



State of Connecticut

Environmental Review Checklist

Last Updated 02/25/2020

Instructions for Use:

The Environmental Review Checklist (ERC), as defined in Sec. 22a-1a-1(9) of the Regulations of Connecticut State Agencies (RCSA), is intended to assist state agencies in (1) determining whether a proposed action or category of actions requires public scoping, or (2) in recording an agency's initial assessment of the direct, indirect, and cumulative environmental effects of a proposed action at the completion of public scoping.

For the purposes of CEPA, an Action is defined in Sec 22a-1a-1(2) of the RCSA as an individual activity or a sequence of planned activities initiated or proposed to be undertaken by an agency or agencies, or funded in whole or in part by the state.

Completion of the ERC is only *required* as part of a sponsoring agency's post-scoping notice in which the agency has determined that it will not be preparing an EIE (Sec. 22a-1a-7(d) of the RCSA).

In all other instances, the sponsoring agency has the option to use this form or portions of it, in conjunction with the applicable Environmental Classification Document (ECD), as a tool to assist it in determining whether or not scoping is required and to document the agency's review. This can be especially useful for an agency administering a proposed action that is not specifically represented in the ECD or which may have additional factors and/or indirect or cumulative impacts requiring further consideration.

Even if an agency ultimately determines that public scoping is not necessary, as a matter of public record OPM highly recommends that the agency internally document its decision, and its justification.

In completing this form, include descriptions that are clear, concise, and understandable to the general public.

Note that prior to reviewing a proposed action under the Connecticut Environmental Policy Act (CEPA), Connecticut General Statutes (CGS), Section 16a-31 requires agencies to review any proposed actions for the acquisition, development or improvement of real properties, or the acquisition of public transportation equipment or facilities, and in excess of \$200,000, for consistency with the policies of the State Plan of Conservation and Development (State C&D Plan).



State of Connecticut

Environmental Review Checklist

Last Updated 02/25/2020

PART I – Initial Review and Determination

Date:	February 27, 2023
Name of Project/Action:	Norwalk First Taxing District Grupes Reservoir Dam Rehabilitation
Project Location:	On Silvermine River, off Valley Road and Deep Valley Road in New Canaan
Affected Municipalities:	Norwalk and New Canaan
Sponsoring Agency:	Department of Public Health
Agency Project Number, if applicable:	N/A
Project Funding Source(s)/Program(s), if known:	Drinking Water State Revolving Loan Fund

Identify the Environmental Classification Document (ECD) being used in this review:

Generic, or Agency-Specific

An environmental assessment or environmental impact statement is being prepared pursuant to NEPA, and shall be circulated in accordance with CEPA requirements.

The proposed action requires a written review by the State Historic Preservation Office (SHPO) and/or Nation Tribal Historic Preservation Office (NATHPO). Include SHPO/NATHPO reviews as an attachment, or indicate the status of those reviews: *Indicate status of SHPO and/or NATHPO review.*

Based on the analysis documented in this Environmental Review Checklist (ERC), and in consideration of public comments, this agency has determined that the preparation of an Environmental Impact Evaluation (EIE) for the proposed action is not warranted. Publication of this document to the Environmental Monitor shall satisfy the agency's responsibilities under [Section 22a-1a-7 of the Regulations of Connecticut State Agencies](#) (RCSA).

Completed by: Lisette Stone, Environmental Analyst, Source Assessment and Protection Unit, DPH DWS

Note that prior to commencing a CEPA review, Connecticut General Statutes (CGS) Section 16a-31 requires state agencies to review certain actions for their consistency with the policies of the State Plan of Conservation and Development (State C&D Plan). Completion of this ERC assumes the agency has determined this proposed action to be consistent with the State C&D Plan.

PART II – Detailed Project Information

Description of the Purpose & Need of the Proposed Action:

The Norwalk First Taxing District (NFTD) is seeking financial assistance under the Drinking Water State Revolving Fund (DWSRF) program to fund constructive rehabilitation of the Grupes Reservoir Dam (Dam). Flooding events have surpassed the capacity of the Dam, compromising its stability and leading to overflows east of the Grupes Reservoir. A failure of the Dam would result in probable loss of life and major property damage to downstream properties, which could impact as many as 252 private properties located in the 5.4-mile area between the Dam and the Merritt Parkway to the south. In addition to flood control, this project is proposed with the intent to maintain security and integrity of the associated Grupes Reservoir, a public drinking water supply for more than 42,000 Norwalk and New Canaan residents. This project is necessary to ensure compliance with Dam Safety Regulations in Connecticut Department of Energy and Environmental Protection (DEEP) Regulations of Connecticut State Agencies (RSCA) § 22a-409-1 and -2 and § 22a-411a-1 and -2.

Description of the Proposed Action:

The project proposal includes raising the dam four (4) feet (ft) from an elevation of 302 ft to an elevation of 306 ft and capping it with cast-in-place concrete. Further actions to mitigate overtopping and flooding include re-grading of the Dam's abutments, existing access road and high ground, along with the construction of earthen embankments, parapet and retaining walls along the Eastern side of the Grupes Reservoir (together, the Project). In evaluating the environmental impact of the Project, DPH reviewed the following documents (collectively referred to as the Documents):

- GZA GeoEnvironmental, Inc. (GZA) letter dated November 15, 2021 to Florin Ghisa of DPH (GZA Letter)
- GZA report entitled "Rehabilitation of the Grupes Reservoir Dam Conceptual Design Report" dated April 2014 (GZA Conceptual Design Report)
- GZA's Dam Permit Application dated November 7, 2018 (DEEP Permit Application)
- DEEP Proposed Final Decision in the Matter of First Taxing District City of Norwalk, Application DS-201814638 dated April 6, 2021 (Proposed Decision)
- DEEP Final Decision in the Matter of First Taxing District City of Norwalk, Application No. DS201814638 (Final Decision).
- DPH September 19, 2022 Scoping Hearing Transcript (DPH Transcript)
- Letter from Attorney Janet Brooks to Eric McPhee dated September 22, 2022 (Brooks Letter)
- Norwalk River Watershed Association, Inc. letter to Eric McPhee dated September 23, 2022 (NRWA Letter)
- Memorandum from Margaret Minor to Eric McPhee dated August 5, 2022
- Memorandum from Margaret Minor to Eric McPhee dated September 21, 2022
- First Taxing District Water Department Comment Responses to Scoping Zoom Meeting for Grupes Dam on 9/19/2022 at 1:00 p.m. (NFTD Response to Public Comments)

- DPH Water Company Land Permit Application dated July 28, 2021 (WCL Permit Application)
- Transcript from September 19, 2022 Public Scoping Meeting (DPH Transcript)

Alternatives Considered:

Approaches to safely and effectively rehabilitate the Grupes Dam with minimal environmental impacts were carefully vetted during the engineering and planning process. NFTD’s engineer, GZA considered various alternative approaches, as set forth in GZA’s Conceptual Design Report and DEEP Permit Application at A3-A4. Those alternatives included:

1. No Action - determined to be not feasible due to the numerous documented deficiencies that must be addressed in order to prevent potential failure and resulting loss of life and property.
2. Postponing Action – determined to be not feasible for the same reason as no action.
3. Dam Breach/Removal – not considered a viable option as the impoundment serves as part of the water supply and distribution system for NFTD.
4. Dam Modifications – determined to be the most appropriate action. Modification alternatives considered included:

Spillway Capacity

- a. Designing for intentional overtopping of the Dam – not considered for additional analysis due to the Dam’s high hazard classification, age and stone masonry construction.
- b. Modify the primary spillway with bottom hinged crest gate – not considered for further design, as it involves significant modifications to the spillway in addition to mechanical / hydraulic systems that require manual operation during flood events.
- c. Modify the auxiliary spillway with a Fusegate System by HydroPlus, Inc. – not considered for further design, as Fusegates would require significant structural modifications to the spillway and are a “one-use” system that would require the units to be re-set after a flood event.
- d. Raising the top of the Dam to provide additional spillway capacity and freeboard – determined by GZA, in consultation with NFTD, to be the most efficient solution to address spillway capacity deficiency, as it also provides a means to increase freeboard for both still-water conditions and for wave run-up. In addition, this modification can be incorporated into the stability improvements of the Dam, noted below.

Stability

- a. Adding a concrete buttress downstream of the Dam – would require significant excavation below the toe of the Dam and not considered for final design due to potential interference with water distribution piping.
- b. Install passive dowel anchors within dam – considered during conceptual design. However, US Army Corps of Engineers discourages the use of passive anchors due to the amount of potential deformation required to engage passive resistance. In addition, the stone masonry

portion of the Dam may not be capable of distributing stabilizing forces from discrete anchors across the entire length. Therefore, passive anchors were not considered for final design.

- c. Install post-tensioned anchors within Dam – determined, by GZA and NFTD to be the most efficient solution to address stability deficiencies, as it not only increases resistance to sliding, but also overturning for both the full-height portions of the Dam (crest to bedrock) and partial-height sections (crest to downstream ground surface). Stabilizing forces are anticipated to be distributed along the entire Dam by the proposed concrete “cap” being installed to increase freeboard.

During the public scoping comment period and September 19, 2022 Public Scoping Meeting, alternative rehabilitation methods were proposed by the public. As set forth in the DEEP Proposed Decision at 12-13, these alternatives were found to not be viable as they would either:

- 1) Require for temporary storage of flood waters, the use of Land Trust property over which the Applicant has no authority or control, in violation of dam safety permitting requirements;
- 2) Impact the infrastructure downstream of the Dam, affect forested and wetland areas along the boundary between NFTD’s land and Land Trust property and use parts of the Dam structure that are in a weakened condition;
- 3) Remove more trees than the amount already of concern to the commenters, would not meet required elevations, and harm area wetlands by impacting water flow and impounding water during a ½ PMF storm; or
- 4) Allow flooding to occur at storms greater than the 25-year storm, as this is the level at which flow begins to leave the reservoir.

Public concerns or controversy associated with the proposed action:

During the public commenting period and the September 19, 2022 Public Scoping Meeting, concerns raised by private citizens, along with members and representatives of the New Canaan Land Trust (Land Trust) and the Norwalk River Watershed Association (NRWA) included: alteration of scenic views, impacts on local flora and fauna, loss of trees and native shrubs, impacts to adjacent wetlands and streamflow to the reservoir, existence of alternatives, whether “direct impacts” were properly evaluated, that further environmental review was warranted, that the Dam did not need to be raised, and that the Dam is not needed as a public water supply. The Department of Public Health reviewed such concerns and concluded that NFTD had carefully evaluated alternative approaches and selected the most feasible and prudent option to accomplish the Project goals with minimal environmental impacts. DPH’s evaluation of public concerns are set out in detail in the attached Memorandum.

PART III – Site Characteristics (Check all that apply)

- The proposed action is non-site specific, or encompasses multiple sites;
- Current site ownership: N/A, State; Municipal, Private,
 Other: Please Explain.
- Anticipated ownership upon project completion: N/A, State; Municipal, Private,
 Other: Please Explain.

Locational Guide Map Criteria:

<http://ctmaps.maps.arcgis.com/apps/webappviewer/index.html?id=ba47efccdb304e02893b7b8e8cff556a>

Priority Funding Area factors:

- Designated as a Priority Funding Area, including Balanced, or Village PFA;
- Urban Area or Urban Cluster, as designated by the most recent US Census Data;
- Public Transit, defined as being within a ½ mile buffer surrounding existing or planned mass transit;
- Existing or planned sewer service from an adopted Wastewater Facility Plan;
- Existing or planned water service from an adopted Public Drinking Water Supply Plan;
- Existing local bus service provided 7 days a week.

Conservation Area factors:

- Core Forest Area(s), defined as greater than 250 acres based on the 2006 Land Cover Dataset;
- Existing or potential drinking water supply watershed(s);
- Aquifer Protection Area(s);
- Wetland Soils greater than 25 acres;
- Undeveloped Prime, Statewide Important and/or locally important agricultural soils greater than 25 acres;
- Category 1, 2, or 3 Hurricane Inundation Zone(s);
- 100 year Flood Zone(s);
- Critical Habitat;
- Locally Important Conservation Area(s),
- Protected Land (list type): Enter text.
- Local, State, or National Historic District(s).

PART IV - Assessment of Environmental Significance – Direct, Indirect, And Cumulative Effects

Required Factors for Consideration (Section 22a-1a-3 of the RCSA)	Agency’s Assessment and Explanation
Effect on water quality, including surface water and groundwater;	Based on the Documents, the Project is not expected to cause significant impacts to water quality including groundwater and surface water.
Effect on a public water supply system;	Based on NFTD Response to Public Comments p 11, Grupes Reservoir was used in 2021 for public water supply and is routinely used as a during periods of drought. According to the WCL Permit Application Section F- #1 “there will be no significant changes to the impervious area of the watershed or on the recharge of the water supply sources” and Section F - #11 “[t]he project is designed to improve the safety of the dam and will not permanently alter the water source, surrounding vegetation or existing stormwater infrastructure.” WCL Permit Application at PDF pp. 15 and 18.
Effect on flooding, in-stream flows, erosion or sedimentation;	<p>Based on the Documents, the Project will reduce flooding. “Previous flooding events have caused water to overtop the Dam, impairing its stability and causing overflow from the Reservoir to the East Service Road and to other properties.” Proposed Decision at 5. One of the primary objectives of the DEEP Permit Application was to “manag[e] ½ PMF flood waters by holding the waters in the Reservoir and routing them over the dam spillway to prevent offsite and downstream flooding and the undermining of the Dam by flood waters.” Proposed Decision at 7.</p> <p>Based on WCL Permit Application at 23 the Project scope includes;</p> <ul style="list-style-type: none"> • Constructing an earthen embankment along east side of Grupes Reservoir and re-grading existing high ground and access road to mitigate overtopping/flooding; • Constructing parapet/retaining walls along east side of Grupes Reservoir to mitigate overtopping/flooding. <p>The Project will not have a significant effect on in-stream flows: As noted in the Proposed Decision at 10-11, “[t]he flow of water out of any wetlands on the Land Trust property will continue to the south along the east side of the service road onto the Applicant’s property.... The elevation of the wetlands indicates water will flow in the direction of the Reservoir rather than away from it. Waters that currently flow to these wetlands will continue to flow there after the completion of this project.”</p>

	The Project includes erosion and sediment control measures including straw bales, silt fencing, compost tubes and/or turbidity curtains. WCL Permit Application at 13.
Disruption or alteration of a historic, archeological, cultural, or recreational building, object, district, site or its surroundings; A. Alteration of an historic building, district, structure, object, or its setting; OR B. Disruption of an archeological or sacred site;	Based on the Documents, the Project is not expected to cause negative impacts.
Effect on natural communities and upon critical plant and animal species and their habitat; interference with the movement of any resident or migratory fish or wildlife species;	Based on the Documents, the Project is not expected to cause negative impacts. The site is not in a conservation or preservation restriction area, or an area identified as a habitat for endangered, threatened or special concern species. <u>See</u> Proposed Decision at 24, Final Decision at 14. Furthermore, as DEEP reasonably concluded, “[t]he resulting management of flooding will protect flora and fauna in area wetlands and watercourses.” Proposed Decision at 24.
Use of pesticides, toxic or hazardous materials or any other substance in such quantities as to cause unreasonable adverse effects on the environment;	Based on the Documents, the Project is not expected to cause adverse effects. WCL Permit Application Section F - #3 provides that “[t]he technical specifications also include specific requirements for the contractor to prevent spillage of oil and hazardous materials and to provide controls to prevent pollution to streams and other natural resources.” WCL Permit Application PDF p. 15.
Substantial aesthetic or visual effects;	Based on the Documents, the Project is not expected to cause substantial aesthetic or visual impacts. The view from the adjacent Land Trust Property will not be obstructed by the wall on the east side of the service road as the wall will be only 1-3 feet in that area. <u>See</u> Proposed Decision at 9 and DEEP Permit Application Figures C3 and C4, at PDF pp. 56-7.
Inconsistency with: (A) the policies of the State C&D Plan, developed in accordance with section 16a-30 of the CGS; (B) other relevant state agency plans; and (C) applicable regional or municipal land use plans;	The Project is consistent with the State of Connecticut’s Plan of Conservation and Development (POCD) including Growth Management Principles (GMP): <ul style="list-style-type: none"> • 1.1: “Ensure the safety and integrity of existing infrastructure over its useful life through the timely budgeting for maintenance, repairs and necessary upgrades” – POCD at 10 • 5.1: “ensure the availability of safe and adequate public water supplies that meet or exceed state and federal drinking water standards” – <u>Id.</u> 17

	<ul style="list-style-type: none"> • 5.2: “seek to prevent the loss of life and property by maintaining existing dikes, channels, dams, and other barriers” – <u>Id.</u> at 17 <p>In addition, the Project can serve as a performance indicator for measuring progress of the percentage of state capital investment in priority funding areas. GMP #1, <u>Id.</u> at 43</p> <p>The Project is also consistent with the City of New Canaan Adopted 2014 POCD Implementation Element, Part 2 Implementation Table - Maintain Environmental Health:</p> <ul style="list-style-type: none"> • A. Protect Water Resources and Water item 1. “Continue to protect water resources” <u>Id.</u> at 34 and; • D. Address Other Important Environmental Issues item 4. “Continue to seek opportunities to mitigate flooding.” <u>Id.</u> at 35.
<p>Disruption or division of an established community or inconsistency with adopted municipal and regional plans, including impacts on existing housing where sections 22a- 1b(c) and 8-37t of the CGS require additional analysis;</p>	<p>Based on the Documents, the Project is not expected to disrupt communities or housing.</p>
<p>Displacement or addition of substantial numbers of people;</p>	<p>Based on the Documents, the Project is not expected to displace any people.</p>
<p>Substantial increase in congestion (traffic, recreational, other);</p>	<p>Based on the Documents, the Project is not expected to cause any increase in congestion.</p>
<p>A substantial increase in the type or rate of energy use as a direct or indirect result of the action;</p>	<p>Based on the Documents, the Project is not expected to increase energy use.</p>
<p>The creation of a hazard to human health or safety;</p>	<p>Based on the Documents, the Project is not expected to create a hazard to human health and safety. To the contrary, upon completion the Project will provide protection from flooding for as many as 252 private properties between the Grupes Dam and Merritt Parkway to the south, preventing potential loss of life. <u>See</u> Final Decision at 2.</p>
<p>Effect on air quality;</p>	<p>Based on the Documents, the Project is not expected to affect air quality.</p>

Effect on ambient noise levels;	Based on the Documents, the Project is not expected to affect ambient noise levels.
Effect on existing land resources and landscapes, including coastal and inland wetlands;	<p>Based on the Documents, there will be only minimal effect on existing land resources and landscapes and no effect on coastal wetlands. The effect on inland wetlands includes 3,340 square feet ("sf") of wetlands temporarily impacted by construction, but which will be restored following the construction work. Although 1,542 sf of wetlands will be permanently impacted, these wetlands have already been altered due to previous construction projects. Wetlands occupy only 0.002% of the 54-acre reservoir, exclusive of the Reservoir water. <u>See</u> Final Decision at 15-16.</p> <p>Based on the Proposed Decision at 10-11, wetlands on the adjacent Land Trust property as well as a wetland identified east of the proposed service road will not be permanently impacted by Project construction activities. Any potential impacts to wetlands would be due to grading changes along the east side of the service road and would not be significant. Elevation indicates that wetlands will continue to drain towards the reservoir following construction with flow unencumbered along the east side of the service road. Dam improvements will result in added overflow protection to the wetlands from the reservoir during a ½ Probable Maximal Flood (PMF) storm.</p>
Effect on agricultural resources;	Based on the Documents, the Project is not expected to affect agricultural resources.
Adequacy of existing or proposed utilities and infrastructure;	The Dam rehabilitation Project will improve existing infrastructure by addressing numerous deficiencies in the Dam structure. <u>See</u> , e.g., GZA Letter at 2-3.
Effect on greenhouse gas emissions as a direct or indirect result of the action;	Based on the Documents, the Project is not expected to create greenhouse gas emissions.
Effect of a changing climate on the action, including any resiliency measures incorporated into the action;	Based on the Documents, the Project will increase resiliency against changing climate in that it will allow the Dam to withstand greater floods that may associated with climate change.
Any other substantial effects on natural, cultural, recreational, or scenic resources.	Based on the Documents, the Project is not expected to cause negative impacts.
Cumulative effects.	The cumulative impacts of the Project are not expected to be significant.

PART V - List of Required Permits, Approvals and/or Certifications Identified at the Time of this Review

The Connecticut Department of Energy and Environmental Protection (DEEP) Dam Construction Permit approval, issued November 1, 2021, eliminates requirements for Inland Wetland and/or Planning and Zoning Municipal Permitting. The Connecticut Department of Public Health (CTDPH) will have final approval of design plans and specifications.

PART VI – Sponsoring Agency Comments and Recommendations

Based on the Documents listed in Part II, the Project is not one that may significantly affect the environment, and therefore, an Environmental Impact Evaluation (EIE) is not required under CEPA.

PART VII - Public Comments and Sponsoring Agency Responses:

DPH received public comments regarding the proposed rehabilitation of Grupes Dam during a Public Scoping Meeting, hosted virtually by the Department of Public Health on September 19, 2022, as well as during a 30-day public comment period terminating on August 5, 2022, as provided for in the Notice of Scoping for NFTD Grupes Dam Rehabilitation. The Department completed a review of public submissions and responses from NFTD, a summary of which is provided in the attached Memorandum to Lori Mathieu, DPH Branch Chief, Drinking Water and Environmental Health dated February 27, 2023. The public scoping meeting is available for viewing at: <https://youtu.be/EilQyQLooHk>