

Table A-5-4 Total Phosphorus and TSS Reduction Benefits from Proposed BMPs

Site Name	MS4 Imp. Owner	Owner of BMP Land	BMP Type (Key <sup>1</sup> )	Permit # <sup>2</sup>	Runoff Area (acres)	Impervious Acres Managed (ac)	Channel Protection Volume (CPv) Managed above Base Condition <sup>3</sup>		WQ Results				Retrofit Description
							CF	Ac-ft	Annual TSS Yield Mitigated w/ control (lbs)	% TSS reduction	Annual TP Yield Mitigated w/ control (lbs)	% TP Reduction	
LDS Church North Pond Retrofit (Outfall 204)- Option 5: Underground Storage with Perforated Pipe System	Town	Private	USC	1-1319, 2-0631, 2-0613	29.59	12.00	44431	1.02	576.00	20.7%	2.69	27.1%	Route outfalls North and South of LDS pond to retrofit. Option 5: Convert pond to expanded underground stone gallery with 48" Perforated Pipe.
Fairview Dr./Main St. w/ Add-On	Village/VTRANS	Public	GW	1-1074 SN002	22.53	3.94	19384	0.45	887.00	30.2%	3.21	26.3%	Regrade existing detention area, add terraced WQ bays, and replace existing culvert. Stabilize eroded outfall on North side of Main St.
Fairview Dr. Add-on	Village/VTRANS	Public	GW	1-1074 SN002	6.87	1.30	9583	0.22	1847.00	46.5%	4.01	41.3%	Install new culvert under Main St. to direct North side of Main St. to basin.
Brickyard/North, South, East Creek Condos	Village	Private	GW	2-0952	8.7	4.68	24960	0.57	234.00	8.6%	0.49	6.5%	Convert existing detention area at the corner of Mansfield/Brickyard to gravel wetland with CPv storage.
Woodlands (Detention Pond 139)	Town	Public	UIB	1-1186	32.80	4.04	15682	0.36	1502.00	86.0%	5.79	80.6%	Retrofit existing detention pond to an underground stone gallery with 48" perforated pipe.
Densmore Dr.	Village	Private	UIB	2-1103	38.28	11.73	14985	0.34	2126.00	100%	6.29	100%	Install StormTech Chamber System on Densmore Dr. Verify high groundwater elevation.
East Creek Condominiums	Village	Private	DB	2-0289/2-0317	48.2	14.40	13721	0.32	0.00	0.0%	0*	0.0%	Retrofit outlet structure for CPv control. Rearmour spillway.
The Commons P1 (Outfall 131)	Town	Private	USC	1-1381	7.91	2.07	8668	0.199	680.89	88.53	2.67	87%	Convert existing detention pond to StormTech chamber system. Improve aesthetics and landscaping.
Grove St.	Village/VTRANS	ROW	UIB	2-0187	23.39	8.71	5576	0.13	1595.30	92%	2.34	80%	Install two underground storage basins in series for detention and infiltration of the CPv storm.
I-289/Route 15 North	Vtrans	ROW	MF	NP	2.78	0.90	5271	0.12	879.00	100%	1.99	100%	Retrofit existing median swale with CPv volume control sand filter.
Countryside Dr Intersection	Village	ROW	USC	2-0155	5.25	1.95	4704	0.11	411.31	88%	1.86	87%	Stabilize outfall and bank. Install underground detention chamber at intersection of Countryside Dr./Brickyard. Add Stormwater planters in ROW on Countryside Dr.
LDS Church South P1 (Outfall 209)	Town	Private	DB	1-1319	1.34	1.01	4400	0.101	494.07	92.07	0.65	92%	Retrofit existing detention pond to an underground stone gallery with 48" perforated pipe.
I-289/Route 15 South	Vtrans	ROW	MF	NP	2.15	0.96	4443	0.10	649.90	100%	1.82	100%	Retrofit existing median swale with CPv volume control sand filter.
Essex Union High School-Rain Garden- Regrade Parking Lot	Village	School District	GSI	NP	1.61	1.07	2222	0.05	13.34	99%	0.04	98%	Regrade parking lot to increase capture. Garden has capacity for more runoff without expansion.
Briar Lane Cul-de-sac Impervious Removal	Village	No Practice	No Practice	2-0855 (Village Knoll)	na	0.11	900	0.02	<20	----	0.00	----	Eliminate cul-de-sac to reduce plowing needs. Small impact.
<b>Total:</b>						<b>68.86</b>		<b>4.11</b>					

1- BMP Type: DB: Detention Basin, USC = Underground Storage Chamber, UIB= Underground Inf

2- Key: \* NP = No permit

3- Channel Protection Volume Managed above Base condition = New Storage Volume - Existing Volume pre2002

\* WinSLAMM model result showed export of TP from wet pond (negative TP mitigated). Value was changed to 0, as there is "0" TP mitigated.