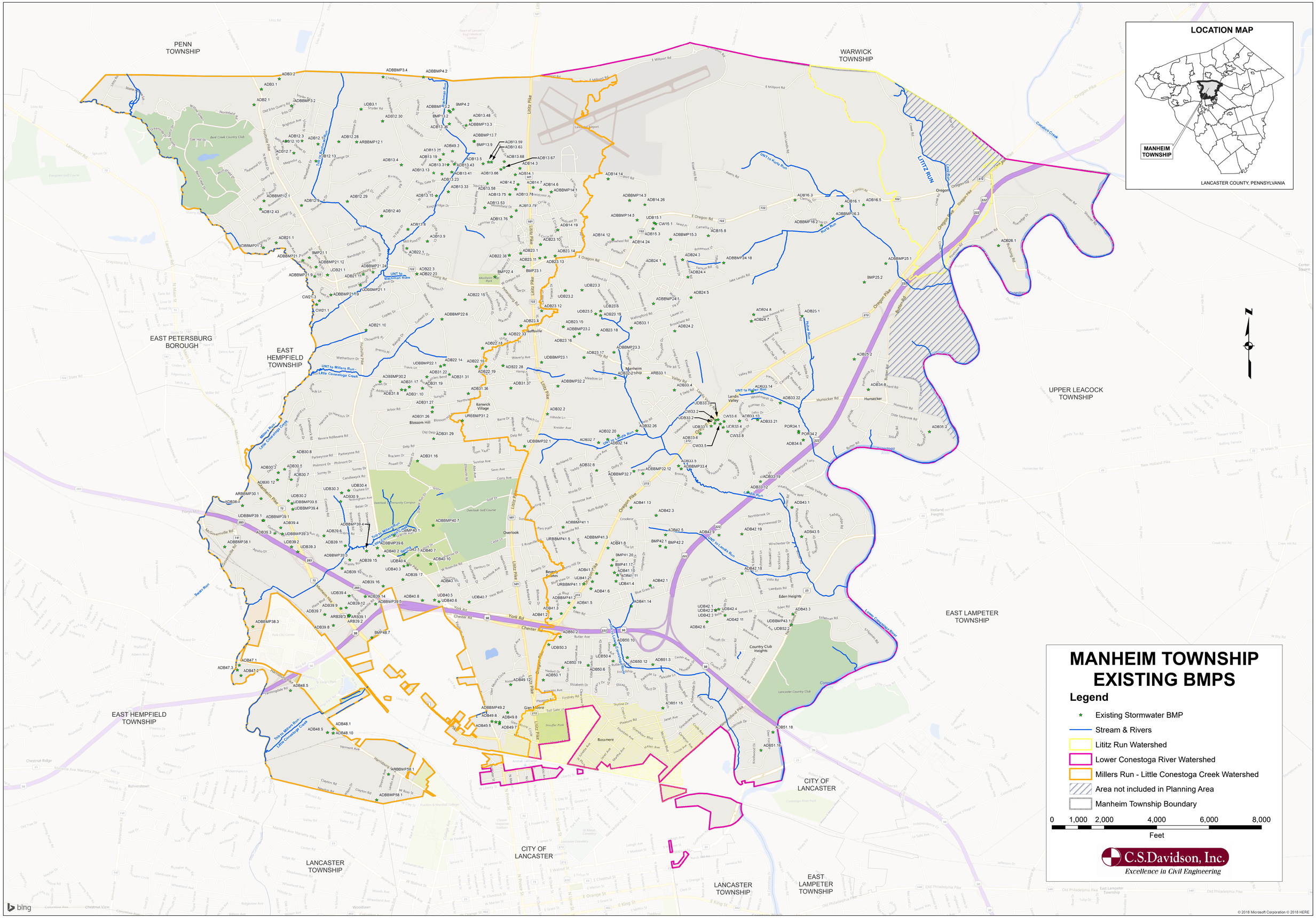
Appendix IV

Existing BMPs to Reduce Baseline



MANHEIM TOWNSHIP EXISTING BMPS
Legend
Existing Stormwater BMP
Stream & Rivers
Lititz Run Watershed
Lower Conestoga River Watershed
Millers Run - Little Conestoga Creek Watershed
Area not included in Planning Area
Manheim Township Boundary
0 1,000 2,000 4,000 6,000 8,000
Feet
C.S.Davidson, Inc.
Excellence in Civil Engineering
LOCATION MAP
MANHEIM TOWNSHIP
LANCASTER COUNTY, PENNSYLVANIA
PENN TOWNSHIP
WARWICK TOWNSHIP
EAST PETERSBURG BOROUGH
EAST HEMPFIELD TOWNSHIP
UPPER LEACOCK TOWNSHIP
EAST LAMPETER TOWNSHIP
EAST HEMPFIELD TOWNSHIP
CITY OF LANCASTER
LANCASTER TOWNSHIP
CITY OF LANCASTER
LANCASTER TOWNSHIP
EAST LAMPETER TOWNSHIP
LITITZ RUN
Lititz Pike
Oregon Pike
Lancaster Rd
Manheim Pike
Harrisburg Pike
Chester Rd
York Rd
Lancaster Airport
Manheim Park
Reffsville
Kenwick Village
Blossom Hill
Overlook
Rossmere
Eden Heights
Country Club Heights
Lancaster Country Club
Overlook Golf Course
Bent Creek Country Club
Cocalico Creek
Lower Conestoga River
Little Conestoga Creek
Millers Run
Sewer Run
Hunsicker Rd
Butter Rd
Landis Run
Kurtz Run
Hafer Run
Lititz Run
Manheim Township
Franklin & Marshall College
Lancaster Township
East Lampeter Township
Hempfield Township
Penn Township
Warwick Township
Upper Leacock Township
East Petersburg Borough
City of Lancaster
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Existing BMP Reductions

				Drainage Area					Loading Reductions								
Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Aboveground Detention Basin 1	ADB22.28	1993	Lower Conestoga River	42.03	0	29.26	12.77	5%	57.138525	10%	3.03271	10%	2449.17029	Fair	No	40.096021592	-76.309620474
Underground Detention/Infiltration Bed	UDBBMP32.1	2004	Lower Conestoga River	0.148	0	0	0.148	85%	4.847074	85%	0.19499	95%	208.148458	Fair	No	40.0875511	-76.3068542
Aboveground Detention Basin	ADB50.1	1994	Lower Conestoga River	0.9	0	0.47	0.43	5%	1.351035	10%	0.08357	10%	72.6322	Fair	No	40.063025492	-76.304823651
Aboveground Detention Basin B	ADB23.12	1996	Lower Conestoga River	1.87	0	1	0.87	5%	2.788055	10%	0.17085	10%	147.89041	Fair	No	40.101709822	-76.304216360
Aboveground Detention Basin	ADB32.2	1990	Lower Conestoga River	12.16	4.27	2.35	5.54	5%	13.28601	10%	0.9433	10%	865.02677	Fair	No	40.090885589	-76.303673354
Aboveground Detention Basin B	ADB41.3	1989	Lower Conestoga River	14.51	0	4.17	10.34	5%	24.55705	10%	1.75282	10%	1610.38243	Fair	No	40.069953589	-76.302252928
Aboveground Detention Basin	ADB50.19	1996	Lower Conestoga River	6.891	0	6.038	0.853	5%	8.3575605	10%	0.349583	10%	241.564213	Fair	No	40.064285775	-76.302169006
Aboveground Retention Basin with Rain Garden	ADBBMP41.1	2011	Lower Conestoga River	0.51	0	0.38	0.13	80%	10.76808	85%	0.287555	90%	238.50837	Fair	No	40.0789833	-76.3017807
Aboveground Detention Basin A with Permanent Pond Surface	ADBBMP41.2	1989	Lower Conestoga River	24.43	0	9.742	14.688	20%	156.518144	45%	11.823084	60%	14162.75754	Fair	No	40.071064291	-76.301176601
Aboveground Detention Basin D1	ADB23.16	2006	Lower Conestoga River	12.35	0	3.47	8.88	5%	20.96596	10%	1.50132	10%	1380.87455	Fair	No	40.098948796	-76.299830445
Underground Detention/Infiltration Basin	URBBMP41.1	2002	Lower Conestoga River	0.34	0	0.09	0.25	80%	9.888985	85%	0.356915	90%	367.92664	Fair	No	40.0730019	-76.2990875
Underground Detention Basin B-2	UDB41.2	2011	Lower Conestoga River	6.44	0	1.62	3.82	5%	9.16067	10%	0.65042	10%	596.45492	Fair	No	40.0732422	-76.2979202
Aboveground Detention Basin with Forebay	ADBBMP41.3	2005	Lower Conestoga River	5.54	0	2.16	3.38	5%	8.91349	10%	0.60166	10%	541.62622	Fair	No	40.0772781	-76.297287
Aboveground Detention Pond 1	ADB32.6	1987	Lower Conestoga River	6.08	0	4.26	1.82	5%	8.24335	10%	0.43546	10%	350.77444	Fair	No	40.084889314	-76.297070373
Underground Detention Basin A	UDB23.5	2006	Lower Conestoga River	2.74	0	0	2.74	5%	5.27861	10%	0.4247	10%	405.63782	Fair	No	40.1012917	-76.2968597
Aboveground Detention Basin A	ADB32.7	2012	Lower Conestoga River	3.51	0	1.94	1.57	5%	5.181885	10%	0.31319	10%	269.46793	Fair	No	40.0877953	-76.2967758
Aboveground Detention Basin E	ADB23.18	2010	Lower Conestoga River	22.1	0	16.16	5.95	5%	29.432595	10%	1.50401	10%	1189.39873	Fair	No	40.0990906	-76.2966156
Aboveground Detention Basin F-2	ADB23.19	2006	Lower Conestoga River	85.24	0	54.69	30.55	5%	119.669855	10%	6.70409	10%	5566.90982	Fair	No	40.1011238	-76.2961884
Aboveground Detention Basin B	ADB32.14	2013	Lower Conestoga River	1.67	0.22	0.79	0.66	5%	2.14997	10%	0.13074	10%	112.79185	Fair	No	40.0881195	-76.295517
Underground Detention Basin	UDB50.4	2005	Lower Conestoga River	0.0513	0	0	0.0513	5%	0.09882945	10%	0.0079515	10%	7.5946059	Fair	No	40.0648727	-76.2952728
Rain Garden at Traffic Island	BMP41.17	2008	Lower Conestoga River	1.23	0	0.19	1.04	70%	31.00776	75%	1.2603	80%	1260.73912	Fair	No	40.0749054	-76.2952576
Underground Detention Basin A2	UDB41.4	2010	Lower Conestoga River	6.7	0	4.5	2.2	5%	9.2423	10%	0.503	10%	411.6131	Fair	No	40.0732346	-76.2946854
Aboveground Detention Basin A	ADB14.12	1993	Lower Conestoga River	45.592	0	36.168	11.473	5%	62.3215505	10%	3.080363	10%	2389.052963	Fair	No	40.109063985	-76.294357973
Aboveground Detention Basin	ADB32.21	1992	Lower Conestoga River	7.95	7	0.8	0.15	5%	1.178575	10%	0.05205	10%	37.48085	Fair	No	40.094522592	-76.294342838
Aboveground Detention Basin C	ADB32.20	2013	Lower Conestoga River	3.42	0	1.86	1.56	5%	5.07366	10%	0.30876	10%	266.46006	Fair	No	40.0884933	-76.2940598
Aboveground Detention Basin 1	ADB33.1	1989	Lower Conestoga River	8.27	0	4.07	4.2	5%	12.61714	10%	0.79752	10%	699.48911	Fair	No	40.099759485	-76.292021607
Aboveground Detention/Infiltration Basin F	ADBBMP32.7	2008	Lower Conestoga River	1.43	0	0.73	0.7	85%	36.72527	85%	1.14563	95%	1116.895905	Fair	No	40.0847359	-76.2920151
Aboveground Detention Basin B with Forebay	ADBBMP14.3	2010	Lower Conestoga River	3.06	0	0.97	2.09	5%	5.105025	10%	0.35887	10%	327.93008	Fair	No	40.1131325	-76.2919846
Aboveground Detention Basin B	ADB14.24	1997	Lower Conestoga River	6.571	0	4.646	2.215	5%	9.4335495	10%	0.510581	10%	416.621323	Fair	No	40.109246962	-76.291883734
Aboveground Detention Basin D	ADB32.26	2013	Lower Conestoga River	3.42	0	2.06	1.36	5%	4.91076	10%	0.28496	10%	240.67006	Fair	No	40.0889587	-76.2915268
Aboveground Detention & Infiltration Basin	ADBBMP14.5	2011	Lower Conestoga River	1.89	0	0.77	1.12	85%	51.23664	85%	1.71122	95%	1714.842815	Fair	No	40.1110535	-76.2909927
Aboveground Detention/Infiltration Basin E	ADBBMP32.12	2008	Lower Conestoga River	3.06	0	1.12	1.94	85%	84.70845	85%	2.89867	95%	2931.58201	Fair	No	40.0844612	-76.2907867
Aboveground Detention Basin	ADB42.1	2000	Lower Conestoga River	16.36	0	11.15	5.21	5%	22.435865	10%	1.20895	10%	984.19098	Fair	No	40.072726088	-76.290033145
Aboveground Detention Basin A	ADB14.26	2010	Lower Conestoga River	1.95	0	1.25	0.7	5%	2.73855	10%	0.1535	10%	127.49635	Fair	No	40.1126633	-76.289917
Aboveground Detention Basin A with Permanent Pond Surface	ADBBMP24.1	2001	Lower Conestoga River	45.4	0	12.3	33.1	20%	309.779	45%	25.07985	60%	30810.4032	Fair	No	40.1022606	-76.2889633
Aboveground Detention Basin	ADB42.5	2002	Lower Conestoga River	31.45	0	15.45	16	5%	48.0044	10%	3.0362	10%	2663.67485	Fair	No	40.078006634	-76.287822607

Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Aboveground Detention Basin	ADB33.5	2001	Lower Conestoga River	1.5	0	0.62	0.88	5%	2.38476	10%	0.15872	10%	142.1155	Fair	No	40.085224458	-76.285889976
Aboveground Detention/Infiltration Basin B	ADBBMP33.4	2008	Lower Conestoga River	5.08	0	2.56	2.25	85%	122.082865	85%	3.747735	95%	3628.760885	Fair	No	40.0849152	-76.2855301
Aboveground Detention Basin C	ADB24.3	2009	Lower Conestoga River	10.04	0	5.93	4.11	5%	14.512075	10%	0.85053	10%	721.67822	Fair	No	40.1068192	-76.2848816
Aboveground Detention Basin B	ADB24.4	2001	Lower Conestoga River	3.32	0	2.4	0.92	5%	4.44118	10%	0.229	10%	182.02276	Fair	No	40.1049995	-76.2841721
Aboveground Detention Basin	ADB24.5	2005	Lower Conestoga River	4.4	0.12	2.68	1.6	5%	6.06256	10%	0.34448	10%	288.03804	Fair	No	40.1028481	-76.2838058
Aboveground Detention Basin (Modified)	ADB33.6	2004	Lower Conestoga River	2.24	0	0.36	1.88	5%	4.02214	10%	0.30436	10%	285.19432	Fair	No	40.0885735	-76.2828903
Aboveground Detention Basin	ADB15.8	1991	Lower Conestoga River	43.57	0	34.27	9.3	5%	56.02469	10%	2.67522	10%	2031.11701	Fair	No	40.109287120	-76.281324828
Underground Detention Basin C3 with Extended Detention	UDB42.1	2011	Lower Conestoga River	0.38	0	0.22	0.16	0%	2.21152	20%	0.06544	0%	167.32404	Fair	No	40.070015	-76.2811661
Underground Detention Basin C2 with Extended Detention	UDB42.2	2011	Lower Conestoga River	0.38	0	0.22	0.16	0%	2.21152	20%	0.06544	60%	167.32404	Fair	No	40.0700302	-76.2811584
Underground Detention Basin C1 with Extended Detention	UDB42.3	2011	Lower Conestoga River	0.38	0	0.22	0.16	0%	2.21152	20%	0.06544	60%	167.32404	Fair	No	40.0700455	-76.2811584
Underground Detention Basin D	UDB42.4	2011	Lower Conestoga River	0.09	0	0.05	0.04	5%	0.13266	10%	0.008	10%	6.87637	Fair	No	40.0701294	-76.2807236
Aboveground Detention Basin A	ADB42.11	1990	Lower Conestoga River	46.998	5.629	26.791	14.578	5%	57.876109	10%	3.224066	10%	2669.691417	Fair	No	40.069483873	-76.279896518
Underground Detention Facility D	UDB33.4	2010	Lower Conestoga River	6.02	0	0.81	5.21	5%	10.937785	10%	0.83671	10%	786.76936	Fair	No	40.0891762	-76.2797241
Aboveground Detention Basin with Permanent Pond Surface	ADBBMP24.18	1992	Lower Conestoga River	47.03	0	39.41	7.62	20%	234.0154	45%	11.69937	60%	11283.25674	Fair	No	40.106417291	-76.279267364
Aboveground Lower Detention Basin C	ADB42.18	1990	Lower Conestoga River	9.801	0	5.933	3.868	5%	14.049198	10%	0.813128	10%	685.909093	Fair	No	40.073834348	-76.277488302
Aboveground Detention Basin	ADB24.7	1992	Lower Conestoga River	7.366	5.23	1.414	7.22	5%	15.481698	10%	1.170004	10%	1095.867962	Fair	No	40.100258007	-76.275641598
Aboveground Detention Basin	ADB24.8	1997	Lower Conestoga River	0.05	0	0.08	0.041	5%	0.1679465	10%	0.009235	10%	7.597203	Fair	No	40.100935616	-76.275300841
Aboveground Detention Basin I	ADB33.21	2011	Lower Conestoga River	29.28	0	23.23	3.05	5%	31.707585	10%	1.30903	10%	895.06154	Fair	No	40.089907627	-76.275008533
Aboveground Detention Basin II	ADB33.22	2011	Lower Conestoga River	19.54	0	14.48	5.06	5%	25.84985	10%	1.30558	10%	1025.56422	Fair	No	40.091641655	-76.271877178
Aboveground Detention Basin	ADB43.3	2002	Lower Conestoga River	2.41	0	1.4	1.01	5%	3.502565	10%	0.20695	10%	176.25363	Fair	No	40.069489262	-76.270651076
Aboveground Detention Basin 2	ADB43.9	1988	Lower Conestoga River	17.205	4.97	9.08	3.155	5%	16.1750675	10%	0.815905	10%	640.440105	Fair	No	40.080673766	-76.270518818
Porous Pavement	POR34.1	2005	Lower Conestoga River	1.765	0	1.5	0.266	80%	34.887184	80%	0.76184	85%	578.160973	Fair	No	40.088630627	-76.269431777
Porous Pavement	POR34.2	2005	Lower Conestoga River	1.765	0	1.5	0.266	80%	34.887184	80%	0.76184	85%	578.160973	Fair	No	40.088484707	-76.269424926
Aboveground Detention Basin	ADB34.6	2005	Lower Conestoga River	60.96	15.18	19.846	15.93	5%	52.757897	10%	3.183606	10%	2737.244668	Fair	No	40.087720199	-76.268814255
Aboveground Detention Basin	ADB16.1	2004	Lower Conestoga River	7.17	0	5.2	1.97	5%	9.577605	10%	0.49255	10%	390.92831	Fair	No	40.1121674	-76.26297
Aboveground Detention Basin	ADB25.2	2001	Lower Conestoga River	25.88	0.3	9.13	16.45	5%	41.843485	10%	2.87843	10%	2609.62644	Fair	No	40.096096168	-76.261668197
Infiltration Trench 1	BMP25.2	2010	Lower Conestoga River	0.5	0	0	0.5	85%	16.37525	85%	0.65875	95%	703.20425	Fair	No	40.1041451	-76.2601242
Aboveground Detention Basin	ADB16.5	2002	Lower Conestoga River	10.15	0	7.55	2.6	5%	13.4045	10%	0.6748	10%	529.06395	Fair	No	40.112257761	-76.260071472
Aboveground Detention Basin	ADB34.8	1989	Lower Conestoga River	3.898	0	3.377	0.516	5%	4.749298	10%	0.201552	10%	140.867249	Fair	No	40.092882171	-76.259835597
Aboveground Detention/Infiltration Basin	ADBBMP38.1	2007	Lower Conestoga River	9.61	0	5.83	3.78	85%	234.00721	85%	6.76413	95%	6373.689935	Good	No	40.077498162	-76.347976155
Underground Detention Basin	UDB30.2	2005	Lower Conestoga River	3.04	0	1.78	1.26	5%	4.40675	10%	0.25938	10%	220.51972	Good	No	40.0822334	-76.3392029
Underground Detention/Infiltration Bed A	UDBBMP39.5	2005	Lower Conestoga River	0.39	0	0.06	0.33	85%	11.941905	85%	0.453135	95%	474.997815	Good	No	40.0819359	-76.3387146
Underground Detention/Infiltration Bed B	UDBBMP39.4	2005	Lower Conestoga River	0.28	0	0.26	0.352	85%	16.443216	85%	0.54332	95%	542.215502	Good	No	40.0813293	-76.3386154
Aboveground Detention Basin	ADB22.15	1992	Lower Conestoga River	5.64	0	2.85	2.79	5%	8.544135	10%	0.53505	10%	467.45502	Good	No	40.103010715	-76.314658956
Aboveground Detention Basin 3	ADB22.16	1990	Lower Conestoga River	7.93	0	5.23	2.7	5%	11.01731	10%	0.60678	10%	499.57249	Good	No	40.095970285	-76.313256642
Aboveground Detention Basin 4	ADB22.18	1990	Lower Conestoga River	3.63	0	2.87	0.76	5%	4.65558	10%	0.22112	10%	167.30959	Good	No	40.097898581	-76.312383023
Aboveground Detention Basin 2	ADB22.19	1990	Lower Conestoga River	4.3	0	2.23	2.7	5%	7.68131	10%	0.49878	10%	442.29349	Good	No	40.095956463	-76.311974101

Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Aboveground Extended Detention Basin	ADBBMP49.2	2013	Lower Conestoga River	5.47	0	4.46	1.01	20%	27.62114	20%	0.63422	60%	1408.06926	Good	No	40.0596581	-76.3097687
Aboveground Detention Basin B	ADB23.11	1980	Lower Conestoga River	2.82	0	1.46	1.36	5%	4.24356	10%	0.26336	10%	229.21426	Good	No	40.107229627	-76.304374343
Aboveground Detention Basin 3	ADB23.10	1997	Lower Conestoga River	4.01	0	1.42	2.59	5%	6.568675	10%	0.45257	10%	410.54343	Good	No	40.108677114	-76.304226219
Aboveground Detention Basin C	ADB41.2	1989	Lower Conestoga River	6.41	0.35	4.258	1.802	5%	8.206449	10%	0.432598	10%	348.07148	Good	No	40.069419348	-76.303655148
Aboveground Detention Basin C	ADB23.15	unkn.	Lower Conestoga River	10.38	0	6.32	4.06	5%	14.84943	10%	0.85682	10%	721.72234	Good	No	40.100002022	-76.301317165
Underground Detention Basin F-	UDB23.2	2006	Lower Conestoga River	23	0	13.03	9.97	5%	33.696565	10%	2.01443	10%	1724.7705	Good	No	40.1037903	-76.300972
Aboveground Detention Basin	ADB41.5	1995	Lower Conestoga River	8.78	0	3.29	5.49	5%	14.234965	10%	0.96939	10%	875.57204	Good	No	40.070547564	-76.300424944
Aboveground Detention Basin	ADB50.6	1996	Lower Conestoga River	3.05	0	2.35	0.7	5%	3.96175	10%	0.1931	10%	148.49865	Good	No	40.064464861	-76.298671870
Aboveground Detention Basin	ADB23.17	1999	Lower Conestoga River	1.72	0	1.4	0.32	5%	2.17328	10%	0.1	10%	74.10396	Good	No	40.096743897	-76.298550243
Aboveground Detention Basin B-3	ADB41.6	2011	Lower Conestoga River	2.66	0	1.8	0.86	5%	3.65839	10%	0.1981	10%	161.68438	Good	No	40.072498944	-76.298136323
Aboveground Detention Basin	ADB41.7	1989	Lower Conestoga River	2.31	0	1.61	0.7	5%	3.13887	10%	0.16646	10%	134.36983	Good	No	40.074095777	-76.297315531
Underground Detention Basin B	UDB23.6	2006	Lower Conestoga River	1.87	0	0	1.87	5%	3.602555	10%	0.28985	10%	276.84041	Good	No	40.101593	-76.2961807
Aboveground Detention Basin	ADB41.8	1996	Lower Conestoga River	3.044	0	0.844	2.2	5%	5.176828	10%	0.371384	10%	341.809092	Good	No	40.076730765	-76.295707369
Rain Garden	BMP41.20	2008	Lower Conestoga River	1.39	0	0.76	0.63	70%	28.82341	75%	0.937575	80%	862.22216	Good	No	40.0754814	-76.2950668
Aboveground Detention Basin	ADB50.10	1988	Lower Conestoga River	17.5	0	13.9	3.6	5%	22.3922	10%	1.0584	10%	798.3475	Good	No	40.066552569	-76.295031774
Aboveground Detention Basin	ADB41.10	1998	Lower Conestoga River	8.26	0	3.18	5.08	5%	13.32278	10%	0.90188	10%	812.77418	Good	No	40.074149994	-76.294871094
Aboveground Detention Basin A	ADB14.14	2005	Lower Conestoga River	0.66	0	0.2	0.46	5%	1.10859	10%	0.0785	10%	71.91838	Good	No	40.1154175	-76.2948685
Aboveground Detention Basin A1	ADB41.11	2010	Lower Conestoga River	9.03	0	3.95	5.08	5%	14.17902	10%	0.9296	10%	827.47579	Good	No	40.0738907	-76.2944565
Aboveground Detention Basin C-4	ADB50.12	1989	Lower Conestoga River	3.6	0	2.412	1.118	5%	4.835971	10%	0.260122	10%	211.56439	Good	No	40.065226716	-76.293323308
Aboveground Detention Basin C-5	ADB51.3	1989	Lower Conestoga River	38.1	0	20.845	17.255	5%	56.4213975	10%	3.424945	10%	2952.47555	Good	No	40.064439011	-76.289853931
Aboveground Detention Basin 2	ADB42.3	1989	Lower Conestoga River	9.67	0	8.69	0.98	5%	11.55125	10%	0.46474	10%	311.00031	Good	No	40.080066466	-76.289076520
Aboveground Detention Basin	ADB15.3	1995	Lower Conestoga River	0.47	0	0.22	0.25	5%	0.726265	10%	0.04667	10%	41.21121	Good	No	40.110129622	-76.288848698
Underground Detention Basin	UDB15.1	2009	Lower Conestoga River	1.93	0	0.4	1.53	5%	3.392345	10%	0.25155	10%	234.14299	Good	No	40.1107445	-76.2886887
Rain Garden NW	BMP42.1	2011	Lower Conestoga River	0.159	0	0	0.159	70%	4.288389	75%	0.1848375	90%	188.310696	Good	No	40.0768547	-76.2886047
Aboveground Detention Basin 1	ADB51.5	1987	Lower Conestoga River	11.4	0	9.519	1.881	5%	14.2088745	10%	0.634239	10%	460.21515	Good	No	40.059856225	-76.288586893
Constructed Wetland	CW15.1	2009	Lower Conestoga River	2.01	0	0.48	1.53	20%	13.92522	45%	1.144935	60%	1414.02258	Good	No	40.1106339	-76.2884521
Rain Garden E	BMP42.2	2011	Lower Conestoga River	0.195	0	0	0.195	70%	5.259345	75%	0.2266875	80%	230.94708	Good	No	40.0767097	-76.2878571
Aboveground Detention Basin D	ADB24.1	2005	Lower Conestoga River	7.18	0	4.36	2.82	5%	10.28105	20%	1.18812	10%	500.72674	Good	No	40.1063766	-76.2873917
Aboveground Detention Basin E with Permanent Pond Surface	ADBBMP15.3	2005	Lower Conestoga River	31.12	0	23.57	7.55	20%	163.01966	45%	9.084465	60%	9406.47996	Good	No	40.1089554	-76.2864609
Aboveground Detention Basin	ADB33.4	1988	Lower Conestoga River	4.82	0	3.98	0.84	5%	6.04402	10%	0.27348	10%	200.34626	Good	No	40.093174161	-76.286291048
Aboveground Detention Basin	ADB42.6	2005	Lower Conestoga River	0.69	0.17	0.23	0.29	5%	0.814445	10%	0.05323	10%	47.32386	Good	No	40.0688286	-76.2823563
Aboveground Detention Basin B	ADB42.9	1991	Lower Conestoga River	4.51	0	4.12	0.39	5%	5.332775	10%	0.20877	10%	136.39993	Good	No	40.077872644	-76.280548412
Underground Detention Facility C	UDB33.3	2010	Lower Conestoga River	1.88	0	0.19	1.69	5%	3.467065	10%	0.26879	10%	253.82034	Good	No	40.0899887	-76.2803955
Constructed Wetland C	CW33.5	2010	Lower Conestoga River	0.594	0	0	0.594	20%	4.577364	45%	0.414315	60%	527.625252	Good	No	40.0895386	-76.2801208
Constructed Wetland D	CW33.6	2010	Lower Conestoga River	0.063	0	0	0.063	20%	0.485478	45%	0.0439425	60%	55.960254	Good	No	40.0897942	-76.2796021
Constructed Wetland E	CW33.8	2010	Lower Conestoga River	0.496	0	0	0.496	20%	3.822176	45%	0.34596	60%	440.575968	Good	No	40.0887222	-76.2791138
Aboveground Detention Basin B	ADB33.10	2002	Lower Conestoga River	11.34	0	7.9	3.44	5%	15.41196	10%	0.8176	10%	660.10262	Good	No	40.089816810	-76.277472671

Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Aboveground Detention Basin A	ADB42.19	1991	Lower Conestoga River	10.07	0	9.28	0.79	5%	11.841295	10%	0.45653	10%	294.13701	Good	No	40.077961120	-76.277414366
Aboveground Detention Basin IV	ADB33.14	2011	Lower Conestoga River	9	0	7.41	1.59	5%	11.303055	10%	0.51321	10%	376.8675	good	No	40.092899726	-76.275650205
Aboveground Detention Basin 1	ADB51.16	1986	Lower Conestoga River	2.25	0	1.6	0.65	5%	3.031425	10%	0.15835	10%	126.77675	Good	No	40.055270740	-76.275308987
Aboveground Detention Basin 1	ADB51.18	1988	Lower Conestoga River	8.73	0	5.69	3.09	5%	12.280165	10%	0.68379	10%	566.09204	Good	No	40.057141069	-76.273633691
Aboveground Detention Basin	ADB16.3	2004	Lower Conestoga River	2.92	0	1.5	1.42	5%	4.40363	10%	0.2741	10%	238.86056	Good	No	40.112882469	-76.269410913
Aboveground Detention Basin 1	ADB43.5	1988	Lower Conestoga River	2.32	0	1.67	0.65	5%	3.109265	10%	0.16087	10%	128.11326	Good	No	40.077582914	-76.269265707
Aboveground Detention Basin 1 with Permenant Pond Surface	ADBBMP16.2	1993	Lower Conestoga River	27.96	0	14.82	13.14	20%	167.1762	45%	11.56599	60%	13369.45968	Good	No	40.110187864	-76.265846253
Aboveground Detention Basin 2 with Permenant Pond Surface	ADBBMP16.3	1993	Lower Conestoga River	4.18	0	2.68	1.5	20%	23.47964	45%	1.48041	60%	1639.40244	Good	No	40.110849097	-76.264223113
Aboveground Detention & Infiltration Basin	ADBBMP25.1	2011	Lower Conestoga River	8.22	0	4.32	4.64	85%	233.6276	85%	7.43512	95%	7309.31216	Good	No	40.1060638	-76.2571564
Aboveground Detention Basin	ADB26.1	2005	Lower Conestoga River	0.826	0	0.541	0.285	5%	1.1506445	10%	0.063651	10%	52.521568	Good	No	40.107747162	-76.241718213
Aboveground Detention Basin	ADB24.2	1987	Lower Conestoga River	7.34	0	5.94	1.4	5%	9.30238	10%	0.43084	10%	320.67262	Good	No	40.099359615	-76.286117293
Underground Detention Basin	UDB52.2	2012	Lower Conestoga River	1.66	0	1.22	0.44	5%	2.2043	10%	0.11212	10%	88.43238	Good	No	40.068370000	-76.270887000
Underground Detention/Infiltration Trench	UDBBMP23.1	2005	Lower Conestoga River	0.67	0	0.21	0.46	85%	19.03507	85%	0.67031	95%	685.038445	Good	No	40.096316000	-76.304348000
Underground Seepage Pit B	UDBBMP43.1	2012	Lower Conestoga River	0.11	0	0	0.11	85%	3.602555	85%	0.144925	95%	154.704935	Good	No	40.068370000	-76.270887000
Aboveground Detention Basin	ADB35.2	1987	Lower Conestoga River	28.55	0	22.92	5.63	5%	36.333235	10%	1.69777	10%	1271.09365	Good	No	40.088353813	-76.251585157
Aboveground Detention Basin	ADB38.1	1985	Millers Run-Little Conestoga Creek	3.75	0	0	3.75	5%	7.224375	10%	0.58125	10%	555.16125	Fair	No	40.081791829	-76.345495533
Aboveground Detention Basin with Constructed Wetland	ADBBMP38.3	1985	Millers Run-Little Conestoga Creek	15.11	0	1.89	13.22	85%	468.69017	85%	17.99569	95%	18935.53519	Fair	No	40.069101262	-76.344336584
Bioretention Basin	ARBBMP30.1	2012	Millers Run-Little Conestoga Creek	0.1	0	0.03	0.07	80%	2.69144	85%	0.101405	90%	98.4222	Fair	No	40.0825081	-76.3429413
Aboveground Detention Basin 3	ADB3.1	2006	Millers Run-Little Conestoga Creek	0.85	0	0.48	0.36	5%	1.2273	10%	0.07308	10%	62.46012	Fair	No	40.1254044	-76.34198
Aboveground Detention Basin B with Permenant Pond Surface	ADBBMP12.1	1993	Millers Run-Little Conestoga Creek	15.31	0	11.82	3.49	20%	79.4693	20%	1.93294	60%	4454.09598	Fair	No	40.113701725	-76.341865573
Aboveground Detention Basin	ADB39.3	1996	Millers Run-Little Conestoga Creek	0.245	0	0.5	1.95	5%	4.312675	10%	0.32025	10%	298.23035	Fair	No	40.078825326	-76.341132087
Aboveground Detention Basin	ADB21.1	2003	Millers Run-Little Conestoga Creek	0.82	0.66	0.07	0.09	5%	0.251225	10%	0.01647	10%	14.66038	Fair	No	40.109291277	-76.340314684
Underground Detention/Infiltration Bed	UDBBMP39.3	2003	Millers Run-Little Conestoga Creek	2.56	0	0.57	1.99	85%	75.948775	85%	2.796245	95%	2902.14151	Fair	No	40.0787544	-76.3400879
Aboveground Detention Basin	ADB30.5	1998	Millers Run-Little Conestoga Creek	4.97	0	3.57	1.4	5%	6.66694	10%	0.34552	10%	275.42221	Fair	No	40.085536857	-76.339658836
Aboveground Detention Basin	ADB48.5	1989	Millers Run-Little Conestoga Creek	5.62	0	1.245	4.375	5%	9.8128775	10%	0.722945	10%	671.45891	Fair	No	40.062328047	-76.339353637
Aboveground Detention Basin A	ADB30.7	2000	Millers Run-Little Conestoga Creek	12	0	8.95	3.05	5%	15.828225	10%	0.79495	10%	622.4135	Fair	No	40.084450056	-76.338763101
Aboveground Detention Basin B	ADB30.8	2000	Millers Run-Little Conestoga Creek	6.55	0	4	2.55	5%	9.360575	10%	0.53925	10%	453.88165	Fair	No	40.086829085	-76.338343156
Aboveground Detention & Infiltration Basin	ADBBMP3.2	2007	Millers Run-Little Conestoga Creek	2.19	0.14	0.22	0.93	85%	34.616845	85%	1.292595	95%	1347.864275	Fair	No	40.1236153	-76.3379135
Aboveground Detention and Infiltration Basin G with Bottom Plants	ADBBMP21.7	2006	Millers Run-Little Conestoga Creek	6.66	0	2.19	4.47	85%	187.794495	85%	6.559365	95%	6683.87586	Fair	No	40.1073914	-76.3367004
Rain Garden	BMP21.1	2006	Millers Run-Little Conestoga Creek	1.42	0	0	1.42	70%	38.29882	75%	1.65075	80%	1681.76848	Fair	No	40.1076813	-76.3358307
Aboveground Detention and Infiltration Basin E with Bottom Plants	ADBBMP21.9	2006	Millers Run-Little Conestoga Creek	2.68	0	1.43	1.25	85%	67.970845	85%	2.084455	95%	2017.38903	Fair	No	40.1057091	-76.335144
Constructed Wetland 1	CW21.1	2006	Millers Run-Little Conestoga Creek	11.56	0	5.49	6.07	20%	71.19494	45%	5.123205	60%	6020.64948	Fair	No	40.1027489	-76.334938
Aboveground Detention Basin F with Permanent Pond Surface	ADBBMP21.12	2006	Millers Run-Little Conestoga Creek	47.6	0	26.25	21.35	20%	281.2831	45%	19.144125	60%	21971.4558	Fair	No	40.1066818	-76.3349228
Aboveground Detention Basin C	ADB12.13	2000	Millers Run-Little Conestoga Creek	6.01	0	3.24	2.77	5%	8.939285	10%	0.54599	10%	471.94043	Fair	No	40.117783935	-76.334710603
Aboveground Detention Basin A	ADB39.6	2006	Millers Run-Little Conestoga Creek	3.65	0	1.36	2.29	5%	5.924005	10%	0.40391	10%	364.98495	Fair	No	40.0784798	-76.3344345
Underground Detention Facility H	UDB21.1	2006	Millers Run-Little Conestoga Creek	3.2	0	0	3.2	5%	6.1648	10%	0.496	10%	473.7376	Fair	No	40.1058426	-76.333374
Aboveground Detention Basin	ADB39.8	1989	Millers Run-Little Conestoga Creek	1.01	0	0.5	0.51	0%	6.15406	20%	0.1941	60%	510.29058	Fair	No	40.069096873	-76.333356554

Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Aboveground Detention Basin	ADB30.9	2008	Millers Run-Little Conestoga Creek	173	0	107.26	65.74	5%	245.92123	10%	14.05106	10%	11780.262	Fair	No	40.082058	-76.3320847
Underground Detention Basin 1	UDB30.3	2008	Millers Run-Little Conestoga Creek	4.51	0	2.14	2.34	5%	6.88769	10%	0.43974	10%	387.27964	Fair	No	40.0829735	-76.3319244
Aboveground Detention Basin 1	ADB39.11	1988	Millers Run-Little Conestoga Creek	42.37	0	29.638	12.99	5%	57.982691	10%	3.080418	10%	2488.956904	Fair	No	40.077419928	-76.331546840
Underground Detention Basin	UDB39.4	2011	Millers Run-Little Conestoga Creek	5.13	0	0.88	4.25	5%	9.166185	10%	0.69043	10%	645.98459	Fair	No	40.0721588	-76.3311462
Aboveground Detention Basin 3 with Biofiltration Area	ADBBMP39.3	2005	Millers Run-Little Conestoga Creek	17.34	0	0.48	12.54	0%	419.76519	85%	16.66833	95%	17723.42667	Fair	No	40.0759163	-76.3309784
Aboveground Detention Basin A	ADB12.29	1987	Millers Run-Little Conestoga Creek	41.71	0	32.21	9.507	5%	54.1327555	10%	2.633145	10%	2022.430331	Fair	No	40.113503716	-76.330495079
Aboveground Retention/Infiltration Basin	ARBBMP12.1	2012	Millers Run-Little Conestoga Creek	1.58	0	1.26	0.32	0%	34.2992	85%	0.80716	95%	678.59393	Fair	No	40.1197243	-76.3290939
Underground Detention/Infiltration Bed C	UDBBMP21.1	2006	Millers Run-Little Conestoga Creek	2.46	0	1.02	1.44	0%	66.4428	85%	2.20932	95%	2210.23941	Fair	No	40.1047058	-76.3288956
Aboveground Detention Basin 4 with Permenant Pond Surface	ADBBMP39.4	1987	Millers Run-Little Conestoga Creek	18.73	0	5.36	13.37	0%	126.8705	45%	10.193895	60%	12490.04034	Fair	No	40.076833281	-76.328653519
Aboveground Detention Basin B	ADB21.11	2006	Millers Run-Little Conestoga Creek	4.56	0	2.52	2.04	5%	6.7323	10%	0.40692	10%	350.12208	Fair	No	40.1058426	-76.3284988
Infiltration Area B	BMP48.7	2013	Millers Run-Little Conestoga Creek	0.2	0	0.05	0.15	0%	5.857775	85%	0.212925	95%	220.03045	Fair	No	40.0677452	-76.328125
Aboveground Detention Basin	ADB39.16	1995	Millers Run-Little Conestoga Creek	0.8	0	0.25	0.92	0%	34.85646	85%	1.2886	95%	1339.241695	Fair	No	40.073127749	-76.326477017
Aboveground Detention Basin with Extended Detention/Infiltration	ADBBMP30.2	2010	Millers Run-Little Conestoga Creek	23.5	0.55	15.026	7.925	0%	127.905698	20%	3.538622	60%	8760.793158	Fair	No	40.0945663	-76.3264389
Aboveground Detention Basin B	ADB12.40	1986	Millers Run-Little Conestoga Creek	21.94	0	17.24	4.7	5%	28.22543	10%	1.34914	10%	1024.96542	Fair	No	40.111921208	-76.325862575
Aboveground Detention Basin	ADB39.17	1989	Millers Run-Little Conestoga Creek	8.95	0	1.98	7.27	5%	16.207415	10%	1.19813	10%	1114.07675	Fair	No	40.073765967	-76.323768351
Underground Detention Basin - 2	UDB40.3	2006	Millers Run-Little Conestoga Creek	0.76	0	0.152	0.608	5%	1.340336	10%	0.099712	10%	92.91228	Fair	No	40.0751877	-76.3236008
Aboveground Detention Basin	ADB40.1	1986	Millers Run-Little Conestoga Creek	43.24	0	34.49	8.75	5%	55.209755	10%	2.59789	10%	1953.89382	Fair	No	40.076420556	-76.323564717
Underground Detention Basin - 1	UDB40.4	2006	Millers Run-Little Conestoga Creek	1.37	0	0.274	1.096	5%	2.416132	10%	0.179744	10%	167.48661	Fair	No	40.0752716	-76.3230591
Aboveground Detention Basin 2	ADB31.10	1987	Millers Run-Little Conestoga Creek	0.94	0	0.7	0.24	5%	1.24076	10%	0.0624	10%	48.89542	Fair	No	40.093635495	-76.323029562
Aboveground Detention Basin	ADB22.1	2004	Millers Run-Little Conestoga Creek	13.385	0	10	3.385	5%	17.6412025	10%	0.884675	10%	692.055555	Fair	No	40.108494852	-76.322499262
Aboveground Detention Basin	ADB31.16	1989	Millers Run-Little Conestoga Creek	15.559	11.23	3.03	1.299	5%	5.8718835	10%	0.310425	10%	250.159647	Fair	No	40.086179140	-76.321480922
Aboveground Detention Basin	ADB40.10	1997	Millers Run-Little Conestoga Creek	0.4	0	0.25	0.15	5%	0.566975	10%	0.03225	10%	26.9797	Fair	No	40.075374704	-76.319939893
Aboveground Detention South Basin II	ADB13.9	1989	Millers Run-Little Conestoga Creek	82.231	56.35	23.938	1.943	20%	121.448982	20%	2.325866	60%	4468.174698	Fair	No	40.109185020	-76.319661939
Aboveground Detention Basin 2	ADB31.27	2002	Millers Run-Little Conestoga Creek	0.86	0.5	0.19	0.17	5%	0.538785	10%	0.03319	10%	28.79498	Fair	No	40.091790473	-76.319330068
Aboveground Detention Basin B	ADB31.29	2000	Millers Run-Little Conestoga Creek	4.29	0	3.2	1.09	5%	5.658285	10%	0.28415	10%	222.46447	Fair	No	40.088487500	-76.319253299
Aboveground Detention Basin	ADB40.11	2008	Millers Run-Little Conestoga Creek	2.19	0	1.74	1.17	5%	4.188885	10%	0.24399	10%	206.43213	Fair	No	40.0730667	-76.3189392
Underground Detention Basin B	UDB40.6	2005	Millers Run-Little Conestoga Creek	0.8	0	0.07	0.73	5%	1.484185	10%	0.11567	10%	109.4079	Fair	No	40.0713997	-76.3189011
Aboveground Detention Basin A-1	ADB13.15	1987	Millers Run-Little Conestoga Creek	52.34	0	43.2	9.14	5%	65.64661	10%	2.9719	10%	2177.93062	Fair	No	40.113951813	-76.318346596
Underground Detention/Infiltration Bed	UDBBMP22.1	2008	Millers Run-Little Conestoga Creek	0.7	0	0.16	0.54	0%	20.70991	85%	0.76041	95%	788.48195	Fair	No	40.0960693	-76.318161
Aboveground Detention Basin	ADB13.19	2000	Millers Run-Little Conestoga Creek	1.21	0	0.75	0.46	5%	1.72019	10%	0.0983	10%	82.41953	Fair	No	40.117707195	-76.317759060
Aboveground Detention Basin (East)	ADB13.23	1995	Millers Run-Little Conestoga Creek	2.31	0	1.13	1.18	5%	3.52983	10%	0.22358	10%	196.26583	Fair	No	40.116212721	-76.317519459
Aboveground Detention Basin B-1	ADB13.33	1992	Millers Run-Little Conestoga Creek	60.2	0	49.9	10.3	5%	75.33175	10%	3.3929	10%	2477.5836	Fair	No	40.114347470	-76.316703788
Aboveground Detention Basin with Infiltration Trench	ADBBMP13.2	2005	Millers Run-Little Conestoga Creek	5.81	0	2.09	3.72	0%	161.34122	85%	5.54064	95%	5610.931135	Fair	No	40.122834739	-76.316451850
Aboveground Detention Basin	ADB13.36	1996	Millers Run-Little Conestoga Creek	2.544	0	0.536	2.008	5%	4.464444	10%	0.330536	10%	307.504192	Fair	No	40.121456321	-76.316418068
Infiltration Trench	BMP13.2	2009	Millers Run-Little Conestoga Creek	0.114	0	0.041	0.073	0%	3.1658505	85%	0.1087235	95%	110.104544	Fair	No	40.1227112	-76.3162766
Aboveground Detention Basin 2	ADB13.41	1988	Millers Run-Little Conestoga Creek	0.96	0	0.22	0.74	5%	1.67025	10%	0.12262	10%	113.75228	Fair	No	40.116398542	-76.316173297
Aboveground Detention Basin 1	ADB13.43	1988	Millers Run-Little Conestoga Creek	0.74	0	0.21	0.53	5%	1.254565	10%	0.08971	10%	82.47232	Fair	No	40.117224682	-76.315840655

Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Underground Detention Basin	UDB40.7	2009	Millers Run-Little Conestoga Creek	0.316	0	0.224	0.092	5%	0.426326	10%	0.022324	10%	17.896788	Fair	No	40.071312	-76.3147659
Aboveground Detention Basin	ADB31.36	2003	Millers Run-Little Conestoga Creek	14.4	0.7	10.4	3.31	5%	17.941515	10%	0.88745	10%	688.58953	Fair	No	40.0931625	-76.314415
Aboveground Detention & Water Quality Basin	ADBBMP13.7	2007	Millers Run-Little Conestoga Creek	5.71	0	2.84	2.87	5%	8.687135	10%	0.54709	10%	479.10753	Fair	No	40.1196251	-76.3130341
Aboveground Detention Basin	ADB13.66	1992	Millers Run-Little Conestoga Creek	5.995	0	3.037	2.918	5%	8.998671	10%	0.561622	10%	489.974915	Fair	No	40.116607091	-76.309478144
Aboveground Detention Basin 5	ADB22.33	1990	Millers Run-Little Conestoga Creek	4.31	0	4	0.31	5%	5.045215	10%	0.19205	10%	122.26533	Fair	No	40.099305435	-76.309277366
Aboveground Detention Basin	ADB13.76	2002	Millers Run-Little Conestoga Creek	1.32	0	0.76	0.56	5%	1.92396	10%	0.11416	10%	97.41476	Fair	No	40.111622778	-76.308146728
Aboveground Detention Basin	ADB13.78	2006	Millers Run-Little Conestoga Creek	7.47	0	1.12	6.35	5%	13.478715	10%	1.02457	10%	961.45721	Fair	No	40.114513226	-76.307483726
Aboveground Detention Basin	ADB13.79	1993	Millers Run-Little Conestoga Creek	10.72	0	4.74	5.98	5%	16.79135	10%	1.09754	10%	975.79796	Fair	No	40.112261103	-76.307458066
Aboveground Detention Basin	ADB14.2	1991	Millers Run-Little Conestoga Creek	6.39	0	1.97	4.42	5%	10.70577	10%	0.75602	10%	691.96327	Fair	No	40.114980166	-76.307173026
Aboveground Detention Basin 2	ADB23.13	1989	Millers Run-Little Conestoga Creek	1.27	0	0.48	0.79	5%	2.055695	10%	0.13973	10%	126.11861	Fair	No	40.107302874	-76.303622910
Underground Detention Facility A	UDB33.1	2010	Millers Run-Little Conestoga Creek	1.88	0	0.19	1.69	5%	3.467065	10%	0.26879	10%	253.82034	Fair	No	40.0893288	-76.2813568
Aboveground Detention Basin A	ADB33.12	1989	Millers Run-Little Conestoga Creek	7.05	0	4.24	2.81	5%	10.128345	10%	0.58819	10%	496.95515	Fair	No	40.082356118	-76.276471185
Aboveground Detention Basin	ADB25.1	1986	Millers Run-Little Conestoga Creek	51	23	19.6	8.4	20%	151.9112	20%	4.0152	60%	9706.704	Fair	No	40.100708490	-76.268694887
Aboveground Detention and Infiltration Basin D with Bottom Plants	ADBBMP21.19	2006	Millers Run-Little Conestoga Creek	11.56	0	5.49	6.07	85%	302.578495	85%	9.677165	95%	9532.69501	Fair	No	40.103751000	-76.332968000
Aboveground Detention & Infiltration Basin B	ADBBMP58.1	2016	Millers Run-Little Conestoga Creek	13.84	0	7.86	5.98	85%	344.43343	85%	10.28381	95%	9835.99714	Fair	No	40.050726000	-76.327826000
Underground Retention/Infiltration Trench 1	URBBMP31.2	2005	Millers Run-Little Conestoga Creek	0.205	0	0	0.205	85%	6.7138525	85%	0.2700875	95%	288.3137425	Fair	No	40.090323642	-76.315296321
Aboveground Detention Basin	ADB2.1	1994	Millers Run-Little Conestoga Creek	1.22	0	0.864	0.356	5%	1.646602	10%	0.086284	10%	69.19966	Good	No	40.123790595	-76.343025962
Underground Detention/Infiltration Bed	UDBBMP39.1	2004	Millers Run-Little Conestoga Creek	1.6	0	0	1.6	0%	52.4008	85%	2.108	95%	2250.2536	Good	No	40.0802116	-76.3427582
Aboveground Detention & Infiltration Bed	ADBBMP39.1	2004	Millers Run-Little Conestoga Creek	1.6	0	0	1.6	0%	52.4008	85%	2.108	95%	2250.2536	Good	No	40.0802231	-76.3426208
Aboveground Detention Basin B	ADB12.43	2002	Millers Run-Little Conestoga Creek	4.69	0	4.06	0.63	5%	5.728415	10%	0.24381	10%	170.78467	Good	No	40.112839308	-76.342356593
Aboveground Detention Basin	ADB30.12	2005	Millers Run-Little Conestoga Creek	0.14	0	0.11	0.03	5%	0.180115	10%	0.00861	10%	6.54152	Good	No	40.084425596	-76.340656820
Aboveground Detention Basin	ADB30.3	1999	Millers Run-Little Conestoga Creek	3.17	0	0.91	2.26	20%	21.46324	20%	0.76612	60%	2111.71086	Good	No	40.0851822	-76.3405304
Aboveground Detention Basin	ADB39.4	1999	Millers Run-Little Conestoga Creek	1.21	0	0.53	0.68	5%	1.89938	10%	0.12448	10%	110.78853	Good	No	40.079409001	-76.340303197
Aboveground Detention Basin 2	ADB3.2	1994	Millers Run-Little Conestoga Creek	4.67	0	3.82	0.86	5%	5.90463	10%	0.27082	10%	200.25224	Good	No	40.1264648	-76.3395233
Underground Detention Basin	UDB39.2	2010	Millers Run-Little Conestoga Creek	2.84	0	0.46	2.38	5%	5.09659	10%	0.38546	10%	361.12512	Good	No	40.0773964	-76.3388748
Aboveground Detention Basin	ADB12.3	2004	Millers Run-Little Conestoga Creek	9.33	0	5.44	3.93	5%	13.620425	10%	0.80499	10%	685.67491	Good	No	40.1199493	-76.3387451
Underground Detention Basin	UDB39.3	2010	Millers Run-Little Conestoga Creek	0.86	0	0.25	0.61	5%	1.453165	10%	0.10355	10%	95.07948	Good	No	40.0768661	-76.3380356
Aboveground Detention Basin E	ADB12.7	2004	Millers Run-Little Conestoga Creek	5.34	0	3.99	1.35	5%	7.037655	10%	0.35289	10%	276.03912	Good	No	40.11866	-76.3376999
Aboveground Detention Basin	ADB12.9	2006	Millers Run-Little Conestoga Creek	0.65	0	0.36	0.29	5%	0.959005	10%	0.05791	10%	49.80595	Good	No	40.1131592	-76.3367615
Aboveground Detention Basin	ADB12.10	1996	Millers Run-Little Conestoga Creek	71.65	0	46.29	25.36	5%	100.33052	10%	5.59724	10%	4638.18545	Good	No	40.119942396	-76.336568655
Constructed Wetland 2	CW21.3	2006	Millers Run-Little Conestoga Creek	11.56	0	5.49	6.07	20%	71.19494	45%	5.123205	60%	6020.64948	Good	No	40.103152176	-76.334544123
Aboveground Detention Basin	ADB39.7	1994	Millers Run-Little Conestoga Creek	0.48	0	0.24	0.24	5%	0.72924	10%	0.04584	10%	40.11264	Good	No	40.070246173	-76.334480917
Aboveground Detention Basin B	ADB12.18	2000	Millers Run-Little Conestoga Creek	9.29	0	5.07	4.22	5%	13.76767	10%	0.83662	10%	721.54297	Good	No	40.119571875	-76.334369204
Aboveground Detention Basin	ADB48.1	1988	Millers Run-Little Conestoga Creek	1.35	0	0.34	1.01	5%	2.323845	10%	0.16879	10%	156.01505	Good	No	40.058263815	-76.333596801
Aboveground Detention Basin	ADB39.9	1992	Millers Run-Little Conestoga Creek	0.63	20	0.087	0.543	5%	1.1428335	10%	0.087297	10%	82.04844	Good	No	40.070853372	-76.332261263
Aboveground Detention Basin 2	ADB39.10	1987	Millers Run-Little Conestoga Creek	16.09	0	4.49	11.6	5%	27.34028	10%	1.95964	10%	1803.02637	Good	No	40.075053007	-76.332044136
Aboveground Detention Basin	ADB39.12	1999	Millers Run-Little Conestoga Creek	2.29	0	0.53	1.76	5%	3.98	10%	0.29188	10%	270.67497	Good	No	40.070917976	-76.331561492

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Aboveground Retention Basin 1	ARB39.1	1996	Millers Run-Little Conestoga Creek	0.03	0	0	0.03	5%	0.057795	10%	0.00465	10%	4.44129	Good	No	40.070124839	-76.331249391
Aboveground Retention Basin 3	ARB39.2	1996	Millers Run-Little Conestoga Creek	0.09	0	0	0.09	5%	0.173385	10%	0.01395	10%	13.32387	Good	No	40.070025488	-76.331226420
Aboveground Retention Basin 2	ARB39.3	1996	Millers Run-Little Conestoga Creek	0.028	0	0	0.028	5%	0.053942	10%	0.00434	10%	4.145204	Good	No	40.070121966	-76.331101846
Underground Detention Basin 2	UDB30.4	2008	Millers Run-Little Conestoga Creek	3.27	0	0.71	2.56	5%	5.72136	10%	0.42236	10%	392.54611	Good	No	40.0832176	-76.3309479
Aboveground Detention Basin	ADB39.14	1996	Millers Run-Little Conestoga Creek	2.88	0	1.1	1.78	5%	4.65237	10%	0.3155	10%	284.51884	Good	No	40.072070769	-76.328924693
Underground Detention Basin	UDB3.1	2008	Millers Run-Little Conestoga Creek	0.067	0	0	0.067	5%	0.1290755	10%	0.010385	10%	9.918881	Good	No	40.1231537	-76.3284149
Aboveground Detention Basin	ADB21.10	1988	Millers Run-Little Conestoga Creek	37.743	0	30.493	7.25	5%	47.875341	10%	2.221498	10%	1655.514599	Good	No	40.100000161	-76.328229860
Aboveground Detention Basin with Extended Detention	ADBBMP39.5	2010	Millers Run-Little Conestoga Creek	3.7	0	0.79	2.91	20%	25.93838	20%	0.95898	60%	2675.3316	Good	No	40.0712624	-76.3275528
Aboveground Detention and Infiltration Basin A with Bottom Plants	ADBBMP21.24	2006	Millers Run-Little Conestoga Creek	4.08	0	2.05	2.03	85%	105.236715	85%	3.301825	95%	3226.84543	Good	No	40.10606	-76.3271713
Aboveground Detention Basin with Rain Garden	ADBBMP39.6	2010	Millers Run-Little Conestoga Creek	0.56	0	0.47	0.09	5%	0.696025	10%	0.03087	10%	22.29758	Good	No	40.0771255	-76.3271713
Aboveground Detention Basin	ADB39.15	1998	Millers Run-Little Conestoga Creek	1.68	0	0.88	0.8	5%	2.51976	10%	0.15568	10%	135.23624	Good	No	40.076315725	-76.327043302
Aboveground Detention Basin	ADB40.2	1989	Millers Run-Little Conestoga Creek	15.23	0	6.07	9.16	5%	24.39658	10%	1.63832	10%	1471.96839	Good	No	40.076310938	-76.326367003
Aboveground Infiltration Basin/BMP A-1 planted with rain garden seed mix	ARBBMP58.1	2014	Millers Run-Little Conestoga Creek	0.11	0	0.06	0.07	85%	3.426775	85%	0.110585	95%	109.331605	Good	No	40.053402793	-76.326158700
Aboveground Detention Basin C with Bottom Plantings	ADBBMP3.4	2002	Millers Run-Little Conestoga Creek	1.12	0	1.03	0.09	5%	1.318745	10%	0.05103	10%	32.98966	Good	No	40.126694545	-76.325286868
Aboveground Detention Basin A with Biofiltration Area	ADBBMP40.1	2013	Millers Run-Little Conestoga Creek	13.1	0	5	8.1	5%	21.16465	10%	1.4355	10%	1294.6133	Good	No	40.078427920	-76.324880551
Aboveground Detention Basin 1	ADB31.8	1987	Millers Run-Little Conestoga Creek	1.53	0	1.15	0.38	5%	2.01087	10%	0.1003	10%	78.21329	Good	No	40.093679137	-76.323512502
Aboveground Detention North Basin I	ADB13.8	1989	Millers Run-Little Conestoga Creek	21.53	0	15.931	5.599	20%	114.006982	20%	2.882722	60%	6798.38004	Good	No	40.110472271	-76.322298669
Aboveground Detention Basin B-2	ADB40.7	1986	Millers Run-Little Conestoga Creek	1.3	0	0.636	0.64	5%	1.940192	10%	0.122096	10%	106.890668	Good	No	40.076293200	-76.321627309
Aboveground Detention Basin A	ADB22.20	2007	Millers Run-Little Conestoga Creek	17.53	0	12.24	5.29	5%	23.802065	10%	1.26059	10%	1016.84579	Good	No	40.1058006	-76.3211823
Aboveground Detention Basin	ADB31.19	2002	Millers Run-Little Conestoga Creek	5.31	2.5	1.95	0.86	5%	3.82519	10%	0.2035	10%	164.54833	Good	No	40.093796841	-76.320650342
Aboveground Detention Basin A	ADB31.22	2000	Millers Run-Little Conestoga Creek	8.18	0.35	5.5	2.24	5%	10.43136	10%	0.5452	10%	436.62782	Good	No	40.094963035	-76.320032563
Aboveground Detention & Infiltration Basin A with Bottom Plantings	ADBBMP4.2	2002	Millers Run-Little Conestoga Creek	13.66	0	11.07	2.49	85%	290.816025	85%	6.667995	95%	5509.87251	Good	No	40.126504613	-76.319844226
Aboveground Detention Basin with Forebay	ADBBMP40.7	2002	Millers Run-Little Conestoga Creek	123.13	0	107.548	15.582	5%	149.612099	10%	6.286938	10%	4360.21999	Good	No	40.079407456	-76.319503173
Underground Detention Basin A	UDB40.5	2005	Millers Run-Little Conestoga Creek	2.1	0	0.35	0.175	5%	0.7263375	10%	0.039725	10%	32.590075	Good	No	40.0715714	-76.3194733
Aboveground Detention Basin 1	ADB31.26	2002	Millers Run-Little Conestoga Creek	0.64	0.45	0.17	0.02	5%	0.22757	10%	0.00922	10%	6.20667	Good	No	40.091307542	-76.319406044
Aboveground Detention Basin (South)	ADB13.13	1995	Millers Run-Little Conestoga Creek	1.91	0	0.47	1.44	5%	3.2968	10%	0.24012	10%	222.15563	Good	No	40.116351051	-76.318673006
Aboveground Detention/Biofiltration Basin	ADBBMP22.6	2010	Millers Run-Little Conestoga Creek	108.07	3.15	56.839	48.081	85%	2649.161247	85%	80.7394515	95%	77931.18385	Good	No	40.1010017	-76.3178558
Aboveground Detention Basin	ADB22.14	2008	Millers Run-Little Conestoga Creek	3.7	0	1.74	1.96	5%	5.71082	10%	0.36644	10%	323.3861	Good	No	40.096190186	-76.317643334
Aboveground Detention Basin 1	ADB13.25	1998	Millers Run-Little Conestoga Creek	1.11	0	0.36	0.75	5%	1.845195	10%	0.12921	10%	117.90573	Good	No	40.118290363	-76.317274287
Aboveground Detention Basin B	ADB31.31	2000	Millers Run-Little Conestoga Creek	4.35	0.15	2.59	1.61	5%	5.981745	10%	0.34279	10%	287.8001	Good	No	40.0951828	-76.3169668
Aboveground Detention Basin	ADB13.31	1996	Millers Run-Little Conestoga Creek	1.41	0	0.55	0.86	5%	2.26839	10%	0.1531	10%	137.81813	Good	No	40.117191205	-76.316674521
Aboveground Detention Basin 2	ADB13.37	1998	Millers Run-Little Conestoga Creek	0.91	0	0.2	0.71	5%	1.590215	10%	0.11725	10%	108.92913	Good	No	40.118376897	-76.316280960
Aboveground Detention Basin with Concrete Lagoon	ADB49.3	2009	Millers Run-Little Conestoga Creek	36.57	0	1.8	34.77	85%	1172.762085	85%	46.360275	95%	49227.31385	Good	No	40.055552605	-76.314323458
Aboveground Detention Basin A with Biofiltration	ADBBMP13.3	2006	Millers Run-Little Conestoga Creek	0.285	0.06	0.67	1.82	5%	4.25127	10%	0.30622	10%	282.23057	Good	No	40.1212769	-76.3141403
Aboveground Detention Basin D	ADB13.48	1991	Millers Run-Little Conestoga Creek	19.34	0	4.64	14.7	5%	33.47923	10%	2.44554	10%	2264.82362	Good	No	40.121797232	-76.313523443
Infiltration Area	BMP13.9	2007	Millers Run-Little Conestoga Creek	0.239	0	0.119	0.12	85%	6.179636	85%	0.194514	95%	190.3536565	Good	No	40.1195679	-76.3130875
Aboveground Detention Basin 1	ADB49.5	2001	Millers Run-Little Conestoga Creek	0.4	0	0.082	0.318	5%	0.703811	10%	0.052242	10%	48.6433	Good	No	40.058769059	-76.311933170
Aboveground Detention Basin A	ADB13.53	2001	Millers Run-Little Conestoga Creek	17.78	0	7.69	10.09	5%	27.989665	10%	1.84079	10%	1640.57904	Good	No	40.112609651	-76.311776899

Stormwater Facility	Facility ID	Year	Watershed	Drainage Area	Undeveloped	Pervious	Impervious	Effectiveness Values (TN)	Total Nitrogen (TN)	Effectiveness Values (TP)	Total Phosphorus (TP)	Effectiveness Values (TSS)	Total Supended Solids, Sediments (TSS)	Condition	Parsed Out	Latitude	longitude
Aboveground Detention Basin 2	ADB49.6	2001	Millers Run-Little Conestoga Creek	0.99	0	0.286	0.704	5%	1.674288	10%	0.119416	10%	109.68287	Good	No	40.058684059	-76.311393926
Aboveground Detention Basin C	ADB13.58	2001	Millers Run-Little Conestoga Creek	6.47	0	3.07	3.4	5%	9.96394	10%	0.63752	10%	561.96171	Good	No	40.115142065	-76.311335186
Aboveground Detention Basin 4	ADB49.8	2001	Millers Run-Little Conestoga Creek	1.43	0	0.54	0.89	5%	2.315065	10%	0.15739	10%	142.06849	Good	No	40.058675580	-76.310888575
Aboveground Detention Basin	ADB13.63	1998	Millers Run-Little Conestoga Creek	1.242	0	0.926	0.316	5%	1.638486	10%	0.082316	10%	64.461706	Good	No	40.117376766	-76.310757636
Infiltration/Extended Release Area 1	BMP22.4	2006	Millers Run-Little Conestoga Creek	0.153	0	0	0.153	85%	5.0108265	85%	0.2015775	95%	215.1805005	Good	No	40.1053696	-76.310524
Aboveground Detention Basin	ADB49.12	1996	Millers Run-Little Conestoga Creek	1.582	0	0.078	1.504	5%	2.984192	10%	0.235928	10%	224.145926	Good	No	40.062579575	-76.309282591
Aboveground Detention Basin	ADB13.67	1987	Millers Run-Little Conestoga Creek	2.08	0	1.08	1	5%	3.12746	10%	0.19388	10%	168.66344	Good	No	40.116789380	-76.309050561
Aboveground Detention Basin I	ADB13.68	1984	Millers Run-Little Conestoga Creek	0.79	0	0.28	0.51	5%	1.293875	10%	0.08913	10%	80.84797	Good	No	40.117414105	-76.309018319
Aboveground Detention Basin E-1	ADB22.38	2006	Millers Run-Little Conestoga Creek	6.86	0	4.25	2.61	5%	9.754165	10%	0.55755	10%	467.53748	Good	No	40.1075974	-76.3085175
Aboveground Detention Basin	ADB23.4	2001	Millers Run-Little Conestoga Creek	2.05	0	1.45	0.6	5%	2.7683	10%	0.1452	10%	116.51065	Good	No	40.100171664	-76.307076191
Aboveground Detention Basin E-2	ADB23.1	2006	Millers Run-Little Conestoga Creek	1.9	0	1.09	0.81	5%	2.772545	10%	0.16479	10%	140.7262	Good	No	40.1077766	-76.3069534
Aboveground Detention Basin	ADB14.3	1988	Millers Run-Little Conestoga Creek	0.93	0	0.1	0.83	5%	1.710195	10%	0.13225	10%	124.78499	Good	No	40.116678365	-76.306885238
Infiltration/Extended Release Area 3	BMP23.1	2006	Millers Run-Little Conestoga Creek	0.582	0	0	0.582	20%	4.484892	20%	0.18042	60%	516.966156	Good	No	40.1063652	-76.3065796
Aboveground Detention Basin 1	ADB14.7	1987	Millers Run-Little Conestoga Creek	3.28	0	2.33	0.95	5%	4.421135	10%	0.23113	10%	185.12754	Good	No	40.114646094	-76.305106932
Aboveground Detention Basin 2	ADB14.6	1987	Millers Run-Little Conestoga Creek	4.25	0	3.04	1.21	5%	5.711545	10%	0.29699	10%	237.17475	Good	No	40.114412423	-76.304098367
Aboveground Detention Basin	ADB5.1	1987	Millers Run-Little Conestoga Creek	2.17	0	0.58	1.59	5%	3.708095	10%	0.26733	10%	246.46231	Good	No	40.125248833	-76.303484332
Aboveground Detention Basin with Forebays	ADBBMP14.1	2001	Millers Run-Little Conestoga Creek	72.99	0	41.95	31.04	5%	106.44696	10%	6.3214	10%	5396.20607	Good	No	40.114150833	-76.302646627
Aboveground Detention Basin 1	ADB23.14	1989	Millers Run-Little Conestoga Creek	2.28	0	1.01	1.27	5%	3.569775	10%	0.23321	10%	207.29854	Good	No	40.107439712	-76.302280565
Aboveground Detention Basin	ADB41.13	2000	Millers Run-Little Conestoga Creek	1.76	0	0.78	0.98	5%	2.75533	10%	0.17998	10%	159.97468	Good	No	40.080929126	-76.292476018
Underground Detention Facility B	UDB33.2	2010	Millers Run-Little Conestoga Creek	1.88	0	0.19	1.69	5%	3.467065	10%	0.26879	10%	253.82034	Good	No	40.0896111	-76.2808456
Constructed Wetland B	CW33.2	2010	Millers Run-Little Conestoga Creek	0.076	0	0	0.076	20%	0.585656	45%	0.05301	60%	67.507608	Good	No	40.0899391	-76.2807312
Aboveground Detention Basin B	ADB33.19	1989	Millers Run-Little Conestoga Creek	27.1	0	17.9	9.2	5%	37.6286	10%	2.0704	10%	1703.7603	Good	No	40.083432339	-76.274766867
Aboveground Detention Basin C with Extended Detention	ADBBMP21.3	2012	Millers Run-Little Conestoga Creek	3.883	0	1.907	1.976	20%	23.709392	20%	0.749864	60%	1973.659914	Good	No	40.108669000	-76.342022000
Aboveground Detention Basin	ADB12.30	2004	Millers Run-Little Conestoga Creek	55.73	24.54	20.845	10.345	5%	43.1092825	10%	2.353895	10%	1929.49842	Good	No	40.121855000	-76.325525000
Aboveground Detention Basin B	ADB13.74	2001	Millers Run-Little Conestoga Creek	4.1	0	2.38	1.72	5%	5.96014	10%	0.35228	10%	300.0753	Good	No	40.113957000	-76.308328000
Aboveground Detention Basin C	ADB14.19	2005	Millers Run-Little Conestoga Creek	26.44	4.33	14.509	7.601	5%	30.7773345	85%	14.4540715	95%	13321.80421	Good	No	40.1158791	-76.293045
Infiltration Trench	BMP4.2	2005	Millers Run-Little Conestoga Creek	0.057	0	0.02	0.037	85%	1.5898485	85%	0.0548675	95%	55.6647845	Good	No	40.122977000	-76.315861000

Existing BMP Reductions PRP update	TN lbs/yr	TP lbs/yr	TSS lbs/yr
Lower Conestoga River	3,409.06	179.09	176,816.92
Millers Run-Little Conestoga Creek	9,562.32	388.14	403,072.34
Total	12,971.38	567.23	579,889.26

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.28

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	2:05PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
82 °F		0.6 in.	Clear

Overall (Fair Condition)

The basin is overall in fair condition the upstream and downstream collection system do need some attention. the structural part of the basin the berm is in good condition.

Components

Is BMP in E&S Mode?
No basin is not in E& S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The rock spillway is in good condition, it's free from vegetation.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition.

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition. The trash racks covering the headwall and the endwall are both covered with debris.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system 1 is in fair condition. There is rock and sediment in the endwall pipe and sediment and vegitation in the rip rap apron. Upstream collection system 2 is in fair condition. There is rock and sediment in the endwall pipe. Upstream collection system 3 is in fair condition, there is sediment in the rip rap apron and the endwall pipe. Upstream collection system 4 is in fair condition, there is sediment in the upstream pipe. Upstream collection system 5 is in good condition, there are no issues present. Upstream collection system 6 is in fair condition, there is sediment in both the rip rap apron and the upstream pipe. Upstream collection system 7 is in fair condition, there is a large amount of sediment and vegetation at the end of the endwall. Upstream collection system 8 is in fair condition, there is sediment in the rip rap apron and the upstream pipe.

Recommendations

1. Remove trash from trash racks at both the headwall and the endwall.
2. Remove rock and sediment build up from upstream collection pipes and rip rap aprons at upstream collections systems 1-4, and 6-8.

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin 1



Photo No. 5: Earthen Component: Bottom of Basin 2



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Structural Component: Upstream Collection endwall 1



Photo No. 10: Structural Component: Upstream Collection endwall 1



Photo No. 11: Structural Component: Upstream Collection endwall 2



Photo No. 12: Structural Component: Upstream Collection endwall 2



Photo No. 13: Structural Component: Upstream Collection endwall 3



Photo No. 14: Structural Component: Upstream Collection. Endwall 3



Photo No. 15: Structural Component: Upstream Collection endwall 4



Photo No. 16: Structural Component: Upstream Collection endwall 4



Photo No. 17: Structural Component: Upstream Collection endwall 5



Photo No. 18: Structural Component: Upstream Collection endwall 5



Photo No. 19: Structural Component: Upstream Collection endwall 6



Photo No. 20: Structural Component: Upstream Collection endwall 6



Photo No. 21: Structural Component: Upstream Collection endwall 7



Photo No. 22: Structural Component: Upstream Collection endwall 8



Photo No. 23: Structural Component: Upstream Collection endwall 8



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP32.1

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	3:30PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Partly Cloudy

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside

Earthen Component: Berm, Top
Top of the berm has evergreen trees planted.

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Minor debris pile was observed.

Earthen Component: Spillway
Spillway appears to be one foot lower that the berm on the south side. No discrepancies was observed.

Structural Component: Pipe
Minor debris was observed in the pipe. (Leaves)

Structural Component: Outlet Structure
Outlet structure was in good condition. Minor debris(leaves) was observed adjacent to the trash rack.

Structural Component: Upstream Collection
Minor debris(leaves) was observed in the bottom of the inlet structure for the underground facility. The same condition was observed in the outlet of the underground facility. No silt was present in the upstream collection.

Structural Component: Other
Upstream collection i5 has a sapling growing out of the bottom of the inlet box. Sediment must be present in the bottom of the box. Minor debris(leaves) were also observed in the bottom of the inlet box.

Recommendations

1. Remove debris pile in the bottom of basin. See photos.
2. Remove sapling from I-5 inlet.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



Photo No. 3: Pipe



Photo No. 4: Outlet Structure



Photo No. 5: Spillway



Photo No. 6: Berm east view



Photo No. 7: Berm west view



Photo No. 8: Bottom of Basin



Photo No. 9: Upstream Collection I-5



Photo No. 10: Upstream Collection I-5



Photo No. 11: Upstream Collection I-5



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB50.1

NPDES Permit #

Inspection Date
10/13/16

Time
3:15PM

Investigator
Ryan M Barton

Temperature
64 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Mostly Cloudy

Overall (Good Condition)

Excessive pine needles are choking otherwise functioning system

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)
Pine needles and minor brush and ivy.

Earthen Component: Berm, Top (Good)
Large established pine trees with ivy below. Low elevation difference from bottom of basin.

Earthen Component: Berm, Downslope (Good)
Covered in ivy. Minor swale along bottom before pavement begins.

Earthen Component: Bottom of Basin (Fair)
Graise choked with pine needles rocks and debris. Flat

Earthen Component: Spillway (Good)
Concrete level Spreader with low flow area in middle. Middle area is chocked with pine needles.

Structural Component: Upstream Collection (Good)
Flow from upstream swale to South. See report.

Recommendations

1. Remove excessive pine needles from area.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.12

NPDES Permit #

Inspection Date	Time	Investigator
12/27/16	2:35PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
57 °F			Clear

Overall (Fair Condition)

The basin is in fair condition. There are no signs of erosion present. The spillway could use more rip-rap on the outside to stop possible erosion. The sediment issues are beginning at the outlet structures.

Components

Is BMP in E&S Mode?
Basin is not in E&S Mode.

Earthen Component: Berm, Inside (Good)
The berm inside the wall is mowed grass and has been well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is mowed grass and has been well maintained.

Earthen Component: Berm, Downslope (Good)
The down slope is mowed grass and has been well maintained.

Earthen Component: Bottom of Basin (Good)
The majority of the bottom of the basin is mowed grass and has been well maintained. There is a section near the upstream collection system that has washout of the rock area nearby.

Earthen Component: Spillway (Fair)
The spillway is netted rock with some loose rock on the outflow side. This area could use some more rock.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
The outlet structure is in good condition with no signs of erosion. Rip-rap is in place before and after outfall. Both sides of rip-rap are full of sediment. The sediment is starting to block the outflow of the basin.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection is one inflow pipe in fair condition with stone around the outflow. Sheet flow from the parking lot is another inflow area. The area of stone has washed down into the basin around the upstream collection. This could cause issues in the future.

Recommendations

1. Add rip-rap to to the spillway on the outside.
2. Remove the sediment build-up from rip-rap apron at the outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB32.2			

Inspection Date	Time	Investigator
10/06/16	8:00AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
51 °F			Overcast

Overall (Fair Condition)

The overall basin is in good functioning condition. The outfall for the basin is in poor condition and could be affecting this condition.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's grass and is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition it is either pavement or grass. The grass sections are mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's grass and is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it is free from any major vegetation or other obstructions.

Structural Component: Pipe (Good)
The pipe is in good condition no sediment issues.

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition. The low flow channel from the upstream collection system is partially full of sediment. The outlet for the outfall structure is almost completely covered by a build up of sediment.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition, there is some sediment build up in the upstream pipe.

Recommendations

1. Remove sediment t from upstream collection system pipe.
2. Remove sediment from low flow channel and outlet structure outfall.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Structural Component: Outlet Structure outfall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB41.3			

Inspection Date	Time	Investigator
10/14/16	1:30PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
61 °F	0.01 in.	0.01 in.	Clear

Overall (Fair Condition)

The basin is in fair condition the upstream collection systems are in poor condition due to sediment build up over time.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, the majority of the inside of the berm is mowed grass. There is a section towards the end of Carrabba's parking lot that has established trees, also the end of the basin toward the entrance is mulched with established trees and shrubs.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. The section boarders get Oregon pike is mowed grass. The area on the opposite side is pavement.

Earthen Component: Berm, Downslope
The is no berm down slope, basin is sunken.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe (Fair)
The pipe is in fair condition, there are a few sags in the pipe. Currently the sags a cause there to be a blockage by a plastic bag.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there are no signs of erosion taking place, or sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in poor condition, there is a large amount of sediment build up at the mouth of the pipes, no rip rap apron is present. Upstream collection system 2 is in fair condition, there is some vegetation covering the top end of the rip rap apron. Upstream collection system 3 is in fair condition, there is sediment and vegetation covering the majority of the rip rap apron. Upstream collection system 4 is in poor condition, there is sediment and vegetation covering the rip rap apron, there are also rocks in the pipe. Upstream system 5 is causing erosion and pooling at the end of its rip rap apron, unsure of the source of collection system 5. Upstream collection system 6 is in good condition no sediment issues are present.

Recommendations

1. Remove sediment from upstream collection system endwalls, pipes and rip rap aprons.
2. Repair rip rap aprons if needed.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside grass



Photo No. 2: Earthen Component: Berm, Inside End of Carrabba's parking lot



Photo No. 3: Earthen Component: Berm, Inside established mulch bed at entrance



Photo No. 4: Earthen Component: Berm, Top grass



Photo No. 5: Earthen Component: Berm, Top parking lot



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Structural Component: Pipe



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection 2



Photo No. 11: Structural Component: Upstream Collection 3



Photo No. 12: Structural Component: Upstream Collection 4



Photo No. 13: Structural Component: Upstream Collection 5



Photo No. 14: Structural Component: Upstream Collection 6



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB50.3

NPDES Permit #

Inspection Date	Time	Investigator
09/12/16	3:50PM	Ryan M Barton

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
81 °F			Clear

Overall (Fair Condition)

Outlet and inlet structures are clogged with debris and vegetation. Inlet downstream of outlet structure is collapsing.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Excellent)
Mowed grass

Earthen Component: Berm, Top (Excellent)
Concrete sidewalk to North mowed grass to south

Earthen Component: Berm, Downslope (Excellent)
Mowed grass on South only

Earthen Component: Bottom of Basin (Excellent)
Mowed grass with slightly lower area down center

Earthen Component: Spillway (Good)
Spillway slopes to the south and into street. Concrete finish is in good condition.

Structural Component: Pipe (Poor)
The street inlet at the end of the pipe is settling with open sinkholes in pavement around it.

Structural Component: Outlet Structure (Fair)
Overgrown and filled with debris

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
NOrth inlet headwall is overgrown. Inlet in street upstream of it is filled with sediment and debris half way up pipe. Upstream south swale is overgrown and not maintained. North East inlet headwall is overgrown and the rock apron is full of grass clippings.

Recommendations

1. Clear vegetation and debris from system
2. Replace collapsing inlet in street

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Bottom of Basin



Photo No. 3: Structural Component: Upstream Collection



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Pipe



Photo No. 8: Structural Component: Outlet Structure 1



Photo No. 9: Structural Component: Outlet Structure 2



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP41.1

NPDES Permit #

Inspection Date	Time	Investigator
10/17/14	12:55PM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
65 °F	0.75 in.	2 in.	Partly Cloudy

Overall

It may need a different type of vegatation.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Ok

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Vegetation is only grass there is no mulch in the rain garden. Leaves and debris are pretty much cleared up.

Earthen Component: Spillway
Ok

Structural Component: Upstream Collection
Water has eroded a small channel into the rain garden. Comes from east side along house.

Recommendations

1. Check whether vegetation in rain garden matchs design.

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway level spreader



Photo No. 2: Berm



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP41.2			
Inspection Date	**Time**		**Investigator**
10/14/16	2:10PM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
62 °F	0.01 in.	0.01 in.	Clear

Overall (Fair Condition)

The basin is in fair condition, the berms are well maintained by a landscape company. The upstream collection system is the only issues with the basin one is erosion the remainder is sediment.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is first a rock shore, than mulch beds and established bushes.

Earthen Component: Berm, Top (Good)
The top of the berm in most areas is grass other areas is a mixture of mulch flower beds and pavement.

Earthen Component: Berm, Downslope
No berm downslope area is sunken.

Earthen Component: Bottom of Basin (Good)
The basin is set up as a permanent pond.

Earthen Component: Spillway
No spillway found.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition no issues present.

Structural Component: Outlet Structure (Fair)
Outlet structure is in good condition, there is some settlement behind the headwall. The orifice plate adds approximately an inch to the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in fair condition, there is sediment in the rip rap apron between the endwall and the pond. Upstream collection system 2 is in poor condition, the rip rap apron is full of sediment, and the bank next to the apron is eroding. Upstream collection system 3 is in fair condition there is some sediment wash off from the pavement, and there is some displacement of rocks at the endwall. Upstream collection system 4 is in good condition there is minimal sediment build up in the rip rap apron.

Recommendations

1. Remove sediment from rip rap aprons at upstream collection systems.
2. Fix erosion issues at upstream collection system 2.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Structural Component: Outlet Structure settlement



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection 1



Photo No. 6: Structural Component: Upstream Collection 1



Photo No. 7: Structural Component: Upstream Collection 2



Photo No. 8: Structural Component: Upstream Collection 3



Photo No. 9: Structural Component: Upstream Collection 3



Photo No. 10: Structural Component: Upstream Collection 4



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB23.16			

Inspection Date	Time	Investigator
12/17/14	1:45PM	jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F	0.35 in.	0.35 in.	Overcast

Overall (Fair Condition)

No comments

Components

Earthen Component: Berm, Inside
East and west sides are in acceptable condition and maintained.

Earthen Component: Berm, Top
East and west sides are in acceptable condition and maintained.

Earthen Component: Berm, Downslope
East and west sides are in acceptable condition and maintained.

Earthen Component: Bottom of Basin
East and west portions are well mowed and maintained. Minor water was observed in front of the west outlet flow flow structure.

Earthen Component: Spillway
No spillway was observed since road has been constructed.

Structural Component: Outlet Structure
West outlet acceptable condition. East inflow portion of the headwall has debris clogging the trash rack of the lower orifice. Sediment was observed in the concrete flow channel.

Structural Component: Upstream Collection
Debris was observed in the trash rack of the north outlet structure. Partial silt is present in the upstream collection.

Recommendations

1. Trash rack and office should be cleared of debris.
2. Sediment and debris should be removed from concrete channel.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure west outlet



Photo No. 2: Berm west side north view



Photo No. 3: Berm west side southview



Photo No. 4: Spillway



Photo No. 5: Upstream Collection north outlet structure



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
URBBMP41.1

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	9:15AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F			Overcast

Overall (Fair Condition)

Leaves and trash blocking outlet features.

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Trash rack has moderate clogging due to leaves and trash. No standing water at grate.

Structural Component: Cleanouts
Could not remove

Structural Component: Upstream Collection
Moderate accumulation of leaves and trash. Partial silt is present in the upstream collection.

Structural Component: Underground detention basin
Moderate accumulation of leaves atlower end. Slight depression of asphalt between all grates. No standing water within system.

Recommendations

1. remove Leaves and trash from system.
2. clean off outlet trash grate.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Cleanouts



Photo No. 3: Outlet Structure



Photo No. 4: Outlet Structure



Photo No. 5: 1415370230898-1371574550.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB41.2

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	9:10AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Sunny

Overall (Fair Condition)

Appears to be functioning properly but needs some routine maintenance.

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Good condition. Bottom needs cleaned out.

Structural Component: Cleanouts
Good condition. No signs of excessive sediment or standing water.

Structural Component: Upstream Collection
Water and sediment levels at pipe inverts. Sumped areas need cleaned out. Partial silt is present in the upstream collection.

Recommendations

1. Clean out sumped inlets and manholes

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Inlet

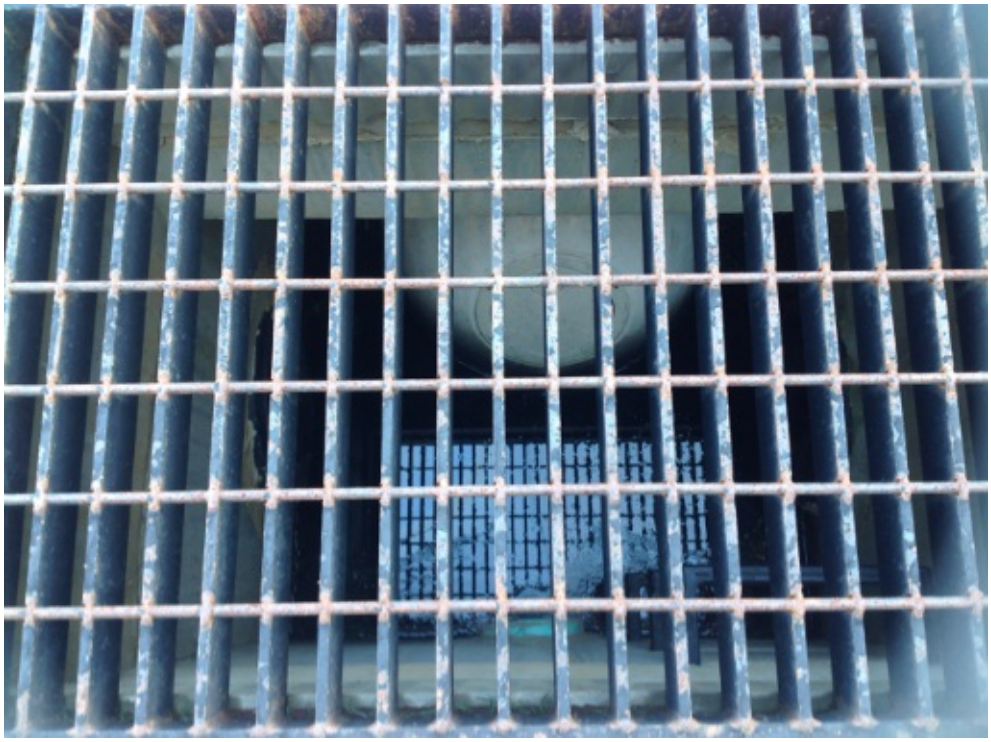


Photo No. 2: Outlet Structure



Photo No. 3: Cleanout



Photo No. 4: Upstream Manhole



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP41.3

NPDES Permit #

Inspection Date	Time	Investigator
10/17/14	12:05PM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F	0.75 in.	2 in.	Partly Cloudy

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Looks ok

Earthen Component: Berm, Top
clear

Earthen Component: Berm, Downslope
Some water at toe. On the east side, it may be from adjacent parking lot. There is also some standing water on the west side toward the ball fields. On eastern side, some small trees are growing on downslope. Most of the vegetation is toward the north end of berm.

Earthen Component: Bottom of Basin
Mowed. Small amount of water at outlet. Underdrain caps are in place.

Earthen Component: Spillway
Small trees growing in gabion mattress. Gabion wires breaking and rolling up.

Structural Component: Pipe
There are a few small rocks in the pipe.

Structural Component: Outlet Structure
There is some debris collecting in downstream riprap. There are small trees growing next to outlet structure inside of basin.

Structural Component: Upstream Collection
Forebay spillway in good condition. there is a lot of vegetation in forebay. Swale has erosion/silt in it at eastern side see photo. Partial silt is present in the upstream collection.

Recommendations

1. Clean out trees growing in various parts of BMP
2. Repair spillway gabion baskets
3. Clear debris from outlet
4. Check swale for erosion
5. Remove vegetation from forebay

Prepared By CSDatum

Photo Log

Photo No. 1: Berm vegatation on downslope



Photo No. 2: Berm downslope



Photo No. 3: Upstream Collection inlet pipe



Photo No. 4: Upstream Collection swale



Photo No. 5: Berm water at toe



Photo No. 6: Spillway



Photo No. 7: Spillway



Photo No. 8: Pipe



Photo No. 9: Outlet Structure at Discharge



Photo No. 10: Outlet Structure - Inside Basin



Photo No. 11: Upstream Collection forebay



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB32.5			

Inspection Date	Time	Investigator
12/29/16	2:25PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
42 °F	0.17 in.		Overcast

Overall (Fair Condition)

Basin is in good condition generally, animal holes need to be filled and the sediment needs to be removed.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Fair)
Top of basin is grass that is mowed and well maintained. Animal holes are present in one area and need to be filled.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Fair)
Upstream collection is from grass channel behind homes. There are two inflow pipes. One is in good condition the other has sediment build up that needs to be removed.

Recommendations

1. Animal holes need to be filled and sediment from inflow area needs to be removed.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside, Top



Photo No. 2: Earthen Component: Berm, Downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB23.5

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	2:25PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Overcast

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
A moss type vegatation was observed in the bottom of the oulet structure. Along with some minor debris.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure bottom



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB32.7			
Inspection Date	**Time**		**Investigator**
12/05/14	9:35AM		Jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
33 °F	0.01 in.	0.26 in.	Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
Yes

Earthen Component: Berm, Inside
Area adjacent to spillway and outlet inflow headwall. appears not have been mowed for an extend period of time. Portion of the berm is missing and forms a channel into the bottom of basin that is not shown on the drawings.

Earthen Component: Berm, Top
Good condition appears to be mowed regularly.

Earthen Component: Berm, Downslope
Good condition. Appears to be mower regularly.

Earthen Component: Bottom of Basin
Chai link with silt fence was observed bwtn inflow headwall and outlet headwall. No concrete low flow channel was observed.

Earthen Component: Spillway
Minor vegatation growth was observed in the voids of the riprap.

Structural Component: Pipe
Outlet structure pipes are free of debris.

Structural Component: Outlet Structure
Outlet structure is in E&S mode. Trash rack and E&S device appar to match drawings. Minor vegatation growth was observed in riprap of outflow riprap. Area around out flow headwall have not been maintained for a extended period of time.

Structural Component: Cleanouts
Level spreader appears in acceptable condition. Minor grass growth was observed on the preimeter of the stone layer.

Recommendations

1. Areas around headwalls need grass cut.
2. Vegatation in spillway and level spreader need to be removed.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure inflow side



Photo No. 2: Outlet Structure out flow side



Photo No. 3: Spillway



Photo No. 4: Berm south



Photo No. 5: Berm



Photo No. 6: Bottom of Basin



Photo No. 7: Level spreader



Photo No. 8: Level spreader



Photo No. 9: Berm



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.18

NPDES Permit #

Inspection Date	Time	Investigator
12/17/14	1:35PM	WCW

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Okay

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
There are wetland plants in the bottom of the basin and it is somewhat soggy.

Structural Component: Outlet Structure
The outlet structure is clogged with water plants.

Structural Component: Upstream Collection
There is some leaf debris in the inlet structure.

Recommendations

1. Clean out water plants from outlet structure.
2. Clean debris from inlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Upstream Collection



Photo No. 4: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.19

NPDES Permit #

Inspection Date	Time	Investigator
12/17/14	2:15PM	jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F	0.35 in.	0.35 in.	Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Erosion was observed around inflow outlet a structure.

Earthen Component: Berm, Top
Good condition well maintained.

Earthen Component: Berm, Downslope
Areas around outflow headwall have some erosion present. Portions of the down slope of the west of outlet headwall have signs of erosion.

Earthen Component: Bottom of Basin
Well maintained some areas near outlet structure had standing water.

Earthen Component: Spillway
Good condition well maintained.

Structural Component: Outlet Structure
Water was actively flowing out of the structure. Outflow riprap had minor leave debris and wetland type plants in the voids between the rock. Inflow side has wetland plants in front of the headwall. Water with a depth of about 1/2 in was observed.

Structural Component: Upstream Collection
Debris and vegatation was observed in the concrete channels of the basin. No silt was present in the upstream collection.

Recommendations

1. Erosion around headwalls should be mitigated and repaired.
2. Vegetation should continue to be maintained especially around outlet structure.
3. Debris should be remove from concrete channels.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Outlet Structure



Photo No. 3: Berm down slope adjacent to ouflow headwall



Photo No. 4: Berm downslopeof the been erosdion.



Photo No. 5: Outlet Structure



Photo No. 6: Upstream Collection



Photo No. 7: Upstream Collection



Photo No. 8: Berm



Photo No. 9: Bottom of Basin



Photo No. 10: Bottom of Basin



Photo No. 11: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB32.14			
Inspection Date	**Time**		**Investigator**
12/05/14	10:00AM		Jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
34 °F	0.01 in.	0.26 in.	Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
Yes

Earthen Component: Berm, Inside
Areas near headwall out let and inlet structure have not been mower for an extended period of time.

Earthen Component: Berm, Top
Good condition appears to be regularly maintained.

Earthen Component: Berm, Downslope
Good condition appears to be regularly maintained.

Earthen Component: Bottom of Basin
Areas near headwall out let and inlet structure have not been mower for an extended period of time. No concrete channel was observed in bottom of basin. A chain link fence with silit fence was observed bwtn the headwall structures.

Earthen Component: Spillway
Minor vegatation growth was observed.

Structural Component: Outlet Structure
Structure is in E&S mode no build out of sediment was observed. Areas around rip rap rip have vegatation growth.

Structural Component: Cleanouts
Areas of level spreader have be over grown with vegatation and the rock layer is not visible at some locations.

Structural Component: Upstream Collection
Inflow swale appears to be mowed and maintained. No silt was present in the upstream collection.

Recommendations

1. Over grown vegatation at the level spreader need to be remove.
2. Areas around the in flow and out flow head walls need to be maintained.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection inflow swale



Photo No. 2: Spillway



Photo No. 3: Berm



Photo No. 4: Berm



Photo No. 5: Bottom of Basin west view



Photo No. 6: Bottom of Basin east view



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



Photo No. 9: Outlet Structure



Photo No. 10: Level spreader west view



Photo No. 11: Level spreader east view



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB50.4

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	9:45AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F			Overcast

Overall (Fair Condition)

Clogged outlet

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Standing water observed. Trash grate has moderate accumulation of leaves and debris present.

Structural Component: Cleanouts
Could not be found in backyard. Likely buried under grass and dirt.

Structural Component: Underground detention basin
Detention basin has standing water in all open inlets. Main outlet inlet has up to a foot of standing water. Lower orifice holes in vertical pipe likely clogged/covered. Water is slowly discharging into downstream public inlet on street.

Recommendations

1. remove leaves and debris from inlets.
2. clean out orifices at outlet.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP41.17Rain Garden at Traffic Island

NPDES Permit #

Inspection Date	Time	Investigator
10/27/14	2:40PM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F			Sunny

Overall (Fair Condition)

Generally in good condition.

Components

Is BMP in E&S Mode?
No

Earthen Component: Bottom of Basin
Bottom looks okay. There is a small amount of silt.

Earthen Component: Spillway
Okay

Structural Component: Outlet Structure
There is some silt build up in bottom of overflow outlet. The silt is even with the bottom of the outlet pipe.

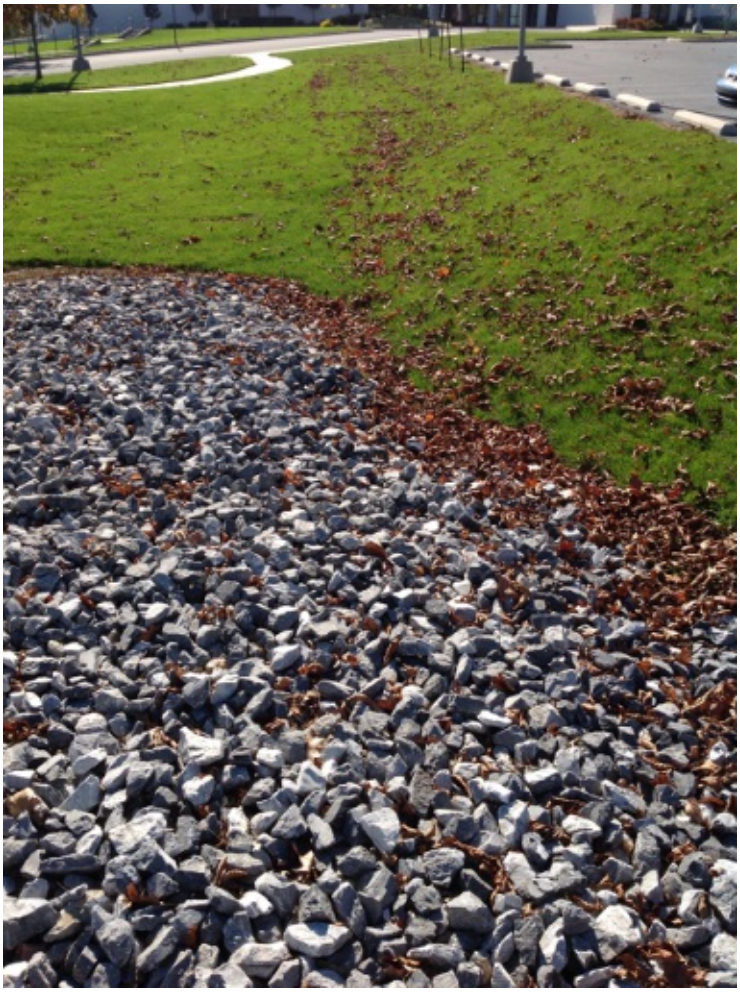
Recommendations

1. Remove silt from overflow outlet.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB41.4

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	9:45AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F			Sunny

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition and vegetation.

Earthen Component: Berm, Top
Good condition and vegetation.

Earthen Component: Berm, Downslope
Good condition and vegetation.

Earthen Component: Bottom of Basin
Good condition and vegetation.

Earthen Component: Spillway
Good. Lacks complete vegetation, E&S matting showing.

Structural Component: Outlet Structure
Accumulated sediment. Orifice appears to be clogged.

Structural Component: Upstream Collection
Good condition, mostly dry. No silt was present in the upstream collection.

Recommendations

1. Outlet structure needs cleaned out

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Inlet



Photo No. 2: Spillway



Photo No. 3: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB14.12			

Inspection Date	Time	Investigator
09/27/16	1:55PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
73 °F	0.22 in.	0.22 in.	Clear

Overall (Fair Condition)

The majority of the basin is in good condition minus the spillway and the upstream collection system. All of the berms are well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside berm is in good condition,it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in fair condition, it's mowed and well maintained. There are a few areas with animal burrows.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Poor)
The spillway is in poor condition. There is vegetation all along the top of the rock section of the spillway. This also includes law clippings and refuse.

Structural Component: Pipe (Fair)
The pipe is in fair condition, there is an joint at the front of the oulet structure that has no sealant.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there is no sign of erosion or sediment issues. There is a animal burrow near the edge of the endwall. Appears that the outlet structure has been changed since construction. Refer to photos.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 swale is in good condition, it's mowed and well maintained and the rip rap apron is clean and free of debris. Upstream collection system 2 is in fair condition. The seal around the pipe has been fixed at one time in some areas but is still has areas that need fixed. There is a sag in the upstream pipe that is holding sediment and water. All of the defusers are gone from each the headwall. Upstream collection system 3 is in fair condition there is sediment in the first two pipes from left to right and a large amount of sediment build up in from of all of the pipes. Pipe 1 has a section missing of the pipe joint at the endwall. Upstream collection system 4 is in fair condition the is a large amount of sediment and vegetation build up in the rip rap apron. The there sediment and standing water in the pipe, the upstream inlet is clear. This last section of pipe appears to have settled at a reverse grade.

Recommendations

1. Remove vegetation and yard waste from spillway.
2. Fix pipe seal and upstream endwall two and four as labeled in photos.
3. Replace defusers and endwall 2.
4. Remove sediment from endwall and pipes of endwall 3 and 4.

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Berm, Top animal burrow



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Earthen Component: Spillway



Photo No. 9: Structural Component: Pipe joint sealant missing



Photo No. 10: Structural Component: Pipe



Photo No. 11: Structural Component: Outlet Structure headwall



Photo No. 12: Structural Component: Outlet Structure possible trash rack supports



Photo No. 13: Structural Component: Outlet Structure



Photo No. 14: Structural Component: Upstream Collection 1



Photo No. 15: Structural Component: Upstream Collection 2 pipe sag



Photo No. 16: Structural Component: Upstream Collection 2 pipe joint and diffusers



Photo No. 17: Structural Component: Upstream Collection 3



Photo No. 18: Structural Component: Upstream Collection 3 left to right pipe 1&2



Photo No. 19: Structural Component: Upstream Collection 3 left to right pipes 3&4



Photo No. 20: Structural Component: Upstream Collection 4 pipe



Photo No. 21: Structural Component: Upstream Collection 4 endwall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB32.21			

Inspection Date	Time	Investigator
10/06/16	9:40AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
56 °F			Overcast

Overall

Basin is in fair condition vegetation is very overgrown especially in the swale.

Components

Is BMP in E&S Mode?
No, basin is not E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition, there multiple animal burrows present.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition, some areas have large shrubs and trees.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition, area is long grass.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. Most areas are tall grass roughly two to three foot high, some areas are shrubs that reach six to seven feet.

Earthen Component: Spillway
Unable to located spillway to to large amount of vegetation.

Structural Component: Pipe (Good)
Pipe is in good condition no sediment t present.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, the pipe is starting to seperate from the structure causing a small gap. The rip rap apron at the endwall of the structure is overgrown trees and treelike shrubs. Area outfalls to a wetland.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream swale is in poor condition it is completely overgrown with thick vegetation.

Recommendations

1. Determine if the basin was designed to have these plant types if not remove overgrown vegetation.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection swale



Photo No. 10: Structural Component: Upstream Collection rock section



Photo No. 11: Structural Component: Upstream Collection
upstream from rock section



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB32.20

NPDES Permit #

Inspection Date	Time	Investigator
12/05/14	10:25AM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F	0.01 in.	0.26 in.	Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
Yes

Earthen Component: Berm, Inside
Has not been maintained for an extended period of time.

Earthen Component: Berm, Top
Good condition. Has been maintained.

Earthen Component: Berm, Downslope
Good condition. Has been maintained.

Earthen Component: Bottom of Basin
Has standing water in the bottom of the basin. No concrete channel was observed in the bottom of the basin.

Earthen Component: Spillway
No spillway was observed. Photo is of the location spillway west of outlet structure.

Structural Component: Outlet Structure
Outlet structure has dense vegatation growth at inflow headwall and outflow headwall. Riprap of out flow head wall has dense vegatation growth.

Structural Component: Cleanouts
Level spreader has vegatation growth in th stone layer.

Structural Component: Upstream Collection
Minor debris(leaves) was observed in the bottom of east inlet. The west inlet has a build up of silt in the bottom of the inlet. The sediment is below the orfice but above on each side of the orfice. Partial silt is present in the upstream collection.

Recommendations

1. Vegatation need to be maintained on the downslope of the berm, around the outlet headwalls and the riprap of the outlet.
2. The sediment need to be removed from the west inlet.
3. Spillway needs to be installed.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm east view



Photo No. 2: Berm west view



Photo No. 3: Bottom of Basin



Photo No. 4: Spillway



Photo No. 5: Berm



Photo No. 6: Outlet Structure inflow side



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



Photo No. 9: Outlet Structure



Photo No. 10: Level spreader east view



Photo No. 11: Level spreader west view



Photo No. 12: Upstream Collection



Photo No. 13: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB33.1			
Inspection Date	**Time**		**Investigator**
12/27/16	3:30PM		Ryan G. Martin
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
56 °F			Clear

Overall (Fair Condition)

Basin is in good condition. Channel on the bottom of the basin should be cleaned out to stop future problems.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is long grass, shrub bushes and established tree growth. No signs of erosion. Some animal holes were found.

Earthen Component: Berm, Top (Good)
Top of berm is grass, some mowed and well maintained, some not mowed with established tree growth.

Earthen Component: Berm, Downslope (Good)
Downslope is in good condition with no erosion, slope is long grass with shrub bushes and established tree growth.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is long grass that is not mowed. There is established tree growth and some shrubs. A concrete channel runs along two ways to the outlet. Channel has sediment that is surrounding the outlet.

Earthen Component: Spillway (Good)
Spillway is rock under a metal net no signs of erosion.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Fair)
Outlet structure is in good condition. Channel leading to outlet structure needs to be cleaned of sediment to prevent future problems.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is sheet flow to inlets from sports fields. No signs of erosion are present. Inflow pipes have rip rap apron in good condition.

Recommendations

1. Channel at the bottom of the basin should be cleared to stop future problems from build up.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Spillway



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Upstream Collection



Photo No. 12: Structural Component: Upstream Collection



Photo No. 13: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP32.7			
Inspection Date	**Time**		**Investigator**
10/16/14	1:30PM		JWV
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
63 °F	2 in.	2.1 in.	Overcast

Overall (Fair Condition)

Vegatation Maintanence at the Berm Outlet inflow structure. Riprap displaced at outflow side of outlet structure.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Areas of the berm are in good condition with the exception of tall vegetation on the inside top and down slope.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Bottom of basin has tall vegetation growing out of the basin floor. It appears no maintaince has been completed. No erosion was observed.

Earthen Component: Spillway

Structural Component: Pipe

Structural Component: Outlet Structure
Outflow side has some displaced riprap. Vegetation was oberserved at the inflow side of the outlet structure. Outlet structure is in E&S mode do to the presence of a steel pipe covering the outlet structures office. Sediment was observed at the base of some of the plants at the inlet side of the outflet structure.

Structural Component: Upstream Collection
East portion of the swale is mowed and clear of large vegetation. No silt was present in the upstream collection.

Recommendations

1. Maintainece on basin vegetation required.
2. Replace riprap as required at outflow side of outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection east portion of the Swale



Photo No. 2: Upstream Collection western portion of the Swale



Photo No. 3: Berm



Photo No. 4: Berm



Photo No. 5: Bottom of Basin



Photo No. 6: Spillway



Photo No. 7: Spillway



Photo No. 8: Pipe out flow side of head wall structure.



Photo No. 9: Outlet Structure displaceriprap



Photo No. 10: Outlet Structure inflow side



Photo No. 11: Outlet Structure



Photo No. 12: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP14.3

NPDES Permit #

Inspection Date	Time	Investigator
10/10/14	9:20AM	JWV

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
46 °F			Overcast

Overall (Fair Condition)

Vegetation was observed in at all riprap locations and at the inflow or outflow points of the head wall.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Area has been mowed. No erosion was observed.

Earthen Component: Berm, Top
Area has been mowed. No erosion was observed.

Earthen Component: Berm, Downslope
Area has been mowed. No erosion was observed.

Earthen Component: Bottom of Basin
Area has been mowed. No erosion was observed. No water was observed at bottom of basin.

Earthen Component: Spillway
Debris was observed on the spillway. Erosion of the soil at the outflow end of the spill way was observed. It forms a channel which is roughly 6" wide by 6" deep.

Structural Component: Pipe
All pipes were free of debris and sediments.

Structural Component: Outlet Structure
Basin discharge structure riprap has debris and vegetation. Grading does not slope to drainage easement. Erosion was observed at edges of riprap and trees were also observed. Basin outlet vegatation was observed at front of pipe invert and at edges of headwall. Inflow oulet structure has a numerous trees cattails and other large weeds growing in between the rocks of the rip rap.

Structural Component: Cleanouts
Sediment fore bay rock filter has vegetation growing around the perimeter and between the interior rocks.

Structural Component: Upstream Collection
No debris or sediment was observed in the collection structure. No silt was present in the upstream collection.

Recommendations

1. Remove debris and vegatation at all riprap locations and at the inflow/discharge points of the headwalls.
2. Infill gap at the base of the spillway.
3. The erosion around the outflow head wall of the outlet structure should be mitigated.

Prepared By CSDatum

Photo Log

Photo No. 1: North view of Berm



Photo No. 2: West view of Berm



Photo No. 3: east view of Berm



Photo No. 4: south view of Bottom of Basin



Photo No. 5: South end of Spillway



Photo No. 6: North end of Spillway



Photo No. 7: Basin discharge Pipe



Photo No. 8: North discharge Outlet Structure



Photo No. 9: Erosion at outlet Outlet Structure



Photo No. 10: Outlet Structure



Photo No. 11: Sediment fore bay rock filter



Photo No. 12: Low point in basin floor at cattails between inflow head wall on forebay



Photo No. 13: Basin inflow Outlet Structure



Photo No. 14: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB14.22

NPDES Permit #

Inspection Date	Time	Investigator
10/06/16	10:40AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
60 °F			Mostly Cloudy

Overall (Fair Condition)

The basin overall is in good condition. The upstream system have sediment t build up that needs removed. One home owner has planted shrubs etc at the bottom of the basin altering the functionality of the basin.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. Most areas are grass and well maintained, there are a few areas that have large planted vegetation.

Earthen Component: Spillway (Good)
Pavement swale is in good condition no erosion present.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition, no sediment present.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition no areas of vegetation or sediment.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. Upstream system one has sediment and vegetation in the rip rap apron, there is also a sediment build up in the upstream inlet. Upstream system two has a large amount of sediment t build up at the mouth of the endwall.

Recommendations

1. Remove sediment and vegetation from both upstream endwalls.
2. Remove sediment from upstream inlet 1 on upstream collection system 1.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top & Downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Structural Component: Upstream Collection endwall 1



Photo No. 10: Structural Component: Upstream Collection inlet 1 sediment



Photo No. 11: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB32.26			
Inspection Date	**Time**		**Investigator**
12/05/14	10:55AM		Jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
35 °F	0.01 in.	0.26 in.	Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
Yes

Earthen Component: Berm, Inside
Area around outlet structure have not recently been mowed.

Earthen Component: Berm, Top
Good condition appears to be maintained.

Earthen Component: Berm, Downslope
Good condition appears to be maintained.

Earthen Component: Bottom of Basin
Bottom of basin has standing water and dense vegatation. A chainlink fence was observed with black silt fencephalitis. Not concrete channel was observed.

Earthen Component: Spillway
Minor vegatation growth in riprap.

Structural Component: Pipe
Minor sediment was observed in the pipe of the outflow outle t head wall.

Structural Component: Outlet Structure
Has dense vegatation growth at outflow headwall. Water was observed discharging from headwall.

Structural Component: Cleanouts
Vegatation growth was observed in the rock layer of the level spreader.

Structural Component: Upstream Collection
Minor leaf debris was observed in the bottom of the basin. Inlet head wall riprap is over grown with vegatation. Minor soil erosion was observed around inlet headwall. No silt was present in the upstream collection.

Recommendations

1. Vegatation need to be maintain around headwalls and level spreaders.
2. Vegatation in the riprap of the headwalls and spillways need to be removed n

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Berm east



Photo No. 3: Berm west



Photo No. 4: Upstream Collection



Photo No. 5: Upstream Collection



Photo No. 6: Bottom of Basin



Photo No. 7: Berm



Photo No. 8: Outlet Structure out flow headwall



Photo No. 9: Level spreader west view



Photo No. 10: Level spreader east view



Photo No. 11: Outlet Structure



Photo No. 12: Outlet Structure



Photo No. 13: Outlet Structure



Photo No. 14: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP14.5

NPDES Permit #

Inspection Date	Time	Investigator
10/10/14	10:50AM	JWV

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F			Overcast

Overall (Fair Condition)

Due to erosion at orfice and vegatation at outflow side of oulet structure.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
No deficiencies, typical.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Stone was observed near outlet structure outflow end.

Earthen Component: Spillway
Not reinforced typically. Does not show on the plans.

Structural Component: Pipe
No deficiencies.

Structural Component: Outlet Structure
Inflow headwall - no deficiencies were observed. Outlet structure has erosion of soil at the base of the orfice. Water level of outflow structure was below the plastic hood. Discharge side of oulet structure has vegatation growing out of discharge area of headwall.

Structural Component: Upstream Collection
No silt was present in the upstream collection.

Recommendations

1. Remove vegatation at discharge side of out let structure
2. Replace soil below oulet structure orfice.

Prepared By CSDatum

Photo Log

Photo No. 1: Inflow head wall



Photo No. 2: Berm north view



Photo No. 3: Berm south side



Photo No. 4: Bottom of Basin near oulet structure



Photo No. 5: Outlet Structure erosion at orfice invert



Photo No. 6: Spillway



Photo No. 7: Outlet Structure inlet



Photo No. 8: Outlet Structure discharge headwall



Photo No. 9: Upstream Collection-Swale



Photo No. 10: Upstream Collection-swale minor erosion



Photo No. 11: Upstream Collection- ok?



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP32.12

NPDES Permit #

Inspection Date	Time	Investigator
10/16/14	1:00PM	JWV

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F	2 in.	2.1 in.	Overcast

Overall

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside

Earthen Component: Berm, Top
East and west sides of the basin have evergreen tress planted along the perimeter of the basin.

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Filled with water at the time of inspection. No large vegetation was found sticking through the water or at the dry areas.

Earthen Component: Spillway
Appears in acceptable condition. Location differs than what is shown on the plans. Backs up in a inlet structure.

Structural Component: Outlet Structure
Appears to be in E&S mode. Debris was observed in the outlet structure box. Due to presence of steel plate with orifice bolted to structure.

Structural Component: Upstream Collection
Swale appears to be in acceptable condition. Inflow structure head wall has water backed up in the pipe invert of the inlet box. No silt was present in the upstream collection.

Recommendations

1. Verify if presence of evergreen trees along the basin berms is acceptable.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm east side



Photo No. 2: Berm West side



Photo No. 3: Bottom of Basin west end



Photo No. 4: Bottom of Basin east end



Photo No. 5: Spillway



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



Photo No. 9: Upstream Collection Swale



Photo No. 10: Upstream Collection east inflow headwall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB42.1			

Inspection Date	Time	Investigator
12/28/16	3:20PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
41 °F			Mostly Cloudy

Overall (Fair Condition)

The basin is in good condition the hole in the middle of the basin needs to be filled. No signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin in not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
Bottom of basin is grass that is mowed and well maintained. On hole in the basin should be fixed.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained. No signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition no signs of erosion.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is two channels from the parking lot and sports fields, both grass that is mowed and well maintained. The other inflow is a large pipe from that's parking lot inlets.

Recommendations

1. Fill hole in middle of basin.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB14.26

NPDES Permit #

Inspection Date
10/10/14

Time
10:20AM

Investigator
JWV

Temperature
49 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Overcast

Overall (Fair Condition)

Removal of trees maybe required. Filling of erosion of the basin.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Two Plants were observed at the Edges of theast berm.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Erosion was observed near the inlet structure. Water was noticed in this depression which is approximately 6,x5'.

Earthen Component: Spillway
Spill way was covered with mulch.

Structural Component: Pipe
Stand water was observed in the pipe of the inflow structure.

Structural Component: Outlet Structure
Basin in flow structure as plant debris in rip rap. Oulet structure has sediment build up at the bottom of the orfice invert. Stone appears to be missing on one side. Minor sediment and debris was observed in the inlet of the basin outlet structure.

Structural Component: Upstream Collection
Standing water and minor leaf debris was observed. Partial silt is present in the upstream collection.

Recommendations

1. Remove trees on basin berm.
2. Fill erosion at bottom of basin.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection basin a



Photo No. 2: South view of Outlet Structure



Photo No. 3: North view Outlet Structure



Photo No. 4: Standing water in Pipe inflow



Photo No. 5: Bottom of Basin Erosion



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure sediment in the orfice plate



Photo No. 8: Outlet Structure inlet structure



Photo No. 9: Berm east side



Photo No. 10: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP24.1

NPDES Permit #

Inspection Date	Time	Investigator
10/20/14	4:10PM	RMB

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F			Sunny

Overall (Fair Condition)

Very large geese population present at time of inspection. Water level of upper basin was not as detailed on the plans.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Upper: water
Lower:most is mowed regularly around spillway, tall grasses are established.

Earthen Component: Berm, Top
Upper: minor erosion at north end
Lower: mowed regularly good condition

Earthen Component: Berm, Downslope
Upper: regularly mowed good condition.
Lower: mowed regularly good condition.

Earthen Component: Bottom of Basin
Upper: basin is pond. No outfall.
Lower: areas of standing water have high grasses and are not mowed.

Earthen Component: Spillway
Upper: water elevation is 6" below. Spillway is earthend with regularly mowed grass. Grass is patchy due to geese.
Lower: mowed regularly good condition several animal holes are present around the outflow structure. High vegitation observed at lower end of spillway at snow plow deposit area. Large amount of debris present.

Earthen Component: Other
Large sink hole observed on south bank of E. Inflow. Sink hole is approximately 2ft deep and extends under tree and deposits between the two rocks below. Soil is depositing into basin.

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
S. Inflow ew: moderate silt build up in rip rap channel. Minor vegitation.
E. Inflow ew: stagnant water has backed up pipe. Rip rap above water is filled with debris.
N. Inflow ew: silt and debris has built up within the rip rap apron. Minor vegitation.
SW. Inflow ew: heavy silt within rip rap. Fully grown over. Severe erosion downstream of endwall.
NW. Inflow ew: severe erosion along side of rip rap ft deep. Minor growth within rip rap.
Lower outflow structure: minor vegitation in rip rap protection. Orifice plate in good condition. Minor debris around.

Structural Component: Upstream Collection
E. Inflow upstream collection is filled to invert of pipe with silt. Full silt is present in the upstream collection.

Recommendations

1. remove debris and vegitation from all inflow ews
2. stabilize sink hole at e. inflow ew.
3. fill in and stabilize erosion at north end of upper berm, NW inflow, and SW inflow .
4. re seed upper spillway

Prepared By CSDatum

Photo Log

Photo No. 1: S. inflow Outlet Structure



Photo No. 2: E. inflow Outlet Structure



Photo No. 3: sink hole south of e. inflow.



Photo No. 4: sink hole



Photo No. 5: sink hole wash out.



Photo No. 6: E. inflow Outlet Structure



Photo No. 7: N. inflow Outlet Structure



Photo No. 8: Bottom of upper Basin



Photo No. 9: upper Berm north end



Photo No. 10: upper Spillway



Photo No. 11: upper Berm



Photo No. 12: SW. inflow Outlet Structure



Photo No. 13: erosion downstream of SW. inflow Outlet Structure



Photo No. 14: lower Bottom of Basin spillway flow



Photo No. 15: lower high grasses Bottom of Basin



Photo No. 16: NW inflow Outlet Structure



Photo No. 17: lower Berm



Photo No. 18: lower spillway



Photo No. 19: lower Spillway washout area



Photo No. 20: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB42.5			

Inspection Date	Time		Investigator
12/29/16	4:05PM		Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
41 °F	0.17 in.		Mostly Cloudy

Overall (Fair Condition)

Basin is in good condition, no signs of erosion are present. Animal holes need to be filled around outlet area and in the bottom of the basin.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
Inside berm is grass that is mowed. Some holes need to be fixed around inlet and outlet area.

Earthen Component: Berm, Top (Good)
Top of basin is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
Bottom of basin is grass that is mowed and well maintained. Some planted trees are growing in the bottom. Several holes need to be filled in. A concrete channel runs from one end to the other. The channel is in good condition.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained. No erosion is present. Some planted trees grow on the spill way.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Fair)
Outlet structure is in good condition. There are several animal holes that need to be filled around the outlet area.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is from inflow pipe running from buildings.

Recommendations

1. Holes around the outlet structure need to be filled. Along with the holes in the bottom of the basin and on the berm.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Spillway



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB33.5

NPDES Permit #

Inspection Date	Time	Investigator
12/29/16	4:30PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
41 °F	0.17 in.		Partly Cloudy

Overall (Fair Condition)

Basin is in good condition. No signs of erosion. Inflow pipe needs to be cleaned out of leaves.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is unmowed, bushes and small trees.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is concrete in good condition, no signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Fair)
Upstream collection is a grassy channel from the rear of the building. The other is an inflow pipe from the parking lot. This needs cleaned out from leaves. There are no signs of erosion due to inflow.

Recommendations

1. Clean inflow pipe of leaves to allow flow.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP33.4

NPDES Permit #

Inspection Date	Time	Investigator
10/17/14	9:20AM	JWV

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
52 °F	0.75 in.	2 in.	Mist

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Trees are present on south side of berm.

Earthen Component: Berm, Top
North top of been has an asphalt top.

Earthen Component: Berm, Downslope
Area is well maintained.

Earthen Component: Bottom of Basin
Water was observed in bottom of basin. Chain link fence was observed forming a rectangle around the inflow side of the outlet structure. Black paper was observed hanging from fence; however most of it seems to be failing off into basin.

Earthen Component: Spillway
Top of spillway is not grouted per detail. Its covered by asphalt. The down slope side of the spillway has minor plant growth within the gabion apron.

Structural Component: Outlet Structure
Minor debris in riprap of outflow side of outlet structure. The outlet structure has a PVC E&S device floating in front of structure. I was unable to tell if pipe from that device is connected to orifice of outlet structure. Water was actively flowing out of the structure.

Structural Component: Upstream Collection
Inflow structure has cattails and other tall plants growing at the face of the structure. Inlet structures had a few inches of water in them at the time of our inspection. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Berm South



Photo No. 2: Berm North



Photo No. 3: Bottom of Basin



Photo No. 4: Spillway downslope



Photo No. 5: Spillway top



Photo No. 6: Outlet Structure out flow side



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure inflow



Photo No. 9: Outlet Structure

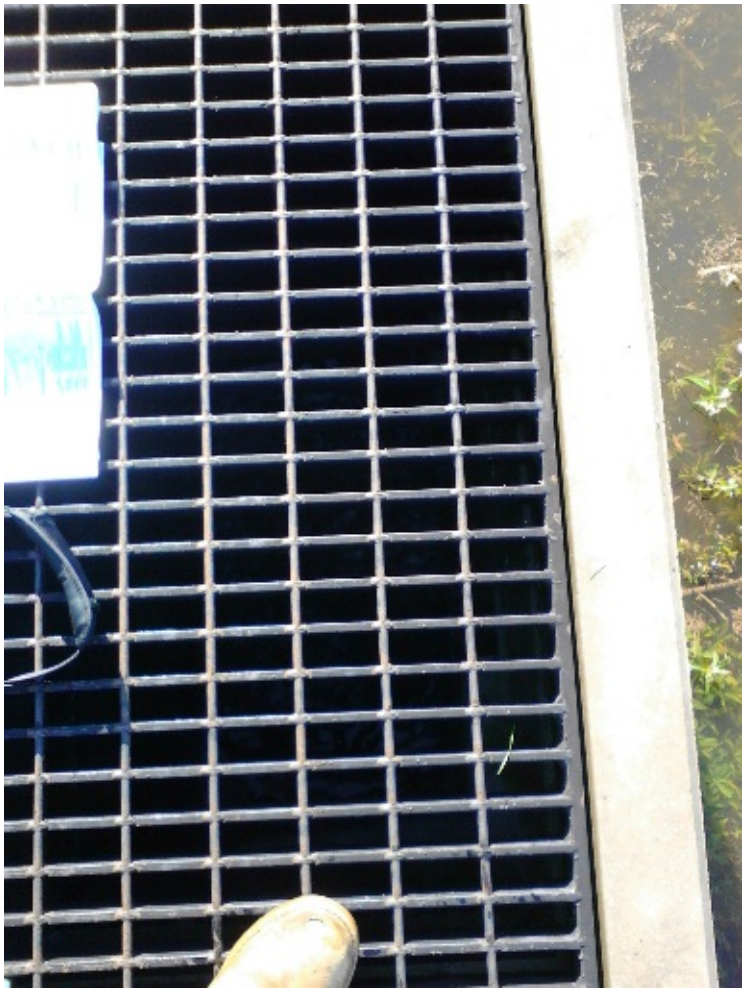


Photo No. 10: Upstream Collection face of inflow



Photo No. 11: Upstream Collection front of inflow structure.



Photo No. 12: Upstream Collection Swale



Photo No. 13: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB24.3

NPDES Permit #

Inspection Date	Time	Investigator
12/11/14	12:50PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
32 °F			Light snow

Overall (Fair Condition)

Verfy inspection with approved construction drawings.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly. Good condition

Earthen Component: Berm, Top
Grass mowed regularly. Good condition.

Earthen Component: Berm, Downslope
Grass mowed regularly. Good condition.

Earthen Component: Bottom of Basin
Grass mowed regularly above dropoff elev. Below dropoff, high grasses bushes and trees along bank are established. Site is as it apears in the existing topo.
Several rodent holes were observed around the dropoff

Earthen Component: Spillway
Grass spillway is level and in good condition.

Structural Component: Pipe

Structural Component: Outlet Structure
Inflow struct south: rocks are piled infront of pipe. Pipe is half full of sediment. Rip rap is full of sediment.
Outflow structuee: structure does not match drawings
Inflow ew north: good condition with only minor vegitation within rip rap lined flow channel.
Inflow ew west: rip rap lining flow channel is fully vegitated with tall grasses. Rip rap at Lower end at dropoff has washed away into the basin below. Sediment was observed along invert of pipe with stagnant water just below ew.

Recommendations

1. remove undesired vegitation from inflow rip rap and outflow structure.
2. reestablish riprap at west inflow where it was washed out.

Prepared By CSDatum

Photo Log

Photo No. 1: 1418320462666194687858.jpg



Photo No. 2: south inflow Outlet Structure



Photo No. 3: Outlet Structure



Photo No. 4: Outlet Structure



Photo No. 5: Outlet Structure



Photo No. 6: Bottom of Basin



Photo No. 7: Bottom of Basin



Photo No. 8: Spillway



Photo No. 9: Outlet Structure



Photo No. 10: Outlet Structure



Photo No. 11: Outlet Structure



Photo No. 12: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB24.4

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	10:45AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F			Sunny

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Not well vegetated, rocky, non uniform elevation, possible sign of sediment build up

Earthen Component: Spillway
Stable, mowed

Structural Component: Outlet Structure
Good condition, no signs of sediment or clogging

Structural Component: Upstream Collection
Inflow rock aprons not well established Partial silt is present in the upstream collection.

Structural Component: Other

Recommendations

1. Repair inflow and seed bottom and remove rocks

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Spillway



Photo No. 3: Bottom of Basin



Photo No. 4: Upstream Collection



Photo No. 5: Outlet Structure



Photo No. 6: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB24.5

NPDES Permit #

Inspection Date	Time	Investigator
12/11/14	1:35PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F			Partly Cloudy

Overall (Fair Condition)

Orifice plate removed. Sediment accumulating in low flow channel

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly. Good condition.

Earthen Component: Berm, Top
Regularly mowed grass with treesbplanted along entire length every 5 feet.

Earthen Component: Berm, Downslope
Regularly mowed grass with treesbplanted along entire length every 5 feet.

Earthen Component: Bottom of Basin
Grass regularly mowed. Concrete low flow channel from each inflow ew to main down center to outflow ew. Minimal sediment observed in channel. Large rip rap areas lineing low flow channels are in very good condition.

Earthen Component: Spillway
Grass spillway regularly mowed. Is in a level condition.

Structural Component: Pipe

Structural Component: Outlet Structure
Upstream inlet 1: leaf accumulation in pipe up through to upstream collection inlet.
Inflow 2: minor sediment in low flow leaves in pipe.
Inflow 3: same as 2
Outflow ew: moderate sediment and leaf accumulation from trash rack up channel. Vegitation is establishing in sediment. Orifice plate has been removed.

Structural Component: Upstream Collection
Leaf accumulation

Recommendations

1. remove sediment from channel.
2. remove trees from berm
3. clean leaves from upstream collection and pipes.
4. replace orifice plate.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Bottom of Basin



Photo No. 3: Outlet Structure



Photo No. 4: 2 Outlet Structure



Photo No. 5: 3 Outlet Structure



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



Photo No. 8: Berm



Photo No. 9: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB33.6

NPDES Permit #

Inspection Date	Time	Investigator
12/15/14	4:50PM	WCW

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
42 °F			Partly Cloudy

Overall (Fair Condition)

This BMP needs some maintenance.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Water appears to be spilling into the basin from the parking lot

Earthen Component: Berm, Top
Okay

Earthen Component: Berm, Downslope
Okay

Earthen Component: Bottom of Basin
Some Erosion

Earthen Component: Spillway
Okay

Structural Component: Pipe
Inlet pipe looks clear

Structural Component: Outlet Structure
Outlet orifice is nearly buried

Structural Component: Upstream Collection
There is some erosion at Inlet No silt was present in the upstream collection.

Recommendations

1. Repair riprap at inlet that has been eroded.
2. Repair bottom of basin where erosion has occurred.
3. Remove silt and debris build up at outlet.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Upstream Collection



Photo No. 4: Upstream Collection



Photo No. 5: Outlet Structure



Photo No. 6: Berm showing water flow from parking lot



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB15.9			
Inspection Date	**Time**		**Investigator**
10/14/16	7:50AM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
42 °F	0.01 in.	0.01 in.	Clear

Overall (Fair Condition)

Basin is in fair condition. It's main purposes is collecting and conveying the water to the next basin.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
Portions of the inside of the berm have established flower beds and gardens. Especially areas at the outlet structure.

Earthen Component: Berm, Top (Good)
The berm mostly exist at the outlet structure, the sides of the basin increase at a steady slope and do not have a obvious berm. The top of the berm is mowed and well maintained there are areas that have flower beds.

Earthen Component: Berm, Downslope
No berm downslope present water outfalls across a road into another basin.

Earthen Component: Bottom of Basin (Fair)
Basin is in fair condition. There is a concrete low flow channel in the basin it is free from any sediment or signs of erosion. There are numerous planting seeds in the basin approximately three trees a flower bed and a larger vegetated area.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition. There are no signs of erosion or sediment build up. There are signs that something was once attached to the outlet structure headwall it appears to have been cut off.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in poor condition there is a large amount of sediment and vegetation build up in the endwall, the rip rap apron has become completely covered by sediment. Upstream collection system 1 inlet is in good condition no sediment or obstructions present. Upstream collection system 2 is in poor condition the endwall and rip rap apron are full of sediment and vegetation. Approximately have of the diameter of the upstream pipe is full sediment. Upstream collection system 2 inlet is in good condition free from sediment. Upstream channel 1 is in good condition it is mowed and well maintained. Upstream channel 1 endwall is in poor condition rip rap apron is over grown and is full of sediment. Upstream collection system 3 is in poor condition. The rip rap apron, pipe and mouth of the endwall all have sediment build up. Upstream collection system 3 inlet is in good condition no sediment present.

Recommendations

1. Remove sediment and vegetation from all upstream collection system endwalls, rip rap aprons and pipes.

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Bottom of Basin towards main upstream collection system



Photo No. 6: Earthen Component: Bottom of Basin towards outlet structure



Photo No. 7: Structural Component: Pipe



Photo No. 8: Structural Component: Pipe



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Outlet Structure bolts cut off 1



Photo No. 11: Structural Component: Outlet Structure bolts cut off 2



Photo No. 12: Structural Component: Upstream Collection system 1



Photo No. 13: Structural Component: Upstream Collection 2



Photo No. 14: Structural Component: Upstream Collection channel 1



Photo No. 15: Structural Component: Upstream Collection channel 1 upstream endwall



Photo No. 16: Structural Component: Upstream Collection 3



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
UDB42.1			
Inspection Date	**Time**	**Investigator**	
12/03/14	12:00AM	DAH	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**

Overall (Fair Condition)

See C1 inspection.

Components

Is BMP in E&S Mode?
No

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
UDB42.2			
Inspection Date	**Time**	**Investigator**	
12/03/14	12:00AM	DAH	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**

Overall (Fair Condition)

See C1 inspection.

Components

Is BMP in E&S Mode?
No

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB42.3

NPDES Permit #

Inspection Date	Time	Investigator
12/03/14	12:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Fair Condition)

No signs of non-function, but all access points were buried to be able to inspect.

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Buried.

Structural Component: Cleanouts
Buried.

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB42.4

NPDES Permit #

Inspection Date	Time	Investigator
12/03/14	9:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F			Mist

Overall (Fair Condition)

Appears to be functioning but outlet structured buried to completely verify

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Appears to be in good condition

Structural Component: Outlet Structure
Buried, could not locate

Structural Component: Cleanouts
Buried

Structural Component: Upstream Collection
Could not locate roof leaders No silt was present in the upstream collection.

Structural Component: Other
No silt or standing water present in one of the access manholes

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: image.jpg



Photo No. 2: Outfall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB42.7			

Inspection Date	Time	Investigator
12/30/16	8:10AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
32 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Fair Condition)

Basin is in fair condition there are sink holes in the basin that need to be filled an monitored.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition the majority is grass and is mowed and well maintained. The remaining sections are landscaped with either stone or mulch beds.

Earthen Component: Berm, Top (Good)
Top of the berm is both grass and well maintenance with established trees, and shrubs.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, the area is mowed and well maintained there are existing trees.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. There is one sink hole currently open and other appear to have been already filled in.

Earthen Component: Spillway (Good)
The spillway is in good condition the area is free of erosion and vegetation.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition no issues with erosion or sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. Upstream collection system one is in good condition area is free from sediment and erosion. Upstream collection system two is in poor condition there is a large amount of sediment build up and no rip rap apron visible. Upstream collection system three is in poor condition there is a large amount of debris built up at the trash rack blocking over half of the pipe.

Recommendations

1. Repair sink holes and monitor.
2. Removed sediment from upstream collection system two and repair rip rap apron.
3. Remove debris from upstream collection system two.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Spillway



Photo No. 12: Earthen Component: Spillway



Photo No. 13: Structural Component: Outlet Structure



Photo No. 14: Structural Component: Outlet Structure



Photo No. 15: Structural Component: Upstream Collection 1



Photo No. 16: Structural Component: Upstream Collection 2



Photo No. 17: Structural Component: Upstream Collection 3



Photo No. 18: Structural Component: Upstream Collection 3



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB33.4

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:10PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Good condition. Sediment and debris needs removed

Structural Component: Upstream Collection
Good, dry No silt was present in the upstream collection.

Recommendations

1. Clean debris at outlet structure

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
Aboveground Detention Basin

NPDES Permit #

Inspection Date	Time	Investigator
10/14/16	8:50AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F	0.01 in.	0.01 in.	Clear

Overall (Fair Condition)

Basin is in fair condition overal it is functioning well.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in fair condition, there are established trees and vegetation at some homes. Mostly it is grass and well maintained. A fire pit has been dug into the berm at one of the homes.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition the majority of the berm is grass there are areas with established trees and vegetation. Two home owners have sheds on the top of the berm these are both under the power lines.

Earthen Component: Berm, Downslope (Fair)
The berm downslope on the side with the spillway is in good condition, it's mowed and well maintained. The berm downslope on the opposite side has been turn in to a shrub garden with a rock bed. It is well established and has no signs of erosion.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. There is a concrete low flow channel from the far upstream collection system to the outlet structure, it is free from and sediment and erosion. The bottom of the basin is grass and it ismowed and well maintained. One section does have play structure in it.

Earthen Component: Spillway (Fair)
The spillway is in fair condition, the area around the concrete has no signs of erosion. The rock section of the spillway has trees and vegetation grown in it.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There is minimal vegetation growth in the headwall's rip rap apron. There are two long metal bars extending from the headwall face, and wear that make it appear that at one time there many have been a structure attached to the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in poor condition, a large amount of sediment has been deposited in front of the endwall. Upstream inlet from upstream endwall 1 is in good condition no sediment build up present. Upstream collection system 2 is in poor condition there is a lot of sediment build up at the mouth of the endwall. The entire rip rap apron has been covered and grass is established. In front of the left pipe is a large tree stump that is holding back sediment. Upstream from endwall two is a previously inspected basin and it is in fair condition. Upstream collection system 3 is in poor condition vegetation and brush have overtaken. The rip rap apron and endwall. The upstream inlet is in good condition.

Level Spreader (Good)
The level spreader is in good condition, it is free. From sediment build up or vegetation growth. Some of of the branches from surrounding trees are in the rock section of the level spreader.

Recommendations

1. Remove vegetation from spillway.
2. Remove fire pit from inside of berm and restore it to previous condition.
3. Permit or remove play structures from bottom of the basin.
4. Remove sediment build up from pipe, endwall and rip rap apron in upstream collection system 1&2.
5. Remove tree stump from endwall at upstream collection system 2.
6. Remove vegetation and brush from rip rap apron at upstream collection system 3.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Spillway



Photo No. 10: Earthen Component: Spillway stone section from bottom



Photo No. 11: Structural Component: Pipe



Photo No. 12: Structural Component: Outlet Structure



Photo No. 13: Structural Component: Outlet Structure



Photo No. 14: Structural Component: Outlet Structure endwall



Photo No. 15: Level Spreader



Photo No. 16: Structural Component: Upstream Collection 1



Photo No. 17: Structural Component: Upstream Collection 2



Photo No. 18: Structural Component: Upstream Collection 2



Photo No. 19: Structural Component: Upstream Collection 3



Photo No. 20: Structural Component: Upstream Collection 3



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB42.20			

Inspection Date	Time	Investigator
12/30/16	7:45AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
32 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Fair Condition)

The basin is in fair condition the only issue is the sediment build up at the upstream collection systems.

Components

Is BMP in E&S Mode?
No basin is no in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in fair condition, area is moderately wooded and has minimal grass covering.

Earthen Component: Berm, Downslope
There is no berm down slope basin is sunken and area past the berm is paved roadway.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition area is mowed and well maintained, only one or two small trees are in the bottom of the basin.

Earthen Component: Spillway (Good)
The spillway is in good condition no sign of erosion around the concrete spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, the area is free from erosion and sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
All three upstream collection systems have a build up of sediment at the endwalls to a point where it is restricting the flow to the basin.

Recommendations

1. Remove sediment from upstream collection systems and their aprons if rip rap exist replace and repair as needed..

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection 1



Photo No. 7: Structural Component: Upstream Collection 2



Photo No. 8: Structural Component: Upstream Collection 3



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB24.7			
Inspection Date	**Time**		**Investigator**
12/30/16	10:00AM		Ryan G. Martin
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
34 °F	0.17 in.	0.17 in.	Clear

Overall (Fair Condition)

The basin is generally in good condition. The area around the outlet structure needs to be filled.

Components

Is BMP in E&S Mode?
No, Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained, no bare spots.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained, no bare spots. One large tree and a few smaller trees are planted on the top.

Earthen Component: Berm, Downslope (Good)
Downslope is stable with grass that is mowed and well maintained, no bare spots

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained, no bare spots.

Earthen Component: Spillway (Good)
Spillway is stable with grass that is mowed and well maintained, no signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Fair)
Outlet structure is inlet. Area around inlet box needs filled, some holes are present.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is from inlets from the parking lots. Inflow pipe is hiden inside of a bush, everything is in good condition. Also, the roof doesn't have gutters so the runoff is sheet flow into the basin.

Recommendations

1. And soil around the outflow area.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside, Top



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB24.8			

Inspection Date	Time	Investigator
12/30/16	10:20AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Fair Condition)

Basin is in good condition, leaves need to be removed from the outfall to allow flow.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained, no bare spots on the berm.

Earthen Component: Berm, Top (Good)
Top of berm was grass that is mowed and well maintained, no bare spots.

Earthen Component: Berm, Downslope
N/a

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained. Some areas of yellow grass.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained, no signs of erosion and no bare spots.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Fair)
Outlet structure is full of leaves, the structure is in good condition.

Structural Component: Cleanouts (Good)
Clean outs were around the basin, they were not opened but they were still in good condition above ground.

Structural Component: Upstream Collection (Good)
PVC pipes were at three different places in the basin from roof drain from home. No signs of erosion are present.

Recommendations

1. Remove leaves from the outfall to allow flow

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Structural Component: Upstream Collection



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB33.21			

Inspection Date	Time	Investigator
10/14/16	8:47AM	Colin C Cash

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
45 °F	0.01 in.	0.01 in.	Sunny.

Overall (Fair Condition)

Basin is in stable condition, with immediate maintenance needs.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
Appears stable. Well-vegetated, and appears well-kept. Very minor encroachments. Tree swing from tree on south side of basin. Some detrius stored on southwest berm.

Earthen Component: Berm, Top (Good)
Basin in entirely cut condition. Basin top appears stable. Southern portion of basin borders farm field, and is separated by a woodline.

Earthen Component: Berm, Downslope
No basin downslope. Basin is entirely in cut condition.

Earthen Component: Bottom of Basin (Good)
Basin bottom is stable, and appears to be routinely mowed. No closed depressions found. There are some bare spots or areas of dead grass. Basin bottom is dry, with no hydric plants observed. A natural low-flow channel has been cut through the basin bottom, but is well vegetated and not eroded.

Earthen Component: Spillway (Fair)
Gabion spillway with concrete overlay on surface. Structure itself is in good condition, for its age. However, it is blocked by several mature coniferous trees and residents are storing wood materials (along with gardening equipment) on the emergency spillway. If the coniferous trees are not there by design, then they should be removed.

Structural Component: Pipe
Outlet pipe runs from outlet structure to manhole. Manhole lid could not be pulled.

Structural Component: Outlet Structure (Fair)
Outlet structure consists of concrete headwall with weir plate, connected to a Type M inlet (which then runs to a manhole). Weir plate has about 6" diameter orifice at basin invert. Structures appear to be in good condition; however, the headwall appears to have been covered by residents with decorative slate stone and ivy. Ivy should be trimmed away from from inlet grate.

Structural Component: Cleanouts
No cleanouts or other unique structural components found.

Structural Component: Upstream Collection (Fair)
Basin has two pipe discharges into it. One endwall has completely lost all the grout around it, where RCP meets endwall. Also, sediment has accumulated over the rip-rap apron. A 6" deep eroded channel has been cut by stormwater through this sediment. Fines are also present within the RCP. The other endwall and rip-rap apron is over grown by plants. No erosion noted at this endwall, though. Some grout missing, from the one to five o' clock positions around pipe.

Recommendations

1. Require that residents remove materials stockpiled within emergency spillway. Determine whether coniferous trees blocking emergency spillway should be removed. Remove sediment from western inflow pipe and at riprap apron. Re-grout inflow headwalls.

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Inside



Photo No. 5: Earthen Component: Berm, Inside



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Bottom of Basin



Photo No. 12: Earthen Component: Bottom of Basin



Photo No. 13: Earthen Component: Bottom of Basin



Photo No. 14: Earthen Component: Bottom of Basin



Photo No. 15: Earthen Component: Spillway



Photo No. 16: Earthen Component: Spillway



Photo No. 17: Earthen Component: Spillway



Photo No. 18: Earthen Component: Spillway



Photo No. 19: Earthen Component: Spillway



Photo No. 20: Earthen Component: Spillway



Photo No. 21: Structural Component: Outlet Structure



Photo No. 22: Structural Component: Outlet Structure



Photo No. 23: Structural Component: Outlet Structure



Photo No. 24: Structural Component: Upstream Collection



Photo No. 25: Structural Component: Upstream Collection



Photo No. 26: Structural Component: Upstream Collection



Photo No. 27: Structural Component: Upstream Collection



Photo No. 28: Structural Component: Upstream Collection



Photo No. 29: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB33.22

NPDES Permit #

Inspection Date	Time	Investigator
10/14/16	9:37AM	Colin C Cash

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
45 °F	0.01 in.	0.01 in.	Sunny

Overall (Fair Condition)

Basin is in good but aged condition. Appears stable.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Well-vegetated, and appears to be regularly mowed. No evidence of subsidence.

Earthen Component: Berm, Top (Fair)
Well-vegetated, and appears well mowed. Appear stable; however, there is some subsidence around old tree stumps. Some trees along top of berm; but do not pose an issue or concern.

Earthen Component: Berm, Downslope (Good)
Stable, in good vegetated condition. Appears to be well maintained. No subsidence observed.

Earthen Component: Bottom of Basin (Good)
Well-vegetated, stable, and dry. Minor spots of grass burn-out. Appears to be routinely mowed.

Earthen Component: Spillway (Fair)
Spillway could not directly be evaluated without disturbing muched "garden" which property owner at 1075 Whitemarsh Drive has put atop emergency spillway. Spillway is completely covered by mulch.

Structural Component: Pipe (Good)
24" diam. RCP outflow pipe appears to be in good condition. No concerns. Outfall to stream appears stable and clean.

Structural Component: Outlet Structure (Good)
Outlet structure in solid, but aged condition. Headwall has 8" diam. opening in steel plate. Headwall shows signs of age. Headwall connects to Type M grated inlet with 24" long by 6" tall weir openings cut into either side of the inlet box, near the grate top. O/S inlet is clean and dry.

Structural Component: Cleanouts (Good)
In-flow rip-rap apron appears to have underdrain. 6" diam. PVC pipe found at endwall and rip-rap apron. Cap was removed and drain appeared reasonably free of sediment, with signs of recent water. Pipe is buried about 16" below the surface.

Structural Component: Upstream Collection (Good)
Two inflows to basin are 6" diam. PVC pipe and 30" diam. RCP. Both appear to be in good condition. No signs of erosion.

Recommendations

1. Township should determine if homeowners should be required to remove all obstructions from emergency spillway.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Inside



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Spillway



Photo No. 12: Structural Component: Pipe



Photo No. 13: Structural Component: Pipe



Photo No. 14: Structural Component: Pipe



Photo No. 15: Structural Component: Pipe



Photo No. 16: Structural Component: Pipe



Photo No. 17: Structural Component: Outlet Structure



Photo No. 18: Structural Component: Outlet Structure



Photo No. 19: Structural Component: Outlet Structure



Photo No. 20: Structural Component: Outlet Structure



Photo No. 21: Structural Component: Outlet Structure



Photo No. 22: Structural Component: Outlet Structure



Photo No. 23: Structural Component: Outlet Structure



Photo No. 24: Structural Component: Cleanouts



Photo No. 25: Structural Component: Cleanouts



Photo No. 26: Structural Component: Cleanouts



Photo No. 27: Structural Component: Cleanouts



Photo No. 28: Structural Component: Upstream Collection



Photo No. 29: Structural Component: Upstream Collection



Photo No. 30: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB43.3			

Inspection Date	Time	Investigator
12/30/16	8:40AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F	0.17 in.	0.17 in.	Clear

Overall (Fair Condition)

The basin is in fair condition there is a build up of sediment in the low flow channel and starting to be an issue at the outlet structure.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, the downslope is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. There is a concrete low flow channel from upstream collection system to the outlet structure there is sediment build up toward the outlet.. The remainder of the basin is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition the spillway is free of erosion and vegetation build up.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition there is a build up of sediment and vegetation at the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection is in good condition, there is no build up of sediment or vegetation.

Outfall Basin (Fair)
Basin outfalls to another basin, area is in fair condition upstream collection system is almost completely block by sediment and vegetation.

Recommendations

1. Remove sediment from low flow channel and at outlet structure.
2. Clean out upstream collection system endwall in lower basin.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Outfall Basin



Photo No. 11: Outfall Basin



Photo No. 12: Outfall Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB43.1			

Inspection Date	Time	Investigator
10/19/16	2:00PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
83 °F			Clear

Overall (Fair Condition)

The basin is in fair condition. The berms and overall basin is in good condition however the collection system both the upstream and downstream have a few issues.

Components

Is BMP in E&S Mode?
No basin is not in E&Smode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition it has tree every 8-10 ft. Some areas have little grass due to the tree cover.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition. The area is mostly grass with some areas dirt due to tree cover, area is well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, the inlet top is offset on the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system 1 is in fair condition there is a large amount of sediment build up at the mouth of the endwall. Upstream collection system two is in fair condition. There is a build up of sediment in the mouth of the endwall on either side of a channel that the water has cut this continues for a number of yards.

Recommendations

1. Straighten inlet top on outlet structure.
2. Remove sediment from upstream collection system end walls.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection 2



Photo No. 11: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
POR34.1			
Inspection Date	**Time**		**Investigator**
10/14/16	11:05AM		Colin C Cash
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
46 °F	0.01 in.	0.01 in.	Sunny.

Overall (Fair Condition)

No comments

Components

Porous Pavement (Fair)
No signs of base failure or standing water. Seams between porous pavement and regular asphalt are in good condition. Aggregate breaking away from surface. Large areas of loose fines.

Recommendations

1. Owner should contact design engineer to determine course of action to stabilize surface, and also verify proper function through testing.

Prepared By CSDatum

Photo Log

Photo No. 1: Porous Pavement



Photo No. 2: Porous Pavement



Photo No. 3: Porous Pavement



Photo No. 4: Porous Pavement



Photo No. 5: Porous Pavement



Photo No. 6: Porous Pavement



Photo No. 7: Porous Pavement



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
POR34.2

NPDES Permit #

Inspection Date	Time	Investigator
10/14/16	11:00AM	Colin C Cash

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
47 °F	0.01 in.	0.01 in.	Sunny.

Overall (Fair Condition)

No comments

Components

Porous Pavement (Fair)
No signs of base failure or standing water. Seams between porous pavement and regular asphalt are in good condition. Aggregate breaking away from surface. Large areas of loose fines.

Recommendations

1. Owner should contact design engineer to determine course of action to stabilize surface, and also verify proper function through testing.

Prepared By CSDatum

Photo Log

Photo No. 1: Porous Pavement



Photo No. 2: Porous Pavement



Photo No. 3: Porous Pavement



Photo No. 4: Porous Pavement



Photo No. 5: Porous Pavement



Photo No. 6: Porous Pavement



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB34.6			
Inspection Date	**Time**		**Investigator**
10/14/16	10:36AM		Colin C Cash
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
47 °F	0.01 in.	0.01 in.	Sunny.

Overall (Fair Condition)

Basin is in fair condition. The basin may not be functioning as intended due to baseball diamond encroachment. Natural wetlands now a part of basin.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
Berm appears to be well-vegetated and maintained. Several depressions located. Unclear whether they are vector created or areas of subsidence. Several have large rocks placed within them.

Earthen Component: Berm, Top (Good)
Appears stable and well-vegetated. Appears to be well maintained.

Earthen Component: Berm, Downslope (Good)
Well-vegetated and well-maintained. Appears stable, with no areas of subsidence found.

Earthen Component: Bottom of Basin (Fair)
Basin bottom has baseball diamond, backstop, and benches within it. Mostly well-vegetated and appears to be routinely mowed. A natural eroded path has developed through the basin. Unclear if this is in keeping with the original design. Additionally, lines of bare earth are visible along the baseball diamond, but how they are kept bare and why is not clear. Within eroded channel through basin, northernmost portion is wet, with wetland plants in it.

Earthen Component: Spillway (Good)
Emergency spillway appears stable. Concrete covering over gabions is in good condition.

Structural Component: Pipe (Good)
18" diam. RCP discharges into receiving stream. Rip-rap apron, pipe, and headwall appear to be in good condition. Vines around outfall are currently dead. However, they should be removed.

Structural Component: Outlet Structure (Good)
Outlet headwall and trash rack appear to be in good condition. No issues.

Structural Component: Cleanouts
A black plastic corrugated pipe found protruding from the ground just in front of the outlet headwall. No perforations in the pipe found, and not clear whether this is from an under drain. No other cleanouts observed.

Structural Component: Upstream Collection (Poor)
Two pipe in-flows into the basin. To the southwest: a 20" diam. CMP. Some settling observed behind the endwall. The endwall is undercut, about 6" deep and at least 18" underneath the concrete endwall. This appears to be caused by a stilling basin or rock filter just beyond th endwall. To the west: a 15" diam. CMP. Significant amount of sediment and fines accumulation in outlet rip-rap apron. Animal burrow found in the basin slope behind the endwall.

Recommendations

1. Repair undercutting to endwall, and holes found throughout basin. Township should determine whether or not baseball diamond should be within basin.

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Inside



Photo No. 5: Earthen Component: Berm, Inside



Photo No. 6: Earthen Component: Berm, Inside



Photo No. 7: Earthen Component: Berm, Top



Photo No. 8: Earthen Component: Berm, Top



Photo No. 9: Earthen Component: Berm, Downslope



Photo No. 10: Earthen Component: Berm, Downslope



Photo No. 11: Earthen Component: Berm, Downslope



Photo No. 12: Earthen Component: Bottom of Basin



Photo No. 13: Earthen Component: Bottom of Basin



Photo No. 14: Earthen Component: Bottom of Basin



Photo No. 15: Earthen Component: Bottom of Basin



Photo No. 16: Earthen Component: Bottom of Basin



Photo No. 17: Earthen Component: Bottom of Basin



Photo No. 18: Earthen Component: Bottom of Basin



Photo No. 19: Earthen Component: Bottom of Basin



Photo No. 20: Earthen Component: Bottom of Basin



Photo No. 21: Earthen Component: Bottom of Basin



Photo No. 22: Earthen Component: Bottom of Basin



Photo No. 23: Earthen Component: Bottom of Basin



Photo No. 24: Earthen Component: Bottom of Basin



Photo No. 25: Earthen Component: Bottom of Basin



Photo No. 26: Earthen Component: Bottom of Basin



Photo No. 27: Earthen Component: Bottom of Basin



Photo No. 28: Earthen Component: Bottom of Basin



Photo No. 29: Earthen Component: Bottom of Basin



Photo No. 30: Earthen Component: Bottom of Basin



Photo No. 31: Earthen Component: Bottom of Basin



Photo No. 32: Earthen Component: Spillway



Photo No. 33: Earthen Component: Spillway



Photo No. 34: Structural Component: Pipe



Photo No. 35: Structural Component: Pipe



Photo No. 36: Structural Component: Pipe



Photo No. 37: Structural Component: Pipe



Photo No. 38: Structural Component: Outlet Structure



Photo No. 39: Structural Component: Outlet Structure



Photo No. 40: Structural Component: Upstream Collection



Photo No. 41: Structural Component: Upstream Collection



Photo No. 42: Structural Component: Upstream Collection



Photo No. 43: Structural Component: Upstream Collection



Photo No. 44: Structural Component: Upstream Collection



Photo No. 45: Structural Component: Upstream Collection



Photo No. 46: Structural Component: Upstream Collection



Photo No. 47: Structural Component: Upstream Collection



Photo No. 48: Structural Component: Upstream Collection



Photo No. 49: Structural Component: Upstream Collection



Photo No. 50: Structural Component: Upstream Collection



Photo No. 51: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB16.1			
Inspection Date	**Time**		**Investigator**
12/12/14	8:20AM		Jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
34 °F	0.01 in.	0.25 in.	Overcast

Overall

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Acceptable condition. Has been maintained.

Earthen Component: Berm, Top
Acceptable condition. Has been maintained.

Earthen Component: Berm, Downslope
Acceptable condition. Has been maintained.

Earthen Component: Bottom of Basin
Acceptable condition. Has been maintained.

Earthen Component: Spillway
Top of Spillway is good condition. Minor voids were observed around portions of the perimeter. Potential for water getting beneath the spillway.

Structural Component: Pipe
Leaf debris was observed in the outflow side of the outlet structure.

Structural Component: Outlet Structure
Orfice of outlet structure was clear. Appears to match construction docs. Leaf debris was observed in the riprap of the outflow side.

Structural Component: Upstream Collection
Inflow swale is in good condition and is maintained. No silt was present in the upstream collection.

Recommendations

1. Remove leaf debris around outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway



Photo No. 2: Spillway



Photo No. 3: Berm



Photo No. 4: Outlet Structure inflow



Photo No. 5: Outlet Structure



Photo No. 6: Pipe



Photo No. 7: Upstream Collection



Photo No. 8: Berm



Photo No. 9: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB25.2			

Inspection Date	Time	Investigator
12/30/16	11:10AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
38 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Fair Condition)

The basin is generally in good condition. The animal holes on the farm field side need to be filled.

Components

Is BMP in E&S Mode?
The basin is in E&S Mode.

Earthen Component: Berm, Inside (Good)
The inside berm is grass the entire perimeter of the basin with mowed grass and has been maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is mowed grass and has been maintained. The one channels berm top is pavement from a work area.

Earthen Component: Berm, Downslope (Good)
The down slope on one side is mowed grass and has been maintained. The other side is a forest area with established tree and shrub growth.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin has two long sections that have been mowed and maintained. The side against the farm fields has animal holes that should be filled. The main part of the basin is mowed around the berm, but the center is tall wetland grass and trees. Grass and trees are stable. There are no signs of erosion.

Earthen Component: Spillway (Good)
The spillway is mowed grass and has been maintained. There are no signs of erosion present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. Rip-rap is in place on outflow side and is covered by weed growth. There are no signs of erosion present. The stand pipe is attached to the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection is sheet flow from paved working lot into a grassy channel. Also, there is an inflow pipe from the inlets around the driveway area. Rip-rap is in place and in good condition. There are no signs of erosion due to inflow.

Recommendations

1. Fill animal holes in the long section of the basin along the farm fields.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside, Top, Downslope, Upstream Flow



Photo No. 2: Earthen Component: Berm, Inside, Top



Photo No. 3: Earthen Component: Berm, Inside, Bottom



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Spillway



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Outlet Structure



Photo No. 12: Structural Component: Upstream Collection



Photo No. 13: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP25.2

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	2:00PM	RMB

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
67 °F			Sunny

Overall (Fair Condition)

Vegitation needs to be removed.

Components

Is BMP in E&S Mode?
No

Earthen Component: infiltration trench
Moderate vegitation has established along the sides and minor down the center. Isolated areas of geofabric are exposed.

Recommendations

1. remove vegitation

Prepared By CSDatum

Photo Log

Photo No. 1: 1415128101159-1902767684.jpg



Photo No. 2: 1415128118069-918252374.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB25.4

NPDES Permit #

Inspection Date	Time	Investigator
10/19/16	11:35AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
78 °F			Clear

Overall (Fair Condition)

The basin overall is in fair condition. The only issue swith the basin is the amount of sediment that has collect at the ends of the upstream collection systems.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition,it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm down slope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition it is free of sediment t and no erosion is present around the structure

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in fair condition, there is a build up of sediment at the mouth of the endwall. It has not filled any area of the rip rap apron. Upstream collection system 2 is in poor condition there is a large build up of sediment and vegetation at the mouth of the endwall and covering the center of the rip rap apron.

Recommendations

1. Remove sediment from the ends of the upstream collection systems and the r rap aprons.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection 1



Photo No. 9: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB34.8			

Inspection Date	Time	Investigator
10/19/16	1:20PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
82 °F			Clear

Overall (Fair Condition)

The basin is in fair condition there is some issues with the outlet structure due to the ivy, and pine needles.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The majority of the inside of the berm is covered with a ground ivy. The other section is grass with a few established plants mixed.

Earthen Component: Berm, Top (Good)
The top of the berm is in fair condition much like inside of the berm it is mostly covered in ivy, with established pine trees evenly spaced.

Earthen Component: Berm, Downslope (Good)
The downslope is like the components previously the majority is covered in ivy the remained is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin looks as those it recently had a large bed of cattail and other plants that were recently cut.

Earthen Component: Spillway (Fair)
The spillway was hard to detect with the ivy growing every where. The assumed spillway is just to the left of the outlet structure.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is some vegetation build up at the mouth of the outfall. The pipe join has either separated or mortar holding the joint together is gone.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition, there is a minor amount of sediment in the rip rap apron.

Recommendations

1. Remove vegetation from the outlet structure.
2. Fix pipe joint in the outlet structure.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP38.1

NPDES Permit #

Inspection Date	Time	Investigator
12/29/16	12:20PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F	0.17 in.		Partly Cloudy

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm wall is grass that is mowed and well maintained on the top half. The bottom half is not mowed grass.

Earthen Component: Berm, Top (Good)
Top of berm is paved lot on three sides and grass that is not mowed on the other.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is not mowed.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is not mowed often.

Earthen Component: Spillway (Good)
Spillway is concrete that is in good condition, no signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion. Silt sock is still wrapped around the bottom.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is sheet flow from payment and buildings. Three inflow pipes are present with some riprap in place. Pooling is present at two of the inflows.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB30.2

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	3:15PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F	0.08 in.	0.14 in.	Sunny

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Minor water was observed in the bottom of the out let manhole south eastern manhole. The west manhole had minor debris observed in the bottom of the manhole.

Structural Component: Upstream Collection
South east inlet no sediment or debris was observed.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Outlet Structure



Photo No. 3: Upstream Collection



Photo No. 4: Outlet Structure west



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP39.5

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	3:45PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F	0.08 in.	0.14 in.	Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Upstream Collection
Minor debris (leaves) were observed in the inlet. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP39.4

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	3:40PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F	0.08 in.	0.14 in.	Sunny

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Upstream Collection
No debris was observed in the bottom of the inlet. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB22.15			

Inspection Date	Time	Investigator
09/16/16	12:10PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F			Clear

Overall (Good Condition)

Basin is overall in good condition.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm downslope is in good condition, it's mowed and well maintained and there are no signs of erosion.

Earthen Component: Bottom of Basin (Fair)
Bottom of the basin is in fair condition, there are two burrows present.

Earthen Component: Spillway (Fair)
Spillway is in fair condition, there is a large amount of vegetation growing in the spillway.

Structural Component: Pipe (Fair)
The outlet structure pipe is in fair condition, there are a number of rocks inside of the pipe.

Structural Component: Outlet Structure (Fair)
Outlet structure is in fair condition, endwall rip rap apron has sediment and vegetation in it.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system is in poor condition. There is erosion and animal burrowing behind the endwall and sediment and vegetation build up over the rip rap apron.

Recommendations

1. Repair animal burrows in the bottom of the basin and upstream endwall.
2. Remove vegetation from spillway.
3. Remove rocks from outlet structure pipe.
4. Remove vegetation and sediment from upstream endwall and outlet structure endwall.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Pipe



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection endwall



Photo No. 9: Structural Component: Upstream Collection endwall erosion and animal burrowing



Photo No. 10: Basin overall from upstream endwall.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.16

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	1:00PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
80 °F		0.6 in.	Clear

Overall (Good Condition)

Basin is in good condition, and is being regularly maintained.

Components

Is BMP in E&S Mode?
No basin is not in E& S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, there is no erosion. The top of the berm is lined with pine trees.

Earthen Component: Berm, Downslope (Fair)
The bottom of the berm is over grown but is in fair condition.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Both spillway are in good condition, vegetation on top of the spillway removed.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition, it is free of sediment.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no erosion or sediment is present.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system is in good condition. There are two sealed both are mowed and well maintained. The upstream inflow is a open drain from the road and is free from erosion and sediment.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway 1



Photo No. 6: Earthen Component: Spillway 2



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Basin overall.jpg



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection swale 1



Photo No. 12: Structural Component: Upstream Collection swale 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB22.18			

Inspection Date	Time	Investigator
09/21/16	12:25PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F		0.6 in.	Partly Cloudy

Overall (Good Condition)

The basin is in good condition a is being well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Fair)
There are two spillways, both are in fair condition. Both have vegetation growing up from the rocks.

Structural Component: Pipe (Good)
Outlet pipe is in good condition, there is no sediment build up.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. There is no vegetation, sediment or erosion present.

Structural Component: Cleanouts

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. The upstream swale is mowed and well maintained. The upstream endwall 2 has sediment in the upstream pipe. Upstream endwall 1 is in good condition.

Recommendations

1. Remove vegetation from spillway.
2. Remove sediment from upstream collection system pipe, endwall 2.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway 1



Photo No. 6: Earthen Component: Spillway 2



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Basin overall.jpg



Photo No. 10: Structural Component: Upstream Collection 1 endwall



Photo No. 11: Structural Component: Upstream Collection 2 endwall



Photo No. 12: Structural Component: Upstream Collection swale



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.19

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	1:25PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
81 °F		0.6 in.	Clear

Overall

Basin is in good condition, it is mowed and well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E& S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope
No berm downslope present.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway
N/A

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, no erosion or sediment issues.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. Run off from the road has started to eroded a small channel from the open drains, and keeping the area muddy.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Overall basin.jpg



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Structural Component: Upstream Collection wet eroded area



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP49.2			
Inspection Date	**Time**		**Investigator**
10/17/14	2:35PM		JWV
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
67 °F	0.75 in.	2 in.	Partly Cloudy

Overall (Fair Condition)

Orfice being clogged and trash need to be remove from outlet structure.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Appears to be well maintained. No Erosion or weeds(large) were observed.

Earthen Component: Berm, Top
Appears to be well maintained. No Erosion or weeds(large) were observed

Earthen Component: Berm, Downslope
Appears to be well maintained. No Erosion or weeds(large) were observed

Earthen Component: Bottom of Basin
Basin floor appears to be in good shape. The grass is well maintained. Minor debris is scattered at the end of the inflow swale near inlet.

Earthen Component: Spillway
Grass spillway appears in good shape. No Erosion was observed.

Structural Component: Pipe
Minor amounts of water were observed in the corrugations of outlet pipe.

Structural Component: Outlet Structure
Outlet structure has trash rack installed over office plate. Office plate is installed per details;however 1/2" x1/2" orifice has debris (grass clipping) clogging that opening. No vegetation was observed around head wall ; however no erosion was observed.

Structural Component: Upstream Collection
Inlet structure has minor debris in trash rack. Minor debris was observed in the inlet pipe. No silt was present in the upstream collection.

Recommendations

1. Remove debris from office and trash around outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin East View



Photo No. 3: Bottom of Basin North view



Photo No. 4: Bottom of Basin west



Photo No. 5: Berm South



Photo No. 6: Upstream Collection



Photo No. 7: Upstream Collection



Photo No. 8: Outlet Structure



Photo No. 9: Outlet Structure



Photo No. 10: Pipe



Photo No. 11: Spillway



Photo No. 12: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.11

NPDES Permit #

Inspection Date	Time	Investigator
09/27/16	12:20PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
55 °F	0.22 in.	0.22 in.	Clear

Overall (Good Condition)

The basin is in good condition. Mother upatream collection system 2 will need work with erosion since surrounding vegetation has been removed.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe (Good)
The pipe is in good condition, it is free from sediment.

Structural Component: Outlet Structure (Good)
The oulet structure is in good condition, it is free from erosion and sediment issues.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. Upstream collection system 1 is in good condition the pipe and rip rap apron are free of sediment and erosion. Upstream collection system 2 is in poor condition both the mouth and the upstream pipe are full of sediment.

Recommendations

1. Remove sediment from upstream collection system 2.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top And Downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure downstream



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection 1



Photo No. 7: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB23.10			
Inspection Date	**Time**		**Investigator**
09/27/16	11:55AM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
69 °F	0.22 in.	0.22 in.	Clear

Overall (Good Condition)

The basin is in fair condition it is well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
The pipe is in good condition.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is sediment in down stream inlets.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection systems are in fair condition. The pipes are free of sediment and the rip rap apron have no sediment or vegetation present. Pipe joint lose on upstream collection system 2 pipe.

Recommendations

1. Fix area at pipe joint.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure sump inlet



Photo No. 7: Structural Component: Outlet Structure inlet at road



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection 2



Photo No. 11: Structural Component: Upstream Collection 2



Photo No. 12: Basin Overall.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB41.2

NPDES Permit #

Inspection Date	Time	Investigator
10/14/16	1:10PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F	0.01 in.	0.01 in.	Clear

Overall (Good Condition)

The basin is in good functioning condition, basin appears to be well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The section of the berm closest to the parking lot is mowed and well maintained. The opposite section is heavily vegetated with trees and brush.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is grass with established trees.

Earthen Component: Berm, Downslope
No berm downslope present.

Earthen Component: Bottom of Basin (Good)
Bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is in good condition. The spillway is located at the outlet structure, it's a grass spillway it's mowed and well maintained.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition, no signs of issues or sediment present.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. No areas of erosion around the head wall or sediment in the mouth of the head wall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream swale is in good condition it is mowed and well maintained.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure headwall



Photo No. 7: Structural Component: Outlet Structure endwall



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.15

NPDES Permit #

Inspection Date	Time	Investigator
12/27/16	2:20PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
58 °F			Partly Cloudy

Overall (Good Condition)

The basin is in good condition. It is mowed and has been well maintained. There are no signs of erosion. The basin is inside a locked gate; therefore, I could not go past the fence.

Components

Is BMP in E&S Mode?
Basin is not in E&S Mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is mowed grass and has been well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is a paved parking lot and turf soccer field.

Earthen Component: Berm, Downslope
N/A

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is mowed grass and has been well maintained.

Earthen Component: Spillway
N/A

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure looks to be in good shape with no signs of erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection is from the paved parking lot. There are no signs of erosion due to inflow.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Top



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Berm, Inside



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB23.2

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	2:45PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Upstream Collection
No sediment was observed in the bottom of the inlet structures. Minor debris (leaves) were observed at the bottom of the inlet. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB41.5			

Inspection Date	Time	Investigator
10/14/16	2:45PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F	0.01 in.	0.01 in.	Clear

Overall (Good Condition)

Basin is in good condition and is being very well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is the n good condition. Majority of the areas a mowed grass, there are some areas that are mulch flower beds with established trees and shrubs.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition, it is free from any sediment build up.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there is no sediment or erosion issues at the headwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system 1 is in fair condition, there is a build up of sediment in the rip rap apron. There is also vegetation growing in the rip rap apron and on the trash rack. Upstream collection system 2 is in fair condition there is no rip rap apron present at endwall, this is the same for the remainder of structures. Upstream collection system 3 is in good condition area is free of sediment t build up. Upstream collection system 4 is in good condition area is free from sediment build up. Upstream collection system 5 is in fair condition, there is a build up of sediment and debris at the mouth of the endwall in the defuses. Upstream basin is in good condition.

Recommendations

1. Removed sediment and vegetation from upstream system 1 endwall and rip rap apron.
2. Remove sediment and debris from upstream system 5 endwall mouth and defuses.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin from spillway



Photo No. 5: Earthen Component: Bottom of Basin from spillway



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection 2



Photo No. 11: Structural Component: Upstream Collection 3



Photo No. 12: Structural Component: Upstream Collection 4



Photo No. 13: Structural Component: Upstream Collection 5



Photo No. 14: Structural Component: Upstream Collection 5



Photo No. 15: Structural Component: Upstream Collection 5
from small basin upstream



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB50.6

NPDES Permit #

Inspection Date
09/12/16

Time
3:30PM

Investigator
Ryan M Barton

Temperature
80 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Clear

Overall (Excellent Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Excellent)
Mowed grass

Earthen Component: Berm, Top (Excellent)
Mowed grass

Earthen Component: Berm, Downslope (Excellent)
Mowed grass

Earthen Component: Bottom of Basin (Excellent)
Mowed grass area with 3 level type m inlets connected to outlet structure. Paved parking area is within Detention area. Pavement slopes down evenly across lot.

Earthen Component: Spillway (Excellent)
Level depressed grass area at return leg of berm. Flows into storm drain on downstream side.

Structural Component: Pipe
Under ground and connects into street system.

Structural Component: Outlet Structure (Excellent)
Double inlets clear of sediment and debris.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Level flow from parking lot. Width is width of basin

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: EarthinessEarthiness Component: Bottom of Basin



Photo No. 3: Earthen Component: Spillway



Photo No. 4: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.17

NPDES Permit #

Inspection Date	Time	Investigator
12/30/16	12:50PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
27 °F	0.17 in.	0.17 in.	Clear

Overall (Good Condition)

Basin is in good condition, no erosion is present.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is half grass that is mowed and well maintained, no bare spots. The other half is forest with established tree and shrub growth.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained, no bare spots.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained, no bare spots or signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion. Bushes are growing around the outlet structure.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is sheet flow from the grassy hill. The hill side is stable grass that is mowed and well maintained.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside, Top



Photo No. 2: Earthen Component: Berm, Downslope



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB41.6

NPDES Permit #

Inspection Date	Time	Investigator
12/28/16	4:15PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F			Mostly Cloudy

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode? (Good)
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is concrete channel from inlet to outlet. The rest is grass that is mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained with a concrete lip in the grass.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion are present.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is inflow pipe that is in good condition, no signs of erosion are present. Some small pipes from roof drains are present and in good condition.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB41.7

NPDES Permit #

Inspection Date	Time	Investigator
12/28/16	4:25PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
39 °F			Mostly Cloudy

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of the berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition and no signs of erosion. The riprap apron is in good condition.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is sheet flow from parking lots through a grassy channel. Also there is a inflow pipe that has a riprap apron. There is no sign of erosion from the inflows.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB23.6

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	2:20PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Overcast

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Minor debris was observed in base of in let structure. No sediment or water was observed.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB41.8

NPDES Permit #

Inspection Date	Time	Investigator
12/28/16	4:50PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
38 °F			Partly Cloudy

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope
N/a

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is from inlets from parking lot. Also sheet flow from other parking lot. Both have riprap and have no signs of erosion. Small rook drains are present and in good condition.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP41.20

NPDES Permit #

Inspection Date
10/27/14

Time
2:50PM

Investigator
wcw

Temperature
63 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Sunny

Overall

Good condition except for a small amount of silt in outlet structure.

Components

Is BMP in E&S Mode?
No

Earthen Component: Bottom of Basin
Good condition. It is mowed and debris is cleared from the bottom of the basin.

Earthen Component: Spillway
Good condition

Structural Component: Outlet Structure
Silt is even with the bottom of outlet pipe.

Structural Component: Upstream Collection
Good condition No silt was present in the upstream collection.

Recommendations

1. Clean silt from outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway



Photo No. 2: Bottom of Basin



Photo No. 3: Inlet swale



Photo No. 4: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB50.10

NPDES Permit #

Inspection Date
09/12/16

Time
2:50PM

Investigator
Ryan M Barton

Temperature
81 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Clear

Overall (Good Condition)

Minor settlement observed in Berm and upstream headwall needso repair.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Excellent)
Mowed grass. Good slopes

Earthen Component: Berm, Top (Good)
Mowed grass with trees along the south berm. Area of settlement observed over pipe out outlet structure.

Earthen Component: Berm, Downslope (Good)
Mowed grass. Small dug trench along bottom to help with drainage of adjacent yards.

Earthen Component: Bottom of Basin (Excellent)
Mowed grass.

Earthen Component: Spillway (Good)
Loose placed rock

Structural Component: Pipe (Excellent)
Concrete

Structural Component: Outlet Structure (Excellent)
Strust urethane is clear of debris. Rock apron at outlet has thick grass established throught. Grass is not restricting flow

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Concrete encasement of pipe is cracked and displaced. Invert of pipe is below grademail of basin. Sediment is accumulated within pipe.

Recommendations

1. Monitor Berm for further settlement
2. Remove soil and deposits downstream of upstream headwall.
3. Replace concrete of headwall around pipe.
4. Clear sediment from upstream pipe.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Spillway



Photo No. 6: 9Earthen Component: Berm, Top



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB41.10

NPDES Permit #

Inspection Date	Time	Investigator
12/28/16	4:05PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F			Mostly Cloudy

Overall (Good Condition)

Basin is in good condition. No erosion is present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of basin is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is concrete that is in good condition. No erosion is present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is inlet which is in good condition. No signs of erosion.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection
No signs of inflow found.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB14.14

NPDES Permit #

Inspection Date
12/19/14

Time
11:10AM

Investigator
rmb

Temperature
36 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Overcast

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly. Good condition

Earthen Component: Berm, Top
Grass mowed regularly. Good condition

Earthen Component: Berm, Downslope
Grass mowed regularly with clean rip rap lined drainage trench at base. Good condition

Earthen Component: Bottom of Basin
Grass mowed regularly. Good condition. Low flow channels are in good condition.

Earthen Component: Spillway
Above discharge area. In good condition. Rip rap at lower end has very minor vegitation.

Structural Component: Pipe
Good

Structural Component: Outlet Structure
Minor vegitation and debris inside trash rack. Debris observed in orifice. This will likely wash out next rain event.

Recommendations

1. remove vegitation and debris from trash rack and rip rap

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Berm



Photo No. 3: Bottom of Basin



Photo No. 4: Spillway



Photo No. 5: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB41.11

NPDES Permit #

Inspection Date
01/02/15

Time
2:45PM

Investigator
DAH

Temperature
41 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Mowed, patchy dirt spots

Earthen Component: Spillway
Stable

Structural Component: Outlet Structure
Good condition

Structural Component: Upstream Collection
Rock apron filled with sediment Partial silt is present in the upstream collection.

Recommendations

1. Seed areas with no grass

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Spillway



Photo No. 3: Bottom of Basin



Photo No. 4: Upstream Collection



Photo No. 5: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB50.12

NPDES Permit #

Inspection Date	Time	Investigator
09/12/16	4:30PM	Ryan M Barton

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
81 °F			Clear

Overall (Good Condition)

Trash grates and or reducer plate was removed

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)
Mowed grass on easy side. Large bushes and trees on west.

Earthen Component: Berm, Top (Good)
Mowed grass on easy side. Large bushes and trees on west.

Earthen Component: Berm, Downslope (Good)
Mowed grass on easy side. Large bushes and trees on west.

Earthen Component: Bottom of Basin (Excellent)
Mowed grass level

Earthen Component: Spillway (Excellent)
Mowed grass level. Good drainage backside

Structural Component: Pipe
Nother accessible

Structural Component: Outlet Structure (Fair)
Trash grate and or reducer plate removed.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Trash grates removed. Grade in basin is above invert of East pipe.

Recommendations

1. Reinstall trash grates and or reducer plate if required.
2. Remove excess sediment at upstream east headwall

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Top



Photo No. 2: Earthen Component: Berm, Downslope



Photo No. 3: Earthen Component: Spillway



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB51.3

NPDES Permit #

Inspection Date	Time	Investigator
09/12/16	4:45PM	Ryan M Barton

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
82 °F			Clear

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)
Semi mowed grass with new trees planted along length.

Earthen Component: Berm, Top (Good)
Unmowed tall grasses

Earthen Component: Berm, Downslope (Good)
Unmowed tall grasses

Earthen Component: Bottom of Basin (Excellent)
Mowed grass level

Earthen Component: Spillway (Fair)
Semi mowed grass. Not level with low depression over pipe. Several animal holes found throughout.

Structural Component: Pipe (Good)
Clear and large. Abandoned wooden formwork from ceiling patch is falling into pipe.

Structural Component: Outlet Structure (Fair)
Trash grate and or reducer plate have been removed. Established grass and sediment in rock apron at upstream and downstream ends.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
A tree is growing out of the north collector headwall. Sediment has accumulated in the apron of the west collector headwall.

Recommendations

1. Remove animals from Berm and spillway. Fill holes with flow able fill.
2. Remove tree from upstream headwall
3. Remove sediment and vegetation from headwall aprons.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Spillway



Photo No. 4: Structural Component: Pipe



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB42.3

NPDES Permit #

Inspection Date	Time	Investigator
12/29/16	3:45PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
42 °F	0.17 in.		Mostly Cloudy

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Downslope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway (Good)
Spill way is grass that is mowed and well maintained. No signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition. No signs of erosion are present. Riprap apron is present and in good condition.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is on inflow pipe. Riprap apron is present and in good condition. Sheet flow from sports fields is also upstream.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB15.1

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	2:00PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F			Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Good condition, no sediment or standing water.

Structural Component: Outlet Structure
Good condition.

Structural Component: Upstream Collection
Good, dry. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP42.1

NPDES Permit #

Inspection Date	Time	Investigator
10/27/14	3:40PM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
64 °F			Sunny

Overall (Good Condition)

Rain garden appears in good condition but it may need different type of vegetation.

Components

Is BMP in E&S Mode?
No

Earthen Component: Bottom of Basin
There's only short vegatation in this rain garden.

Earthen Component: Spillway
Good condition.

Structural Component: Pipe
Good condition.

Structural Component: Outlet Structure
Good condition.

Structural Component: Upstream Collection
Good condition. No silt was present in the upstream collection.

Recommendations

1. Check to see if correct vegetation is being used in rain garden.

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway



Photo No. 2: Upstream Collection



Photo No. 3: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB51.10

NPDES Permit #

Inspection Date
09/12/16

Time
12:05PM

Investigator
Ryan M Barton

Temperature
60 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Clear

Overall (Good Condition)

Even with issues noted, the system is working as intended without major issue.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)
South side is mowed grass. East side is covered in large bushes.

Earthen Component: Berm, Top
N/A slopes continue to back of adjacent residences.

Earthen Component: Berm, Downslope
N/A

Earthen Component: Bottom of Basin (Good)
Mowed grass. Area below north intake headwaters has accumulated sediment with established grass. Invert is 6in below adjacent bottom of basin.

Earthen Component: Spillway
N/A

Structural Component: Pipe
Extends underground out to road. Unable to view condition

Structural Component: Outlet Structure (Fair)
Structure is good but a large accumulation of debris and vegetation are blocking themail structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
North invert is below bottom of basin. Structure is good. West is outlet from upstream basin. Condition is excellent.

Recommendations

1. Remove debris and vegetation from outlet structure.
2. Remove excess sediment from North collection headwall

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW15.1

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	2:00PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F			Partly Cloudy

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition,stable

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Good condition, well vegetated

Earthen Component: Spillway
Good condition, stable

Structural Component: Pipe
Outfall slightly covered

Structural Component: Outlet Structure
Couldn't locate

Structural Component: Upstream Collection
Underground detention facility, good No silt was present in the upstream collection.

Structural Component: Other
Inflow endwall in good condition

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Spillway



Photo No. 3: Pipe



Photo No. 4: Inflow Endwall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP42.2

NPDES Permit #

Inspection Date	Time	Investigator
10/27/14	3:05PM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F			Sunny

Overall

Overall in good condition. There are a few bare places on the berm that will probably be fixed when the construction adjacent to the rain garden is completed.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside

Earthen Component: Berm, Top
There is one bare area probably due to on going construction.

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
There is a well established vegatation in the bottom of the rain garden.

Earthen Component: Spillway
There is a fence across the spillway to separate the rain garden from current construction work.

Structural Component: Pipe
Inlet pipe appears clean and in good condition.

Structural Component: Outlet Structure
Good condition.

Structural Component: Upstream Collection
There is a lot of cattails growing in front of inlet. They are growing through River-stone. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway and overflow outlet



Photo No. 2: Bottom of Rain garden



Photo No. 3: Top/downslope of Berm



Photo No. 4: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB24.1

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	11:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Good condition, mowed. Low flow channel partially defined

Earthen Component: Spillway
Good condition, concrete

Structural Component: Outlet Structure
Good condition

Structural Component: Upstream Collection
Inflow rock apron filled with sediment Partial silt is present in the upstream collection.

Recommendations

1. Clean sediment from rock apron

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Spillway



Photo No. 3: Bottom of Basin



Photo No. 4: Upstream Collection



Photo No. 5: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP15.3

NPDES Permit #

Inspection Date	Time	Investigator
09/23/14	11:00AM	bws

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall

Basin is holding water. Surface water elevation is +/-2' below normal water level, based on scouring at basin edge.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Mowed lawn condition

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope
Overgrown with weeds and brush

Earthen Component: Bottom of Basin
Under water

Structural Component: Pipe
Rip-rap apron scoured and eroded
Influent swale eroded

Structural Component: Outlet Structure
functioning as per plan

Recommendations

1. repair swale and rip-rap apron

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB33.3

NPDES Permit #

Inspection Date	Time	Investigator
12/27/16	4:30PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F			Clear

Overall (Good Condition)

The basin is in good condition with mowed grass and has been well maintained. There are no signs of erosion.

Components

Is BMP in E&S Mode?
Basin is not in E&S Mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is mowed grass and has been well maintained. There are no signs of erosion.

Earthen Component: Berm, Top (Good)
The top of the berm is mowed grass and has been well maintained. There is a spot where homeowners have a garden; there is no erosion present from this.

Earthen Component: Berm, Downslope (Good)
Down slope is mowed grass and has been well maintained; however, there are some bushes present closer to the outfall area.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is mowed grass and has been well maintained. A homeowner has a small boxed-in garden in the bottom of the basin; there is no erosion present.

Earthen Component: Spillway
N/A

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, rip-rap is in place, and there are no signs of erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection pipe is in good condition. There is no erosion is present; however, sediment is starting to build up at the endwall and needs to be monitored.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB42.6

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	9:35AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
26 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Good condition, plantings

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Good condition, mowed

Earthen Component: Spillway
Stabled, mowed

Earthen Component: Inflow swale
Stable

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Good condition, viny plantings partially covering

Structural Component: Upstream Collection
Inflow stable No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basi



Photo No. 3: Spillway



Photo No. 4: Inflow swale.jpg



Photo No. 5: Outlet Structure



Photo No. 6: Pipe



Photo No. 7: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB42.9

NPDES Permit #

Inspection Date	Time	Investigator
12/30/16	11:20AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Good Condition)

Basin is in fair condition a large erosion issue around the upstream collection system.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition there are patches that do not have grass.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, area is free from erosion.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition ther is minimal erosion around the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition there is a large amount of erosion around the upstream endwall.

Recommendations

1. Fix erosion issues around upstream collection system endwall.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside top



Photo No. 2: Earthen Component: Berm, Downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB33.3

NPDES Permit #

Inspection Date
11/14/14

Time
12:50PM

Investigator
DAH

Temperature
39 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Upstream Collection
Good, dry No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.3

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Stable

Earthen Component: Berm, Top
Stable

Earthen Component: Berm, Downslope
Stable

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Other
Inflow stable

Structural Component: Outlet Structure
Dry

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Inflow



Photo No. 3: Inflow



Photo No. 4: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.5

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall

Maintenance at the inflow shall be performed occasionally

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, stable

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Spillway
Concrete

Structural Component: Upstream Collection
Underground detention facility outlet structure Partial silt is present in the upstream collection.

Structural Component: Other
Inflow rip rap apron has partial sediment and vegetation

Recommendations

1. Maintenance at the inflow shall be performed occasionally

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Spillway



Photo No. 3: Inflow Endwall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.2

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Stable

Earthen Component: Berm, Top
Stable

Earthen Component: Berm, Downslope
Stable

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Other
Inflow stable

Structural Component: Outlet Structure
Dry

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.4

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	10:40AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, stable

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Other
Inflow stable

Structural Component: Outlet Structure
Good, dry

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.5

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall

Maintenance at the inflow shall be performed occasionally

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, stable

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Spillway
Concrete

Structural Component: Upstream Collection
Underground detention facility outlet structure Partial silt is present in the upstream collection.

Structural Component: Other
Inflow rip rap apron has partial sediment and vegetation

Recommendations

1. Maintenance at the inflow shall be performed occasionally

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Spillway



Photo No. 3: Inflow Endwall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.4

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	10:40AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, stable

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Other
Inflow stable

Structural Component: Outlet Structure
Good, dry

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB33.10

NPDES Permit #

Inspection Date	Time	Investigator
10/14/16	9:16AM	Colin C Cash

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
45 °F	0.01 in.	0.01 in.	Sunny.

Overall (Good Condition)

Basin is in generally good condition, but needs some immediate attention to review encroachments and clean up.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is generally well-vegetated and appears stable. Appears well kept, with some decorative plantings on inside slopes. Area of dead vegetation just to the north of the outlet structure.

Earthen Component: Berm, Top (Excellent)
Well-vegetated, and well-kept. No areas of subsidence observed. Stable.

Earthen Component: Berm, Downslope (Excellent)
Only a small portion has a downslope, since the basin is almost entirely in a cut condition. Good vegetation, which appears well-kept.

Earthen Component: Bottom of Basin (Fair)
Basin bottom is dry, with no evidence of subsidence. It is well vegetated and appears to be routinely mowed. Listed in "fair" condition, since the concrete low-flow channel has been filled in with decorative stone, which is now filling with dead grass clippings, and residents at 19 Lewiston Circle have placed two PVC pipes in the low-flow channel and covered them with earth. Concern is limited to whether this is keeping with the original design intentions of the basin. Arguably, it lowers flow velocities and helps to force stormwater out of the concrete channel and into the grass where it can infiltrate. The Township should decide its position. Also, a coniferous tree is growing near the outlet structure. It should be removed.

Earthen Component: Spillway (Fair)
Emergency spillway appears stable. Concrete lining over gabions appears to be still in good condition. Some minor sediment deposit on top of spillway which has moss on it. Seven coniferous trees block spillway approach. Concern regarding whether this is per design.

Structural Component: Pipe (Good)
No issues observed in any of the SLCPPs into or out of the basin. Basin does not discharge to an outfall, but rather discharges to inlet boxes to the north east of the basin, behind 1038 Fondersmith Drive.

Structural Component: Outlet Structure (Good)
Outlet structure is equipped with trash racks. Headwall with orifice plate receives low flow, and Type M inlet with orifice receives high flow (with both the top of the inlet having a trash rack, and the orifice). Concrete shows signs of age. Some minor detrius accumulated at low-flow orifice trash rack.

Structural Component: Cleanouts
No cleanouts or other unique structural components.

Structural Component: Upstream Collection (Fair)
There are two pipe inlets into the basin - one 24" diam. SLCPP across from the outlet structure, and a 15" diam. SLCPP at the southeast end of the basin near Croft Drive. The 24" inlet pipe and endwall are in generally good condition. The concrete shows signs of ageing, and there appears to be a potentially missing weir plate. 24" SLCPP may have moved from its initial position, and should be re-grouted. The 15" inlet pipe and its endwall are covered by decorative plantings and weeds. A resident has been dumping grass clippings around headwall to keep down weeks, but detrius and trash have ended up trapped at pipe outlet and should be removed.

Recommendations

1. Determine whether residents should clean out low-flow channel (or remove it). Trim vegetation around south east pipe discharge into basin. Remove coniferous tree near outlet structure. Determine if coniferous trees blocking spillway should be removed.

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Bottom of Basin



Photo No. 12: Earthen Component: Bottom of Basin



Photo No. 13: Earthen Component: Bottom of Basin



Photo No. 14: Earthen Component: Bottom of Basin



Photo No. 15: Earthen Component: Spillway



Photo No. 16: Earthen Component: Spillway



Photo No. 17: Earthen Component: Spillway



Photo No. 18: Earthen Component: Spillway



Photo No. 19: Structural Component: Outlet Structure



Photo No. 20: Structural Component: Outlet Structure



Photo No. 21: Structural Component: Outlet Structure



Photo No. 22: Structural Component: Outlet Structure



Photo No. 23: Structural Component: Outlet Structure



Photo No. 24: Structural Component: Upstream Collection



Photo No. 25: Structural Component: Upstream Collection



Photo No. 26: Structural Component: Upstream Collection



Photo No. 27: Structural Component: Upstream Collection



Photo No. 28: Structural Component: Upstream Collection



Photo No. 29: Structural Component: Upstream Collection



Photo No. 30: Structural Component: Upstream Collection



Photo No. 31: Structural Component: Upstream Collection



Photo No. 32: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB42.19			
Inspection Date	**Time**		**Investigator**
12/30/16	11:10AM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
38 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Good Condition)

The basin is in good condition area is mowed and well maintained.

Components

Is BMP in E&S Mode?
No basin is not on E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, the berm has established pine trees.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition from section is concrete and rear is rock gabion. Area is free of erosion and vegetation.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition there is a minor build up of sediment on from of the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system is a grass line swale which is in good condition, and sheet flow from parking lot and surrounding sports fields.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB33.14			

Inspection Date	Time	Investigator
10/14/16	8:10AM	Colin C Cash

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
45 °F	0.01 in.	0.01 in.	Sunny

Overall (Good Condition)

Basin is in good condition; however, age is beginning to show. Some minor, routine maintenance required, along with further investigation of small closed depressions in the area.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Well vegetated. Appears to be routinely mowed.

Earthen Component: Berm, Top (Good)
Stable. Well-vegetated. Appears to be routinely mowed. Some small closed depressions observed to the northwest of the basin.

Earthen Component: Berm, Downslope (Fair)
Appears stable, but some sloughing observed on basin slope behind 1031 Whitemarsh Drive. Residents dumping yard waste on basin downslope, behind their properties. Some trash observed. Area around basin outlet heavily overgrown with some invasive species present.

Earthen Component: Bottom of Basin (Good)
Basin bottom is well-vegetated and appears to be routinely mowed. Concrete low-flow channel is almost entirely filled with dead grass clippings. Basin gently slopes toward outlet structure. No hydric plants observed growing on basin floor. Basin floor appears dry.

Earthen Component: Spillway (Good)
Gabion spillway with approximately the first 4' covered with concrete. In acceptable condition. Some settling along spillway edges and cracking and spalling of the concrete. Two invasive plants (small trees) growing at outlet spillway.

Structural Component: Pipe (Good)
Outlet pipe appears to be in good condition. Outlet rip-rap apron acceptable. Outlet concrete headwall is aged with some spalling and cracking, but still serviceable. Area around outlet is heavily overgrown. No signs of erosion from basin outfall to swale.

Structural Component: Outlet Structure (Good)
Outlet structure is concrete headwall with orifice plate. Orifice opening is about 4" in diameter, at the basin invert. Headwall is heavily weathered, but no cracking or spalling found. No settling behind or around headwall. In good condition, but aged.

Structural Component: Cleanouts
No cleanouts or other unique structural components.

Structural Component: Upstream Collection (Good)
No inflow pipes to basin. All flow to basin is overland. No issues (e.g., erosion) observed.

Recommendations

1. Conduct minor repairs and maintenance. Investigate closed depressions in the area. Instruct residents to clean up down slope and swale running between basin and their houses.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Berm, Downslope



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Bottom of Basin



Photo No. 12: Earthen Component: Bottom of Basin



Photo No. 13: Earthen Component: Spillway



Photo No. 14: Earthen Component: Spillway



Photo No. 15: Earthen Component: Spillway



Photo No. 16: Earthen Component: Spillway



Photo No. 17: Structural Component: Pipe



Photo No. 18: Structural Component: Pipe



Photo No. 19: Structural Component: Pipe



Photo No. 20: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB51.16

NPDES Permit #

Inspection Date
09/07/16

Time
3:10PM

Investigator
Ryan M Barton

Temperature
89 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Clear

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)
Heavily vegetated low brush and ivy. Steep around. Constructed of large stacked bolders.

Earthen Component: Berm, Top (Excellent)
Asphalt driveway around

Earthen Component: Berm, Downslope
N/A

Earthen Component: Bottom of Basin (Fair)
Embedded borders with mowed grass around. Fairly uneven due to bolders resulting in low areas throuout. Basin is small but deep.

Earthen Component: Spillway
N/A

Structural Component: Pipe (Good)
Cmp.

Structural Component: Outlet Structure (Good)
Outlet structure is screwed away from basin

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Inlet pipe is overgrown with ivy. Debris and minor erosion present.

Recommendations

1. Remove ivy from influent area.
2. Add soil to low areas to provide level grade.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB51.18

NPDES Permit #

Inspection Date
09/07/16

Time
4:20PM

Investigator
Ryan M Barton

Temperature
91 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Clear

Overall (Good Condition)

Minor erosion of bottom of basin.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Excellent)
Rock walls on upstream side. Mowed grass Berm downstream side. All appear to be in well maintained condition.

Earthen Component: Berm, Top (Excellent)
Large established trees and shrubs along entire length.

Earthen Component: Berm, Downslope (Good)
Established vegetation and trees cover entire downslope.

Earthen Component: Bottom of Basin (Fair)
Mowed gras over the majority of the basin. Rock infilled areas between inlet and outlet structures. Areas of erosion observed throughout stone filled area and around outlet structure. Moderate sediment deposit accumulation within rock area. Grass has established throughout.

Earthen Component: Spillway
N/A

Structural Component: Pipe (Excellent)
RCP no observed deficiencies along entire length.

Structural Component: Outlet Structure (Good)
Structure is in good condition. Minor sediment accumulation below that may be restricting flow. Minor erosion along placed rock downstream channel. Few areas of exposed geofabric. Outlet headwall is in good condition.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Minor erosion at outlet. North inlet structure is in good condition.

Recommendations

1. Choke areas of erosion with placed stone.
2. Reset area of placed stone and remove excess sediment throughout.

Prepared By CSDatum

Photo No. 1: Downstream Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB16.3

NPDES Permit #

Inspection Date	Time	Investigator
10/19/16	10:05AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
68 °F			Clear

Overall (Good Condition)

Basin is in good condition and functioning well.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained. There are established trees with mulch beds on the inside of the berm.

Earthen Component: Berm, Top (Good)
The top of their berm is in good condition, it's mowed and well maintained. There are established trees with mulch beds on the top of berm.

Earthen Component: Berm, Downslope (Good)
There berm downslope is in good condition it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained there is small section that has been reseeded.

Earthen Component: Spillway (Good)
The grass spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, it's free from and sediment or erosion issues. Outfall flows to manhole past spillway.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition both the pipe and the apron are free of sediment. Apron is paved.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Basin from upstream collection system.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB43.5			

Inspection Date	Time	Investigator
10/19/16	2:40PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
83 °F			Partly Cloudy

Overall (Fair Condition)

The structure of the basin is in good condition. The collection systems both the upstream and down stream are the cause of the majority of the issues.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is grass and is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of their berm is grass and is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is grass with mature trees, it's well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is grass and is in fair condition, there is an area of erosion at the mouth of the upstream collection system.

Earthen Component: Spillway (Good)
The spillway is grass and is in good condition it is mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition. The area at the entrance of the outlet structure is eroded to the point the water can almost go under the structure. It appears that there was once a trash rack or orifice plate on the structure but is now missing. The first pipe joint after the structure is missing the majority of its mortar on the bottom.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. The is a 4' wide 1.5 to 2 ' deep channel being cut by the upstream collection system into the center of the basin.

Recommendations

1. Fix erosion at outlet structure.
2. Investigate if there needs to be and orifice plate or trash rack attached to the outlet structure.
3. Repair pipe joint in outlet structure.
4. Repair erosion issues at upstream collection system. Remove build up of sediment and add rip rap apron.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP16.2

NPDES Permit #

Inspection Date	Time	Investigator
10/19/16	10:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
74 °F			Clear

Overall (Good Condition)

The basin is in good condition and is operating as a pond.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition, the inside of the berm is rock. Some of the higher areas before the grass there are areas that have missing rock.

Earthen Component: Berm, Top (Good)
The top of the berm is both grass and a paved walking trail with fences on both sides. Both the grass and the walking trail are in good condition.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, currently there are two different sections one is mowed grass the other is meadow grass similar to what is in the swale next to it.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is set up as a permanent pond.

Earthen Component: Spillway

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is minor debris around the bottom inlet.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition it is free of sediment in the upstream inlets and endwall.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP16.3

NPDES Permit #

Inspection Date	Time	Investigator
10/19/16	10:25AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
73 °F			Clear

Overall (Good Condition)

The pond is in good condition, and is function as it was designed.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition. The inside of the berm is rock with grass above it. High areas have lost rock over time.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition the majority of the area is grass but there are areas that have a walking trail.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is a permanent pond.

Earthen Component: Spillway (Good)
Far side of the pond is the emergency spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, the structure is set within the rock on the inside of the berm.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system 1 and 2 are in good condition the endwalls are free from sediment build up.
Upstream collection system 3 is in good condition this is the connection to the upstream pond.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection 2 & 3



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP25.1

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	2:20PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
67 °F			Sunny

Overall

See ADB 62 - Oregon Dairy Compost Facility

Components

Is BMP in E&S Mode?
No

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB26.1

NPDES Permit #

Inspection Date	Time	Investigator
12/30/16	12:05PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
28 °F	0.17 in.	0.17 in.	Clear

Overall (Good Condition)

Basin is in good condition. Inspection was done outside of fence.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is stable grass that is mowed and well maintained, no bare spots.

Earthen Component: Berm, Downslope (Good)
Downslope is stable grass that is mowed and well maintained, no bare spots.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained, no bare spots.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure seems to be in good condition from fence. No signs of erosion from the outflow.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is from building, along with sheet flow from uphill pastures.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top, Bottom and Outlet Structure



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Structural Component: Upstream Collection System



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB24.2			

Inspection Date	Time	Investigator
12/30/16	9:40AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F	0.17 in.	0.17 in.	Clear

Overall (Good Condition)

The basin is in good condition and no problems were found. The basin is within an electric fence; therefore, the outlet and berm could not be inspected closely. The entire inspection was performed from the fence line.

Components

Is BMP in E&S Mode?
The basin is not in E&S Mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is long grass that has not mowed. The grass is stable and no bare spots were seen. This area seems to be used as an animal pasture.

Earthen Component: Berm, Top (Good)
The top of the berm is long grass that has not been mowed. There are no bare spots to be seen.

Earthen Component: Berm, Downslope (Good)
The down slope is stable with long grass growing on it. The grass has not been mowed and no bare spots could be seen.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is stable grass that has not been mowed. There are no bear spots to be seen. This area seems to be used as an animal pasture.

Earthen Component: Spillway
N/A

Structural Component: Pipe (Good)
The outflow pipe seems to be in good condition from the fence. No issues could be seen.

Structural Component: Outlet Structure (Good)
The outflow structure seems is be in good condition from the fence. No signs of erosion could be seen.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection is from inflow pipe from street inlet. This area is in good condition and no signs of erosion are present. Another area of inflow is a long grassy area behind the houses collecting sheet flow from the houses. This area is in good condition. The grass is long and not mowed often. There were no bear spots to be seen.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
URBBMP52.1

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	11:10AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F			Partly Cloudy

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Good condition.

Structural Component: Outlet Structure
Good condition.

Structural Component: Cleanouts
Good condition.

Structural Component: Upstream Collection
Good condition. Standing water within inlet sump. No silt was present in the upstream collection.

Structural Component: Other
Endwall discharge in good condition.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Cleanouts



Photo No. 2: Outlet Structure



Photo No. 3: Outfall Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP48.2

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	3:15PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Minor debris (leaves) was observed in the bottom of the oulet box. No sediment was evident.

Structural Component: Upstream Collection
Minor debris(leaves) sediment was observed in the bottom of the inlet evidenced by the plant growth. Partial silt is present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



Photo No. 3: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
URBBMP43.1

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	10:45AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Good condition.

Structural Component: Other
Seepage pit in good condition, minor sediment and no standing water.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: image.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB35.3

NPDES Permit #

Inspection Date	Time	Investigator
12/30/16	12:25PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
28 °F	0.17 in.	0.17 in.	Clear

Overall (Good Condition)

The basin is in good condition, rock channel look like it has either recently been put in or has had work done to it.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition area is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, area is mowed and well maintained there are existing trees.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition of there are existing trees and minor sediment.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin has a rock channel from upstream collection system to the outlet structure. The remainder of the basin is grass and is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in fair condition the area is grass with existing trees surrounding it.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there are rock and other debris inside the outlet structure pipes partially blocking the flow.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. It consist of two downspout from the house and a pipe that drains the roadway in front of the homes. All areas are free of erosion and sediment issues.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB38.1			
Inspection Date	**Time**		**Investigator**
12/12/16	10:50AM		Chris L. Leiphart
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
41 °F	0.089 in.	0.89 in.	Overcast

Overall (Fair Condition)

Basin in fair condition and functional in grown up wooded area.

Components

Is BMP in E&S Mode? (Good)
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
Berm inside is in stable condition but unmaintained Some animal holes on berm.

Earthen Component: Berm, Top (Good)
Top of berm in good condition.

Earthen Component: Berm, Downslope (Good)
Downslope of basin in good condition all but wooded area, Trees not causing any issues.

Earthen Component: Bottom of Basin (Fair)
Bottom of basin in fair condition but becoming overgrown with trees.

Earthen Component: Spillway
spillway difficult to identify

Structural Component: Pipe (Fair)
Pipe in fair condition. Some holes in pipe.

Structural Component: Outlet Structure (Fair)
Outlet structure functional but needs ditch cleaned,

Structural Component: Cleanouts
Non cleanout so identified, on grass ditch in wooded area.

Structural Component: Upstream Collection (Fair)
Upstream area unmaintained vegetation and car lot.

Recommendations

1. Recommend cleaning outlet ditch. Removing trees from inside of basin.

Prepared By CSDatum

Photo Log

Photo No. 1: 1481557977286204993469.jpg



Photo No. 2: 1481558019372996476218.jpg



Photo No. 3: 1481558228806172897 2489.jpg



Photo No. 4: 1481558281044432803494.jpg



Photo No. 5: 1481558319039936515302.jpg



Photo No. 6: 1481558427678-1592968665.jpg



Photo No. 7: 1481558448203314324010.jpg



Photo No. 8: 1481558658297-1839244418.jpg



Photo No. 9: 1481558693783-1941494575.jpg



Photo No. 10: 1481558867551181614533 3.jpg



Photo No. 11: 1481558897869352897751.jpg



Photo No. 12: 1481559156466-2005142720.jpg



Photo No. 13: 1481559199063-520297713.jpg



Photo No. 14: 1481559488617207378747 2.jpg



Photo No. 15: 1481559638404-45080983.jpg



Photo No. 16: 1481559671580494968595.jpg



Photo No. 17: 1481559911068-1698222313.jpg



Photo No. 18: 1481560223893-1483819295.jpg



Photo No. 19: 1481560251351-2040656893.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP16.2

NPDES Permit #

Inspection Date	Time	Investigator
10/19/16	10:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
74 °F			Clear

Overall (Good Condition)

The basin is in good condition and is operating as a pond.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition, the inside of the berm is rock. Some of the higher areas before the grass there are areas that have missing rock.

Earthen Component: Berm, Top (Good)
The top of the berm is both grass and a paved walking trail with fences on both sides. Both the grass and the walking trail are in good condition.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, currently there are two different sections one is mowed grass the other is meadow grass similar to what is in the swale next to it.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is set up as a permanent pond.

Earthen Component: Spillway

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is minor debris around the bottom inlet.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition it is free of sediment in the upstream inlets and endwall.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ARBBMP30.1

NPDES Permit #

Inspection Date	Time	Investigator
12/05/14	1:20PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F			Light rain

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Area was well maintained. Geo grid is exposed in some areas.

Earthen Component: Berm, Top
Acceptable condition. Area is well maintained.

Earthen Component: Berm, Downslope
Acceptable condition. Area is well maintained.

Earthen Component: Bottom of Basin
Erosion appears to be in bottom of basin. Evidenced by the missing vegatation.

Earthen Component: Spillway
Spillway is stable no erosion was observed.

Recommendations

1. Missing vegatation in the bottom of the basin shall be replaced.
2. The erosion on the south end of the basin should be repaired.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Spillway



Photo No. 3: Bottom of Basin



Photo No. 4: Bottom of Basin



Photo No. 5: Berm



Photo No. 6: Berm



Photo No. 7: Berm



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB3.1			
Inspection Date	**Time**	**Investigator**	
12/17/14	3:15PM	jwv	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
46 °F	0.35 in.	0.35 in.	Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition well maintained.

Earthen Component: Berm, Top
Good condition well maintained

Earthen Component: Berm, Downslope
Good condition well maintained

Earthen Component: Bottom of Basin
Good condition well maintained

Earthen Component: Spillway
Sediment and soil is on spillway which moss has started to grow on.

Structural Component: Pipe
Debris was observed on the inflow side. Outflow side of the pipe has heavy leaf debris.

Structural Component: Outlet Structure
Leaf debris was observed in front of the inflow orifice of the pipe. Vegetation in front if the headwall and on the sides of the headwall is longer than the rest. Indicating that area is not regularly maintained. Debris was observed in the riprap of the out flow side.

Recommendations

1. Soil and sediment shall be removed from the spillway.
2. Leaf debris in outlet pipe and around head wall shall be removed.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Pipe



Photo No. 3: Outlet Structure



Photo No. 4: Pipe



Photo No. 5: Berm west side



Photo No. 6: Berm north side



Photo No. 7: Spillway



Photo No. 8: Spillway



Photo No. 9: Bottom of Basin



Photo No. 10: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP12.7

NPDES Permit #

Inspection Date	Time	Investigator
08/29/16	9:00AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
76 °F			Clear

Overall (Fair Condition)

Permanent pond is in fair condition settlement issues around the outlets structure should be corrected and monitored.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. The grass is mowed and well maintained the area also included established trees. Below the grass are near the water level is small stone this area is also in good condition.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. The top of the berm is grass and is mowed and well maintained the center section of the grass is a stone walking path at top of berm.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition area is grass it is mowed and well maintained. Area does have established trees.

Earthen Component: Bottom of Basin (Good)
N/A permanent water

Earthen Component: Spillway (Fair)
The spillway is in fair condition there are weeds in level spreader.

Structural Component: Pipe (Good)

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition there is substantial settlement at outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition, area is free of settlement and erosion.

Recommendations

1. Address settlement in berm at outlet structure and weeds in spillway

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Top



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Earthen Component: Spillway



Photo No. 4: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.3			

Inspection Date	Time	Investigator
11/11/16	9:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
57 °F	0.12 in.	0.44 in.	Clear

Overall (Fair Condition)

The basin is in fair condition the upstream collection system is an area of concern with the amount of sediment build up and erosion at the downspouts.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition, it's mowed and well maintained their is a animal burrows near the outlet structure.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm down slope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition no sign of erosion present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
Outlet structure is in fair condition, there is some sediment build up that has cover the rip rap apron.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in fair condition there is some sediment covering the rip rap apron. Downspouts are in poor condition there is a large amount of erosion present at the base of the downspouts. Upstream collection system 2 is in poor condition, there is a large amount of sediment build up obstructing the endwall and covering the rip rap apron.

Recommendations

1. Fill in animal burrows on the inside of the berm.
2. Remove sediment build up at both upstream collection and outlet structures rip rap apron.
3. Reattach downspout.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection downspouts



Photo No. 11: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB21.1

NPDES Permit #

Inspection Date	Time	Investigator
09/02/16	11:10AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
	0.1 in.	1.11 in.	Clear

Overall (Fair Condition)

Basin is fenced in and we were unable to gain access. Erosion and mowing appear to be issues.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition area is overgrown.

Earthen Component: Berm, Top (Good)
The top of the berm is in fair condition area is overgrown

Earthen Component: Berm, Downslope
Area is unknown due to fencing.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition area is overgrown.

Earthen Component: Spillway
None

Structural Component: Pipe
N/A

Structural Component: Outlet Structure
Condition is unknown due to area being fenced and overgrowth of the basin.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection is sheet flow from surrounding structures.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Basin.jpg



Photo No. 2: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP39.3

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	4:00PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F	0.08 in.	0.14 in.	Sunny

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
No trash rack was observed in the storm water man hole outlet structure. No debris was observed. Head wall structure has debris and vegetation which needs maintained. Rip rap was full of debris.

Structural Component: Upstream Collection
inlets were free of debris. No silt was present in the upstream collection.

Recommendations

1. Debris and vegetation around head wall need maintenance.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Upstream Collection



Photo No. 3: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB30.5			

Inspection Date	Time	Investigator
11/11/16	7:25AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
45 °F	0.12 in.	0.44 in.	Clear

Overall (Fair Condition)

The basin is in fair condition, there are multiple animal burrows on the berm on the basin that need to be treated.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition, it is grass and well maintained. There are a few animal burrows on the inside of the berm.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition the area towards the building is grass and it is mowed and well maintained. The opposite side has established trees and small vegetation, this area has multiple animal burrows.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition it is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. The bottom basin is grass and it is mowed and well maintained. There are two areas that have settled and should be monitored.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, the outlet structure is free from sediment build up and erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition, the upstream endwall has sediment build up in the rip rap apron covering the majority the area.

Recommendations

1. Repair animal burrows on the berm.
2. Monitor areas in the bottom of the basin that have settled.
3. Remove sediment build up from upstream collection system, and restore rip rap apron.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB48.5			

Inspection Date	Time	Investigator
12/02/16	2:25PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
47 °F			Clear

Overall (Fair Condition)

The basin is in fair condition, there is a large amount of debris and vegetation in the bottom of the basin. There is also a large amount of sedim not coming in to the basin from two of th upstream collection systems.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm toward the parking lot is grass and well maintained. The inside of the berm toward the road is made up of scrub brush and pine trees toward the top end.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition the berm is most made up of scrub brush.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition it is covered by scrub brush and small trees.

Earthen Component: Bottom of Basin (Poor)
The bottom of the basin is in poor condition there is a asphalt low flow channel at the bottom of the basin. There is a build up of grass clips and debris with in the low flow channel that is affecting the water flow.

Earthen Component: Spillway
No spillway found.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition there is some debris build up around the mouth of the structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system one is in fair condition this drain area from Farmingdale road on the other side of the berm. Upstream collection system two is in fair condition also and it too drains area from Farmingdale Road. Upstream collection system three is in poor condition there is a large amount of sediment build up at the mouth of the pipe an d sediment build up in the upstream inlet. Upstream collection four is in poor condition there is a large amount of sediment build at the mouth of the pipe along with a large amount of trash in the general area of the pipe. Upstream collection system five is in fair condition there has been some rock displacement in the rip rap apron due to flow but it is not affecting the water flow from the pipe.

Recommendations

1. Remove debris, sediment, and vegetation from the bottom of the basin low flow channel.
2. Remove sediment and any vegetation in the area of the upstream collection pipes 3 &4.
3. Remove debris from around outlet structure.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top and downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection 1



Photo No. 11: Structural Component: Upstream Collection 2



Photo No. 12: Structural Component: Upstream Collection 3



Photo No. 13: Structural Component: Upstream Collection 4



Photo No. 14: Structural Component: Upstream Collection 5



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB30.7			
Inspection Date	**Time**		**Investigator**
11/04/16	12:55PM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
39 °F	0.02 in.	0.02 in.	Clear

Overall (Fair Condition)

The basin is itself is in good condition the upstream collection systems are in poor condition due to sediment issues.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
Existing outlet structure is a perforated riser. Approximately five foot tall. The is structure is in fair condition, there is some rock and debris in the bottom of the pipe. At one time the outlet structure was a inlet boy with a office plate on the front. The grate on top of tj box is currently sealed and the rise pipe ties into the box where the orific plate would have previously.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in poor condition, there is a large amount of sediment build up in the rip rap apron. Also a wire mesh is affixed to the endwal there is a lot of debris gathering in the pipe. Upstream collection system 2 is in poor condition the rip rap apron is complete over come with sediment and vegetation. There is a large amount of debris capture behind the wire mesh.

Recommendations

1. Remove sediment and vegetation build up in rip rap aprons.
2. Remove debris from pipes.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection 1



Photo No. 7: Structural Component: Upstream Collection 1



Photo No. 8: Structural Component: Upstream Collection 2



Photo No. 9: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB30.8

NPDES Permit #

Inspection Date	Time	Investigator
11/04/16	10:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F	0.02 in.	0.02 in.	Partly Cloudy

Overall (Fair Condition)

Structural condition good. Upstream collection is poor due to apron condition

Components

Is BMP in E&S Mode?
Non E&S mode

Earthen Component: Berm, Inside (Good)
Inside berm good mowed and well maintained.

Earthen Component: Berm, Top (Good)
Mowed well maintained with established trees

Earthen Component: Berm, Downslope (Good)
Mowed well maintained.

Earthen Component: Bottom of Basin (Fair)
Start of several sinkholes.

Earthen Component: Spillway (Good)
Concrete spillway. Good condition no erosion taking place

Structural Component: Pipe
NA no pipe visible

Structural Component: Outlet Structure (Good)
No erosion visible. Headwall has trash rack andorfice plate outlets into existing storm system

Structural Component: Cleanouts
NA

Structural Component: Upstream Collection (Poor)
Excessive amount of sediment collected rip rap apron covered.

Component 11 (Poor)
Upstream collection poor ith sediment in apron

Recommendations

1. Remove sediment from rip rap apron
2. Monitor depression in basin for sink holes

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Cleanouts



Photo No. 6: Structural Component: Upstream Collection1



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP3.2

NPDES Permit #

Inspection Date	Time	Investigator
09/30/14	10:30AM	RMB

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Fair Condition)

Regularly mowed. Sink hole in parking lot adjacent to inlet. Heavy siltation within inlet sump and pipe into basin. Continues out to guard.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition. Regularly mowed.

Earthen Component: Berm, Top
Good condition. Regularly mowed.

Earthen Component: Berm, Downslope
Good condition. Regularly mowed.

Earthen Component: Bottom of Basin
Good condition. Silt build up above under drain lines. Underdrain caps are missing.

Earthen Component: Spillway
Good condition

Structural Component: Pipe
2inch of silt line bottom of inlet pipe from parking lot. Outlet pipe has minor debris along invert.

Structural Component: Outlet Structure
Orifice and headwall are in good condition. Underdrain cap is off inside of outlet box inlet. Cap has been placed next to pipe.

Structural Component: Cleanouts
Clear

Structural Component: Upstream Collection
A sink hole was observed adjacent to the upstream inlet in the parking lot. Partial silt is present in the upstream collection.

Recommendations

1. install drain cap
2. remove silt from inlets
3. repair sink hole in parking lot adjacent to sink hole
4. remove grass clippings from lower outfall storm drain

Prepared By CSDatum

Photo Log

Photo No. 1: downslope berm



Photo No. 2: inside berm



Photo No. 3: bottom of basin



Photo No. 4: spillway



Photo No. 5: outlet structure and orifice



Photo No. 6: cap off of under drain



Photo No. 7: inlet with sink hole



Photo No. 8: sink hole



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP21.7

NPDES Permit #

Inspection Date	Time	Investigator
10/13/14	9:00AM	Jtr

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
55 °F		0.25 in.	Overcast

Overall (Fair Condition)

Review spillway condition and elevation and S Inflow EW condition and vegetation

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Well maintained. Mowed regularly.

Earthen Component: Berm, Top
Three trees have been planted on the top of the berm. General good condition.

Earthen Component: Berm, Downslope
No downslope due to proximity to road.

Earthen Component: Bottom of Basin
General good condition. Mowed regularly. Note; maintenance specifications on drawings indicate basin is only to be mowed annually. Elevation from bottom of basin to top of berm approximately 5 ft; Drawings call for 6 ft.

Earthen Component: Spillway
Rip rap with a geotextile material beneath. Top of rip rap elevation is approximately 1 ft below berm/curb/roadway elevation. Gabion baskets not used in spillway, just loose rip rap. Approximate R3. Exposed soil on inside side of spillway.

Earthen Component: Other
Stone retaining wall on the north and west side of basin in General good condition.

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Outlet structure: precast head wall in good condition.
NNW Inflow EW: debris build up at end of pipe. Silt and sediment both in pipe and in rip rap. Small spall on corner of precast EW; no exposed reinforcing.
N Inflow EW: heavy sedimentation, rip rap completely clogged. Scour at mouth of inflow. Moderate vegetation in rip rap.
S inflow EW: large area of ornamental grasses located at mouth of outflow. No discernible rip rap. Approximately half of pipe is filled with sediment. Two large spalls located on top of EW structure; exposed and corroded rebar and WWR.

Structural Component: Upstream Collection
No sumps located in upstream facilities. No silt was present in the upstream collection.

Recommendations

1. Repair S Inflow EW
2. Remove trees from berm.
3. Raise elevation of spillway.
4. Silt, debris and vegetation removed from inflow structures.

Prepared By CSDatum

Photo Log

Photo No. 1: Trees on Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Spillway



Photo No. 4: Spillway



Photo No. 5: Spillway



Photo No. 6: Stone retaining wall on north side



Photo No. 7: Outlet Structure



Photo No. 8: NNW inflow EW



Photo No. 9: North Inflow EW



Photo No. 10: S Inflow EW



Photo No. 11: S Inflow EW



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP21.1

NPDES Permit #

Inspection Date	Time	Investigator
12/17/14	11:45AM	WCW

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
50 °F			Partly Cloudy

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
There are some locations where there is no grass growing on the sides of the berm.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
Bare rock it is showing in bottom of basin. There is some small puddles of water.

Structural Component: Pipe
Pipe at 214 has leaves in it.

Structural Component: Outlet Structure
Overflow structure has leaves in it

Structural Component: Upstream Collection
Inlet 215 has leaf debris in it. Inflow endwall has leaf debris in riprap. Partial silt is present in the upstream collection.

Recommendations

1. Plant grass on sides of rain garden.
2. Verify that there is adequate topsoil in rain garden.
3. Clean leaf debris from inlets and outlets

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Bottom of Basin



Photo No. 3: Berm



Photo No. 4: Upstream Collection 217



Photo No. 5: Upstream Collection 214



Photo No. 6: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP21.9

NPDES Permit #

Inspection Date	Time	Investigator
10/13/14	11:35AM	RMB

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
57 °F		0.25 in.	Overcast

Overall

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition. Mowed regularly

Earthen Component: Berm, Top
Good condition. Mowed regularly.

Earthen Component: Berm, Downslope
Good condtion. Mowed regularly.

Earthen Component: Bottom of Basin
Bob has thinner grass in center where elev. lowest.
Maintenance specs on drawings state that basin is to be mowed once annually.

Earthen Component: Spillway
Overall good condition. Minor sediment build up in low spots of grouted gabions.

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Outflow structure: overal good condition with minor erosion along back due to exposed soils. Orifice is properly installed. Riprap of downstream hw has minor debris throughout.
Inflow structure: structure is in good condition. Large amount of silt build up over rip rap. Vegitatin has established. Silt is backed up inflow pipe. Minor erosion of soil behind wall resulting from exposed soils.

Recommendations

1. remove silt from inflow structure.
2. seed along back of both structures in basin

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Spillway



Photo No. 4: Outlet Structure



Photo No. 5: Outlet Structure



Photo No. 6: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
CW21.1			
Inspection Date	**Time**		**Investigator**
12/17/14	12:00PM		jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
50 °F	0.35 in.	0.35 in.	Partly Cloudy

Overall (Fair Condition)

No comments

Components

Earthen Component: Bottom of Basin
Standing water was observed in the bottom of the wetland. Wetland type plants were observed in the bottom of the basin. Small sapling were also observed. The perimeter of the basin needs maintained.

Recommendations

1. Typical maintainence of the wetland bottom and edges is required.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Bottom of Basin



Photo No. 3: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP21.12

NPDES Permit #

Inspection Date	Time	Investigator
10/13/14	12:10PM	RMB

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F		0.25 in.	Overcast

Overall (Fair Condition)

East end adjacent to road does not match provided drawings. Basin ends between adjacent structures. Type m Invert placed in base of established swale. Outfall structure does not match approved drawings.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition. Regularly mowed down to 6ft from waters edge.

Earthen Component: Berm, Top
Road. In good condition.

Earthen Component: Berm, Downslope
Highly vegitated on far side of road

Earthen Component: Bottom of Basin
East of culvert: minor established vegitation throughout. Moderate amounts of silt and debris at upper end between bolders. Minor trash and debris throughout.
West of culvert: several traffic cones are in the water. Large amount of vegitation present within rip rap just through culvert. Heavy silt and debris present as well. Grasses and cat tails are established along walls and banks around water. Rip rap along north bank is heavily vegitated.

Earthen Component: Other
Bolder walls all appear to be in good condition.

Structural Component: Pipe
Good condition. Heavy silt build up in outflow sump. Minor silt build up in lower end of pipe.

Structural Component: Outlet Structure
East e ast inflow hw: heavy debris from outfall. Minor scour area below pipe.
East north inflow: undermining of headwall observed. Structure is leaning in slightly.
Downstream outfall Structure is in good condition. Minor silt buildup in gabion baskets below. Vegitation has established in silt.
West north inflow hw: both hw have silt and vegitation within rip rap.
West south inflow : both are in good condition

Structural Component: Other
See note

Recommendations

1. clean silt and vegitation from outflow structure
2. clean silt from outflow sump
3. remove silt and vegitation from rip rap above and below culvert
4. remove traffic cones and other trash from site
5. compare as-built drawings to issued development plans.
6. replace rip rap within scour area under culvert.
7. stabilize the undermining of the east north inflow headwall

Photo Log

Photo No. 1: 1413217003959.jpg



Photo No. 2: 1413217022886.jpg



Photo No. 3: 1413217043505.jpg



Photo No. 4: 1413218411036.jpg



Photo No. 5: 1413218468064.jpg



Photo No. 6: Bottom of Basin



Photo No. 7: Bottom of Basin



Photo No. 8: Bottom of Basin



Photo No. 9: 1413218738839.jpg



Photo No. 10: 1413218786823.jpg



Photo No. 11: Pipe



Photo No. 12: Pipe



Photo No. 13: Outlet Structure



Photo No. 14: Berm



Photo No. 15: Pipe

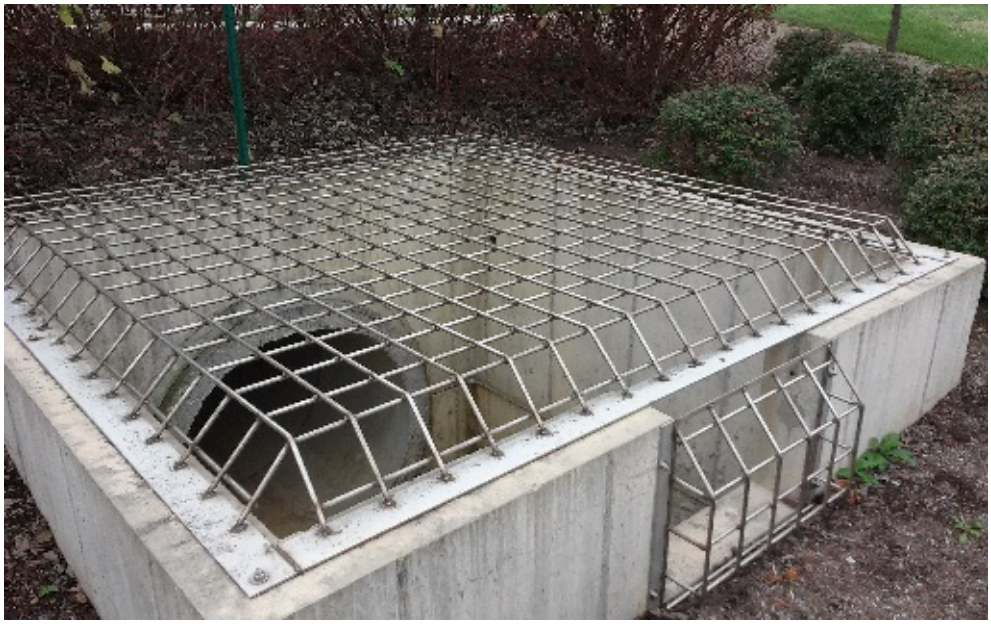


Photo No. 16: Pipe



Photo No. 17: 1413220693122.jpg



Photo No. 18: 1413220706756.jpg



Photo No. 19: 1413220767623.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.14

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	8:15AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
67 °F			Clear

Overall (Fair Condition)

Majority of flow will channelize through basin and not be detained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained there are areas that are landscaped with both trees and shrubs.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained there are areas that are landscaped with both trees and shrubs.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. Grass is mowed and well maintained, rock channel was made to concentrate follow directly to outlet.

Earthen Component: Spillway (Poor)
The spillway is in poor condition there is landscaping across face of it.

Structural Component: Pipe

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is overgrown vegetation surrounding the structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system is in poor condition landscaping and rock placement has causes channelized flow. Infiltration will only occur from downspouts.

Recommendations

1. Clear weeds and sediment from outflow structure
2. Clear landscaping in front of spillway

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Basin.jpg



Photo No. 6: Berms.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB39.6

NPDES Permit #

Inspection Date	Time	Investigator
12/17/14	10:00AM	WCW

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F			Mist

Overall (Fair Condition)

Needs some maintenance at outlet and inlet pipe.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Berm appears to have some erosion on the inside

Earthen Component: Berm, Top
Okay

Earthen Component: Berm, Downslope
Okay

Earthen Component: Bottom of Basin
Okay

Earthen Component: Spillway
Okay

Structural Component: Pipe
Grout between pipe and wall at inlet is partially missing

Structural Component: Outlet Structure
Outlet is clogged with leaves. Riprap at outlet has vegetation and some trash debris in it.

Structural Component: Upstream Collection
Okay No silt was present in the upstream collection.

Recommendations

1. Repair grout at Inlet end wall
2. Remove silt build up and debris at outlet

Prepared By CSDatum

Photo Log

Photo No. 1: Berm Inside erosion of berm



Photo No. 2: Spillway



Photo No. 3: Berm



Photo No. 4: Bottom of Basin

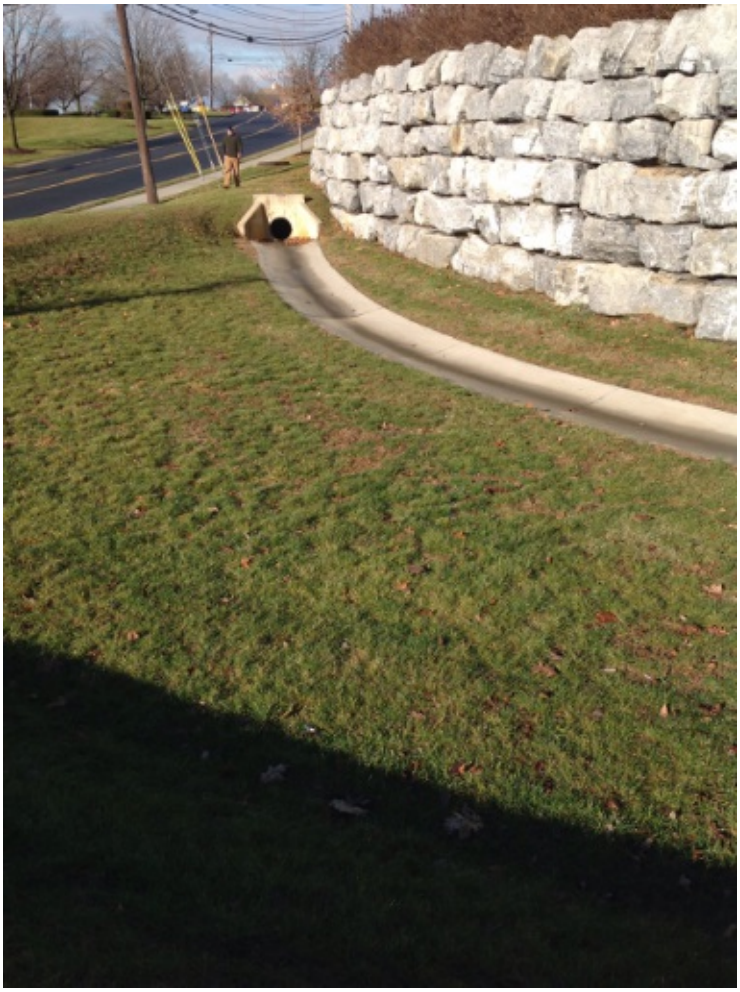


Photo No. 5: Pipe



Photo No. 6: Upstream Collection



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
UDB21.1			

Inspection Date	Time	Investigator
12/17/14	11:15AM	WCW

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
47 °F			Partly Cloudy

Overall

No comments

Components

Structural Component: Outlet Structure
Outlet structure appeared clean.

Structural Component: Cleanouts
Cleanouts are sealed shut with asphalt.

Structural Component: Upstream Collection
Inlets 272 and 273 have some debris in them. Partial silt is present in the upstream collection.

Recommendations

1. Cleanouts need to be made accessible.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



Photo No. 3: typical Cleanouts



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.8			

Inspection Date	Time	Investigator
12/20/16	1:00PM	Matthew R Attig

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
32 °F		0.21 in.	Clear

Overall (Fair Condition)

The basin is in good condition except for both the inflow and outflow being heavily restricted.

Components

Is BMP in E&S Mode?
The BMP is not in E and S mode

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Downslope (Fair)
The downslope is somewhat chewed up and contains an animal hole.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is mowed and in good condition.

Earthen Component: Spillway
N/A

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
The outlet structure headwall has a orifice plate bolted over it to restrict water to flow and this area is clogged heavily with leaves.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Heavy erosion around the endwall as well as the endwall being cemented shut and a small pipe put in . Riprap needs to be placed closer.

Recommendations

1. Fix animal holes as well as clean leaves from outlet structure and remove plate if not correct configuration. Remove concrete seal on inflow if incorrect configuration.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB30.9

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	2:45PM	JWV

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
38 °F	0.08 in.	0.14 in.	Sunny

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Acceptable condition Well maintained.

Earthen Component: Berm, Top
Acceptable condition Well maintained.

Earthen Component: Berm, Downslope
Acceptable condition Well maintained.

Earthen Component: Bottom of Basin
Acceptable condition Well maintained.

Structural Component: Outlet Structure
Outlet has large vegetation growth around the areas adjacent to the riprap. Water was observed in the riprap.

Recommendations

1. Vegetation in the riprap should be maintained.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure area adjacent to headwall structure



Photo No. 2: Outlet Structure riprap



Photo No. 3: Pipe



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB30.3

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	2:25PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
38 °F	0.08 in.	0.14 in.	Sunny

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Pipe was free of sediment and debris.

Structural Component: Outlet Structure
Outlet has large vegatation growth around the areas adjacent to the riprap. Water was observed in the riprap.

Structural Component: Upstream Collection
Bottom of of inlet has minor sediment build up at the bottom inlet box. Minor rocks were observed in the bottom of the outlet. Trash rack was clear of debris. Partial silt is present in the upstream collection.

Recommendations

1. Sediment was observed in the inlet of the underground facility should be removed.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection underground storage



Photo No. 2: Upstream Collection underground storage



Photo No. 3: Outlet Structure headwall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB39.4

NPDES Permit #

Inspection Date	Time	Investigator
12/17/14	10:25AM	WCW

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F			Clear

Overall (Fair Condition)

inlets outside of fence need to be cleaned.

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
There is a small amount of debris in outlet.

Structural Component: Upstream Collection
Upstream collection inlets inside fence are clean. Upstream collection inlets outside of fence have debris in them. Outside of fence East inlet is covered by a minimum of 6 inches of mulch and other debris. Full silt is present in the upstream collection.

Recommendations

1. Clean debris from outlet.
2. Clean debris from inlets outside of fence.

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Upstream Collection outside of fence.



Photo No. 3: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP39.3

NPDES Permit #

Inspection Date	Time	Investigator
09/24/14	11:35AM	KEF/SJL

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Fair Condition)

Basin has been well mowed/maintained but structures have not been maintained. Overall in fair condition.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, grassy, no erosion except 2 animal holes noted.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope
Good condition, grassy, no erosion. Emergency spillway in good condition.

Earthen Component: Bottom of Basin
Mature grassy vegetation which is regularly mowed; no other plantings present. Perforated pipe exposed in several locations; either it wasn't installed 8" below the surface or the surface has eroded.

Structural Component: Pipe
Good at all locations (except note perforated pipe comments in bottom of basin section).

Structural Component: Outlet Structure
Incoming east headwall in good condition;vegetation in rip rap. Incoming south headwall in good condition; vegetation overgrown slightly above bottom of pipe; rip rap overgrown with vegetation. Primary discharge structure in good condition except grass clippings cover guard bars. Endwall at primary discharge (outside of basin) in good condition; vegetation growing in rip rap. Outlets in basin good condition. Endwall at secondary (inlets) discharge in good condition. Minor vegetation in rip rap

Recommendations

1. Clean primary outlet inside of basin. Clean/ remove debris at all incoming headwalls and repair/replace rip rap
2. Fill animal holes

Prepared By CSDatum

Photo Log

Photo No. 1: west end of basin



Photo No. 2: center of basin



Photo No. 3: east end of basin



Photo No. 4: headwall at east side



Photo No. 5: exposed perforated pipe



Photo No. 6: perforated pipe and channel



Photo No. 7: southwest headwall



Photo No. 8: outlet structure with discharge pipe



Photo No. 9: basin discharge



Photo No. 10: basin discharge channel



Photo No. 11: emergency spillway



Photo No. 12: basin discharge at outlet



Photo No. 13: basin discharge pipe



Photo No. 14: animal hole in bern



Photo No. 15: outlet structure in basin



Photo No. 16: outlet structure in basin



Photo No. 17: collection inlet in parking lot



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.29

NPDES Permit #

Inspection Date	Time	Investigator
09/02/16	12:05PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
64 °F	0.09 in.	0.32 in.	Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)

Earthen Component: Berm, Top (Good)

Earthen Component: Berm, Downslope (Good)

Earthen Component: Bottom of Basin (Excellent)

Earthen Component: Spillway (Excellent)
Shed located in spillway

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)

Structural Component: Cleanouts

Structural Component: Upstream Collection (Good)
Vegetation in rip rap apron

Component 11

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: 1472832352506-1019873996.jpg



Photo No. 2: 14728323769951752468595.jpg



Photo No. 3: Structural Component: Upstream Collection



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ARBBMP12.1

NPDES Permit #

Inspection Date	Time	Investigator
12/03/14	10:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F			Mist

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Stable

Earthen Component: Berm, Top
Stable

Earthen Component: Berm, Downslope
Stable except along fence line, no vegetation

Earthen Component: Bottom of Basin
Mowed, areas with no vegetation

Earthen Component: Spillway
Stable, no vegetation along fence line

Recommendations

1. Areas need to be seeded and stabilized

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP21.1

NPDES Permit #

Inspection Date
12/17/14

Time
12:55PM

Investigator
jwv

Temperature
48 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Minor debrisin the poioe if the head wall. Sediment build up was observe ed in the pipe invert

Structural Component: Outlet Structure
Minor debris in the riprap of the outflow structure. Sediment has built up above the pipe invert.

Structural Component: Upstream Collection
Sediment was observed in the south inlet. Minor debris was observed in the bottom of the inlet structure.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Pipe



Photo No. 2: Pipe



Photo No. 3: Outlet Structure



Photo No. 4: Upstream Collection south inlet.



Photo No. 5: Upstream Collection north



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP39.4			
Inspection Date	**Time**		**Investigator**
11/11/16	12:15PM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
37 °F	0.12 in.	0.44 in.	Clear

Overall (Fair Condition)

The pond is in fair condition, the upstream and down stream collection systems are the only cause for recommendations.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, area is mowed and well maintained. There are sections with establish landscaping beds.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained there are areas with established trees.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The basin is set up as a permanent pond.

Earthen Component: Spillway (Good)
The spillway is in good condition area is free from vegetation and erosion issues.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
There are two different outlet structure one on each leg of the pond. The first outlet structure nearest to the building is in good condition no signs of erosion or sediment buildup on at the headwall or endwall. Outlet structure two is at the far end of the pond. The headwall of the structure is in good condition the endwall of the system is in poor condition. There is a large amount of erosion that has worked around the wind of the endwall. Both of these outfall directly to the stream.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system has three parts. Upstream collection system one is in good condition no signs of erosion or sediment issues. Upstream collection system two is in poor condition, and has eroded the bank in front of it to the point that the water is dropping straight down two plus feet directly to the pond surface. Upstream collection system three is in fair condition there is a sediment build up at the mouth of the pipe.

Recommendations

1. Fill erosion issue at upstream collection system two. Investigate ways to slow the water down before it reaches the pond.
2. Correct erosion issue at outlet structure two endwall.

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Berm, Downslope



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Spillway



Photo No. 12: Structural Component: Outlet Structure 1 headwall



Photo No. 13: Structural Component: Outlet Structure 1 endwall



Photo No. 14: Structural Component: Outlet Structure 2 headwall



Photo No. 15: Structural Component: Outlet Structure 2 endwall



Photo No. 16: Structural Component: Upstream Collection 1



Photo No. 17: Structural Component: Upstream Collection 2



Photo No. 18: Structural Component: Upstream Collection 3



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB21.11

NPDES Permit #

Inspection Date	Time	Investigator
10/08/14	10:05AM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
60 °F	0.25 in.	0.26 in.	Sunny

Overall (Fair Condition)

Debris and silt in pipe and riprap of the west inlet structure. No water was observed in he detention basin.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Boulder wall was observed at sides of basin. One portion of the wall has vegetation which is overgrown. The other portion is in acceptable condition but a homeowner has planted two trees on the berm.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin
The basin is in acceptable condition and is being maintained.

Earthen Component: Other
The grade of southwest corner of the inflow swale is not defined.

Structural Component: Pipe
North inflow pipe has debris build up. West inflow pipe has debris build up in pipe and silt.

Structural Component: Outlet Structure
North inlet structure debris build up in rip rap at pipe invert. West inlet structure silt and debris were found in riprap. Riprap is above invert of the outlet. Vegetation was also noted in this area. Vertical elbow was observed at the inflow side of the outlet structure.

Recommendations

1. Clean and remove debris and silt in riprap at inlet location.
2. Remove trees at east berm.

Prepared By CSDatum

Photo Log

Photo No. 1: North inflow pipe



Photo No. 2: North Inlet Structure debris rip rap



Photo No. 3: West inlet structure Pipe



Photo No. 4: West Outlet Structure



Photo No. 5: East Berm



Photo No. 6: Trees at east Berm

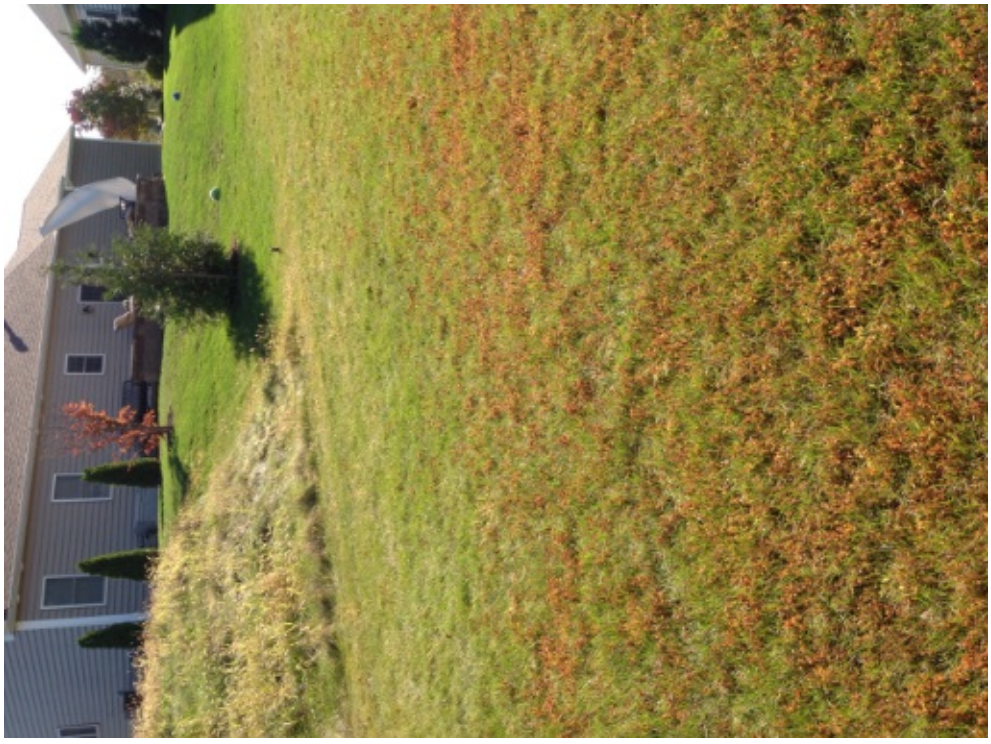


Photo No. 7: Inlet swale Berm



Photo No. 8: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP48.7

NPDES Permit #

Inspection Date	Time	Investigator
10/27/14	1:05PM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F			Sunny

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Bottom of Basin
Grass in bottom of Basin is short. It may have been recently mowed. There is a small bare spot at east end of basin B

Earthen Component: Spillway
Okay

Structural Component: Pipe
Okay

Structural Component: Upstream Collection
Good condition No silt was present in the upstream collection.

Recommendations

1. Keep vegetation to proper length
2. Reseed bare area in basin B

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



Photo No. 3: Bottom of Basin



Photo No. 4: Bottom of Basin small bare spot at east end of basin be



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB39.16

NPDES Permit #

Inspection Date	Time	Investigator
11/18/16	8:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
42 °F		0.01 in.	Clear

Overall

The basin is in fair condition. The large areas without grass are a real concern.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition, there are areas of bare ground that show signs of erosion.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition, there are areas of bare earth that show signs of erosion. The far side of the berm is covered with existing pine trees.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition, there are areas of bare dirt that show signs of erosion.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is grass and well maintained.

Earthen Component: Spillway (Good)
The grass spillway is in good condition, there are no signs of erosion.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The out structure is in fair condition, there are a large amount of rock build up in the pipe nearing the outfall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair collection. Upstream collection is run off from the parking lot and piped downspouts. There is some sediment build up where the runoff from the parking lot flows in to the basin, this sediment needs to be removed.

Recommendations

1. Reseed areas of bare earth.
2. Remove rock build up from outlet structure pipe.
3. Remove sediment build up from basin access for parking lot run off.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP30.2

NPDES Permit #

Inspection Date	Time	Investigator
10/22/14	10:20AM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F	0.25 in.	0.35 in.	Light rain

Overall (Fair Condition)

Underdrain not in place. Still in construction.

Components

Is BMP in E&S Mode?
Yes

Earthen Component: Berm, Inside
Okay

Earthen Component: Berm, Top
Okay

Earthen Component: Berm, Downslope
Okay

Earthen Component: Bottom of Basin
Still in BMP mode. No vegetation planted in the bottom. A lot of water plants are growing in basin.

Earthen Component: Spillway
The spillway appears to have a level spreader instead of grout and Gabon baskets

Structural Component: Outlet Structure
Outlet structure is still in temporary mode with temporary standpipe.

Structural Component: Upstream Collection
There are animal boroughs behind inlet structure. There is a very small amount of silt next to inlet manhole. No silt was present in the upstream collection.

Recommendations

1. Fill in animal bourghs behind inlet endwall
2. Verify spillway is built as designed.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Upstream Collection



Photo No. 3: Upstream Collection



Photo No. 4: Spillway



Photo No. 5: Upstream Collection



Photo No. 6: Upstream Collection



Photo No. 7: Upstream Collection



Photo No. 8: Upstream Collection



Photo No. 9: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.2

NPDES Permit #

Inspection Date	Time	Investigator
09/02/16	12:25PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F	0.09 in.	0.32 in.	Partly Cloudy

Overall (Fair Condition)

Homeowner states a lot of trash comes into basin.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Good)

Earthen Component: Berm, Top (Good)

Earthen Component: Berm, Downslope

Earthen Component: Bottom of Basin (Good)

Earthen Component: Spillway

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
Outfall structure is still in E&S mode no trash rack.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Large amount of sediment in from of endwall. Erosion is beginning behind top of endwall.
Endwall 2 has a large amount of sediment in front of the structure and standing water both in the endwall and the pipe.
Endwal 3 is filled with sediment.

Component 11

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Structural Component: Upstream Collection



Photo No. 2: Structural Component: Upstream Collection



Photo No. 3: Structural Component: Upstream Collection



Photo No. 4: 14728337918151310956704.jpg



Photo No. 5: Structural Component: Upstream Collection 2



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: 1472835492486-1526219937.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB39.17

NPDES Permit #

Inspection Date	Time	Investigator
11/11/16	12:00PM	Chris L. Leiphart

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F		0.01 in.	Clear

Overall (Fair Condition)

Basin functional in curbed area.

Components

Is BMP in E&S Mode? (Good)
Basin is not in E&SO mode

Earthen Component: Berm, Inside (Fair)
Inside berm of exposed dirt due to animal digging and possible mower damage
Over all mowed and maintained.

Earthen Component: Berm, Top (Fair)
Top in fair condition lined with her cedar trees. Very little grass.

Earthen Component: Berm, Downslope (Fair)
Downslope appears to have bare spots due to man-made damage.

Earthen Component: Bottom of Basin (Good)
Bottom of basin generally in good condition. One area damaged by mower,

Earthen Component: Spillway
NASCAR no spillway in basin,

Structural Component: Pipe (Good)
Pipe appears to be functioning, but is visible. Outlets into storm sewer system.

Structural Component: Outlet Structure
Outlet structure not visible , part of storm sewer system

Structural Component: Cleanouts (Good)
Clean outside appear functioning and clean

Structural Component: Upstream Collection
NA water sheet flow into basin,

Recommendations

1. Repair and reseed damaged areas.

Prepared By CSDatum

Photo Log

Photo No. 1: Is BMP in E&S Mode?



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Structural Component: Pipe



Photo No. 10: Structural Component: Pipe



Photo No. 11: Earthen Component: Bottom of Basin



Photo No. 12: Structural Component: Cleanouts



Photo No. 13: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB40.3

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	12:05PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Overcast

Overall (Fair Condition)

Large accumulation of debris and trash in system. Orifice partly clogged.

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Good condition.

Structural Component: Outlet Structure
Orifice is half blocked by leaves debris and trash.

Structural Component: Underground detention basin
Some standing water observed up pipes. Significant amount of trash and waist observed in pipes. Large leaf accumulation observed. Basin layout does not match plans exactly. Lower inlet and manhole layout differs.

Recommendations

1. clean trash leaves and debris from system.
2. clean out orifice

Prepared By CSDatum

Photo Log

Photo No. 1: 1415380284012-1028710591.jpg



Photo No. 2: 1415380330748-357588136.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB40.1			

Inspection Date	Time	Investigator
11/18/16	11:35AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
57 °F		0.01 in.	Clear

Overall (Fair Condition)

The basin is in fair condition overall as there are some sediment issues with the upstream collection systems.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition it is mowed and well maintained. There are established trees on the inside of the berm.

Earthen Component: Berm, Top (Good)
The top of the berm is grass and it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. The basin is grass and it is mowed, there is a channel cut into the bottom of the basin.

Earthen Component: Spillway (Good)
The spillway is grass, it's mowed and in good condition.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. The outlet pipe connection has a minimal gap and in lose at a connection.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
There are multiple upstream collection system system, in addition there are numerous downspouts ,as well as a intermittent stream. Upstream collection system one is in poor condition there is a large amount of sediment build up in front of the endwall. Upstream collection system two is in poor condition there is sediment build up in front of the endwall, also there is large amount of erosion around the wing of the endwall.

Recommendations

1. Fix sediment build up in from of upstream collection system endwall a.
2. All rip rap apron at upstream collection system endwalls if needed.
3. Fix erosion surrounding upstream collection system endwall two.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway and outlet structure



Photo No. 8: Structural Component: Outlet Structure endwall



Photo No. 9: Structural Component: Outlet Structure pipe connection



Photo No. 10: Structural Component: Upstream Collection 1



Photo No. 11: Structural Component: Upstream Collection 2



Photo No. 12: Structural Component: Upstream Collection intermittent stream



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB40.4

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	12:20PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Overcast

Overall (Fair Condition)

Clean leaves from system

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Moderate leaf and debris build up infront of orifice.

Structural Component: Upstream Collection
Upstream inlet on main rd is filled with leaves. Partial silt is present in the upstream collection.

Structural Component: Underground detention basin
Moderate leaf accumulation.

Recommendations

1. clean leaves from system.
2. clean out orifice

Prepared By CSDatum

Photo Log

Photo No. 1: 1415381431011-1601517443.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB31.11

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	8:45AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
65 °F		0.6 in.	Clear

Overall

Basin is in fair condition, upstream collection issues need further investigation.

Components

Is BMP in E&S Mode?
Basin is not currently in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm downslope is in good condition, mostly tree covered but not erosion present.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. There is one area of settlement in the center of the basin that is lower than the outlet structure.

Earthen Component: Spillway (Fair)
Spillway is in fair condition, it has been turned in to a flower garden and is covered by plants.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, flowers and vegetation are obstructing the flow.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Road upstream still holding water, with major pot holes. Upstream swale in good condition grass is mowed and well maintained. Homeowner reporting water issues off of road in front of home.

Component 12

Recommendations

1. Remove vegetation from in front of outlet structure and spillway.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Structural Component: Upstream Collection grass swale



Photo No. 9: image.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.2

NPDES Permit #

Inspection Date	Time	Investigator
09/16/16	7:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
56 °F			Mostly Cloudy

Overall (Fair Condition)

Basin is in fair condition. Bottom of the basin has area that appear to be prone to sink holes some have been filled in orther are beginning to open up diameter approximetly 1 foot. Upstream collection endwall has no rip rap apron and the area in front is full of sediment.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition with the exculsion of one area. Home owner is not mowing or maintaining a small section.

Earthen Component: Berm, Top (Good)
Top of the berm is in good condition. It is being mowed and maintained and shows no sign of erosion.

Earthen Component: Berm, Downslope (Good)
Downslope of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
Bottom of basin is in good condition. Appears area was set up as a small garden at one time. Appears to have been a sink hole at one time, areas have begun to errod around corrective measures.

Earthen Component: Spillway (Fair)
Spillway is fair condition vegetation has started to grow in rock portion.

Structural Component: Pipe (Good)
Pipe is in good functioning condition.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition along with outfall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system is in poor condition. The upstream endwall has deposited a large amount of sediment infront of the endwall. The pipe and inlets also a sediment in the bottoms of them. Are around endwall has a large number of animal burrows.

Recommendations

1. Remove sediment from upstream inlets, pipes and endwall.
2. Add rip rap apron below upstream endwall.
3. Repair and mintor sink holes.
4. Remove vegetation from spillway.
5. Remove garden from bottom of basin and vegetation from inside berm.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside not being maintained



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Earthen Component: Bottom of Basin past sink hole



Photo No. 9: Earthen Component: Bottom of Basin past sink hole



Photo No. 10: Structural Component: Upstream Collection endwall



Photo No. 11: Structural Component: Upstream Collection
sediment build up



Photo No. 12: Structural Component: Upstream Collection
Animal burrows



Photo No. 13: Structural Component: Upstream Collection Swale



Photo No. 14: Basin Overall 1.jpg



Photo No. 15: Basin Overall 2.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB31.16			

Inspection Date	Time	Investigator
11/04/16	7:50AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
46 °F	0.02 in.	0.02 in.	Clear

Overall (Fair Condition)

The basin is in fair condition there is some subsidence on the berm at the outlet structure pipe. There is also a large amount of vegetation in this area.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is good condition, area is mowed and well maintained. There is an area around the outlet structure that has a small section of larger vegetation.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition, the area above the out let structure has some areas of dense vegetation. The area over the outlet structure pipe has subsided. There are also multiple animal burrows in this area. The majority of the other sections are mowed and well maintained.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition. The majority of the berm is mowed and well maintained. The area around the outlet structure is is over grown with scrub vegetation.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. It is mowed and well maintained.

Earthen Component: Spillway (Fair)
The spillway is in fair condition, there is some vegetation beginning to grow into the main section of the spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition, there is s large amount of vegetation grow around the headwall and endwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream swale is in good condition, it's mowed and well maintained. No signs of erosion.

Recommendations

1. Fill in animal burrows.
2. Remove vegetation around outlet structures.
3. Fill in areas of subsidence on the top of the berm and reseed.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure headwall



Photo No. 9: Structural Component: Outlet Structure endwall



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB40.10			

Inspection Date	Time	Investigator
11/18/16	9:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
47 °F		0.01 in.	Clear

Overall (Fair Condition)

The basin over all in fair condition there some erosion associated with runoff.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition. There is an area of erosion coming off of the parking lot.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition the entirety of the area in covered in landscaping.

Earthen Component: Berm, Downslope (Good)
The berm down slope is pavement on one side the other is a concrete sitting area.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is mowed and well mantained.

Earthen Component: Spillway (Good)
The spillway is in good condition, its grass and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition no signs of back up or areas of erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. There is a lot of erosion at the mouth of the upstream pipe.

Recommendations

1. Fix erosion at upstream collection system.
2. Fix erosion at parking lot runoff.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.9

NPDES Permit #

Inspection Date	Time	Investigator
09/16/16	9:45AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F			Partly Cloudy

Overall (Fair Condition)

Basin is in fair condition. Erosion before low flow channel is being cause by lack of rip rap apron. Erosion from upstream collection system is direct contrubutor to the lack of rip rap apron.

Components

Is BMP in E&S Mode?
Basin is not in E& S mode.

Earthen Component: Berm, Inside (Excellent)
Inside of berm is mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
Top of berm is mowed and well maintained with no sign of erosion.

Earthen Component: Berm, Downslope (Good)
Downslope of berm is maintained most areas of downslope have trees growing from it.

Earthen Component: Bottom of Basin (Good)
Bottom of the basin is in fair condition. Grass areas are maintained and mowed. Area between outlet structure and low flow channel is eroding.

Earthen Component: Spillway (Good)
Concrete spillway is in good condition no vegetiation or erosion present.

Structural Component: Pipe (Good)
Pipe is in good condition no vegetation or sediment build up.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition no vegetation or sediment present. Low flow channel flows to the mouth of the endwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system is in poor condition. Upstream endwall has half a foot of sediment and vegetation blocking the pipe outlet. Both pipes have a fair amount of sediment in the bottom of them. Rip rap apron is covered in sediment and vegetation. Collection area above pipes is very over grown and has a large amount of erosion along rock swale.

Recommendations

1. Remove sediment from rip rap apron, and upstream collection pipes.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection rock swale erosion



Photo No. 9: Structural Component: Upstream Collection pipe over growth



Photo No. 10: Structural Component: Upstream Collection sediment in pipes



Photo No. 11: Structural Component: Upstream Collection
vegetation covering rip rap apron



Photo No. 12: Overall Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB31.27			

Inspection Date	Time		Investigator
12/30/16	1:00PM		Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F	0.17 in.	0.17 in.	Mostly Cloudy

Overall (Fair Condition)

Basin is in fair condition there is a lot of lose soil and sediment in the basin that could be an issue in the future.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The Inside of the berm is a mixture of bare earth and grass the opposite side of the basin is landscape beds and a stone wall.

Earthen Component: Berm, Top (Fair)
The top of the berm is a mixture of grass and bare earth the area also has existing trees.

Earthen Component: Berm, Downslope (Good)
The berm downslope is grass and is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition area has multiple planting but no establish grass.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, no signs of erosion or overgrowth in the area.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection is run off from the driveway no directly fed flow reaches the basin.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top & Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB31.29			
Inspection Date	**Time**		**Investigator**
11/04/16	10:05AM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
50 °F	0.02 in.	0.02 in.	Clear

Overall (Fair Condition)

The overall structure of the basin is in fair condition and is maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is on fair condition, the majority of the berm is grass and is well maintained. There is one area landscaped with a mulch bed. There is anarea of existing vegetation at the outlet structure.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition the majority is grass and well maintained there are areas of existing trees on the berm. There is a pool at the one homeowners that resides on the top of the berm.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway (Poor)
The spillway is in poor condition, there are multiple existing tress growing in the spillway. Also one homeowner is dumping yard waste in the spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is some erosion around the headwall. There is an orific plate on the headwall. Outlet structure has a inlet on top of the berm in the middle of the spillway there are no issues there. Water then runs to and storm manhole then underneath downstream basin.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream swale is in good condition, it is mowed and well maintained. There is one downspout that ties directly into the basin.

Component 11

Recommendations

1. Remove vegetation from spillway.
2. Fix erosion around headwall.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Earthen Component: Spillway



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Outlet Structure



Photo No. 12: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB40.11

NPDES Permit #

Inspection Date
12/05/14

Time
12:05PM

Investigator
rmb

Temperature
36 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Overcast

Overall (Fair Condition)

Minor debris and vegitation issues

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition mowed regularly

Earthen Component: Berm, Top
Good condition mowed regularly

Earthen Component: Berm, Downslope
Steep with longer grass . good condtion

Earthen Component: Bottom of Basin
mowed regularly. Low flow channels not visible

Earthen Component: Spillway
Concrete cap. Good condithion Minor vegitation in gabian baskets

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Outfall structure: grass, leaves, and debris built up in trash rack at head wall and upper inlet both top and side.
Inlet ew East: standing water present in rip rap and slightly downstream. Vegitation noted throughout rip rap and at ew. Sediment build up observed in pipe.
Inlet ew North: minor leaf build up in rip rap. Good condition.
Inlet ew West: heavy vegitation and sediment accumulation within rip rap. Pipe is 60% blocked by debris and leaves.

Structural Component: Upstream Collection
Could not access one between buildings. Has moderate rock accumulation on wire mesh over inlet.

Recommendations

1. remove sediment, debris and vegitation from inlet and outlet structures and rip rap.
2. improve condition of low flow channels.
3. clear stones from upstream collection inlet.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Spillway



Photo No. 3: Berm



Photo No. 4: Berm



Photo No. 5: Outlet Structure



Photo No. 6: Outlet Structure



Photo No. 7: east Outlet Structure



Photo No. 8: east Outlet Structure



Photo No. 9: north Outlet Structure



Photo No. 10: west Outlet Structure



Photo No. 11: insides Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB40.6

NPDES Permit #

Inspection Date
11/07/14

Time
11:40AM

Investigator
rmb

Temperature
48 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Partly Cloudy

Overall (Fair Condition)

Minor leaf concerns

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Moderate leaf build up within inlet. Lower trash grate is partially blocked due to leaves. Upper grate is in good condition. No standing water observed.

Structural Component: Upstream Collection
Leaf grate of lower inlet is filled. No silt was present in the upstream collection.

Structural Component: Underground detention facility
No standing water observed. Leaves arecovering bottom of lower pipes.

Recommendations

1. leafs need to be removed from lower trash rack and upstream inlets

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.12

NPDES Permit #

Inspection Date	Time	Investigator
09/08/16	10:20AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
80 °F	0.5 in.	0.5 in.	Clear

Overall (Fair Condition)

Structures are numbered north to south. Basin will function however all structures need to be cleared and settlement at outlets needs to be addressed.

Components

Is BMP in E&S Mode?
No, the basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
Regularly mowed: Small animal boroughs and erosion around trees. Landscaping in some areas this included stairs into and out of the basin in multiple areas. One home has replaced the grass with small stone, and on the opposite side planted what appear to be fruit trees.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition, there are grass areas that are mowed and well maintained. Also areas with existing trees and shrubs.

Earthen Component: Berm, Downslope (Good)
Mowed and well maintained in most areas. Some areas are highly vegetated but stable.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. The area is grass and is mowed, there is one sink hole in the bottom of the basin a foot wide by three feet deep.

Earthen Component: Spillway (Fair)
Spillway 2: Fair condition, Downslope side of spillway completely overgrown
Spillway 1: Good condition. No energy dissipation downslope
Spillway 3: Poor Condition, vegetation pushed concrete up on inside of berma and is not flush. Downslope is completely overgrown

Structural Component: Pipe
All appear to be in good condition.

Structural Component: Outlet Structure (Poor)
Outlet Structure 1: overgrown and has settlement and erosion on the slope of the berm
Outlet Structure 2: overgrown and has settlement and erosion on the slope of the berm
Outlet Structure 3: overgrown and outlet is blocked by sediment

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Endwall 1: rock apron fill of sediment and vegetation
Endwall 2: pipe full of sediment and enters basin below the basin bottom
Endwall 3: Pipe and rock apron completely overgrown

Recommendations

1. Clean out sediment and vegetation covering rip-rap aprons of all upstream collection outfalls
2. Clear vegetation and address settlement/erosion at outlet structures
3. Clear vegetation downslope of emergency spillways

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Basin.jpg



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Basin.jpg



Photo No. 7: Basin.jpg



Photo No. 8: Earthen Component: Spillway



Photo No. 9: image.jpg



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Outlet Structure



Photo No. 12: Structural Component: Outlet Structure



Photo No. 13: Structural Component: Outlet Structure



Photo No. 14: Earthen Component: Spillway



Photo No. 15: Structural Component: Upstream Collection



Photo No. 16: Structural Component: Upstream Collection



Photo No. 17: Earthen Component: Bottom of Basin



Photo No. 18: Earthen Component: Berm, Inside



Photo No. 19: Earthen Component: Berm, Inside



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDBBMP22.1

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	3:45PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
38 °F			Overcast

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Pipe
Good condition.

Structural Component: Outlet Structure
Standing water and sediment. Appears bottom orifice is clogged.

Structural Component: Cleanouts
Good, dry.

Structural Component: Upstream Collection
Good, dry. No silt was present in the upstream collection.

Recommendations

1. Clean out outlet structure

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Cleanouts



Photo No. 3: Outfall Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.19

NPDES Permit #

Inspection Date	Time	Investigator
09/08/16	8:30AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Partly Cloudy

Overall (Fair Condition)

The basin is in fair condition, there is a build up sediment from the upstream collection system.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, berm is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition, the are has minor gullies and animal burrows.

Earthen Component: Spillway (Fair)
The spillway is in fair condition. The gabions are on inside of berm and contain vegetation.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. The orifice plate of the outlet structure is not water tight against the endwall. The outfall of the basin drains to the storm sewer system..

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. Upstream collection system one is in fair condition there is minor erosion around the downspout pipe. Upstream collection system two is in poor condition, the endwall and top section of the rip rap apron are full of sediment.

Recommendations

1. Remove sediment build up from upstream collection system two.
2. Investigate spillway design.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Upstream Collection



Photo No. 4: Basin.jpg



Photo No. 5: Structural Component: Upstream Collection downspout



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.23			
Inspection Date	**Time**		**Investigator**
09/08/16	8:45AM		Tomas M Matias
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
			Partly Cloudy

Overall (Fair Condition)

The basin is in poor condition, there is issues with sediment and trash build up in the basin.

Components

Is BMP in E&S Mode?
No, the basin is not n E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. There are to different inside berms, one is a stone retaining wall the other is grass and is mowed and well maintained. Retaining wall on west side

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and maintained there is minor debris in the basin.

Earthen Component: Spillway (Good)
The concrete spillway is in good condition.

Structural Component: Pipe (Good)
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There are signs of minor settlement and orifice plate is not caulked to the headwall. Sediment has built up at the headwall covering the the rip rap apron and mouth of the headwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. All inlets have excessive trash and sediment buildup. Street drain before north inlet also has excessive trash. Outlet structure from swale which leads to north endwall in the basin has excessive scour and a sink hole is forming under the structure

Recommendations

1. Address settlement and possible sinkhole at endwall of swale before entering the basin
2. Clean silt and vegetation from outlet structure
3. Remove silt and vegetation from rip rap at upstream collection systems

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.24			

Inspection Date	Time	Investigator
09/08/16	11:05AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
83 °F	0.5 in.	0.5 in.	Clear

Overall (Fair Condition)

Basin is in fair condition areas are well maintained. No major issues with sediment or erosion. Structures were numbered from north to south.

Components

Is BMP in E&S Mode?
No Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in fair condition there are multiple areas that have man made structures such as steps and bridges. The majority of the inside berm is grass and is mowed and maintained, there are a few homes that have large rocks as the berm or part of the berm.

Earthen Component: Berm, Top (Fair)
The top of the berm is in fair condition there are small animal burrows along the top of the berm that need to be addressed.

Earthen Component: Berm, Downslope (Fair)
The berm downslope is in fair condition, there are area of overgrowth and multiple animal burrows.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in fair condition. There are multiple temporary structures in the basin from swing sets to swimming pools these both are at the far ends to the basin and have minimal affect on the flow of water through the basin. The largest affect on the flow is a bridge across the narrowest section of the basin. The affect on the flow could be minimal between the two bays but should be reviewed further to be sure.

Earthen Component: Spillway (Fair)
The spillways are in fair condition there are three of them total in the basin. All three of the spillways are similar they have minor erosion surround the wings of the spillway and the front of the spillway. There is also growth of vegetation in the rock gabions on all three with it being the most notable on the spillway closest to Kingsbridge Dr.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
Outlet structure 1 the top end of the basin is in good condition area is free of sediment and vegetation obstructions. Outlet Structure 2 is in fair condition there is vegetation obstructions at the headwall. Outlet structure 3 is in fair condition there are low spots on both end of the structure allowing for standing water. All outlet structures have overgrown vegetation in their rock aprons at the outfalls.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Endwall 1: rock apron overgrown with weeds, inlet good
Endwall 2: pipe is fill of riprap and apron is covered in sediment, inlet is a raised dome yard inlet
Endwall 3: does not have a rock apron and as a result erosion has caused a gully to form and standing water, inlet is good

Recommendations

1. Fill in animal burrows along berm.
2. Remove vegetation from rock gabions in spillways.
3. Monitor erosion around the concrete sections of spillways.
4. Remove over grown vegetation from outlet structure outfall areas.

Prepared By CSDatum

Photo Log

Photo No. 1: Basin lower section.jpg



Photo No. 2: Earthen Component: Spillway



Photo No. 3: Earthen Component: Spillway



Photo No. 4: Basin center section.jpg



Photo No. 5: Basin top section.jpg



Photo No. 6: Earthen Component: Spillway



Photo No. 7: basin top section.jpg



Photo No. 8: Structural Component: Upstream Collection



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Outlet Structure



Photo No. 12: Structural Component: Outlet Structure



Photo No. 13: Structural Component: Upstream Collection



Photo No. 14: Inside of the berm.jpg



Photo No. 15: Earthen Component: Berm, Downslope



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.36

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	10:00AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Clear

Overall (Fair Condition)

The basin is in fair condition. No areas need immediate attention, just routine maintenance.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in fair condition, the area is wooded.

Earthen Component: Bottom of Basin (Fair)
The bottom of the berm is in fair condition. Basin area is mowed and well mainted. Low flow channel has minor sediment buildup

Earthen Component: Spillway (Fair)
There is minor erosion around the concrete matt.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is minor sediment build up in the rip rap apron.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system inlet and pipe are full of sediment and grass clippings.

Recommendations

1. Fix erosion issues around concrete spillway mat.
2. Remove sediment and yard waste from upstream collection system pipe and inlet.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of the Basin low flow channel, Inside of Berm.jpg



Photo No. 2: Earthen Component: Spillway



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP13.2

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	12:35PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
66 °F			Sunny

Overall (Fair Condition)

Erosion and sink holes present.

Components

Is BMP in E&S Mode?
No

Earthen Component: infiltration trench
Clear of debris. Erosion present at end of trench. Sink hole present at upper end of stone. Exposed hole is 1ftx1ft but open area below is much larger. Inflow swale is in good condition.

Recommendations

1. repair erosion at end of trench
2. fill in sink hole

Prepared By CSDatum

Photo Log

Photo No. 1: 1415123024337-1092472064.jpg



Photo No. 2: 1415123048567-115576433.jpg



Photo No. 3: 1415123103952-1228344125.jpg



Photo No. 4: 1415123119175-1253279889.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.41

NPDES Permit #

Inspection Date	Time	Investigator
09/08/16	10:00AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Partly Cloudy

Overall (Fair Condition)

The basin is in fair condition. There are issues with vegetation and sediment in the basin.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition, there are areas where weeds are starting to push through the grass.

Earthen Component: Spillway (Fair)
The grass spillway is in fair condition, no erosion control is present around the spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition there are weeds covering rip rap apron and large rocks within pipe.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition there are weeds and sediment covering all aprons. There are rocks and sediment within endwall pipe.

Recommendations

1. Remove overgrown vegetation from area surrounding the outlet structure.
2. Remove overgrown vegetation and sediment from upstream collection system pipe and rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Basin.jpg



Photo No. 3: Structural Component: Outlet Structure Headwall



Photo No. 4: Structural Component: Outlet Structure Endwall



Photo No. 5: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.43			
Inspection Date	**Time**		**Investigator**
09/07/16	1:40PM		Tomas M Matias
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
			Clear

Overall (Fair Condition)

The basin is in fair condition. There are vegetation and sediment issues at the outlet structure.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The basin is sunken, the basin is surrounded by pavement. Grass downslope on opposite side of the driveway is in good condition.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
There are planting around the outlet structure that have grown into the flow path of the basin and are blocking the outlet structure. There is also a large amount of sediment that has built up at the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system consist of a roof drain that is in fair condition, there is minor sediment deposits and vegetation in the rip rap apron.

Recommendations

1. Remove vegetation and sediment build up at outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Structural Component: Outlet Structure



Photo No. 2: Structural Component: Upstream Collection



Photo No. 3: Basin.jpg



Photo No. 4: Structural Component: Outlet Structure Outfall



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB40.7

NPDES Permit #

Inspection Date	Time	Investigator
12/05/14	12:50PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F	0.01 in.	0.26 in.	Light rain

Overall

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Bottom of Basin
Leaf debris was observed in the bottom of the basin.

Structural Component: Outlet Structure
Traces of sediment were observed in the out let pipe.

Structural Component: Upstream Collection
Minor debris was observed in the south inlet. Minor debris was observed in the north inlet no sediment. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



Photo No. 3: Outlet Structure



Photo No. 4: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB31.36

NPDES Permit #

Inspection Date	Time	Investigator
12/11/14	12:15PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F			Overcast

Overall (Fair Condition)

Large debris accumulation within basin allowing vegitation to establish in unwanted areas.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly. Good condition

Earthen Component: Berm, Top
Grass mowed regularly. Good condition

Earthen Component: Berm, Downslope
Grass mowed regularly. Good condition

Earthen Component: Bottom of Basin
Grass mowed regularly. Good condition. Low flow channel is not prominent.

Earthen Component: Spillway
Grass spillway fairly level. Mowed regularly

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Outflow ew and inlet: trash rack on inlet is too narrow for opening of concrete inlet box. Debris has accumulated 1.5ft up face of ew trash rack. Rip rap is fully covered by debris and vegitation. Pile is up to 1.5ft above bottom of basin.
Inflow ew: rip rap is fully covered by established grass and vegitation. Grasses are 1ft. Above invert of pipe. No deposits in pipe.

Recommendations

1. remove unwanted debris and vegitation from basin and trash racks.
2. replace or modify trash rack with properly fitting size so it can be mechanically fastened.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Berm



Photo No. 3: Spillway



Photo No. 4: Outlet Structure



Photo No. 5: Outlet Structure



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP13.7

NPDES Permit #

Inspection Date	Time	Investigator
10/22/14	1:15PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
54 °F			Light rain

Overall (Fair Condition)

Minor Vegitation issues with several sink hole locations

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition. Mowed regularly

Earthen Component: Berm, Top
Mowed regularly good condition.

Earthen Component: Berm, Downslope
Majority is in good condition and mowed regularly. Due west of west inflow structure is a large sinkhole 8ft diam. X several feet deep. Being used as a grass clippings and branch dump area.

Earthen Component: Bottom of Basin
Majority of basin is regularly mowed and maintained grass. The lower end around the outflow structure has 3ft high plants and grasses.

Earthen Component: Spillway
Spillway appears to be in good condition. Minor vegitation is established within the downstream gabians.

Structural Component: Pipe
Good condition.

Structural Component: Outlet Structure
N. Inflow ew: moderate vegitation has been established within the rip rap. Structure appears to be in good condition. rip rap elevation is above pipe invert elevation.
E. Inflow ew: good condition
Outflow structure: appears to be in good condition. Minor vegitation surrounding intake side. Little to no silt build up in sump. Orifice and trash grate are clear.
Basin discharge:

Structural Component: Upstream Collection
Sink hole observed adjacent to west inflow upstream collection grate. Partial silt is present in the upstream collection.

Recommendations

1. Repair sink hole on downslope of berm
2. Repair sink hole adjacent to upstream collection inlet
3. Remove Vegitation from rip rap in spillway and inflow ew.

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Bottom of Basin



Photo No. 3: Berm



Photo No. 4: downslope sink hole Berm



Photo No. 5: Spillway



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



Photo No. 9: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.66

NPDES Permit #

Inspection Date	Time	Investigator
09/23/16	11:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
78 °F			Clear

Overall (Fair Condition)

The basin is in fair condition there is a lot of sediment in the basin from the upstream collection system eroding around the rip rap apron, and the low flow rock channel being filled in.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in fair condition. The berm is mowed and well maintained, there are 3 animal burrows.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition, the low flow rock channel is almost completely covered by sediment and vegetation.

Earthen Component: Spillway (Good)
The spillway is in good condition, no erosion present.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition no sediment present.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, the rip rap apron in from of the outlet structure is full of sediment.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. There is a large amount of erosion at the one side of the rip rap apron. The upstream swale is current grass and is in good condition.

Recommendations

1. Remove vegetation and sediment from rock channel.
2. Fix erosion issue at rip rap apron for upstream collection system pipe.
3. Remove sediment from outlet structure apron.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top and Downslope



Photo No. 3: Earthen Component: Berm, Top animal burrows



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin rock channel



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection swale



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.36

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	11:30AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
77 °F		0.6 in.	Clear

Overall (Fair Condition)

The basin overall is in fair condition no areas of erosion. There are quite a few areas were home owners have created obstruction to the water flow.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition. There is some form of vegetation in most areas from trees to shrubs, mowed and nonmowed grass. No signs of erosion are present. A few home owners are using this area to dump their yard waste.

Earthen Component: Berm, Top (Fair)
The top of berm is in fair condition. It is similar to the inside of berm as there are a variety different forms vegetation. There a few home owners dumping their yard waste here.

Earthen Component: Berm, Downslope (Fair)
The downslope of the berm is in fair condition. Most of the downslope is vegetated with shrubs and small trees. A few sections a grass and are mowed and well maintained. Inside of the shrub and tree area are a few animal burrows.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. Most section are mowed and well maintained. There are also shrubs, trees, and a few man-made structures such as trampoline, a children's play set, fire pit and a picnic table.

Earthen Component: Spillway (Fair)
The spillway is in fair condition there is vegetation at the entrance to the spillway.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition no sediment is present.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. There is no sediment or vegetation present at the headwall or endwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection is in poor condition. There is sediment in the pipe coming to the endwall and in the mouth of the endwall. There are two animal burrows surround the endwall.

Recommendations

1. Remove vegetation from the mouth of the spillway.
2. Remove man-made structures from the basin.
3. Repair animal burrows on basin downslope and at upstream collection endwall.
4. Remove yard waste from basin.
5. Remove sediment from upstream collection system endwall and pipe.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Inside



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Berm, Downslope animal burrows



Photo No. 8: Earthen Component: Berm, Downslope



Photo No. 9: Earthen Component: Bottom of Basin



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Earthen Component: Bottom of Basin



Photo No. 12: Earthen Component: Spillway



Photo No. 13: Structural Component: Outlet Structure



Photo No. 14: Structural Component: Upstream Collection



Photo No. 15: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.76			

Inspection Date	Time	Investigator
09/23/16	8:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
60 °F			Clear

Overall (Fair Condition)

Basin overall is in good condition with the exception of the burrow in front of the outfall.

Components

Is BMP in E&S Mode?
No basin is not in E & S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, there are no signs of erosion.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition , it's mowed and well maintained.

Earthen Component: Spillway (Good)
The concrete spillway is in good condition, no areas of erosion are present around it.

Structural Component: Pipe
Outlet structure pipe is not visible.

Structural Component: Outlet Structure (Poor)
Outlet structure is in poor condition, there is a animal burrow directly in front of the headwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection
No up stream collection system, water sheet flows from paved parking lot.

Recommendations

1. Repair animal burrow at outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.78			

Inspection Date	Time	Investigator
09/23/16	9:25AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F			Clear

Overall

No comments

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is in good condition, it's mowed and well maintained. The rock wall opposite upstream endwall 2 has some animal burrows in the cracks.

Earthen Component: Berm, Top (Poor)
The top of berm is in good condition except for behind the rock wall that area is full of animal burrows. The remainder of the berm is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition there are animal burrow around the sanitary sewer manhole. The rest of the bottom of the basin is in good mowed condition.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition, it's free from sediment and debris.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there is no erosion or animal burrows around the headwall or endwall. It appears there was a trash rack on the headwall at one time.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1, is in poor condition. The rip rap apron is completely covered in sediment and vegetation. This is causing water to pool in front of the upstream pipe and inside of it. Upstream collection system 2 has sediment and vegetation covering the rip rap apron.

Recommendations

1. Fill in animal burrows on top of berm and the bottom of the basin.
2. Remove vegetation and sediment from rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection endwall 1



Photo No. 11: Structural Component: Upstream Collection endwall 1



Photo No. 12: Structural Component: Outlet Structure



Photo No. 13: Structural Component: Outlet Structure endwall 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.79			

Inspection Date	Time	Investigator
09/23/16	8:00AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
56 °F			Clear

Overall (Fair Condition)

The berms of the basin are in good condition they are mowed and well maintained. The upstream collection system has sediment in most pipes and all rip rap aprons.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained. The area behind the town homes also has a rock wall in addition to the grass berm.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition, it's mowed and well maintained. The Rock section is also in good condition.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition, it's free from debris and sediment.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there are a few rocks in front of the outlet pipes inside of the large inlet.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system 1 is in fair condition. The upstream pipe has sediment and rock build up. Upstream collection system 2 is in poor condition the rip rap apron is full of sediment and vegetation the trash rack on the outfall of the collection pipe has a large amount of build up behind it and has become bent. Upstream collection system 3 is in fair condition, it has sediment build up in the upstream pipe and the sediment and vegetation in the rip rap apron. Upstream collection system 4 is in poor condition, there is a large amount of rock and sediment in the upstream pipe. There is some sediment and vegetation build up at the mouth of the endwall. Upstream collection system 5 is in fair condition, there is vegetation and sediment build up at the mouth of the endwall, and a small amount of rock in the upstream pipes.

Recommendations

1. Remove sediment and vegetation from upstream collection system rip rap apron.
2. Remove sediment from upstream collection system from upstream pipes 1-4.
3. Fix trash rack on upstream collection outfall number 2.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top and downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection endwall 1



Photo No. 8: Structural Component: Upstream Collection



Photo No. 9: Structural Component: Upstream Collection endwall 2



Photo No. 10: Structural Component: Upstream Collection endwall 2



Photo No. 11: Structural Component: Upstream Collection endwall 3



Photo No. 12: Structural Component: Upstream Collection endwall 3



Photo No. 13: Structural Component: Upstream Collection endwall 4



Photo No. 14: Structural Component: Upstream Collection



Photo No. 15: Structural Component: Upstream Collection endwall 5



Photo No. 16: Structural Component: Upstream Collection endwall 5



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB14.2

NPDES Permit #

Inspection Date	Time	Investigator
09/23/16	10:00AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
66 °F			Clear

Overall (Fair Condition)

The basin itself is in good condition, however the outfall structure is in poor condition.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
The inside of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
The top of the berm is in excellent condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Excellent)
The berm downslope is in excellent condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it is mowed and well maintained. The low flow channel has no erosion around it.

Earthen Component: Spillway (Good)
Concrete spillway is in good condition.

Structural Component: Pipe (Poor)
The outlet structure pipe is in poor condition, the area that surrounds the pipe is breaking off and separate from the inlet wall.

Structural Component: Outlet Structure (Poor)
The outfall structure is in poor condition, the outlet pipe is separating from the inside wall of the structure, see pipe photos.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition, there is minimal sediment and vegetation in the rip rap apron. There appears to have been erosion or burrow issues around the endwall but these have been corrected.

Recommendations

1. Fix pipe seal in outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top and downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Pipe



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.13

NPDES Permit #

Inspection Date	Time	Investigator
09/27/16	12:35PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
55 °F	0.22 in.	0.22 in.	Clear

Overall (Fair Condition)

The basin is in fair condition, the erosion in front of the oulet structure apron. Needs to be addresses it will only worsen if untreated.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition, an area of erosion is going on in front of the outlet structure rip rap apron.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe (Good)
The pipe is in good condition.

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition, there is a large amount erosion around the rip rap apron I from of the headwall. Mathis sediment is collecting in front of the orfice plate.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. The pipe and the rip rap apron is free from sediment and vegetation.

Recommendations

1. Fix erosion issues in bottom of the basin and in front of the rip rap apron.
2. Add rock to outlet structure rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure endwall



Photo No. 6: Structural Component: Outlet Structure headwall



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB33.1

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:40PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F			Partly Cloudy

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Good condition. Bottom orifice needs cleaned out

Structural Component: Upstream Collection
Good, dry No silt was present in the upstream collection.

Recommendations

1. Outlet structure orifice needs cleaned out

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB33.12			

Inspection Date	Time	Investigator
12/30/16	8:35AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
32 °F	0.17 in.	0.17 in.	Clear

Overall (Fair Condition)

Basin is in generally good condition. No signs of erosion are present. Animal holes should be filled and sediment should be removed from in front of inflow pipes.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berm is grass that is mowed and well maintained. One area has pine trees planted that are well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is all grass that is mowed and well maintained.

Earthen Component: Berm, Downslope (Fair)
Downslope of berm is wooded area with established tree and shrub growth. Some animal holes are on the bank around the outlet, theses should be filled.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained. Four large trees are growing in the basin, the trees are well maintained.

Earthen Component: Spillway (Good)
Spillway is in good condition, no signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition. Riprap is in good condition on the inflow side. The out flow side has riprap under metal netting, this is in good condition. No signs of erosion are present. Some sticks are leaning against the outlet but they are not obstructing flow.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Fair)
Upstream collection is from parking lot inlets to inflow pipes. One is from a grassy channel along the buildings. Sediment buildup on the one inflow pipe should be removed to stop pooling.

Recommendations

1. Animal holes should be filled and sediment removed from inflow pipes

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Earthen Component: Berm, Downslope



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Upstream Collection



Photo No. 12: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB25.1

NPDES Permit #

Inspection Date	Time	Investigator
12/30/16	10:35AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F	0.17 in.	0.17 in.	Partly Cloudy

Overall (Fair Condition)

Basin needs to be cleaned up. All dead plants and logs should be removed. Sediment from the inflow area should also be removed, and riprap added to the outflow.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
Inside berm of basin is some grass that is mowed and well maintained. Other areas are planters that are not maintained and have piles of dead sticks and logs. These need to be cleaned up

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained. A large dead stump is on the berm. Half that top is forest area that has established tree and shrub growth.

Earthen Component: Berm, Downslope (Good)
Downslope is stable grass that is mowed and well maintained, no bare spots,

Earthen Component: Bottom of Basin (Fair)
Bottom of basin is mostly grass that is mowed and well maintained. Some areas around the berm need dead logs and sticks removed.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Fair)
Outlet structure is in good condition, rip rap could be added to the outflow side to cover the metal netting and dirt area.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Fair)
Upstream collection is from swale behind houses that is grass, mowed and well maintained, with no bare spots. Also a inflow pipe, this inflow area needs to have sediment removed to allow for proper flow.

Recommendations

1. Remove all logs and dead plants from the basin and berm.
2. Add riprap to outflow area over metal netting and dirt area.
3. Remove sediment from the inflow area to allow proper flow.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Inside



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Berm, Top, Downslope



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Bottom of Basin



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Upstream Collection



Photo No. 12: Structural Component: Upstream Collection



Photo No. 13: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP21.9

NPDES Permit #

Inspection Date	Time	Investigator
10/08/14	11:00AM	RMB

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
64 °F			Sunny

Overall (Fair Condition)

The basin should be mowed once annually Heavy silt present in many areas

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
-regularly mowed
-no issues noted

Earthen Component: Berm, Top
-A 2ft diam x 1ft deole 20ft to west of spillway
-Regularly mowed

Earthen Component: Berm, Downslope
-regularly mowed
-few small planted trees located on lower portion of slope.

Earthen Component: Bottom of Basin
-regularly mowed with patches of thicker grass in slightly lower areas to the east and all of the west.

Earthen Component: Spillway
-Minor growth within rip rap

Structural Component: Pipe
Inflow pipes are filled with debris due to blocked outlets.
Outflow pipes are in good condition

Structural Component: Outlet Structure
-Northeast inflow has heavy silt and debris build up. Rip rap elevation is above invert of pipe.
-Silt is building up around both e&s 90deg elbows of the 2 outflow structures. No orifice has been installed.
-Northwest inflow structure is cracked around opening matching pipe cut.
-Northwest inflow structure has very heavy silt deposits. No rip rap can be observed. Standing water is observed in the pipe as a result.

Structural Component: Upstream Collection
Heavy silt deposits observed with water above pipe invert elevation Full silt is present in the upstream collection.

Recommendations

1. clean out debris and silt from inflow structures
2. fill in hole on berm

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin east



Photo No. 3: Bottom of Basin central



Photo No. 4: Outlet Structure Northeast



Photo No. 5: trees on downslope of Berm



Photo No. 6: Spillway



Photo No. 7: Bottom of Basin west



Photo No. 8: Outlet Structure



Photo No. 9: Outlet Structure



Photo No. 10: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB58.1			
Inspection Date	**Time**		**Investigator**
10/17/14	2:35PM		jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
67 °F	0.75 in.	2 in.	Partly Cloudy

Overall (Fair Condition)

The debris in the trash rack and the orifice plate shall be removed. Also the debris in the rip rap of the inlet structure should be removed.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Areas in good shape well maintained. No erosion was observed.

Earthen Component: Berm, Top
Areas in good shape well maintained. No erosion was observed.

Earthen Component: Berm, Downslope
Areas in good shape well maintained. No erosion was observed.

Earthen Component: Bottom of Basin
Well maintained no erosion present. Water was observed near the outlet structure and the swale inlet.

Earthen Component: Spillway
Top of spill way is not grouted as noted on the construction documents. The spillway has fines intermixed with larger rock similar to rip rap. The spillway has minor debris and vegetation between the rock.

Structural Component: Outlet Structure
Trash rack was observed to be in place. Minor debris was observed in the trash rack and around the orifice. Minor low spot was observed in front of the outlet structure which was filled with water.

Structural Component: Upstream Collection
Low line channel is in good condition. Riprap in outlet structure has leaf debris throughout the rip rap. East side of rip rap has minor erosion present. No silt was present in the upstream collection.

Recommendations

1. The debris in the trash rack and the orifice plate shall be removed.
2. The debris in the rip rap of the inlet structure should be removed.

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Outlet Structure



Photo No. 4: Outlet Structure



Photo No. 5: Outlet Structure



Photo No. 6: Spillway



Photo No. 7: Spillway



Photo No. 8: Upstream Collection



Photo No. 9: Upstream Collection



Photo No. 10: Upstream Collection



Photo No. 11: Upstream Collection



Photo No. 12: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB39.2

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	4:25PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F	0.08 in.	0.14 in.	Sunny

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Minor debris was observed in the inlet box. I was unable to observe the orfice.

Structural Component: Upstream Collection
No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Outlet Structure



Photo No. 3: Upstream Collection



Swale Inspection
MANHEIM TOWNSHIP-LANCASTER

Swale Name/ID
Swale B

Inspection Date	Time		Investigator
10/06/16	8:55AM		Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F			Overcast

Overall (Poor Condition)

Overall the swale is in poor condition due to the obstructions impeding the water flow.

Components

Channel (Poor)
Multiple obstructions block or impeding the water flow at the connection of swale B and swale A

Berm (Good)
The berm is in good condition it is well maintained no signs of erosion.

Recommendations

1. Remove obstructions such as down tree limbs and large vegetation from swale channel.

Prepared By CSDatum

Photo Log

Photo No. 1: Channel connection of swale a to swale b



Photo No. 2: Channel top section of swale B



Photo No. 3: Berm



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB2.1

NPDES Permit #

Inspection Date	Time	Investigator
12/02/16	7:40AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F			Clear

Overall (Good Condition)

The basin is in good condition and is being well maintained. There is minimal sediment, vegetation build up at the outlet structure. This should be monitored over time.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway (Good)
The grass spillway is in good condition, it is mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is an orifice plate on the structure. There is minor vegetation growth in front of the outlet structure headwall. There is also minor sediment build up at the mouth of the endwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream swale is in in good condition, it is mowed and well maintained.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure headwall



Photo No. 7: Structural Component: Outlet Structure Endwall



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
UDBBMP39.1			
Inspection Date	**Time**	**Investigator**	
10/17/14	12:00AM	JWV	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**

Overall

Note this inspection was completed on 10.17.14. Please see that report for further information.

Components

Is BMP in E&S Mode?
No

Recommendations

None

Prepared By CSDatum

*NOTE INSPECTION WAS COMPLETED WITHIN THE INSPECTION FOR ADBBMP39.1

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP39.1

NPDES Permit #

Inspection Date	Time	Investigator
10/17/14	12:20PM	JWV

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
63 °F	0.75 in.	2 in.	Partly Cloudy

Overall

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Area appears to be well maintained.

Earthen Component: Berm, Top
Berm has a chain link fence installed at the top along the whole perimeter.

Earthen Component: Berm, Downslope
Area appears to be maintained.

Earthen Component: Bottom of Basin
Area is maintained. No signs of erosion were observed.

Earthen Component: Spillway
Spillway is grouted at the top and down slope area.

Earthen Component: Other

Structural Component: Outlet Structure
Trash rack was observed. Minor debris was observed on trash rack and in the inlet box.

Structural Component: Cleanouts
Cap were observed and no damage was visible. I was unable to remove caps for clean out.

Structural Component: Upstream Collection
No debris or sediment was observed in the inlet structure. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway



Photo No. 2: Spillway



Photo No. 3: Berm East



Photo No. 4: Bottom of Basin south



Photo No. 5: Bottom of Basin North



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



Photo No. 8: Cleanouts



Photo No. 9: Cleanouts



Photo No. 10: Cleanouts



Photo No. 11: Upstream Collection



Photo No. 12: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.1

NPDES Permit #

Inspection Date	Time	Investigator
08/29/16	9:50AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Clear

Overall (Good Condition)

The basin is in good condition and it is well maintained.

Components

Is BMP in E&S Mode?
No, the basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
The inside of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
The top of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Excellent)
The downslope of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is in good condition there is no erosion present.

Structural Component: Pipe (Good)
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, no sediment or vegetation present.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Basin Inside of the berm, Bottom of the basin, Top of the Berm.jpg



Photo No. 2: Bottom of Basin, Outlet Structure.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB30.12

NPDES Permit #

Inspection Date	Time	Investigator
11/11/16	7:50AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F	0.12 in.	0.44 in.	Clear

Overall (Good Condition)

The basin is in good condition and does not appear to treat a large amount of water.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, all areas of the top of the berm are pavement.

Earthen Component: Berm, Downslope
There is no downslope of the berm outfall flows into another basin on opposite side of the parking lot.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition there is minor sediment build up at the head of th pipe.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
All upstream collection is sheet flow off the building.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB30.4

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	3:05PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
41 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Good condition, mowed

Earthen Component: Spillway
Stable

Structural Component: Outlet Structure
Good condition

Structural Component: Upstream Collection
Swale stable No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Spillway



Photo No. 4: Outlet Structure



Photo No. 5: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB39.4

NPDES Permit #

Inspection Date	Time	Investigator
11/11/16	9:35AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
54 °F	0.12 in.	0.44 in.	Clear

Overall (Good Condition)

Basin is in good condition it is well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Fair)
Spillway is in fair condition there is an animal burrows underneath of the spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there are no signs of debris or sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system is sheet flow from the parking lot. It does seem to be cutting a small channel from the parking lot to the outlet structure.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure headwall



Photo No. 7: Structural Component: Outlet Structure endwall



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB3.2			
Inspection Date	**Time**		**Investigator**
12/17/14	2:55PM		jwv
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
46 °F	0.35 in.	0.35 in.	Overcast

Overall

No comments

Components

Earthen Component: Berm, Inside
Minor erosion was observed adjacent to the headwall.

Earthen Component: Berm, Top
Good condition. Well maintained.

Earthen Component: Berm, Downslope
Good condition well maintained.

Earthen Component: Bottom of Basin
Good condition. Well maintained.

Earthen Component: Spillway
Good condition well maintained.

Structural Component: Outlet Structure
Minor debris was observed adjacent to the orifice. Gravel and sediment were also observed at the base of the orifice and continuing up the concrete channel. Minor debris was observed on the riprap and pipe of the outlet structure.

Structural Component: Upstream Collection
Minor leaf debris was observed in the bottom of the inlet.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Outlet Structure



Photo No. 3: Outlet Structure



Photo No. 4: Spillway



Photo No. 5: Bottom of Basin



Photo No. 6: Berm



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.3

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	9:00AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Clear

Overall (Good Condition)

The basin is in good condition the area is well maintained.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
The inside of the berm is in excellent condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
The top of the berm is in excellent condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Excellent)
The berm downslope is in excellent condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it is currently being used as sports fields.

Earthen Component: Spillway (Good)
Rock spillway is in good condition, it is free from erosion or vegetation issues.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There is some vegetation overgrowth downstream of the outlet structure outfall. There is erosion downstream of the outfall that needs to be corrected.

Structural Component: Cleanouts
There are three manholes at the outlet structures.

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. The flow to the basin is from sheet flow from school sports field.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure 1



Photo No. 3: Structural Component: Outlet Structure 2



Photo No. 4: Structural Component: Outlet Structure Endwall



Photo No. 5: Structural Component: Outlet Structures Downstream



Photo No. 6: Basin and clean out Manhole.jpg



Photo No. 7: Basin.jpg



Photo No. 8: Structural Component: Outlet structure
Downstream erosion



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB39.3

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	4:20PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
43 °F	0.08 in.	0.14 in.	Sunny

Overall

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Outlet had minor water observed in the bottom of the pipe below the invert of the outflow pipe no debris was observed.

Structural Component: Upstream Collection
South inlet had minor debris. North inlet minor water was observed below the orifice. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Upstream Collection



Photo No. 3: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.7

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	1:05PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
39 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Good condition, mowed

Earthen Component: Spillway
Good condition, mowed

Earthen Component: Low flow channel
Sediment near outlet structure

Structural Component: Outlet Structure
Good condition

Structural Component: Upstream Collection
Inflow clear No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Spillway



Photo No. 3: Bottom of Basin



Photo No. 4: Outlet Structure



Photo No. 5: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.9

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	12:50PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
39 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Good condition, mowed

Earthen Component: Spillway
Stable

Earthen Component: Level spreader
Stable, good condition

Structural Component: Outlet Structure
Good condition, no clogging

Structural Component: Upstream Collection
Inflow Swales stable No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Spillway



Photo No. 4: Level spreader.jpg



Photo No. 5: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.10

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	7:35AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Clear

Overall (Good Condition)

Basin is in good condition. Area downstream of outlet structure is in fair condition, there is a large amount of vegetation growth in the rip rap apron.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, no erosion issues present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
Immediate downslope rip rap apron of the outlet structure in good condition. 50 feet downstream is overgrown and not maintained.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Southern Inlet: small sediment buildup
Western inlet: small sediment buildup

Recommendations

1. Remove vegetation from downstream rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Bottom of the Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
Constructed Wetland 2

NPDES Permit #

Inspection Date	Time	Investigator
12/17/14	11:50AM	jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
50 °F	0.35 in.	0.35 in.	Partly Cloudy

Overall

No comments

Components

Earthen Component: Bottom of Basin
Wetland vegetation was observed in the bottom of the wetland. Water was also observed in the bottom of the wetland. Edges of the wetland appear to be maintained. No saplings were observed.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.7			

Inspection Date	Time	Investigator
12/20/16	2:20PM	Matthew R Attig

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F		0.21 in.	Clear

Overall (Fair Condition)

The basin is in fair condition. There are sediment issues with both the upstream collection system and the outlet structure. Repairs also need to be made to the spillway.

Components

Is BMP in E&S Mode?
The BMP is not in E&S Mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. It is mowed and well maintained

Earthen Component: Berm, Downslope (Good)
The downslope is in good condition. It is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. It is mowed and well maintained.

Earthen Component: Spillway (Fair)
The spillway is experiencing some heavy cracking and breakage into small pieces.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition; however, the orifice plate has sediment and debris build-up covering the outlet.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection comes from runoff from the parking lot into a storm drain, which feeds into an endwall. The endwall has a large amount of sediment build-up.

Recommendations

1. The spillway needs to be repaired to eliminate the areas chipping off and other erosion.
2. Remove the sediment from the upstream collection system and outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.20

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	8:00AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
65 °F			Clear

Overall (Good Condition)

Basin is in good condition areas are in well maintained.

Components

Is BMP in E&S Mode?
No, basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained. There are established trees.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained. There are established trees.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained. There are established trees.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in good condition, it is mowed and well maintained. There are established trees.

Earthen Component: Spillway (Good)
Good condition: Concrete spillway with energy dissipation down slope

Structural Component: Pipe

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition there is minor weeds and sediment buildup.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition there is substantial sediment at endwall and no rock apron but seems to function.

Recommendations

1. Clear sediment and vegetation from upstream endwall
2. Clear sediment and vegetation from outlet structure

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB48.1			
Inspection Date	**Time**		**Investigator**
12/02/16	1:25PM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
48 °F			Clear

Overall (Fair Condition)

The structure of th basin is in good condition, the outlet structure is in poor condition due to damage to the pipe.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The insid of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is mowed and well maintained.

Earthen Component: Spillway (Good)
The grass spillway is in good condition it is mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Poor)
The outlet structure is in poor condition the stand pipe is bent and there is a gap where the stand pipe joins with the rest of the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system swale is in good condition it is mowed and well maintained. Upstream collection system pipe is in good condition there is minimal sediment build up at the end of the pipe.

Recommendations

1. Straighten stand pipe and fix pipe joint.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.9			
Inspection Date	**Time**	**Investigator**	
12/20/16	12:00AM	Matthew R Attig	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**

Overall (Good Condition)

The basin is in good condition with only small debris removal needed.

Components

Is BMP in E&S Mode?
The BMP is not in E and S mode

Earthen Component: Berm, Inside (Good)
The berm is in good condition. It is mowed and in good condition.

Earthen Component: Berm, Top (Good)
The top off the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. It is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is concrete and is in good condition. Some rocks have come out of the metal mesh and should be removed.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is a weir and is in good condition. It is partially blocked by a large piece of foam which should be removed.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection is sheet flow from the parking lot.

Recommendations

1. Remove rocks from the spillway and remove foam from weir.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.10			
Inspection Date	**Time**		**Investigator**
11/11/16	11:50AM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
60 °F	0.12 in.	0.44 in.	Clear

Overall (Good Condition)

The basin is in good condition. There is no impervious surfaces that drain to this basin. The area that is to drain to it was never developed.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Rock spillway is in good condition, no signs of erosion or any areas with vegetation.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. The stand pipe does not have a grate on top or at the front orifice.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system consist of two swales. The first swale is grass lined the whole way into the basin. Swale one is in good condition it's mowed and well maintained. The second swale is also grass line and is in good condition. There is a rip rap apron for swale number two before it gets to the basin, this is free of sediment or vegetation.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Downslope



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Spillway



Photo No. 9: Earthen Component: Spillway



Photo No. 10: Structural Component: Outlet Structure



Photo No. 11: Structural Component: Outlet Structure



Photo No. 12: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB39.12

NPDES Permit #

Inspection Date	Time	Investigator
12/20/16	1:55PM	Matthew R Attig

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
34 °F		0.21 in.	Clear

Overall (Good Condition)

The basin is in good conditions n. Needs only debris and snow removal.

Components

Is BMP in E&S Mode?
The BMP is not in E and S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Downslope
N/A

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition aside from some leaves and sediment.

Earthen Component: Spillway (Good)
The spillway is riprap and in good condition. Leaves should be removed.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. Some leaves can be removed.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection occurs from parking lot runoff. The channel is obstructed by snow.

Recommendations

1. Removal of leaves and trash from inside the basin. Remove snow from inflow channel.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Outlet Structurep



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ARB39.1

NPDES Permit #

Inspection Date
12/20/16

Time
12:40PM

Investigator
Matthew R Attig

Temperature
24 °F

24 Hr Rainfall

48 Hr Rainfall
0.21 in.

Weather
Clear

Overall (Good Condition)

No basin is present in this location.

Components

Is BMP in E&S Mode?
The BMP is not in E & S Mode.

Earthen Component: Berm, Inside
N/A

Earthen Component: Berm, Top
N/A

Earthen Component: Berm, Downslope
N/A

Earthen Component:Bottom of Basin
N/A

Earthen Component: Spillway
N/A

Structural Component: Pipe
N/A

Structural Component: Outlet Structure
N/A

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection
N/A

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component:Basin Location



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ARB39.3

NPDES Permit #

Inspection Date	Time	Investigator
12/20/16	12:15PM	Matthew R Attig

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
24 °F		0.21 in.	Clear

Overall (Good Condition)

The BMP appears to be in good condition and only requires minor cleaning.

Components

Is BMP in E&S Mode?
BMP is not in E and S mode

Earthen Component: Berm, Inside
N/A

Earthen Component: Berm, Top
N/A

Earthen Component: Berm, Downslope
N/A

Earthen Component: Bottom of Basin (Good)
BMP is a cement ramp for pickup window with storm drain on ramp. Drain is free from debris and in good condition.

Earthen Component: Spillway (Good)
Spillway is concrete slopes of ramp. They are in good condition. Some fluid from vehicles present.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure
Drain on ramp is outlet however further outlet cannot be determined without plans. The drain is in good condition.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection
Sheet flow from top of ramp and any overflow from the buildings roof

Recommendations

1. Clean approach ramp to remove automotive fluids.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Earthen Component: Bottom of Basin



Photo No. 3: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB30.4

NPDES Permit #

Inspection Date	Time	Investigator
11/20/14	2:55PM	Jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F	0.08 in.	0.14 in.	Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Upstream Collection
Water was observed south manhole structure below orifice. No sediment was observed. Minor debris (leaves) were observed in the bottom of the inlet structure. No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Upstream Collection



Photo No. 3: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.14			

Inspection Date	Time	Investigator
12/20/16	11:55AM	Matthew R Attig

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
31 °F		0.21 in.	Clear

Overall (Good Condition)

The condition of the basin is good and needs only minor cleaning of outflow structures and the filling of an animal burrow.

Components

Is BMP in E&S Mode?
The BMP is not in E and S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. It is mowed and well maintained. There is one animal hole on the top of the berm.

Earthen Component: Berm, Downslope (Good)
The downslope is in good condition. It is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. It is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway appears in good condition. It is concrete with a riprap area. Leaves should be removed from riprap.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure appears in good condition. Leaves should be removed from grate.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Sheet flow from the parking lot as well as a endwall who's upstream collection point could not be located. Endwall and rip rap are in good condition.

Recommendations

1. Remove leaves from outflow structures and fill animal hole on top of berm.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB3.1

NPDES Permit #

Inspection Date	Time	Investigator
12/03/14	10:10AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F			Mist

Overall (Good Condition)

No plan details to compare

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Trash insert within inlet

Structural Component: Cleanouts
Dry no silt

Structural Component: Upstream Collection
Dry no silt No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Outlet Structure



Photo No. 3: Cleanouts



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB21.10

NPDES Permit #

Inspection Date	Time	Investigator
09/16/16	1:20PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
73 °F			Mostly Cloudy

Overall (Good Condition)

Basin is in good condition, overall it is mowed and well maintained. There are a few vegetation and sediment issues a endwall for the upstream collection system.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
Pipe is in good condition and free of sediment and vegetation.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there is no sediment build up or erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. Upstream endwall 1 has build up of sediment in the pipe and at the mouth of the endwall. Upstream endwall 2 has an area of erosion after the rip rap apron. Upstream endwall 3 has vegetation and sediment at the mouth of the endwall.

Recommendations

1. Remove sediment and vegetation from pipe and rip rap apron at endwall 1 and 3.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection endwall 1



Photo No. 8: Structural Component: Upstream Collection endwall 2



Photo No. 9: Structural Component: Upstream Collection endwall 3



Photo No. 10: Basin overall 1.jpg



Photo No. 11: Basin overall 2.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP39.5			
Inspection Date	**Time**	**Investigator**	
09/24/14	2:35PM	SJL/KEF	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**

Overall (Good Condition)

Good - functioning properly and well maintained.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition. Stable grassy berm.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope
Good condition. Stable grassy berm.
Gabion lined spillway in good condition.

Earthen Component: Bottom of Basin
Mowed grass. Well maintained. No erosion.

Structural Component: Outlet Structure
Inlet clean and free of debris and water. Vegetation on trash screen of inlet. Concrete channel in bottom of basin in good condition. Headwall in good condition. Snout oil and debris stop in good condition. Upstream collection inlet in good condition but standing liquid noted.

Structural Component: Cleanouts
Inceptor BMP observed in good condition.

Recommendations

1. Verify inceptor filter condition and replacement.
2. Remove (minor) vegetation debris from trash screen.

Prepared By CSDatum

Photo Log

Photo No. 1: spillway



Photo No. 2: spillway and basin



Photo No. 3: basin and concrete channel



Photo No. 4: headwall and inlet



Photo No. 5: headwall and channel



Photo No. 6: inlet with snout



Photo No. 7: inceptor



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP21.24

NPDES Permit #

Inspection Date	Time	Investigator
10/08/14	8:50AM	rmb & jwv

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
56 °F			Sunny

Overall (Good Condition)

Inlet has silt build up but overall structure is in good condition

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
-Good condition
-Mowed grass with few sunflower plantings

Earthen Component: Berm, Top
- good condition

Earthen Component: Berm, Downslope
-Good condition

Earthen Component: Bottom of Basin
-Good condition. Mowed and maintained

Earthen Component: Spillway
Good condition

Structural Component: Pipe
Inlet structure pipe has silt built up back pipe

Structural Component: Outlet Structure
Outflow structure is in good condition fr
Inflow endwall is in e&s mode with vert elbow

Structural Component: Upstream Collection
Water is backed up into structure through pipe Partial silt is present in the upstream collection.

Structural Component: Other
Inlet structure has minor erosion along back of endwall
Rip rap has been covered by silt. Silt has built up and is backing up pipe. Water is standing in the pipe.

Recommendations

1. verfiy es mode compliance
2. remove silt from inlet structure and pipe. replace rip rap as required

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: spillway



Photo No. 3: Bottom of Basin



Photo No. 4: Outlet Structure outflow



Photo No. 5: Outlet Structure inflow



Photo No. 6: Pipe



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP39.6

NPDES Permit #

Inspection Date	Time	Investigator
09/24/14	10:40AM	KEF/SJL

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Good Condition)

Overall good condition. Properly functioning and maintained. Upstream inlet-hose and PVC pipe in inlet

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Inside of spillway in good condition. No erosion.

Earthen Component: Berm, Top

Earthen Component: Berm, Downslope
Concrete curb spillway in good condition. Minor notch/corner out at outside edge.

Earthen Component: Bottom of Basin
Good condition. Mature vegetation in rain garden. No standing water. Rip rap good condition.

Structural Component: Outlet Structure
Minor debris (cinders, gravel) in endwall. Orifice plate installed on wrong face of headwall. Rip rap good condition.

Structural Component: Cleanouts
Verified in place. Couldn't not view inside.

Recommendations

1. Remove gravel and cinders from endwall.
2. Correct orifice plate installation per dwgs.
3. Remove hose and pipe from inlet.

Prepared By CSDatum

Photo Log

Photo No. 1: rain garden



Photo No. 2: concrete curb spillway



Photo No. 3: rain garden



Photo No. 4: headwall - minor gravel and cinders



Photo No. 5: inlet, orifice



Photo No. 6: inlet, orifice



Photo No. 7: pipe in downstream inlet



Photo No. 8: pipe and hose in upstream inlet



Photo No. 9: concrete curb spillway



Photo No. 10: raingarden



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB39.15			

Inspection Date	Time	Investigator
11/18/16	8:20AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
39 °F		0.01 in.	Clear

Overall

The basin is in good condition and is very well maintained just a few minor issues with the upstream collection system.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition the majority of it is grass and well maintained. The far side across from the parking lot has established pine trees.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition on the side opposite the parking lot it is covered with established trees. The remaining area is grass and well maintained.

Earthen Component: Berm, Downslope
Basin is recessed there is no downslope.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. There is an area of low flow concrete connecting one of the upstream collection systems and the outlet structure. The whole of the bottom of the basin is in good condition both the concrete and grass sections.

Earthen Component: Spillway (Good)
Spillway is in good condition there is a small section of grass missing near the top of the berm but this is minimal.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition there is no sign of debris build up or any erosion issues.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system one is in fair condition the pipe joint around the pipes are crack and in the case of the larger pipe missing almost completely, the small of the two pipes is just cracked. Upstream collection system two is in fair condition there is some build up of sediment in the rip rap apron.

Recommendations

1. Fix missing pipe joint upstream collection system one.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection 1



Photo No. 10: Structural Component: Upstream Collection 1



Photo No. 11: Structural Component: Upstream Collection 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB40.2

NPDES Permit #

Inspection Date	Time	Investigator
11/18/16	11:10AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
56 °F		0.01 in.	Clear

Overall (Good Condition)

The basin is in good condition and is being well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is grass it is in good condition, it's mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there are no signs of erosion or sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. The pipe and rip rap apron are free from sediment and vegetation build up.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ARBBMP58.1

NPDES Permit #

Inspection Date	Time	Investigator
12/02/16	1:00PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
47 °F			Clear

Overall (Good Condition)

The basin is in good condition and well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm down slope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway
No defined spillway present

Structural Component: Pipe
N/A

Structural Component: Outlet Structure
No outlet structure present.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Both upstream downspouts are in good condition, they both have rock areas to discharge to.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Upstream Collection downspout 1



Photo No. 5: Structural Component: Upstream Collection downspout 2



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP3.4

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	9:25AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
73 °F			Clear

Overall (Good Condition)

Basin is in good condition, no bottom plantings present.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in fair condition, area is mowed and maintained, there is a animal burrow near the outlet structure.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition it is mowed and well maintained.

Earthen Component: Spillway (Fair)
The grass spillway is in fair condition minimal signs of erosion.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition the area surrounding the structure has an overgrowth of vegetation.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection is in good condition flow is downspouts and sheet flow from back yards of surround homes.

Recommendations

1. Check landscaping plans for notes on bottom plantings and restore plants if needed.

Prepared By CSDatum

Photo Log

Photo No. 1: Basin.jpg



Photo No. 2: Earthen Component: Spillway



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Earthen Component: Berm, Inside



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP39.7			
Inspection Date	**Time**	**Investigator**	
11/25/16	12:00AM	Chris L. Leiphart	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**

Overall (Good Condition)

Overall basin in good condition.

Components

Is BMP in E&S Mode? (Good)
Basin is not currently in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside berms of the basin are mowed and we'll maintained. A few trees on berm causing no issues.

Earthen Component: Berm, Top (Good)
Top of berm well maintained and mowed.

Earthen Component: Berm, Downslope (Good)
Downslope of berm is well maintained and mowed

Earthen Component: Bottom of Basin
Bottom of basin is a permanent pond.

Earthen Component: Spillway (Good)
Spillway is in good condition concrete and stone.

Structural Component: Pipe (Good)
Both inlet and outlet pipes in good condition and clean concrete.

Structural Component: Outlet Structure (Good)
Outlet structure is functional and free of debris.

Structural Component: Cleanouts (Good)
Cleanoutside in good condition. Clean out at outlet has trash rack.

Structural Component: Upstream Collection (Good)
Upstream collection system is in good condition with some leaves built up.

Recommendations

1. Only recommendation is to monitor inlets and outlets.

Prepared By CSDatum

Photo Log

Photo No. 1: Basin



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Top of Berm.jpg



Photo No. 5: Top of Berm.jpg



Photo No. 6: Basin Pond surface.jpg



Photo No. 7: Spillway.jpg



Photo No. 8: Endwall.jpg



Photo No. 9: Endwall.jpg



Photo No. 10: Upstream Collection System.jpg



Photo No. 11: Upstream Collection System.jpg



Photo No. 12: Basin.jpg



Photo No. 13: Outlet structure.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB31.8

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	8:30AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
64 °F		0.6 in.	Clear

Overall

Basin is in good condition. All areas are well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm down slope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
Oulet structure pipe is in good condition.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, minor build up of sediment and no erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream swale is in good condition.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Basin Overall.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.8

NPDES Permit #

Inspection Date	Time	Investigator
09/16/16	8:40AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
58 °F			Mostly Cloudy

Overall (Good Condition)

Overall basin is in good condition. Upstream collection system is contributing a large amount of sediment to the basin.

Components

Is BMP in E&S Mode?
Basin not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
Inside of berm is in excellent condition it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm downslope is mowed and well maintained no areas of erosion.

Earthen Component: Bottom of Basin (Fair)
Bottom of the basin is in fair condition. Grass areas are mowed and well maintained. Low flow cannels have arwas areas with sediment build up.

Earthen Component: Spillway (Poor)
Spillway is in poor condition. Vegetation has started to grow in the rock portion. Appears home owner is using concrete section to store leaves and tree branches. Also home owner is using area to burn said refuse.

Structural Component: Pipe (Good)
Pipe is in good condition no sediment build up.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition. Mouth of headwall is free from sediment.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
Upstream collection system is in poor condition. Endwall 1 both pipe and rip rap apron are full of sediment. Endwall is full of vegetation sediment and yard waste. Pipe and rip rap apron have sediment build up, rip rap apron to the point it is not distinguishable.

Recommendations

1. Remove yard refuse and vegetation from spillway.
2. Remove sediment from rip rap apron and upstream pipe, endwall 1.
3. Remove vegetation and sediment from rip rap apron and upstream endwall and pipe, endwall 2.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin low flow cannel small sediment build up



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Earthen Component: Spillway suspected previous burn areas



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection endwall 1



Photo No. 10: Structural Component: Upstream Collection endwall 2



Photo No. 11: Structural Component: Upstream Collection 2



Photo No. 12: Overall Basin 1.jpg



Photo No. 13: Overall Basin 2.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB40.7			

Inspection Date	Time	Investigator
11/18/16	12:15PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
46 °F		0.01 in.	Clear

Overall (Good Condition)

Overall basin is in good condition. Basin has half its area as stone the other half is grass.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition. The side closet to the business in grass, it's mowed and well maintained. There is one area that has cut an erosion channel from the parking lot run off. The opposite side is grass but has established trees and areas of dirt due to the tree cover.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, the berm on the side of the business is both grass and pavement both in good condition. The berm on the opposite side is covered in established tree and in good condition.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, there is grass in this area, some areas do not have grass due to the tree cover.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition one section is grass and is in good condition mowed and well maintained. The other section is rock and free of sediment build up.

Earthen Component: Spillway (Good)
The spillway is in good condition it's mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is a build up of debris and sediment in from of the headwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection to the basin is sheet flow from the parking lot and downspouts, all are in good condition.

Recommendations

1. Remove sediment and debris build up from outlet structure endwall.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside



Photo No. 3: Earthen Component: Berm, Inside



Photo No. 4: Earthen Component: Berm, Top



Photo No. 5: Earthen Component: Berm, Top



Photo No. 6: Earthen Component: Berm, Downslope



Photo No. 7: Earthen Component: Bottom of Basin



Photo No. 8: Earthen Component: Spillway



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.3

NPDES Permit #

Inspection Date	Time	Investigator
01/02/15	1:40PM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
40 °F			Partly Cloudy

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
Yes

Earthen Component: Berm, Inside
Good condition, mowed

Earthen Component: Berm, Top
Same

Earthen Component: Berm, Downslope
Same

Earthen Component: Bottom of Basin
Good condition, mowed

Earthen Component: Spillway
Stable, grass

Structural Component: Outlet Structure
Good condition, stone filter still installed, vegetation needs removed

Structural Component: Upstream Collection
Sediment in inlets and rock aprons Partial silt is present in the upstream collection.

Recommendations

1. Remove sediment at inflows
2. Remove stone filter if finalized

Prepared By CSDatum

Photo Log

Photo No. 1: Berm



Photo No. 2: Bottom of Basin



Photo No. 3: Spillway



Photo No. 4: Outlet Structure



Photo No. 5: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB31.20			

Inspection Date	Time	Investigator
09/21/16	7:40AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
64 °F		0.6 in.	Partly Cloudy

Overall

Basin is in good condition, it appears to be handling run off from two homes.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Fair)
Spillway is in fair condition, concrete spillway is in good condition no signs of erosion. Rock section of the spillway has vegetation growin in it.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition.

Structural Component: Outlet Structure (Fair)
Inlet at outlet structure wearing issues, flow area is beginning to weather.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system is made up of Swales. Swale one is in good condition mowed and well maintained. Swale two is currently being seeded.

Recommendations

1. Repair concrete weathering in outlet structure.
2. Remove vegetation from spillway.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway concrete



Photo No. 6: Earthen Component: Spillway rock section



Photo No. 7: Structural Component: Outlet Structure weathering



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Basin overall.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB31.23

NPDES Permit #

Inspection Date	Time	Investigator
09/16/16	1:50PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
74 °F			Mostly Cloudy

Overall (Good Condition)

Basin is in good condition.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is mowed and well maintained.

Structural Component: Pipe (Good)
Pipe is in good condition there is no sediment build up in the pipe.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition no sediment or overgrown vegetation is present.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in far condition. There is sediment in the pipe and vegetation and sediment at the mouth of the upstream endwall.

Recommendations

1. Remove sediment from upstream endwall and pipe.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



Photo No. 9: Basin overall 1.jpg



Photo No. 10: Basin overall 2.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP4.2

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	9:50AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Clear

Overall (Good Condition)

Basin fenced within private property but appears to be in good condition.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition. It is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, there is minimal sediment and vegetation.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection
Contrition unknown basin is feed by at least one upstream endwall. Flow appears to be from roadway.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Berm Downslope.jpg



Photo No. 2: Top of Berm, Inside of Berm.jpg



Photo No. 3: Inside Berm, Bottom of the Basin, Outfall structure.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP40.7			

Inspection Date	Time	Investigator
12/20/16	9:05AM	Matthew R Attig

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
20 °F		0.21 in.	Partly Cloudy

Overall (Good Condition)

The basin is in good condition except for some animal burrows on the top of the berm.

Components

Is BMP in E&S Mode?
Bmp is not in E and S mode

Earthen Component: Berm, Inside (Good)
The inside berm is in good condition. It is rock and reeds.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. It is mowed and well maintained

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition. It is mowed and well maintained as well as wooded.

Earthen Component: Bottom of Basin
The basin is a permanent pond.

Earthen Component: Spillway (Good)
The spillway is filled with riprap and leads to a large concrete weir which flows to a channel in the grass. It is in good condition.

Structural Component: Pipe (Good)
There is a pipe with flow coming into a smaller pond which feeds into the basin. The pipe is in good condition and not obstructed.

Structural Component: Outlet Structure (Good)
The outlet structure is a large concrete weir which leads to a channel in the grass. It is in good condition.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
There is a small pipe that feeds into a small pond which feeds into the basin. It is in good condition.

Recommendations

1. Repair animal burrows on top of the berm.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Pipe



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB40.5

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	11:25AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Partly Cloudy

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Both trash grates are in overall good condition with the lower one only having minor debris accumulation on the lower half.

Structural Component: Upstream Collection
The southwest inlet leaf grate is full and is impeding flow. Both upstream manholes have no sediment and arein very good condition. Upstream inlets are clean. No silt was present in the upstream collection.

Structural Component: Underground detention basin
Lower end has a several inches deep layer of debris and silts. No water is present.

Recommendations

1. clean out built up debris at lower end.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB40.5

NPDES Permit #

Inspection Date	Time	Investigator
11/07/14	11:25AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
48 °F			Partly Cloudy

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Outlet Structure
Both trash grates are in overall good condition with the lower one only having minor debris accumulation on the lower half.

Structural Component: Upstream Collection
The southwest inlet leaf grate is full and is impeding flow. Both upstream manholes have no sediment and arein very good condition. Upstream inlets are clean. No silt was present in the upstream collection.

Structural Component: Underground detention basin
Lower end has a several inches deep layer of debris and silts. No water is present.

Recommendations

1. clean out built up debris at lower end.

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.13			
Inspection Date	**Time**		**Investigator**
09/08/16	9:10AM		Tomas M Matias
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
			Clear

Overall (Fair Condition)

The basin is in fair condition. There is some sediment build-up issues that need to be monitored.

Components

Is BMP in E&S Mode?
The basin is not in E&S Mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition. It is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition. The main section of the berm is mowed grass and it has been well maintained. The lower section of the berm is wooded.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition. It is mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition. The spillway goes over the outlet structure.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There is sediment and debris build-up at the headwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. There is sediment build-up in the rip-rap apron. There are animal burrows around the endwall.

Recommendations

1. Remove sediment build-up from the upstream collection endwall and the outlet structure headwall.

Prepared By CSDatum

Photo Log

Photo No. 1: Basin.jpg



Photo No. 2: Earthen Component: Spillway



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP22.6

NPDES Permit #

Inspection Date	Time	Investigator
10/22/14	11:05AM	wcw

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F	0.25 in.	0.35 in.	Light rain

Overall (Fair Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
There are many chipmunk holes in the berm and the berm has a great number of thistles on the inside of it

Earthen Component: Berm, Top
Okay

Earthen Component: Berm, Downslope
Okay

Earthen Component: Bottom of Basin
There is some silt present in the north end of basil. There is one underdrain cap missing. One under drain appears to have broken off. It is in front of the discharge structure. Underdrain caps are missing.

Earthen Component: Spillway
Some minor bare patches on spillway

Earthen Component: Other
Wetlands area doesn't look healthy.

Structural Component: Pipe
Okay

Structural Component: Outlet Structure
There is minor erosion of the rip rap in front of discharge structure. There is a small amount of stone in front of discharge structure

Structural Component: Cleanouts
Southernmost cleanout of underdrain is missing

Structural Component: Upstream Collection
Inlet catch basin next to Soccer field appears fine. Woody plants growing in rip rap at North West Inlet. there is minor erosion around Northwest inlet endwall. No silt was present in the upstream collection.

Recommendations

1. Fix broken underdrain clean out
2. Fill in rodent holes
3. Remove excess silt from bottom of basin
4. Clean vegetation from rip rap at discharge and add rip rap where eroded at discharge
5. Replace rip rap at northeast inflow endwall
6. Replace underdrain cap where missing

Prepared By CSDatum

Photo Log

Photo No. 1: Southern catch basin with minor debris caught in grate.



Photo No. 2: Upstream Collection Silt deposit from inlet across from outlet



Photo No. 3: Upstream Collection - catch basin next soccer field



Photo No. 4: Upstream Collection inlet endwall at northeast end of basin has riprap away from front



Photo No. 5: Upstream Collection-Northwest inlet catch basin



Photo No. 6: Upstream Collection - Southern inlet endwall.



Photo No. 7: Upstream Collection animal boroughs next to endwall of Inlet



Photo No. 8: Upstream Collectioninlet across from outlet has a missing trash rack



Photo No. 9: Upstream Collection- Northwest inlet endwall



Photo No. 10: Spillway



Photo No. 11: Wetlands



Photo No. 12: Outlet Structure -this charge and wall



Photo No. 13: Minor erosion of riprap at discharge



Photo No. 14: Top of outlet



Photo No. 15: Outlet structure



Photo No. 16: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB22.14			

Inspection Date	Time	Investigator
09/21/16	9:55AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
71 °F		60 in.	Clear

Overall (Good Condition)

The basin is in good condition. Outlet structure and upstream collection system have areas that need addressed.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Excellent)
Concrete and rock spillway are in excellent condition no areas of vegetation or erosion.

Structural Component: Pipe (Good)
Outlet pipe is in good condition no areas of erosion or sediment.

Structural Component: Outlet Structure (Fair)
Outlet structure is in fair condition, one of the trash rack bars is missing allowing stone into the mouth of the endwall.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection system one is in good condition. Upstream collection system two fair condition vegetation and sediment have collected in the upstream inlet along with in the rip rap apron. Upstream collection system three is in poor condition the upstream inlet is full of water.

Recommendations

1. Fix trash rack on outlet structure.
2. Remove vegetation and sediment from inlet and rip rap apron in upstream collection system.
3. Investigate water issue in inlet in upstream collection system.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection endwall 1 underground detention



Photo No. 8: Structural Component: Upstream Collection 2 inlet



Photo No. 9: Structural Component: Upstream Collection endwall 2



Photo No. 10: Structural Component: Upstream Collection endwall 3



Photo No. 11: Basin overall.jpg



Photo No. 12: Structural Component: Upstream Collection 3
upstream inlet full of water



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.25			
Inspection Date	**Time**		**Investigator**
09/07/16	2:25PM		Tomas M Matias
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
			Partly Cloudy

Overall (Good Condition)

The basin is in good condition. There is sediment buildup within the basin at the upstream and downstream collection systems.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway (Good)
The grass spillway is in good condition, spillway is overtop of the outlet structure.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. The mouth of the headwall has significant sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. There is sediment build up in the rip rap apron.

Recommendations

1. Remove sediment from the mouth of outlet structure.
2. Remove sediment from upstream collection system rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Upstream Collection



Photo No. 4: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB31.32			

Inspection Date	Time	Investigator
09/21/16	9:20AM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
68 °F		0.6 in.	Clear

Overall (Good Condition)

Basin is in good condition no issues present.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is in good condition, it's mowed and well maintained. Inside berm on the farm side is rock and is also in good condition.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained. The low flow channel is also in good condition.

Earthen Component: Spillway (Good)
Spillway is in good condition no erosion present around edges.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition it is free of debris and sediment.

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition. No erosion or sedimentation present.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system is in good condition, no sediment build up or vegetation.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Upstream Collection



Photo No. 8: Basin overall.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.37

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	2:15PM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Partly Cloudy

Overall (Good Condition)

Basin is in good condition, the entirety of the basin is well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained.

Earthen Component: Spillway (Good)
The grass spillway is in good condition, it is mowed and well maintained.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. There are no signs of erosion or sediment buildup.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. There is minor settlement at the endwall, and erosion at the edge of the rip rap apron.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADBBMP13.3

NPDES Permit #

Inspection Date	Time	Investigator
10/22/14	2:15PM	Rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
54 °F			Light rain

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition mowed regularly

Earthen Component: Berm, Top
Good condition mowed regularly

Earthen Component: Berm, Downslope
Good condition mowed regularly

Earthen Component: Bottom of Basin
10" tall grass all of the same type. Grass is mowed and weeded at a proper interval per the drawings. The diversity of plantings per the drawings is not present.
Under drain does not and should not have a cap. It appears to be working properly

Earthen Component: Spillway
Good condition

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Inflow ew has a large silt deposit area out from the pipe. Rip rap is mostly covered. Silts are backed up the pipe.
Outflow structure appears to be in good condition with a clear trash rack.

Structural Component: Upstream Collection
Upstream inlet leaf catcher is full. Full silt is present in the upstream collection.

Recommendations

1. Add diversity plantings per the contract drawings.
2. Clean silts from rip rap of inflow ew
3. Clean leaves from upstream collection inlet

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Outlet Structure



Photo No. 3: Berm



Photo No. 4: Berm



Photo No. 5: Bottom of Basin



Photo No. 6: Spillway



Photo No. 7: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.48

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	10:20AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
78 °F			Clear

Overall (Good Condition)

The basin is in good condition there is minor erosion issues with the bottom of the basin and the upstream collection system.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. There is erosion occurring in the bottom due to channelized flow.

Earthen Component: Spillway (Good)
The spillway is in good condition there is minor yard waste at the base of the spillway.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Good)
A stand pipe with three holes drilled in is on the mouth of the outlet structure, there is minor vegetation growth around the outlet structure.

Structural Component: Cleanouts

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. There is minor erosion at roof down spouts and the check dam at swale. Endwall rip rap apron is full of vegetation and sediment.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Structural Component: Upstream Collection



Photo No. 2: Basinjpg



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Earthen Component: Spillway



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP13.9

NPDES Permit #

Inspection Date
10/31/14

Time
2:55PM

Investigator
RMB

Temperature
53 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Partly Cloudy

Overall (Good Condition)

See "ADB 49 - Airport Industrial Park Lot 33"

Components

Is BMP in E&S Mode?
No

Earthen Component: Bottom of Basin
See "ADB 49 - Airport Industrial Park Lot 33" for original inspection which included this feature

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB49.5

NPDES Permit #

Inspection Date	Time	Investigator
12/29/16	8:50AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
36 °F	0.09 in.		Overcast

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is paved drive with curb. Some is grass that is mowed and well maintained.

Earthen Component: Berm, Downslope
N/a

Earthen Component: Bottom of Basin (Good)
Bottom of basin is concrete channel that is in good condition. This is surrounded by grass that is mowed and well maintained.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition. No signs of erosion are present.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Sheet flow from parking lot and inflow pipe from driveway inlet. No signs of erosion are present.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside, Top



Photo No. 2: Earthen Component: Bottom of Basin



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.60

NPDES Permit #

Inspection Date	Time	Investigator
09/08/16	12:50PM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Mostly Cloudy

Overall (Good Condition)

The basin is in good condition there is minor sediment issues in outlet structure.

Components

Is BMP in E&S Mode?
No, the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in fair condition. The grass area is in good condition, it is mowed and well maintained. There is a concrete low flow channel in the basin, that has minimal sediment buildup.

Earthen Component: Spillway (Fair)
The spillway is made up of two section a concrete mat and stone gabions. There is vegetation growing in the stone gabion section.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There is minor sediment and debris build up at the headwall of the outlet structure, and the outfall apron is overgrown.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection systems are in good condition, both the pipe and concrete channels in front of the systems area clear of sediment and debris.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Upstream Collection



Photo No. 4: Structural Component: Upstream Collection



Photo No. 5: Basin 2.jpg



Photo No. 6: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.64			

Inspection Date	Time	Investigator
09/08/16	1:10PM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
90 °F	0.5 in.	0.5 in.	Clear

Overall (Good Condition)

Basin structural is in good condition, however basin has sediment issues in both upstream and downstream collections systems.

Components

Is BMP in E&S Mode?
No Basin is not in E&S mode.

Earthen Component: Berm, Inside (Fair)
The inside of the berm is in fair condition. The area is mowed and maintained, there is landscaping in plantings in some areas.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it is mowed and well maintained. There are multiple temporary lawn chairs in the basin.

Earthen Component: Spillway (Poor)
The spillway is poor condition. It is blocked by landscaping and flows directly downslope.

Structural Component: Pipe

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is a build up of sediment at the mouth of the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition. The upstream collection system endwall and rip rap apron has sediment build up and vegetation.

Recommendations

1. Clear rock aprons of sediment and vegetation.
2. Remove landscaping at spillway.
3. Clear debris from outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: spillway.jpg



Photo No. 2: Earthen Component: Spillway



Photo No. 3: Basin.jpg



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Structural Component: Upstream Collection



Photo No. 7: image.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB49.8

NPDES Permit #

Inspection Date	Time	Investigator
12/29/16	9:05AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
37 °F	0.09 in.		Overcast

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained, planter with trees and bushes is on one side.

Earthen Component: Berm, Downslope
N/a

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway
N/a

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no signs of erosion.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is sheet flow from parking lot.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.63			
Inspection Date	**Time**		**Investigator**
09/07/16	11:40AM		Tomas M Matias
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
			Clear

Overall (Good Condition)

The basin is in good condition, there is no erosion or sediment issues in the basin.

Components

Is BMP in E&S Mode?
No, the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained .

Earthen Component: Berm, Top (Good)
The top of the berm is meadow or field grass and the area is in good condition. The grass area is well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition. The area appears to be a wetland.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it is mowed and well maintained.

Earthen Component: Spillway (Fair)
The spillway is in fair condition, the area is overgrown and has no erosion control.

Structural Component: Pipe (Good)
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There are animal burrows in the embankment around the outlet structure. There are grass clippings and lawn waste in and in front of the outlet structure.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. The upstream flow is sheet flow from the near by parking lot and downspouts.

Recommendations

1. Clear grass clippings at outlet structure and address animal burrows in berm.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure



Photo No. 3: Structural Component: Outlet Structure



Photo No. 4: Bottom of Basin, Inside of the Berm, Top of Berm.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP22.4

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	9:35AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
53 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Good condition mowed regularly

Earthen Component: Berm, Top
Good condition mowed regularly

Earthen Component: Berm, Downslope
Good condition mowed regularly

Earthen Component: Bottom of Basin
Grass good condition mowed regularly. No cap required for under drain

Earthen Component: Spillway
Spillway is just grass and also the top of berm along its entire length. Good condition

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Inflow ew: minor silt build up at ew. Rip rap appears good but is filled with leaves
Outflow structure: minor leaf build up around trash grate and within structure. No silt present with structure and under drain line apears clear.
Basin drainage ew: ew is inflow of lower storm basin. Inspection included in other inspection report.

Structural Component: Upstream Collection
Moderate leaf accumulation Partial silt is present in the upstream collection.

Recommendations

1. remove leaves from basin and structures.
2. remove silt deposits at inflow end wall

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Berm



Photo No. 3: Spillway



Photo No. 4: 141511240571349974909 1.jpg



Photo No. 5: Outlet Structure inflow ew



Photo No. 6: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB49.12

NPDES Permit #

Inspection Date
10/13/16

Time
10:00AM

Investigator
Ryan M Barton

Temperature
57 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Overcast

Overall (Good Condition)

Overall it appears that this very large basin is functioning as intended. Maintenance to the spillway and th sediment and debris that has been accumulating for a long time will ensure that the system maintains its functioning state.

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside (Excellent)
Mowed grass

Earthen Component: Berm, Top (Excellent)
Mowed grass

Earthen Component: Berm, Downslope (Excellent)
Mowed grass. Is upstream side of another basin below.

Earthen Component: Bottom of Basin (Good)
Overall the bottom of the basin is level with a slight slope to the center channel. Entire are is mowed grass. Center channel has a number of low rock filled depressions that are not continuous. Soil and sediment have accumulated downstream of the inflow headwalls.

Earthen Component: Spillway (Fair)
The gabian basket spillway is mostly level with minor areas of vegetation and debris. The leading edge to the basin is not level and the grassed Berm at that location is several inches above the rock lined spillway. The sidewalk above the spillway is beginning to undermine the fill length of exposure.

Structural Component: Pipe (Excellent)
Outlets into basin on other side of road downstream.

Structural Component: Outlet Structure (Good)
Structure is good. It appears the trash grate has been removed.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The pipes leading to the basin are clear. The headwall are all in fair condition with natural expected wear from age. Large accumulation of soil and debris (much of which is supporting grass and is being mowed regularly) are just downstream blocking the flow into the the basin and also causing rutting in the bottom of the basin. The upstream headwall in the southeast corner is particularly bad. Both pipes are restricted in function. The adjacent swale is also slightly Rutter along its invert.

Recommendations

1. Regarded the leading edge of the spillway to create a level surface.
2. Remove raised areas of sediment within the basin to allow for proper flow and function below upstream headwalls.
3. Fill in depressed areas along low center line of the bottom of basin.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Structural Component: Outlet Structure



Photo No. 8: Structural Component: Upstream Collection



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Earthen Component: Bottom of Basin



Photo No. 11: Structural Component: Upstream Collection



Photo No. 12: Structural Component: Upstream Collection



Photo No. 13: Structural Component: Upstream Collection



Photo No. 14: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB13.67			
Inspection Date	**Time**		**Investigator**
09/23/16	11:25AM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
76 °F			Clear

Overall

The basin is in good condition, with the exception of the upstream collection system. With the amount of erosion going on there is a very limited amount of water that is actually reaching the basin.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
Outlet structure pipe is in good condition, there is no sediment present.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition. The inlet top on the outlet structure has been shifted at one point, this does not seem to be causing any issues.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection toon system is a swale that handles the flow from the parking lot. The swale is rock lined, the bottom end of the swale has been covered with sediment and vegetation. The top section of the swale has been severely eroded.

Recommendations

1. Fill eroded areas in upstream collection stream, add rock to defuse water.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top and Downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection swale bottom



Photo No. 7: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB13.68

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	11:20AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
80 °F			Clear

Overall (Good Condition)

Basin is in good condition it is well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is made up landscaped and grass area both are in good condition. Grass areas are mowed and well maintained. Landscaped area are mulch and have established plantings.

Earthen Component: Berm, Top (Good)
The top of the berm is made up landscaped and grass area both are in good condition. Grass areas are mowed and well maintained. Landscaped area are mulch and have established plantings.

Earthen Component: Berm, Downslope (Good)
Basin is sunken area surrounding is grass, side of the outlet structure is paved roadway.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, there are area that have minor erosion.

Earthen Component: Spillway (Good)
Spillway is rock and is located over the outlet structure.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
Outlet structure is in fair condition. It is with the rock spillway, no areas of erosion or and minimal sediment build up.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system is in good condition roof drains and parking lot flow into the basin. No areas of erosion around the outfall of the upstream collection systems.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Upstream Collection System.jpg



Photo No. 3: Structural Component: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB22.38

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	11:15AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly good condition. Dirt has been placed on south end of berm for a bike ramp.

Earthen Component: Berm, Top
Grass mowed regularly good condition.

Earthen Component: Berm, Downslope
Grass mowed regularly good condition.

Earthen Component: Bottom of Basin
Grass mowed regularly good condition. Low flow channels are defined and appear to be in good condition.

Earthen Component: Spillway
Good condition

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Outflow ew and inlet: appears to be in good condition with minor sediment build up around orifice plate opening. Minor stone build up in inlet.
South Inflow ew: minor sediment and debris in rip rap.
North inflow ew: minor sediment and debris in rip rap.

Structural Component: Upstream Collection
Minor leaf build up No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



Photo No. 2: Berm



Photo No. 3: Outlet Structure



Photo No. 4: Berm



Photo No. 5: Berm



Photo No. 6: Spillway



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.2

NPDES Permit #

Inspection Date	Time	Investigator
09/21/16	3:20PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
83 °F		0.6 in.	Clear

Overall (Good Condition)

The basin is in good condition it is mowed and well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
Been downslope is in good condition, it is within the wood line.

Earthen Component: Bottom of Basin (Fair)
The bottom of the basin is in fair condition. Home owner has installed gardens in the bottom of the basin.

Earthen Component: Spillway (Fair)
The spillway is in fair condition, vegetation cover the majority of the back section.

Structural Component: Pipe (Good)
The pipe is in good condition free from sediment and debris.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition there is some vegetation side of the trash rack.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection
The upstream swale is in good condition, it's mowed and well maintained.

Recommendations

1. Remove vegetation from inside trash rack on outlet structure.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: outlet structure endwall



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Upstream Collection swale



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB23.1

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	11:40AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly good condition

Earthen Component: Berm, Top
Grass mowed regularly good condition

Earthen Component: Berm, Downslope
Large established trees and high brush.

Earthen Component: Bottom of Basin
Grass mowed regularly good condition

Earthen Component: Spillway
Good condition. Leaf build up on gabian baskets of downslope.

Structural Component: Pipe
Good condition

Structural Component: Outlet Structure
Outflow ew and inlet: Moderate leaf build up infront of orifice plate. Minor corner spall of inlet box. Upper trash grate is only attached by 2 opposite corner nuts and bolts. Moderate leafe and debris build up in downstream inlet.
Inflow ew: minor debris and sediment build up within rip rap.

Structural Component: Upstream Collection
Upstream swale is grass and mowed regularly.
Minor leaf build up in upstream inlet.

Recommendations

1. remove leaves, Sediment and debris from rip rap, gabian baskets, outflow structure and both upstream and downstream inlets

Prepared By CSDatum

Photo Log

Photo No. 1: Outlet Structure



Photo No. 2: Upstream Collection



Photo No. 3: Berm



Photo No. 4: Spillway



Photo No. 5: Outlet Structure



Photo No. 6: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB14.3			
Inspection Date	**Time**		**Investigator**
09/23/16	12:20PM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
67 °F			Clear

Overall

Basin is good condition it is mowed and maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway
No spillway present.

Structural Component: Pipe (Good)
The pipe is in good condition.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, there is a small build up of sediment and grass clips in the mouth of the pipe. There is sediment build up in the rip rap apron and the end of the pipe.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection
No up stream collection system, sheet flow from the parking lot.

Recommendations

1. Remove sediment from outlet structure pipe (mouth) and rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside, Top & Downslope



Photo No. 2: Earthen Component: Berm, Inside,Top & Downslope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Structural Component: Outlet Structure headwall



Photo No. 5: Structural Component: Outlet Structure



Photo No. 6: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP23.1

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	11:00AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
59 °F			Sunny

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass good condition mowed regularly

Earthen Component: Berm, Top
Grass good condition mowed regularly. Minor settlement along outflow pipe.

Earthen Component: Berm, Downslope
Grass good condition mowed regularly

Earthen Component: Bottom of Basin
Mowed regularly good condition Underdrain appears to be working properly.

Earthen Component: Spillway
Spillway swale is mowed regularly and is in good condition

Structural Component: Outlet Structure
Inflow ew: minor sediment present. Overall good condition.
Basin outflo structure has minor vegitation blocking grate.

Structural Component: Upstream Collection
Leafs present in inlet.
Swale is in good condition. Partial silt is present in the upstream collection.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Upstream Collection



Photo No. 2: Outlet Structure



Photo No. 3: Bottom of Basin



Photo No. 4: Spillway



Photo No. 5: Berm



Photo No. 6: Outlet Structure



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB14.7

NPDES Permit #

Inspection Date	Time	Investigator
09/23/16	12:45PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
67 °F			Clear

Overall (Good Condition)

Basin is in very good condition, upstream collection system rip rap apron needs addressed.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
The inside of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
The top of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Excellent)
The downslope of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it's mowed and well maintained.

Earthen Component: Spillway (Excellent)
The spillway is in excellent condition, it's mowed and well maintained. The rock section is free from and sediment or vegetation.

Structural Component: Pipe (Good)
The pipe is in good condition it's free from sediment.

Structural Component: Outlet Structure (Good)
The outlet structure is in good condition, it's free from any erosion or sediment issues,

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Fair)
The upstream collection system is in fair condition, the rip rap apron is full of sediment.

Recommendations

1. Remove sediment build up from upstream collection system rip rap apron.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top & Down slope



Photo No. 3: Earthen Component: Bottom of Basin



Photo No. 4: Earthen Component: Spillway



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure



Photo No. 7: Structural Component: Outlet Structure endwall



Photo No. 8: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB14.6			
Inspection Date	**Time**		**Investigator**
09/23/16	1:25PM		Anthony D. Lain
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
84 °F			Clear

Overall (Good Condition)

The basin is in good condition, there some sediment issues with both the outfall and the upstream collection system.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
Inside of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
The top of the berm is in excellent condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Excellent)
The berm downslope is in excellent good, it's mowed and well maintained there is a sink but it has already been marked.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it's mowed and well maintained.

Earthen Component: Spillway (Excellent)
The spillway is in excellent condition, the top is mowed and well maintained the bottom is rock and free of sediment.

Structural Component: Pipe (Good)
The outlet structure pipe is in good condition, there is no sediment present.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition, the structure from the basin is in good condition. The endwall has sediment in the mouth and the rip rap apron has almost been completely covered by sediment and vegetation.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
The upstream collection system is in poor condition. The rip rap apron and the upstream inlet are full of sediment

Recommendations

1. Remove sediment from the outfall rip rap apron along with the upstream inlet and upstream collection system rip rap apron.

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Earthen Component: Berm, Downslope



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Outlet Structure endwall



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection inlet



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADBBMP14.1			
Inspection Date	**Time**	**Investigator**	
09/23/16	1:50PM	Anthony D. Lain	
Temperature	**24 Hr Rainfall**	**48 Hr Rainfall**	**Weather**
85 °F			Clear

Overall (Good Condition)

Basin is in good condition it is well maintained.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside berm is in good condition, some areas are mowed some are not overall the inside of the berm is well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The downslope of the berm is in good condition, some areas are mowed some are not overall the downslope of the berm is well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, some areas are mowed some are not overall the bottom of the basin is well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition to erosion is present on either side.

Structural Component: Pipe (Good)
Outfall pipe is in good condition, there is no sediment present.

Structural Component: Outlet Structure (Good)
There is no evidence of erosion or sediment issues around the headwall of the outlet structure. Outlet structure endwall is clear of sediment in both the pipe and rip rap apron. There is standing water present in the rip rap apron.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Good)
Upstream collection system endwall 1, 2, 3, 4 and 5 are in good condition, both the pipe and the rip rap apron are free from sediment and erosion.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Spillway



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Outlet Structure endwall



Photo No. 10: Structural Component: Outlet Structure endwall rip rap apron



Photo No. 11: Structural Component: Outlet Structure endwall pipe



Photo No. 12: Structural Component: Outlet Structure inlets



Photo No. 13: Structural Component: Upstream Collection endwall 1



Photo No. 14: Structural Component: Upstream Collection endwall 2



Photo No. 15: Structural Component: Upstream Collection endwall 3



Photo No. 16: Structural Component: Upstream Collection 4



Photo No. 17: Structural Component: Upstream Collection endwall 5



Photo No. 18: Basin overall from endwall 5.jpg



Photo No. 19: Basin from endwall 4.jpg



Photo No. 20: Basin from endwall 2&3.jpg



Photo No. 21: Basin from endwall 1.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB23.14			

Inspection Date	Time	Investigator
09/27/16	12:55PM	Anthony D. Lain

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
54 °F	0.22 in.	0.22 in.	Clear

Overall (Good Condition)

The main portion of the basin is in good condition. There is a sediment issue in the upstream collection system.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it's mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it's mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the basin is in good condition, it's mowed and well maintained.

Earthen Component: Spillway (Good)
The spillway is in good condition, it's mowed and well maintained.

Structural Component: Pipe (Good)
The pipe is in good condition, it's free from any sediment buildup.

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. Both the headwall and endwall rip rap aprons are full of sediment.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Upstream collection swale is in good condition it is mowed and well maintained. Upstream collection system 1 is in poor condition. The mouth of the endwall is full of sediment, sediment has started to back up into the pipe. There is standing water and sediment in upstream inlet. Runoff from parking lot is causing erosion around the one wing of the endwall.

Recommendations

1. Remove sediment from in from of upstream endwall, in the pipe and the upstream inlet.
2. Add rip rap apron in front of upstream endwall.
3. Remove sediment from outlet structure rip rap apron headwall and endwall.

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Downslope



Photo No. 4: Earthen Component: Bottom of Basin



Photo No. 5: Earthen Component: Spillway



Photo No. 6: Structural Component: Outlet Structure endwall



Photo No. 7: Structural Component: Outlet Structure headwall



Photo No. 8: Structural Component: Upstream Collection inlet



Photo No. 9: Structural Component: Upstream Collection



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Basin Overall.jpeg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB41.13			

Inspection Date	Time	Investigator
12/29/16	3:30PM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
42 °F	0.17 in.		Mostly Cloudy

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed along with some trees on one side. The other side has a paved and curbed parking lot.

Earthen Component: Berm, Downslope (Good)
Down slope is grass that is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained.

Earthen Component: Spillway (Good)
Spillway is rock and in good condition, no signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, riprap apron is present and in good condition.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is from inflow pipe from parking lot. Riprap apron is present and in good condition. Also, two PVC pipes from roof drains are present. No signs of erosion form inflow.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection



Photo No. 12: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
UDB33.2

NPDES Permit #

Inspection Date
11/14/14

Time
12:45PM

Investigator
DAH

Temperature
39 °F

24 Hr Rainfall

48 Hr Rainfall

Weather
Partly Cloudy

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Structural Component: Upstream Collection
Good, dry No silt was present in the upstream collection.

Recommendations

None

Prepared By CSDatum

BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
CW33.2

NPDES Permit #

Inspection Date	Time	Investigator
11/14/14	12:00AM	DAH

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Stable

Earthen Component: Berm, Top
Stable

Earthen Component: Berm, Downslope
Stable

Earthen Component: Bottom of Basin
Mowed

Earthen Component: Other
Inflow stable

Structural Component: Outlet Structure
Dry

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Bottom of Basin



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB33.19			

Inspection Date	Time	Investigator
12/30/16	8:55AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F	0.17 in.	0.17 in.	Clear

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained. Some trees are planted around the berm.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained. On side there is a street that is paved and curbed.

Earthen Component: Berm, Downslope (Good)
Downslope is wooded area with established tree me shrub growth.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained. Some large trees grow in the basin bottom, they are well maintained.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained. No signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, riprap is in place on both sides. No signs of erosion are present.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is inflow pipes from roadway inlets. The inflow pipes are in good condition, no signs of erosion due to inflow.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
ADB33.19			

Inspection Date	Time	Investigator
12/30/16	8:55AM	Ryan G. Martin

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
33 °F	0.17 in.	0.17 in.	Clear

Overall (Good Condition)

Basin is in good condition, no signs of erosion are present.

Components

Is BMP in E&S Mode?
Basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
Inside of berm is grass that is mowed and well maintained. Some trees are planted around the berm.

Earthen Component: Berm, Top (Good)
Top of berm is grass that is mowed and well maintained. On side there is a street that is paved and curbed.

Earthen Component: Berm, Downslope (Good)
Downslope is wooded area with established tree me shrub growth.

Earthen Component: Bottom of Basin (Good)
Bottom of basin is grass that is mowed and well maintained. Some large trees grow in the basin bottom, they are well maintained.

Earthen Component: Spillway (Good)
Spillway is grass that is mowed and well maintained. No signs of erosion are present.

Structural Component: Pipe
N/a

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, riprap is in place on both sides. No signs of erosion are present.

Structural Component: Cleanouts
N/a

Structural Component: Upstream Collection (Good)
Upstream collection is inflow pipes from roadway inlets. The inflow pipes are in good condition, no signs of erosion due to inflow.

Recommendations

None

Prepared By CSDatum

Photo No. 1: Earthen Component: Berm, Inside



Photo No. 2: Earthen Component: Berm, Inside, Top



Photo No. 3: Earthen Component: Berm, Top



Photo No. 4: Earthen Component: Berm, Downslope



Photo No. 5: Earthen Component: Bottom of Basin



Photo No. 6: Earthen Component: Bottom of Basin



Photo No. 7: Earthen Component: Spillway



Photo No. 8: Structural Component: Outlet Structure



Photo No. 9: Structural Component: Outlet Structure



Photo No. 10: Structural Component: Upstream Collection



Photo No. 11: Structural Component: Upstream Collection



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB12.3

NPDES Permit #

Inspection Date	Time	Investigator
09/07/16	9:00AM	Tomas M Matias

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
			Clear

Overall (Good Condition)

The basin is in good condition the area is well maintained.

Components

Is BMP in E&S Mode?
No the basin is not in E&S mode.

Earthen Component: Berm, Inside (Excellent)
The inside of the berm is in excellent condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Excellent)
The top of the berm is in excellent condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Excellent)
The berm downslope is in excellent condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Excellent)
The bottom of the basin is in excellent condition, it is currently being used as sports fields.

Earthen Component: Spillway (Good)
Rock spillway is in good condition, it is free from erosion or vegetation issues.

Structural Component: Pipe
N/A

Structural Component: Outlet Structure (Fair)
The outlet structure is in fair condition. There is some vegetation overgrowth downstream of the outlet structure outfall. There is erosion downstream of the outfall that needs to be corrected.

Structural Component: Cleanouts
There are three manholes at the outlet structures.

Structural Component: Upstream Collection (Good)
The upstream collection system is in good condition. The flow to the basin is from sheet flow from school sports field.

Recommendations

None

Prepared By CSDatum

Photo Log

Photo No. 1: Earthen Component: Spillway



Photo No. 2: Structural Component: Outlet Structure 1



Photo No. 3: Structural Component: Outlet Structure 2



Photo No. 4: Structural Component: Outlet Structure Endwall



Photo No. 5: Structural Component: Outlet Structures Downstream



Photo No. 6: Basin and clean out Manhole.jpg



Photo No. 7: Basin.jpg



Photo No. 8: Structural Component: Outlet structure
Downstream erosion



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID			NPDES Permit #
Inspection Date 09/08/16	**Time** 1:30PM		**Investigator** Tomas M Matias
Temperature 91 °F	**24 Hr Rainfall** 0.5 in.	**48 Hr Rainfall** 0.5 in.	**Weather** Clear

Overall (Good Condition)

Basin is in good condition there are minimal issues with sediment and vegetation in the upstream collection system.

Components

Is BMP in E&S Mode?
No basin is not in E&S mode.

Earthen Component: Berm, Inside (Good)
The inside of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Top (Good)
The top of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Berm, Downslope (Good)
The berm downslope is in good condition, it is mowed and well maintained.

Earthen Component: Bottom of Basin (Good)
The bottom of the berm is in good condition, it is mowed and well maintained.

Earthen Component: Spillway (Good)
The concrete spillway is in good condition, no areas of erosion are present.

Structural Component: Pipe

Structural Component: Outlet Structure (Good)
Outlet structure is in good condition, no issues with sediment or erosion.

Structural Component: Cleanouts
N/A

Structural Component: Upstream Collection (Poor)
Endwall from street blocked with sediment and apron is covered. Rock swale covered in vegetation.

Recommendations

1. Remove sediment from upstream collection system inlet and endwall.
2. Remove vegetation from upstream collection system rock swale.

Prepared By CSDatum

Photo Log

Photo No. 1: Basin.jpg



Photo No. 2: Structural Component: Upstream Collection



Photo No. 3: Earthen Component: Spillway



Photo No. 4: Structural Component: Outlet Structure



Photo No. 5: Structural Component: Upstream Collection



Photo No. 6: Basin.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
ADB14.19

NPDES Permit #

Inspection Date	Time	Investigator
12/19/14	10:30AM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
35 °F			Overcast

Overall (Good Condition)

No comments

Components

Is BMP in E&S Mode?
No

Earthen Component: Berm, Inside
Grass mowed regularly. Good condition

Earthen Component: Berm, Top
Grass mowed regularly. Good condition

Earthen Component: Berm, Downslope
Grass mowed regularly. Good condition

Earthen Component: Bottom of Basin
Grass mowed regularly. Good condition

Earthen Component: Spillway
Moderate sized cracks througout concrete cap. Northern and western edges have luffed off sections. Upper edge of lower gabian mesh has rolled up.

Structural Component: Pipe
Good. Condition

Structural Component: Outlet Structure
Basin discharge : good condition
Outlet structure is in good condition with only very minor debris along base of trash grate.
South inflow ew has been removed
The west inflow ew is being undermined along front. Minor accumulation of debris has established around ew. Minor sink hole is forming at end of rip rap.
West inflow pipe has minor erosion along sides of rip rap. Pipe is extended to far out into the air and the end of the pipe is stripping.
North inflow ew: minor scour at end of endwall. Bottom of concrete of ew is exposed but not undermining at this time.

Recommendations

1. remove debris from rip rap
2. fill in voids at the west inflow ew

Prepared By CSDatum

Photo Log

Photo No. 1: Spillway



Photo No. 2: Bottom of Basin



Photo No. 3: Berm



Photo No. 4: Outlet Structure basin discharge.



Photo No. 5: Spillway



Photo No. 6: Outlet Structure



Photo No. 7: Outlet Structure



Photo No. 8: Outlet Structure



Photo No. 9: Outlet Structure



Photo No. 10: Outlet Structure



Photo No. 11: 1419004993831-731141160.jpg



BMP Inspection
MANHEIM TOWNSHIP-LANCASTER

BMP Name/ID
BMP13.2

NPDES Permit #

Inspection Date	Time	Investigator
11/04/14	12:35PM	rmb

Temperature	24 Hr Rainfall	48 Hr Rainfall	Weather
66 °F			Sunny

Overall (Fair Condition)

Erosion and sink holes present.

Components

Is BMP in E&S Mode?
No

Earthen Component: infiltration trench
Clear of debris. Erosion present at end of trench. Sink hole present at upper end of stone. Exposed hole is 1ftx1ft but open area below is much larger. Inflow swale is in good condition.

Recommendations

1. repair erosion at end of trench
2. fill in sink hole

Prepared By CSDatum

*NOTE INSPECTION FOR BMP4.2 TOOK PLACE DURING INSPECTION FOR BMP13.2

Photo Log

Photo No. 1: 1415123024337-1092472064.jpg



Photo No. 2: 1415123048567-115576433.jpg



Photo No. 3: 1415123103952-1228344125.jpg



Photo No. 4: 1415123119175-1253279889.jpg

