

**COURSE NUMBER**

FHWA-NHI-135028

**COURSE TITLE****Highway Stormwater Pump Station Design**

This course provides detailed instruction in the design and analysis of highway stormwater pump stations including guidance on location and type selection. A major portion of the course is devoted to recommended hydraulic design procedures for sizing and optimizing the performance of stormwater pump stations and includes solving of classroom example problems. This course is also offered as a 1-day add-on to FHWA-NHI-135027 Urban Drainage Design.

Topics to be discussed include, site considerations, hydrology, storage, pump configuration, mass curve routing, pump selection, sump dimensions, and mechanical and electrical considerations.

**OUTCOMES**

Upon completion of the course, participants will be able to:

- Describe what a pump station is and where they are used
- Define the drainage area for a pump station and construct the resulting mass inflow curve
- Calculate the storage volume required for a pump station and discuss ways to acquire that volume
- Determine pump operational schedule and perform mass curve routing of the inflow hydrograph
- Calculate the size of the discharge line and select required pump size
- Define dimensions of the wet well and perform system evaluation
- Describe basic mechanical and electrical concepts important in pump station design
- Describe available pump station software

**TARGET AUDIENCE**

Highway designers or hydraulic engineers who have responsibility for the design and analysis of highway stormwater pumping stations, and managers who review pump station design projects. To derive the most benefit from this training, course participants should have knowledge of the fundamentals of highway hydrology, pavement drainage, stormdrain design, and open channel flow.

**TRAINING LEVEL:** Intermediate

**FEE:** 2017: \$350 Per Person; 2018: N/A

**LENGTH:** 1 DAYS (CEU: .6 UNITS)

**CLASS SIZE:** MINIMUM: 20; MAXIMUM: 30

**NHI Customer Service:** (877) 558-6873 • [nhicustomerservice@dot.gov](mailto:nhicustomerservice@dot.gov)