

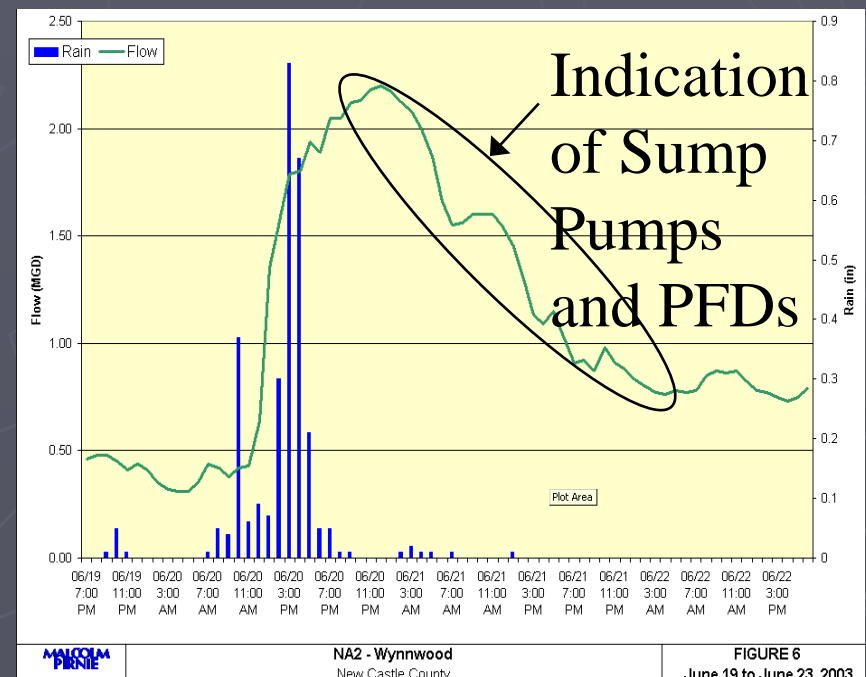
Clearwater Removal Program

December 1, 2009

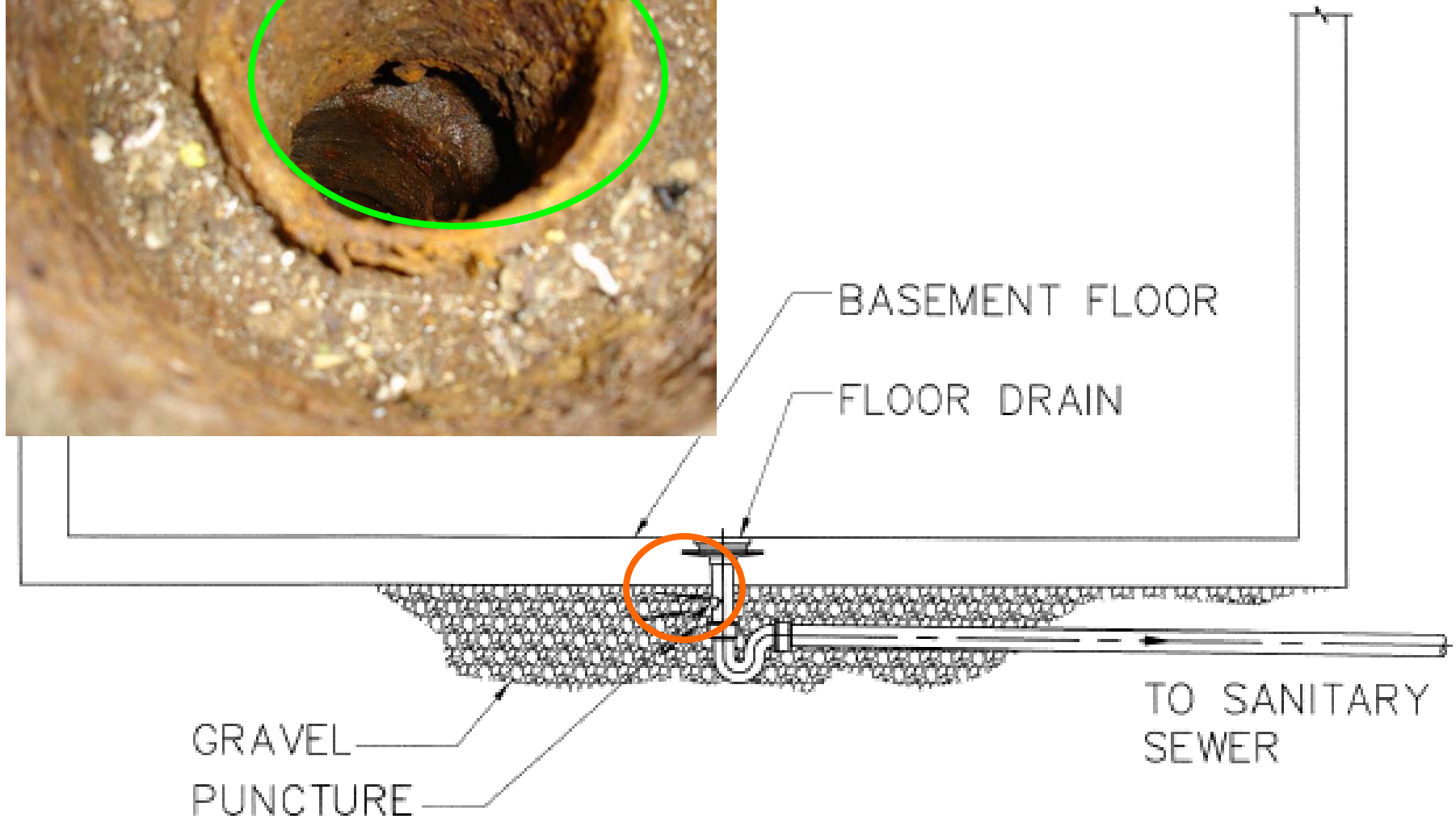


What is a clearwater connection?

- ▶ A connection that conveys groundwater or stormwater into the sanitary sewer:
 - Sump Pump
 - Roof Drain
 - Punctured Floor Drain
 - French Drain



Punctured Floor Drain



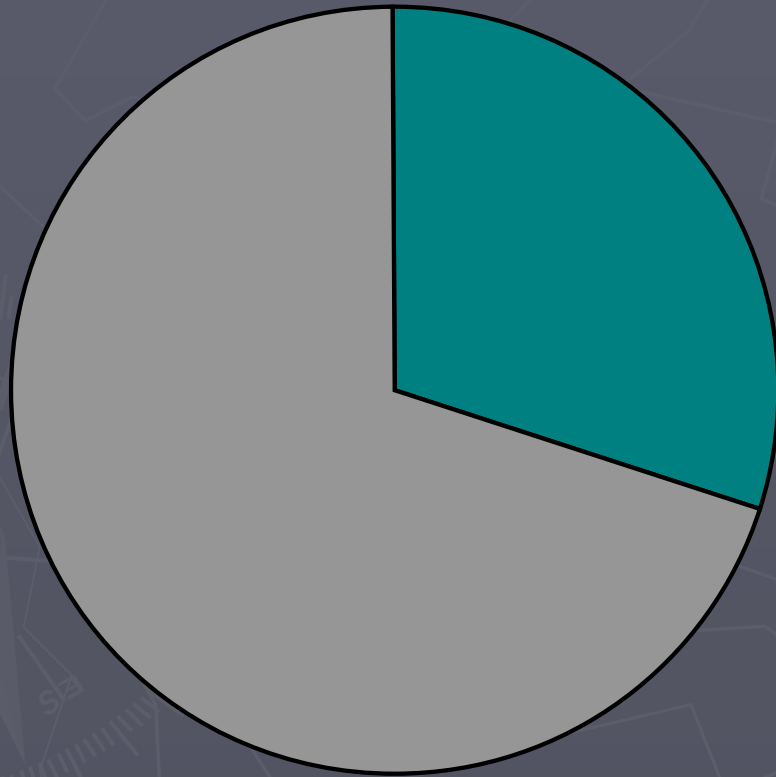
Sump Pump



County Code

- ▶ Clearwater connections to sanitary sewer are prohibited per Chapter 6, Article 7 of the New Castle County Code:
 - "It shall be unlawful for any person to connect sump pump, French drains, area drainage, storm drainage, roof drainage, swimming pool drainage, or drainage from any device directly or indirectly into any public or private sewer..."

~1/3 of Peak Flow from Brandywine Hundred comes from Residential Clearwater Connections



- *Normal Flow to Wilmington on Dry Day – 53 MGD*
- *Water Farm No. 1 Capacity – 1.8 MGD*
- *Brandywine 100 Clearwater – 25 to 50 MGD*

Cost Comparisons – 28 MGD

- ▶ Convey and Treat - \$189M
- ▶ Storage - \$122M
- ▶ Sewer Rehab - \$84M
- ▶ Clearwater (NCC pays an incentive) - \$5M