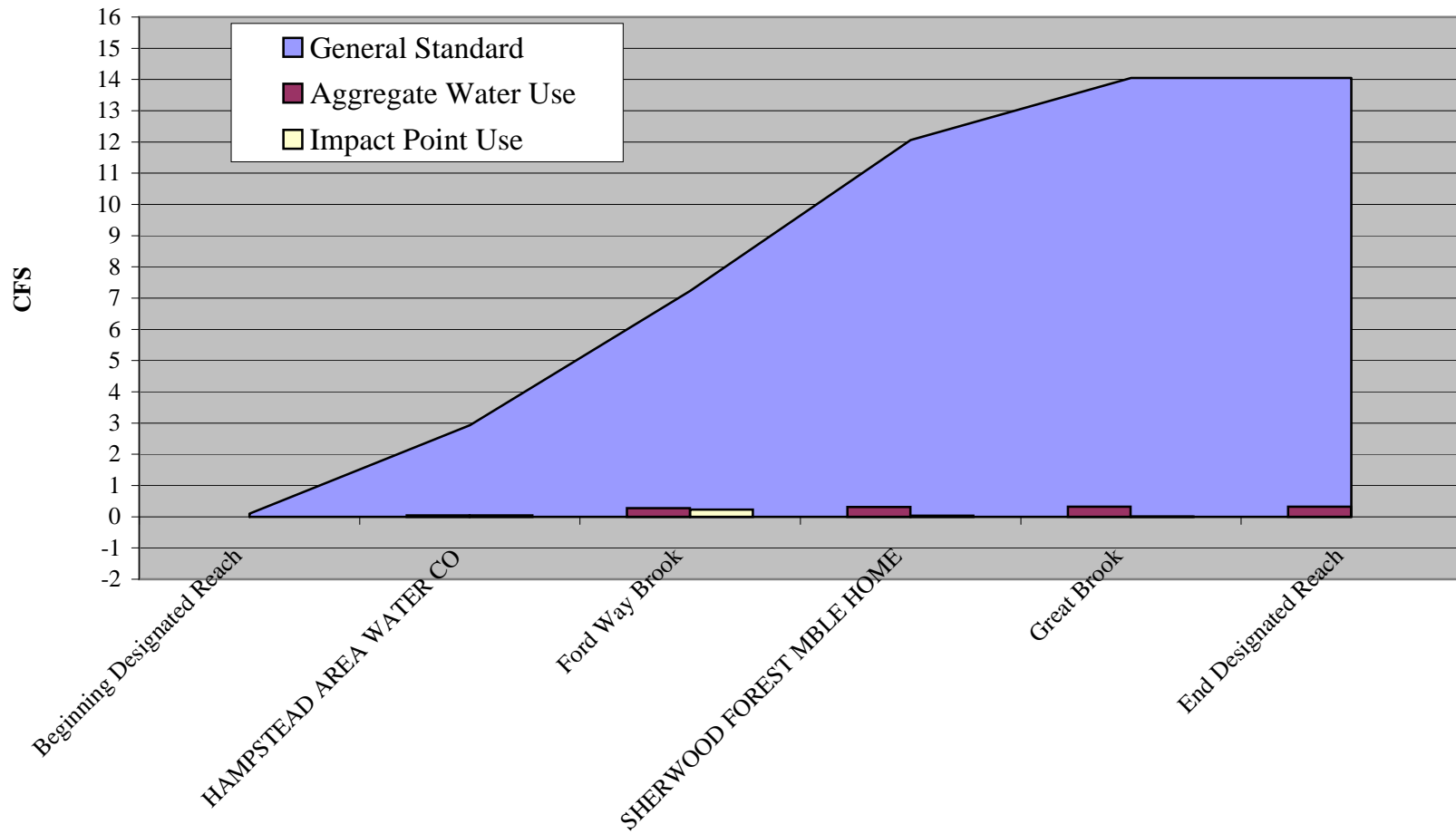
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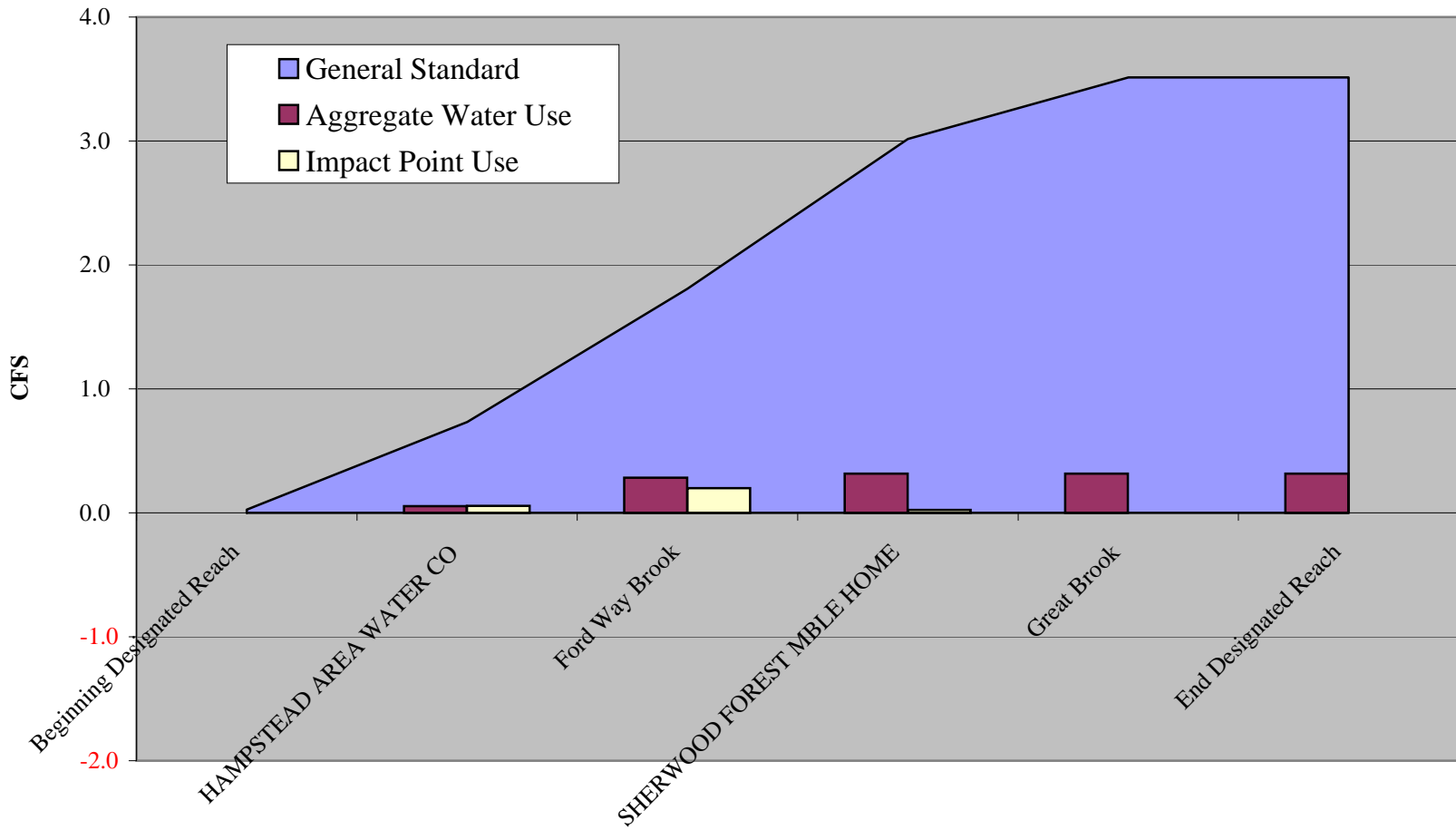
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October 2005 Exeter



November 2005 Exeter



December 2005 Exeter

