

NONPOINT SOURCE PLANNING GRANT



Department of
Environmental
Conservation

Dam Safety Engineering Design Report Outline

Engineering design reports for projects to for a Class C (high) or Class B (Intermediate) hazard dam, owned by a municipality. The engineering design report will include the proposed repair alternative that will bring the dam into conformance with [NYSDEC Guidelines for Design of Dams, Revised January 1989](#). Each engineering report will be developed in accordance with the [DOW TOGS 3.1.4 - Guidance for Dam Engineering Assessment Reports](#).

Required Elements

- I. **Cover Page** (project title, owner, prepared by, professional's stamp, and date)
- II. **Executive Summary:** Provide an overview of the project's purpose (i.e., what will be accomplished by implementing this proposed project?)
- III. **Projective Objectives:** Describe goals and objectives for the proposed dam safety project. Please include the overall anticipated benefits that this proposed project will have on the community. Indicate if this is a stand-alone dam safety project or if it is part of a larger initiative.
- IV. **Existing Conditions:** Include a detailed description of the current site conditions where the proposed project is located. Please include a project background description and history of the site.
- V. **Existing Conditions Graphic:** A site plan or diagram of the existing project site is required. It must include:
 - a. Engineer / Landscape Architect name; date and project title
 - b. North arrow / legend
 - c. Graphical scale (1 " = 10', 20', 30', 40', 50', 60' or 100')
 - d. Natural features located on site including wetlands, streams, steep slopes, and floodplains
 - e. Site features including streets, buildings, and/or other infrastructure
 - f. Site topography
 - g. Project location map / address (including nearest cross street)
 - h. Stormwater flowpath (also consider adjacent sites)
 - i. Nearest receiving waterbody
 - j. Location relative to the 100-year floodplain
 - k. Other site considerations (hotspots, brownfield remediation or other potential design issues at the site)
 - l. Location of any available boring logs, infiltration tests, or other subsurface investigations.

- VI. Project Description:** Provide a narrative that explains the proposed project and provides justification for the recommended dam safety project and why this proposed is being proposed. Please describe how this proposed project will bring the dam into conformance with NYSDEC Guidelines for Design of Dams.
- VII. Technical Analysis, document review and conclusions and recommendations:** Review of Hazard classification, data and records review, engineer's safety inspection, hydrologic and hydraulic evaluation, stability assessment, Emergency Action Plan review, Conclusions and Recommendations
- VIII. Alternatives Analysis with cost estimates:** include any alternatives project(s) that were evaluated. The report must include all model assumptions, model input and output data, and executable files.
- IX. Anticipated Regulatory Approval and Permits** (*list all that will apply, e.g. NYSDEC, NYSDOT, etc.*)
- X. Conceptual Site Plan:** A site plan or diagram of the project's conceptual design is required. It must include:
- a. Engineer / Landscape Architect name; date and project title
 - b. North arrow / legend
 - c. Graphical scale (1 " = 10', 20', 30', 40', 50', 60' or 100')
 - d. Location map
 - e. Natural and site features (wetlands, nearest waterbody, floodplains, steep slopes, streets, buildings, other infrastructure etc.)
 - f. Proposed dam safety project location
 - h. Site grading (proposed conditions)
 - i. Other design considerations
- XI. Project Schedule**
- XII. Site Photographs:** Photographs that are representative of existing site conditions.