



LWRD License Application Engineering Report Cover Sheet

This Cover Sheet is a checklist of requirements that need to be completed and submitted with the engineering report. Please complete this checklist by identifying where each requirement listed is addressed in the engineering report (report title and page numbers). If an item is not applicable, place "NA" in the box. The engineer report must fully describe the design of the proposed facilities or other actions and the hydraulic and hydrologic effects thereof. This Cover Sheet is required to be signed and sealed by a professional engineer licensed in the State of Connecticut.

Stormwater Management

Engineering Report section title and page number	Requirement Description
	Description of the design storm frequency intensity, volume and duration
	Watershed maps, existing and proposed
	Computations for Tc
	Imperviousness calculations
	NRCS runoff curve numbers, volumetric runoff coefficients
	Computations used to determine peak runoff rates, and velocities for each watershed area (24-hour storm): <ul style="list-style-type: none"> • Stream Channel Protection: 1-year, 2-year frequency ("over-control" of 2-year storm) • Conveyance Protection: 10-year frequency • Peak Runoff Attenuation: 2-year, 10-year, 25 year, and 100-year frequency • Emergency Outlet Sizing: safely pass the 100-year frequency or larger storm
	Hydrograph routing calculations
	Description, schematics, and calculations for drainage and stormwater management systems
	Infiltration rates, geotechnical information, test pit data, perc test data, conductivity testing data
	Documentation of sources
	Electronic files in native format for any computer modelling generated for analysis.

Stormwater Management

Engineering Report section title and page number	Requirement Description
	Detention basin analysis including timing and duration of expected outflow, stream stability analysis and hydrograph summation
	Erosion & sedimentation calculations for any engineered measures
	Calculations for any engineered water quality treatment measures

Floodway/Floodplain Assessment

Engineering Report section title and page number	Requirement Description
	Description of existing and proposed conditions upstream and downstream of the proposed activity
	For any bridge or culvert placement or replacement with a drainage area of 100 acres or more, plan sheets showing the existing and proposed inundation area for the 2, 10, 25, 50, and 100 year discharges, carried to convergence
	Flood Contingency Plan
	A description and analysis of the floodplain modifications required to restore any flood conveyance and flood storage capacity
	Demonstration that backwater from the proposed activity will not impact an existing dam, dike, detention, or similar structure
	Backup data and complete hydraulic analysis for proposed modifications to the floodplain including location plan and plot for sections, profile sheet, summary sheet (for riverine modeling, refer to: https://www.fema.gov/sites/default/files/2020-02/Hydraulics_OneDimensionalAnalyses_Nov_2016.pdf)
	Description, schematics, and calculations for bridges and culverts

Structures within a Coastal Floodplain

Engineering Report section title and page number	Requirement Description
	Longshore sediment transport impact report
	Wind, wave, load analysis for significant public access structures (Only for Flood Management Certification)
	Wind, wave, load analysis for flood and erosion control structures (e.g. seawalls, bulkheads, revetments, berms, jetties, etc.)
	Hydrologic / Hydraulic impact report for tide regulating / influencing structures (e.g. culverts, tidegates, flood berms / levees, etc.)

Professional Certification

For any engineering report submitted as part of the LWRD License application, the following certification must be signed and sealed by a professional engineer licensed to practice in Connecticut and submitted with the Engineering Report Cover Sheet.

"I certify that in my professional judgement, each requirement listed in the Engineering Report Cover Sheet has been addressed in the engineering report submitted as part of the LWRD permit application and that the information is true, accurate and complete to the best of my knowledge and belief.

This certification is based on my review of the engineering report.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes."

Signature of Professional Engineer

Date

Name of Professional Engineer (print or type)

P.E. Number (if applicable)

Affix P.E. Stamp Here
(if applicable)

