Recreation Program Comments

1. Statewide Lake Nutrient TMDL Core Document: Pg. 3 This document should reference the latest version of the CT DPH/CT DEEP guidance for local health departments on managing blue green algae blooms. The most recent version of the guidance can be found at: https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental_health/BEACH/2021/Guidance-to-LHD-for-Blue-Green-AlgaeBlooms_June2021_FINAL.pdf
2. Bantam Lake TMDL Document: Legacy Point Sources: Section 4 should include a discussion of the impact of the old Litchfield wastewater treatment plant. Though closed in 1971, its leach field was close the Bantam River above Bantam Lake. A 1975 EPA report cites sediment data showing the effect of the plant's discharge. (Document Display | NEPIS | US EPA) That effect may be ongoing, and a significant contributor to the lake's current nutrient budget.

Environmental Engineering Program Comments

CT Statewide Lake Nutrient Total Maximum Daily Load Core Document (7/16/21 Draft)

The Department of Public Health (DPH) and U.S. EPA recognize that subsurface sewage disposal systems (SSDSs) that are properly designed, sited, and maintained can provide a long-term and cost-effective means of wastewater renovation and disposal that is protective of both public health and the environment. Outdated sewage systems (such as cesspools), failing or deficient SSDSs can represent a pollution concern, and correction or upgrade of these sewage systems is protective of source and surface waters. SSDSs are commonly called septic systems and they are part of a broader category of on-site sewage systems called decentralized sewage systems (DSSs) that includes alternative treatment systems, as well as antiquated sewage disposal systems such as cesspools, and non-discharging holding tanks.

All DSSs need to be properly managed to allow Connecticut to meet its environmental and health protection goals. The Statewide Lake Nutrient TMDL Core Document should include recommendations for a statewide approach for comprehensive management of DSSs. Approximately 40 percent of CT's population rely on DSSs, mainly septic systems, for sewage disposal, and they are utilized in approximately 75% of the developed area of the state. Comprehensive DSS management would assist statewide and local efforts to reduce bacterial impairment of surface waters, and would support nutrient TMDLs, non-point source pollution programs, as well as drinking water source water protection and recreation programs.

1. Pg. 2 The phosphorus report developed pursuant to Public Act #12-155 did not sufficiently evaluate phosphorus loading from subsurface sewage disposal systems (SSDSs) and it did not adequately explore on-site sewage disposal opportunities to reduce such loading. DPH can provide past communications to Department of Energy and Environmental Protection (DEEP) on this item if requested.
2. Pg. 19 Improved inter-agency communication and cooperation between DPH and DEEP is needed on decentralized sewage system considerations in the CT Nonpoint Source

Management Plan. DPH can provide past communications sent to DEEP on this item if requested.

3. Pg. 20 Section 3.2.2. is titled Septic Systems, however at the end of the section on pg. 21 there is a discussion about alternative treatment systems and regulatory jurisdiction of SSDSs, alternative treatment and community sewerage systems, which is problematic. It is recommended that Section 3.2.2. be renamed decentralized sewage systems with separate subsections on SSDSs, alternative treatment systems, and community sewerage systems. Alternatively, Section 3.2.2. could strictly cover septic systems/SSDSs, and a separate section could cover alternative treatment systems and community sewerage systems and note that these systems are currently regulated by DEEP. Regulatory jurisdiction of decentralized sewage systems is split between DEEP and DPH/Local Directors of Health (DOH), and this section(s) should accurately reflect jurisdiction of the various categories and design flow breakpoints. This is especially important since the power point presentation (Presentation Slides Watershed Based Plan) includes slides (non-structural BMPs: Regulatory Tools) that suggest municipalities adopt regulations to enable/promote use of alternative treatment systems based on proximity to a water body, and notes Local DOH would be the relevant authority to regulate such systems. These slides are problematic, and points of clarification are needed.

   More than 95% of all DSSs utilized in CT are conventional septic systems/SSDSs regulated by DPH and Local DOH. The discussion about alternative treatment systems should include statements that there are very few small systems in use and provide information on legislation (CGS Sec. 19a-35a) that could transfer jurisdiction of small alternative treatment systems from DEEP to DPH. Further comments on alternative treatment systems and recent legislative proposals can be found in DPH testimony on bills #961 and #1024 from the 2021 legislative session.

4. Pg. 20 The document acknowledges effective pathogen and phosphorous removal with a properly functioning septic system. The document states that nitrogen removal efficiency is likely lacking but it is cautious in definitively making this assumption. Assumptions regarding nitrogen and phosphorous discharges from septic systems were calibrated using the Lake Loading Response Model (LLRM). This model consists of relatively simplistic and minimal inputs that focus primarily on dwelling occupancy and per capita nitrogen / phosphorous outputs for the average person. More recent and comprehensive nitrogen load modeling studies were not cited. Ground truthing (empirical data) for this study as well as all other recent nitrogen loading studies is imperative. None of the studies include comprehensive actual field data to back up the numerous assumptions regarding nitrogen discharges from SSDSs.
5. Pg. 20 Large (greater than 2,000 gallons per day (GPD)) leaching systems and leaching systems on sites with fast percolation rates or tidally influenced groundwater require increased minimum separation above maximum groundwater (A.K.A, seasonal high groundwater). Pending revisions to DPH's *Technical Standards for Subsurface Sewage Disposal Systems* (Technical Standards) will require increased minimum separation above maximum groundwater in coastal areas in flood zones.

6. Page 21 has an incorrect citation regarding DPH SSDS jurisdiction for systems with design flows from 2,000 to 7,500 GPD. The language implies DPH reviews and permits SSDSs/septic systems with design flows from 2,000 to 7,500 GPD without local health department participation. Local DOHs issue approvals and permits (Approval to Construct, Permit to Discharge) for SSDSs up to 7,500 GPD. DPH is required to approve large (2,000 to 7,500 GPD) SSDS plans in accordance with Section 19-13-B103d (c) of the Regulations of CT State Agencies (RCSAs).
7. Pg. 21 DPH's Environmental Engineering Program is incorrectly referenced as the "CT DPH Sewage Program."
8. Pg. 34 Local Health Department: Roles and Responsibilities include permitting and inspection of new and repaired SSDSs. SSDS inspections not associated with a permitted activity would be more appropriate if conducted by a licensed SSDS installer.
9. Pg. 39 In the septic system category it cites enforce occupancy loads. Septic systems are designed on conservative occupancy levels, but occupancy levels are not monitored.
10. Pg. 39 In the septic system category it cites require SSDS inspections of all seasonal to year-round home conversions. Building conversions on SSDS sites up to 7,500 GPD are governed by Section 19-13-B100a of the RCSAs that are enforced by the Local DOH and the regulation requires a demonstration that the site can support a code complying SSDS. SSDS inspections in conjunction with real estate transactions is a proactive management measure required in some states but not in CT. A standardized statewide requirement for SSDS inspections in conjunction with real estate transactions would be preferable over municipalities developing their own requirements.
11. Pg. 39 In the septic system category of Table 5-2 it cites develop and maintain a SSDS database. This is a proactive management measure that should be implemented statewide. Table 5-2 does not specifically mention other decentralized sewage systems such as alternative treatment systems, but as previously noted the accompanying power point presentations promotes local programs to enable use of alternative treatment systems, which is problematic.
12. Pg. 40 In the funding category it cites investigate grants and low-interest loans (e.g., Clean Water State Revolving Fund (CWSRF)). This task should be accomplished statewide and a program established to assist communities with funding repairs and upgrades of failing and malfunctioning SSDSs. In CT the CWSRF doesn't allow for proactive pollution prevention DSS management and access to CWSRF $ is only available in response to community pollution abatement problems. The U.S. EPA encourages states to re-evaluate their CWSRF programs to ensure DSS needs are adequately determined and DSS sufficiently supported. DPH has previously provided comments to DEEP in that regard. DPH can provide past communications sent to DEEP on this item if requested.
13. Pg. 61 In the SSDS replacement bullet it mentions programs that could allow "innovative alternative technologies". Alternative treatment systems currently can only be approved by DEEP. The use of these systems for most sites is not practical or possible under current DEEP requirements. DPH does not support widespread use of alternative treatment systems that are approved at the local level without creation of a legitimate program at the state level for these systems. The complexity of alternative treatment

systems coupled with the need for proper management and oversight requires resources to ensure their use is protective of public health and the environment. Without proper oversight their usage is ineffective as witnessed by other States that have implemented programs that lacked sufficient management.

14. Pg. 62 In the Septic System Resources section include DPH's On-Site Sewage Disposal Regulations and Technical Standards.
15. Pg. 62 In the Septic System Resources section it cites the National Small Flows Clearinghouse, but that entity lost key funding in 2015 and had to eliminate SSDS support to small, rural communities. EPA's SepticSmart program is much more robust and up to date. SepticSmart Homeowners | US EPA

Bantam Lake TMDL Document and Appendix

1. Pg. 42 Section 7.4 cites some local SSDS management actions such as mandatory tank pump-outs and system upgrades. It is recognized that ensuring systems are properly maintained and operated is an integral part of a SSDS management program. There is no mention of DSS management actions at the state level that support local management initiatives. DPH supports improved and comprehensive SSDS/DSS management that provides a proactive pollution prevention approach rather than addressing pollution problems after the fact. Lack of funding and resources have hampered efforts in that regard. Grant funds and low-interest loans (e.g., Clean Water State Revolving Funds) should be pursued for DSS management improvements. A statewide program should be established to assist communities with funding of repairs and upgrades of failing and malfunctioning DSSs.

Bantam Lake Watershed-based Plan

1. Pg. 57 The chart concerning non-structural BMPs cites regulatory tools that include the establishment of municipal regulations to enable/promote installation of alternative treatment systems based on proximity to a waterbody (i.e., 200 meters) for new development and re-development, and for replacement of failed septic systems. It is not appropriate to encourage municipalities to encourage use of alternative treatment systems when there is no legitimate statewide program to comprehensively manage these systems.