SECTION G - SELECT BMPs TO ACHIEVE THE MINIMUM REQUIRED REDUCTIONS IN POLLUTANT LOADING

Langhorne Manor Borough has identified the minimum required reductions in pollutant loading for each watershed:

Watershed	Required 10% Sediment Reduction (lbs/year)	Required 5% Phosphorus Reduction (lbs/year)	Required 3% Nitrogen Reduction (lbs/year)
Mill Creek	7,326	7	69
Neshaminy Creek	10,378	10	120
Total	**17,704**	**17**	**189**

To achieve these reductions, Langhorne Manor Borough has identified a variety of potential stormwater BMPs, described below, that could be implemented to achieve the required pollutant reductions over the next 5-year permit term.

BMP Option 1: Bioswale - Station Avenue

The Borough could retrofit approximately 1,761 LF of existing roadside swales into bioswales. These swales are located on both sides of Station Avenue and convey upland stormwater runoff to an UNT of the Neshaminy Creek (Chubb Run) in the Neshaminy Creek Watershed. The total contributing drainage area to these swales is 38.5 acres which includes 5.41 acres of impervious area and 28.07 acres of pervious area. The calculated pollutant load reductions for this BMP are as follows:

Sediment: 13,903 lbs/year
Phosphorus: 27 lbs/year
Nitrogen: 494 lbs/year

BMP Option 1a: Vegetated Swale - Station Avenue

Rather than converting the existing swales identified above into bioswales, the Borough could retrofit the swales into vegetated swales. The calculated pollutant load reductions for this BMP are as follows:

Sediment: 12,165 lbs/year
Phosphorus: 16 lbs/year
Nitrogen: 317 lbs/year

BMP Option 1b: Infiltration Trench - Station Avenue

Another option for the Borough, would be to construct stone infiltration trenches to replace the existing swales. The calculated pollutant load reductions for this BMP are as follows:

Sediment: 16,509 lbs/year
Phosphorus: 31 lbs/year
Nitrogen: 600 lbs/year