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V2B1 MAINTENANCE

STORAGE CAPACITY AND CLEANOUT FREQUENCY

Recommended practice for the V2B1 is to plan on semi-annual inspections and annual pumpout based on the following general design guidelines:

(1) Sediment Sump -- the rate at which the sump fills will depend on site activities (e.g., heavy winter sanding will create extra sediment, while regular sweeping will reduce accumulation). Based on 1992 NURP studies, Environment 21 recommends using 0.2 cy/acre pavement per year for initial estimates of sediment accumulation from commercial areas and retail parking areas. This value is used by Environment 21 to size the V2B1 sediment sump to provide storage for several years of sediment runoff.

(2) Floatables Chamber -- oil sheen and floating debris are assumed to accumulate at a rate of 5.0 gal/yr/acre of pavement. This value is used by Environment 21 to design for a stored floatables depth of less than one inche inch within a 1-yr period.

SEDIMENT CHAMBER INSPECTION

During the first year of operation, Environment 21 recommends inspections in February, May, and October. This inspection schedule can be modified in subsequent years according to experience and/or to meet specific stormwater permit requirements.

Cast iron manhole frame with vented cover is provided in the manhole roof to make the sediment pile readily accessible for measurement and cleaning. Sediment should be removed when the top of this pile is 6”-12” deep. The normal water surface elevation in sediment sump will be 4.5-5 ft above the floor sediment chamber.

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During routine inspections, water depth above the sediment may be determined by slowly lowering a measuring rod with 6-in diameter end plate (used to gently compact the top of the sediment pile) A stadia rod and flashlight are useful for this procedure. Dusting the rod beforehand will clearly show the depth to the sediment pile as the wet portion of the rod. The measuring rod must be carefully lowered to limit sediment pile compaction to 1-2 inches.

FLOATABLES CHAMBER INSPECTION

The depth of oil sheen and floating debris can be estimated using visual inspection while gently stirring the water surface in the floatables chamber. This depth will typically be less than two inches and floatables can be skimmed from the surface.

Organic debris that has become waterlogged and settled to the floor of the chamber can be assumed to be present in relatively small quantities that may need to be removed annually.

PUMPOUT

Pumpout of the V2B1 is achieved using standard truck-mounted sewer and catch basin cleaners with positive displacement rotary lobe vacuum pumps and 8-in diameter suction hose. Manhole openings provide access to both the sediment and floatable chambers. Site Plans for the project should provide driveway area for truck access

DISPOSAL OF WASTEWATER, SEDIMENT, AND FLOATABLES

Commercial and retail sites are usually adjacent and tributary to public stormwater systems, and accordingly pumper truck contents should be delivered to a disposal facility equivalent to that used by the local Highway Department. For industrial sites, pumper truck contents should be delivered to a disposal site approved by the owner of the industrial site.