Summary of Scoping Comments & Responses

Preservation Connecticut provided written scoping comments from Jane Montanaro, Executive Director, dated December 14, 2021.		
Comment Number	**Comment**	**Response**
PCT ML #1	While Mirror Lake is not identified as a contributing resource in the National Register nomination, the nomination does recognize its significance to the campus plan. The document outlines the influence of Frederick Law Olmsted on Lowrie and notes that Olmsted's naturalistic and democratic concept of campus plans "...is realized in the Lowrie plan by the incorporation of such features as the man-make lake, which contributes to the park-like setting..." It is the opinion of Preservation Connecticut that Mirror Lake could qualify as a contributing resource in the University of Connecticut historic district. Based on that, evaluation of this project should thoroughly consider the lake's historical development and features and carefully review the proposed actions for their potential effects on its historic character.	The University fully appreciates the history of Mirror Lake and its significance as an important campus landmark and man-made stormwater detention facility. A landscape architectural firm with experience in cultural landscapes and contributing resources to historic districts has been retained to assist the engineer-led design team to balance program, aesthetics and function with qualitative and quantitative requirements for stormwater management. See Response to SHPO ML #1.

The State of Connecticut Department of Economic and Community Development, State Historic Preservation Office provided written scoping comments from Jonathan Kinney, State Historic Preservation Officer, dated December 15, 2021.		
Comment Number	**Comment**	**Response**
SHPO ML #1	SHPO understands the need for improvements to Mirror Lake and has no objections to the proposed quantitative projects. It is the opinion of our office that the dam and spillway modifications, as well as green infrastructure improvements for storm water management, will not impact the character defining features of this historic property. Based on prepared renderings presented at our referenced meeting, the proposed qualitative improvements will detract from the intended naturalistic design and rolling landscape. SHPO understands that these are project alternatives and strongly urges that, with the exception of the rain garden, they are not included as construction add-ons or alternatives. While the concrete promenade, pedestrian bridge, and pavilion all would detract from the deliberate design of Mirror Lake, it is possible that the proposed rain garden could be sympathetic to the historic intent. If the rain garden is pursued, our office requests the opportunity to comment on its design. With these recommendations taken into consideration, it is SHPO's opinion that there will be no adverse effect by the proposed Mirror Lake Improvement Project.	See Response to PCT ML #1. Conceptual design material from the referenced meeting is available at updc.uconn.edu/mirror-lake. As planned, the University will host a follow-up meeting with SHPO (and Preservation Connecticut) to further discuss the project and provide an opportunity to comment on design.

The State of Connecticut Department of Energy and Environmental Protection provided written scoping comments from Linda Brunza, Environmental Analyst, dated December 16, 2021.		
Comment Number	**Comment**	**Response**
CT DEEP ML #1	Planned activities would require a new Flood Management Certification since the current Flood Management Memorandum of Understanding (FM MOU) does not cover the Roberts Brook watershed. Alternatively, a new masterplan FM MOU for the Roberts Brook watershed could be established.	Noted for EIE and design development.
CT DEEP ML #2	The project as proposed may require an Individual 401 Water Quality Certification, Water Diversion, and Inland Wetlands permits from the Land and Water Resources Division. Other permit requirements have been identified in section 1.10 of the Mirror Lake Improvements Feasibility Study June 2021 report. The project team should confirm that the activities are eligible for a USACE GP (PCN) as stated in the report.	Noted for EIE and design development.
CT DEEP ML #3	The Mirror Lake improvement design shall be incorporated into the UConn Drainage Master Plan and should have capacity to treat and attenuate current and any future/expected increases in stormwater draining to it as a result of future UConn development. Overall, it is important that the improvements can adequately treat existing and any expected / future stormwater runoff in accordance with the CT Stormwater Quality Manual. It is noted that hydrodynamic separators (HDS) are proposed upstream of all inlets to the lake and that three (3) forebays will be incorporated to supplement sediment / pollutant capture. The type of HDS specified must be one that is included on the Department of Transportation's list of approved separators and must be sized to treat the Water Quality Flow draining to each unit. It will be critical to keep these units well maintained and in good operating condition. LWRD would be interested in having UConn conducting performance monitoring of these units as part of the overall treatment performance of the lake. The Lake itself should be designed as a Primary Stormwater Treatment Practice, specifically a Stormwater Pond as defined by the Stormwater Quality Manual and should incorporate all the design features / criteria specified in the manual, including appropriate sizing of forebays. Again, long term maintenance of these forebays will important and details as to how these will be maintained and provision for adequate access shall be assessed as part of any permit review.	Noted for additional review with DEEP during design development.
CT DEEP ML #4	A Performance Monitoring Plan for all plantings proposed as part of the lake (specifically those plantings that are expected to provide some Water Quality benefit), should be provided as part of any permit application to LWRD.	Noted for EIE and design development.

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	A full operations and maintenance plan for the lake and all stormwater features shall be included as part of any permit review, and UConn must include budget provisions for this long-term maintenance.	
CT DEEP ML #5	Alternatives for the dewatering area required during the hydraulic dredging should be provided for review. Ideally this area should be adjacent to the lake side on the opposite side of the lake from the outlet and permit gravity feed of dewatering waters back to the lake. Alternatives that require laying these areas adjacent to wetlands are less appealing and will require other protective measures. Other alternatives that require additional pumping of return waters will also present additional risk. A thorough water handling plan to be implemented during the mechanical dredge phase will be required as part of any permit application submitted to LWRD.	Multiple potential dewatering sites will be evaluated for overall feasibility including impacts to campus operations. A site visit will be scheduled with DEEP to review a preferred location.
CT DEEP ML #6	The project manager is strongly encouraged to contact the Department's Dam Safety Program to arrange for a pre-application meeting to discuss regulatory requirements. Please contact Ivonne Hall at Ivonne.Hall@ct.gov.	Noted as an action item for the Project Manager as well as the University's office of Environmental Health & Safety.
CT DEEP ML #7	The Mirror Lake rehabilitation project design and associated engineering planning should address documented surface water quality impairments in downstream Roberts Brook, the 1.7-mile-long tributary to the Fenton River. This should be detailed for both the construction and the post-construction periods. Roberts Brook (CT3207-12_01) has been assessed by this Department as Not Supporting for the designated use of Habitat for Fish, Other Aquatic Life and Wildlife Use support. The assessment does not have a listed cause for this use impairment.	Noted for EIE and design development.
CT DEEP ML #8	There is no watershed-based plan developed for the Roberts Brook watershed, or for the University's urban core campus contributing watershed to Mirror Lake. The University had developed a watershed response plan to the 2007 Eagleville Brook Impervious Cover Total Maximum Daily Load (TMDL) Analysis, followed by numerous structural and nonstructural best management practices, along with green stormwater infrastructure and landscape design elements across the core campus watershed for the westerly flowing Eagleville Brook. The University has learned a great amount of practical and effective measures to address increased flooding and stormwater quality management impacts to Eagleville Brook over the last decade. The current and forecasted University core campus development patterns indicate greater urbanizing pressures on the Roberts Brook subwatershed area. The University should fully utilize the lessons learned from the Eagleville Brook management plan, University sustainable design policies and implementation actions, and apply relevant elements to this	The University completed a Campus Drainage Master Plan in 2018 for the Roberts Brook and Eagleville Brook watersheds. A technical review was completed by DEEP in 2019.

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	Mirror Lake rehabilitation project. A project objective should provide for supportive actions towards restoring water quality standards to Roberts Brook.	
CT DEEP ML #9	The University should identify the percentage of the contributing watershed to Mirror Lake not under University ownership, and further address whether these other properties and potential increases in their impervious surface areas could be accommodated with the proposed stormwater retrofit practices and storage capacity of the rehabilitated Mirror Lake impoundment area. (Note this is also the same comment given by Eric Thomas at the public scoping meeting on December 8, 2021)	Noted for EIE and design development. An exhibit is available at updc.uconn.edu/mirror-lake.
CT DEEP ML #10	The preliminary project plans provide for greater community access to, and experiences with a rehabilitated Mirror Lake. The University should consider leveraging the highly visible aspects of this project with interpretive signage indicating the lake's location and linkages to the regional watershed.	Noted for EIE and design development.
CT DEEP ML #11	Natural Diversity Database (NDDB) maps represent the approximate locations of species listed by the State, pursuant to section 26-306 of the Connecticut General Statutes (CGS), as endangered, threatened or of special concern. The maps are a pre-screening tool to identify potential impacts to state listed species. The database shows that the project falls within one of the NDDB areas. The applicant is required to submit a Request for Natural Diversity Data Base (NDDB) State Listed Species Review Form (DEEP-APP-007) and all required attachments, including maps, to the NDDB for further review. Additional information concerning NDDB reviews, and the request form, may be found on-line at: NDDB Requests.	The NDDB review process has been completed. Correspondence from CT DEEP NDDB (01/07/2022) indicates that no negative impacts to State-listed species are anticipated.
CT DEEP ML #12	The Fisheries Division is supportive of the Mirror Lake Project and views it as an opportunity to enhance recreational fishing opportunities for students and members of the public. The deepening of the lake would provide additional habitat diversity and offer overwintering habitat for fish residing in the lake. The improvements to water quality and sediment management would also enhance the angling experience. It is recommended that CT DEEP fisheries and the UCONN fisheries program be contacted about recreational fishing opportunities in the lake, and the establishment of a fish community post construction. Project designs should include access areas for recreational angling that would be ADA compliant and allow all members of the angling community to enjoy the lake. The feasibility study references the need for CT DEEP Determination of Need for Fishway; a fishway would not be required at this location based on the species present and its location. The pedestrian promenade feature depicted in the feasibility study, entails vertical concrete embankments along a long section of the shoreline. This type of vertical hard structure is of limited habitat value to	While Mirror Lake is not designated for recreational fishing, quantitative and qualitative improvements will be incorporated to support potential habitat.

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	fish and aquatic life. It is suggested that structured habitat features be included in the lake design to provide additional habitat for fish and angling opportunities. Examples of these types of structures can be found at this link https://www.fishandboat.com/Resource/Habitat/Documents/lake_fish_hab.pdf, or provided by Fisheries staff.	
CT DEEP ML #13	The feasibility study also depicts the expansion of the central island using dredged materials; this study also details the exceedance of Remediation Standard Regulations (RSRs) in sediments within the pond. The expansion of the island should be performed with materials and processes that comply with relevant regulations. The expansion of the island also provides the opportunity to include additional habitat features such as Coarse Woody Debris, that would provide habitat to fish and basking turtles.	Noted for EIE and design development.
CT DEEP ML #14	Additionally, there is mention of placement of rip rap in Roberts Brook as scour protection, if placed beyond the period that the temporary construction spillway is utilized, the use of natural streambed materials in lieu of rip rap would be recommended.	Noted for EIE and design development. Rip rap is currently in place as a temporary spillway and apron repair measure.
CT DEEP ML #15	The General Permit for Stormwater and Dewatering Wastewaters from Construction Activities may be applicable depending on the size of the disturbance regardless of phasing. This general permit applies to discharges of stormwater and dewatering wastewater from construction activities where the activity disturbs more than an acre. The requirements of the current general permit include registration to obtain permit coverage and development and implementation of a Stormwater Pollution Control Plan (SWPCP). The SWPCP contains requirements for the permittee to describe and manage their construction activity, including implementing erosion and sediment control measures as well as other control measures to reduce or eliminate the potential for the discharge of stormwater runoff pollutants (suspended solids and floatables such as oil and grease, trash, etc.) both during and after construction. A goal of 80 percent removal of the annual sediment load from the stormwater discharge shall be used in designing and installing postconstruction stormwater management measures. Stormwater treatment systems must be designed to comply with the post-construction stormwater management performance requirements of the permit. These include post-construction performance standards requiring retention and/or infiltration of the runoff from the first inch of rain (the water quality volume or WQV) and incorporating control measures for runoff reduction and low impact development practices. The construction stormwater general permit dictates separate compliance procedures for Locally	Noted for EIE and design development.

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	Exempt projects (projects primarily conducted by government authorities) and Locally Approvable projects (projects primarily by private developers). Projects that are exempt from local permitting that disturb over one acre must submit a registration form and Stormwater Pollution Control Plan (SWPCP) to the Department at least 60 or 90 days, as identified in the permit, prior to the initiation of construction. Locally Approvable construction projects with a total disturbed area of one to five acres are not required to register with the Department provided the development plan has been approved by a municipal land use agency and adheres to local erosion and sediment control land use regulations and the CT Guidelines for Soil Erosion and Sediment Control. Locally Approvable construction projects with a total disturbed area of five or more acres must submit a registration form and SWPCP to the Department at least 60 days prior to the initiation of construction. Registrations shall include a certification by the Qualified Professional who designed the project and a certification by a Qualified Professional or regional Conservation District who reviewed the SWPCP and deemed it consistent with the requirements of the general permit. In addition to measures such as erosion and sediment controls and post-construction stormwater management, the SWPCP must include a schedule for plan implementation and routine inspections. For further information, contact the division at 860-424-3025 or DEEP.StormwaterStaff@ct.gov. The construction stormwater general permit registrations must be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found on-line at: Construction Stormwater GP.	
CT DEEP ML #16	DEEP Bureau of Air Management typically recommends the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If newer equipment cannot be used, equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits. Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted	Noted for EIE and design development.

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	signs indicating the three-minute idling limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor include language similar to the anti-idling regulations in the contract specifications for construction in order to allow them to enforce idling restrictions at the project site without the involvement of DEEP.	

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PCM #1	Comment from Joseph Cassone, CT DEEP - Is there a copy of the feasibility study for Mirror Lake that can be made available or provided?	The feasibility study was reviewed with DEEP in Fall 2020. A copy is available at updc.uconn.edu/mirror-lake.
PCM #2	Comment from Eric Thomas, CT DEEP - Can you provide an image or map of the contributing watershed to Mirror Lake? Alternatively, can you approximate what percentage of the lake watershed is outside of the UConn campus/property?	See Response to CT DEEP ML #9.