

## **Estimating Stormwater Runoff**

Acushnet Company  
Ball Plant III  
215 Duchaine Blvd  
New Bedford, MA 02745

- **Stormwater Management**

Post Project Hydrologic Budget  
EQUALS  
Pre-Project Hydrologic Budget

- **Method Used to Estimate Runoff Volumes and Rates**

- SCS Curve Number
- TR-20
- TR-55

- **Estimate Runoff Curve Numbers**

- CN's
- Composite Curve Number

- **Areas Associated with Each CN**

**HGS Soil Group – No Change**

**Surface Cover – No Change / Minor Modification**

**Precipitation Properties – No Change**

**Return Period/Frequency – No Change**

## **CATCHMENT 2**

- The 2008 drainage calculations included 10,454 SF or .24 acres of proposed building construction to occur in catchment area 2. The corresponding weighted runoff curve number (CN) for this area was 94.34 rounded to 94.
- The actual 2008 building construction was less than that proposed and was 8,618 SF in total. The corresponding CN is 94.28 due to less area and is rounded to 94.
- The proposed 2022 project adds a total of 1,696 SF to the 2008 building for a total of 10,314 SF. The weighted CN for the project currently proposed is 94.33 due to the increase in area is and is rounded to 94. The original 2008 calculations included 10,454 SF of building. The 2022 project involves 10,312 SF.

## **CATCHMENT 3**

No change to the 2008 catchment area or CN's as compared to the present project. The new project will involve resurfacing of the existing paved surfaces.

## **SUMMARY**

On a curve number and area basis the original 2008 calculations included building square footage that was not constructed. The stormwater management system constructed and modified in 2008 was based on the proposed building construction and essentially was overbuilt to accommodate the original building program of 10,454 SF.

The current project planned for the site will not increase building or impervious area beyond what was originally planned for in 2008, 10,314 SF is currently proposed. Consequently, the stormwater management system was constructed to the design parameters established in 2008, the size of which accommodates this project.