Storm Drain Cleanout

- periodic removal of gross solids from storm drain catch basins
  - may include organic debris, litter, coarse sediments
  - Unaltered basin or with installed device
- Wet weight of removed solids converted to labile weight N & P
Storm Drain Cleanout

• Potentially useful at all basins
  • Location, size, drainage area, tree canopy, tree species
• Comply with Existing Development rules
• Conversion factors
  • 0.00207 lb labile N / lb wet weight
  • 0.00014 lb labile P / lb of wet weight
• Range available
  • labile TN 0.10 to 11 lb/ac/yr
  • labile TP 0.01 to 1 lb/ac/yr for
Responsibilities include

- Collection of solids
- Weighing of solids
- Disposal of solids
- Annual Reporting includes weight per location per collection
Constraints

• Not for street sweeping, streetside leaf pickup, instream devices, or removal of leaves and other gross solids from ditches, gutters, or swales.
Design / Installation Guidance

• Dependent upon manufacturer guidelines

• Location may determine highest collection potential

• Need to consider localized flooding
Storm Drain Cleanout

Operation and Maintenance

- Manufacturer’s guidelines
- Inspection and harvest as necessary, every 3 months
Annual Reporting

- types of devices
- the wet weight gross solids collected and total pounds of labile N and P removed per:
  - collection
  - site
  - annual total
- number of sites
- frequency of cleaning)
Design Specifications and Nutrient Accounting for
Storm Drain Cleanout

I. Summary

A. Description:
The practice of Storm Drain Cleanout involves the periodic removal of gross solids from storm
drain catch basins. Gross solids may include organic debris, litter, or course sediments. Gross
solids may be collected from unaltered catch basins, or catch basins with gross solids collection
devices installed. Devices are designed to alter catch basins such that they store more gross
solids than unaltered catch basins. To determine the nutrient removal credit, the wet weight of
gross solids removed is converted to a representative labile weight of nitrogen and phosphorus
removed from the system.

B. Utility:
The practice is potentially useful in any stormwater collection setting involving structural inlets
and may also provide ancillary pollutant removal benefits. Credit is directly quantified,
proportional to the amount of gross solids collected. Targeted placement of collection devices in
storm drains receiving the greatest gross solids loads can increase practice efficiency. This would
include areas with the greatest tree canopy or outfalls with the highest sediment or debris loads.

C. Applicability:
This practice applies toward compliance with Existing Development rules and may be
implemented by local governments. Use in new development settings would require adoption of
the practice by the NC Division of Energy, Mineral, and Land Resources stormwater permitting
program.

D. Credit Overview:
To obtain nutrient reduction credits for this practice, the wet weight of gross solids collected is
measured, and conversion factors of 0.00207 lb T N/lb and 0.00042 lb T P/ lb of wet weight gross
solids are applied to determine the weight of labile N and P removed from the system. Gross
solids collection shall occur at a (target) minimum frequency of every 3 months to avoid
leaching significant amounts of nitrogen or phosphorus and thereby merit the assigned credit
factors (though this frequency is watershed dependent).