Wastewater Design Issues

Sanitary Sewer Design
- Gravity Sewer
  - Peak wastewater flows
  - I/I allowance
  - Conservative design

Sanitary Sewer Design
- Alternative Sewer System
  - Vacuum Sewer/Pressure Sewer
  - Peak wastewater flows
  - Provisions for standby power

Wastewater Pumping Stations
- Peak Design Flows
- Multiple Units
- Accessible under all weather conditions

Wastewater Pumping Stations
- 100-year flood: Structure and equipment protected
- 25-year flood: Fully operational and accessible
- Withstand earthquake loads
- Protection against buoyancy (flotation)
- Standby power
**Wastewater Treatment Plants**
- Design Flows – include stormwater flow if in a combined area
- Multiple units
- Accessible under all weather conditions

**Wastewater Treatment Plants**
- 100-year flood: Structure and equipment protected
- 25-year flood: Fully operational and accessible
- Protection of lab chemicals
- Withstand earthquake loads
- Protection against buoyancy (flotation)
- Standby power

**WWTP Outfalls**
- Protection during flooding and tidal conditions
- Prevention of backflow

**DEP SSO/Bypass Notification Form**
- Written report to DEP within 5 days
- Description of event
- Corrected?
- Future actions to reduce, eliminate or prevent reoccurrences
- Located at DEP website