STATE OF CONNECTICUT
INTEGRATED WATER QUALITY REPORT

Summary of Public Comments and Responses to Comments

September 2020

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Katie S. Dykes, Commissioner

BACKGROUND

The Connecticut Department of Energy and Environmental Protection (CT DEEP) published a draft version of the *State of Connecticut Integrated Water Quality Report ("Report")* on May 19, 2020 and accepted comments until June 19, 2020. The *Report* was prepared by DEEP to fulfill requirements of the Federal Clean Water Act under Sections 305(b) and 303(d). The *Report* was posted on the CT DEEP IWQR website for review and download by interested parties. Paper copies were also made available on request. Letters noticing the availability of these documents were sent to interested parties including: citizens; conservation organizations; universities; environmental consulting firms; water supply companies; tribal nations; and federal, state, and local officials. Due to COVID-19, notices were sent via email in lieu of printed mailings. An informational meeting for the general public was held via Zoom as 79 Elm Street in Hartford is currently closed due to COVID-19. On June 5, 2020, the meeting was recorded and is posted on the IWQR website. The notice of the availability of the *Report* as well as the notice of the informational meeting was published in the Hartford Courant, New Haven Register, Norwich Bulletin, The Day (New London), and Waterbury Republican American.

Comments received from the public are identified and discussed in the following document. Comments are paraphrased for brevity; however, every effort has been made to preserve the original intent of the comment. Responses may refer to other comments where similar issues were addressed; Original comments are linked within the commentator's name and affiliation. Direct reference to the oral public testimony is not made since the comments provided orally during the public meeting were found to be adequately represented by the written comments referenced within this report. A copy of the public comments is provided in Appendix A to this document.

Comments regarding typographical and grammatical errors during the draft review process were corrected in the *Report* as needed and some are not listed for responses. There is a link to those original comments on the last page of this document

PUBLIC COMMENTS

Jean Pillo, Watershed Conservation Project Manager, **Eastern Connecticut Conservation District**

Comment #1: ECCD has prepared a comment on the draft 2020 Integrated Water Quality Assessment Report related to the proposed delisting of the Natchaug River as recreationally impaired. There was presentation given by Traci Iott on changing the formula for determining recreation standards, but to the best of my knowledge, those changes were never implemented. In this case, if the changes were adopted, the river would not be impaired if the highest value was discarded. The Non-designated Swimming criteria should be used for determining the safe threshold for recreational contact, and the data collected in 2010 indicates that the Natchaug River fails to meet this threshold. The Last Green Valley Volunteer Water Quality Monitoring Program will be collecting water samples to be evaluated for E. coli concentrations in 2020. For 10 weeks beginning in early June, the team will collect samples from 7 locations including Natchaug and Still Rivers and Bungee and Bigelow Brook. This more complete data set may be a better indicator of the current water quality conditions of the Natchaug River and will be available prior to the 2022 Integrated Water Quality Assessment Report. ECCD suggests maintaining the Natchaug River on the recreation impaired list.

Response: *Water Quality is assessed using the criteria and standards in the Water Quality Standards in effect. While the Department is considering making changes to various criteria within the Water Quality Standards, those changes have not yet been officially proposed or adopted. The assessment information for the Natchaug River is based on the standards currently in the Connecticut Water Quality Standards. The Department considers all available, quality-controlled data to evaluate and ultimately assess each waterbody by designated use. This process is detailed in the Consolidated Assessment and Listing Methodology which is Chapter 1 of the IWQR document. Data age is also an important factor in assessment. Recreational bacteria data collected and submitted during each two-year assessment cycle is compiled and evaluated for the current report. In the case of the Natchaug River, segment CT3200-00_02, bacteria data collected in 2010 was used for the 2012 IWQR recreation assessment. Evaluating the geomean of bacteria data requires combining data collected and submitted from several entities. The United States Geological Survey (USGS) has a permanent monitoring station in the Natchaug River, which collects many parameters including the bacteria data needed for assessment. The delisting of Natchaug River, segment CT3200-00_02 in the current 2020 IWQR is based upon USGS data collected during 2017-2018 with a total of 10 samples, a passing geomean of 98, and a maximum single sample value of 390 CFU/100ml. Based upon this most recent data, the Natchaug River Segment CT3200-00_02 is delisted for recreational use in this 2020 IWQR. Data collected by The Last Green Valley volunteers during summer 2020 may be submitted for evaluation and assessment during the 2022 IWQR cycle.*

John Jasper, Fellow of The Explorers Club, Niantic River Watershed Committee, Nitrogen Work Group, Trout Unlimited

Comment #2: I would like to make a comment and semi-professional (PhD, Chemical Oceanography) observation on my recent observation of thick, green carpets of filamentous algae downstream of the fish ladder/dam and upstream of the I-95 culverts in the Latimer Brook in East Lyme. I have been fishing the Latimer Brook for almost 12 years, but a few weeks ago

this year, I noticed while fly fishing that my flies were being heavily entangled with thick mats of algae. In observing data on nitrate in the Latimer and discharge rates on Salmon River over the years 2012-2017, I noted an inverse relationship between nitrate concentration and discharge rate (rough figures attached). In the present case, I surmise that the relative drought over the years 2012-2017 that the corresponding high nitrate levels have increased the growth of algal mats, making the LB unwadable and unfishable. What to do? Decrease nitrate level, but how? The nitrate concentration may be buffered by groundwater nitrate.

Response:
The Department recognizes nutrient pollution is a statewide concern for all of Connecticut waters. Our nutrient strategy for freshwater and nitrogen program for Long Island Sound are two examples of statewide strategies largely focused on point source reductions of nutrients. Latimer Brook and its watershed has benefited from local watershed work through the Niantic River Watershed Committee. The Niantic River Watershed Protection Plan was completed in 2006 and recently updated to provide a basis to work on the issues of excess nutrients and flow regime modification in Latimer Brook. We recognize all the hard work that this Committee has done to collect monitoring information to help identify nutrient sources and recognize that these diffuse sources of nutrients will take time to identify and mitigate. We encourage you to stay active with this Committee and we will continue to participate and work together toward a common goal of nutrient reduction in Latimer Brook.

Louise Washer, Norwalk River Watershed Association

Comment #3: I have a general question to start—our watershed has 8 sections impaired due to total phosphorous (TP) and that are listed in the 2020 IWQR Priority List of Waters for Action Plan Development (including TMDL development). What does it mean to be listed? How can we find out more about where the phosphorous is coming from? Will the upgrading of the Ridgefield wastewater treatment plant that is now beginning be likely to improve the TP in that area?

Response: *The Department is developing an action plan for these waters based on the Interim Phosphorus Strategy and implementation of stormwater controls through the existing stormwater permits. Once developed, this plan will be provided to the public for review and comment. It is expected that the actions taken to control nutrients both at the sewage treatment plant and through stormwater will result in attainment of water quality goals. However, the TMDL process allows for an adaptive approach, such that if additional actions are found to be needed in the future, revisions to the action plan can be made at that time to support water quality attainment.*

Comment #4: The IWQR shows that the Comstock Brook fully supports aquatic life above the South Norwalk Electric & Water (SNEW) diversion and that the Norwalk River supports aquatic life where the Comstock meets it. The section between the SNEW diversion and the main stem, however, does not support aquatic life. This section, Comstock Brook (Wilton) 01, is impaired due to flow regime modifications, making it a category 4c impairment. The Comstock Brook supports brook trout, and there is a huge amount of interest in restoring its flow to support the trout and other aquatic life and to improve water quality and lower temperatures in the main stem of the Norwalk River. How can our watershed association best use this information to advocate for restoring streamflow and the health of the brook?

Comment #5: Our community is also concerned about statements made by SNEW about their definite plans to raise the dam at Pope's Pond in Wilton and increase the amount of water diverted from the Comstock Brook. Will the category 4c assessment help protect the Comstock Brook from increased flow regime modifications that would result from raising the dam?
On the streamflow classifications map, the Comstock Brook (Wilton) 01 section, is listed as a class 1 (dark green). Does this mean that SNEW will be required to return flow to the class 1 levels in 2029?

Response to Comments #4 and #5: *SNEW's most recent Water Supply Plan (2019) indicates that SNEW does not intend to raise the Pope Pond Dam in the near term, although it is included for future consideration. If proposed, this activity would be subject to permitting and the associated public process, so you would have an opportunity to comment. The Dam Safety Program would require detailed information regarding any proposals to raise the Pope Pond Dam.*
SNEW has a diversion registration for the Middlebrook Farm Diversion and they are within their rights to use that registered water for public water supply.
There appears to be an error on the Stream Flow Classifications: the segment below Middlebrook Farm Diversion on Comstock Brook should be a class 3, not a class 1, and the Department will correct that error.
SNEW will be required to make stream flow releases from the Middlebrook Farm Diversion, however, such releases will not be applicable until 2029.
There are several areas where watershed organizations can advocate for the restoration of stream flow and improve habitat. We recommend encouraging water conservation, specifically during mid-later summer when flows are low and outdoor watering demand is high. This can be done through volunteer education and outreach efforts and targeting lawncare practices to emphasize raising mower blades during those times and seeding with drought tolerant species like tall fescues. There are also actions that municipalities can undertake like enacting drought management plans and ordinances.

Comment #6: The IWQR states that "While a TMDL is not typically prepared for 4c waters, this type of pollution does require management measures to meet the applicable water quality standards." What would those management measures include if the problem is that the stream is drained completely dry for many months of the year by the water company? Also, Comstock Brook (Wilton) 01 is on the 2020 IWQR Priority List of Waters for Action Plan Development (including TMDL development) for E. coli. Does this mean that DEEP will be determining a TMDL for the Comstock Brook? What can our organization do to help facilitate action to protect this section of waterway given that it is on this list?

Response: *Other management measures for flow can include implementation through the stream flow regulations, requirements established through regulated diversion permits, or other plans developed on a site-specific basis. These other management measures can be used to develop an alternative to traditional TMDLs. TMDLs specifically identify waste load allocations and waste load reductions for contaminants which would not be applicable to flow regime. The TMDL that is in development will specifically address bacteria and include other segments (if any) that are impaired for recreation that are located in that watershed.*

Thank you for the offer of assistance. Data collection is critical for TMDL or action plan development. If there is any existing data or other information that you have, or would like us to review, please submit it to us through your watershed coordinator, or to the TMDL program. CTDEEP is required to notify the public when a TMDL draft document is completed. There is an opportunity to comment during the comment period which is 30 days after it is public noticed.

Comment #7: Another section in our watershed, CT7302-13_01 Belden Hill Brook, is also in this Priority List of Waters for Action Plan Development (including TMDL development) for E. coli. Again, what does this mean will happen? How can we help?

Response: *Please see response to comment #6*

Comment #8: CT7302- 13_trib_01 Unnamed tributary Belden Hill Brook-01, is impaired for Habitat for Fish, Other Aquatic Life and Wildlife because of Chlorine. Is there any way that we can get more information about where this testing was done and how much chlorine was found, so we can try to investigate its origins? That brook connects to the discharge source at Sisters of Notre Dame (discharge of private STPl), Wilton, according to the IWQR. Isn't it likely that the chlorine is coming from this source? Has DEEP already asked the sisters to inspect, and if necessary, repair, their system?

Response: *A TMDL was completed for chlorine in the unnamed tributary to Belden Hill Brook in 2000. Since that time, the discharge from the Sister of Notre Dame STP was eliminated from that brook and was rerouted to the sewer and now goes into the Norwalk Sewage Treatment Plant. Therefore, the source of chlorine has been eliminated. Subsequent monitoring in the brook was inconclusive. Additional monitoring will be scheduled to evaluate water quality in Belden Hill Brook to determine if the impairment has been resolved.*

Comment #9: The Silvermine River is currently not assessed for aquatic life. Our community is invested in improving water quality in the river, and we would like to request that DEEP begin assessing the river for aquatic life.

Response: *The Department will add the Silvermine River to the list of monitoring locations and work to be considered for aquatic life assessments for the 2021 Work Plan.*

Comment #10: The Silvermine is also not listed on the fish consumption advisory list. A lot of people fish at the Deering Kellogg wellfield area of the river, and it would be useful to have more information for them as they seem to be keeping the fish.

Response: *Please consult the DPH's If I Catch it Can I Eat it Factsheet and the Fish Choices in Connecticut What's Safe – What's Not Factsheet. There is additional information on the DPH website regarding the safety of eating fish in CT. Please note that all freshwaters in Connecticut are covered by the statewide advisory related to mercury, identified in the documents referenced.*

Comment #11: I would like to suggest that the Silvermine be tested for temperature. It is recognized in the report as a good candidate for temperature monitoring by the voluntary water monitoring program. The Norwalk River Watershed Association would be happy to help organize this.

Response: *The Department will also consider temperature monitoring in our 2021 Work Plan. We also encourage you to consider getting involved in our Volunteer Stream Monitoring Program.*

Comment #12: I don't understand how a section of river, CT7300-00_01 for example, can be listed as 4a and also as a 5 for recreation. If there is a TMDL in place for recreation for this section of river, why would it also be listed as a 5? Thanks for helping me understand this system.

Response: *This is an error, you are correct, the waterbody should only be listed in 4a, which means that it is not meeting water quality standards but does have a TMDL in place. Segment CT7300-00_01 does have a TMDL in place (Norwalk River Regional Basin E. coli TMDL) for recreation and has been removed from the Category 5 table.*

Comment #13: A correction should be made to the 4a entry regarding:
CT7300-00_03c Norwalk River (Redding)-03c SEGMENT UNDER GROUND. From EXIT of underground (pipe) section (just US of Railroad crossing), US to Factory Pond outlet dam (entrance of underground section), Redding. (Factory Pond is a separate waterbody, between segment-03c and -04). 0.11 Not Assessed Not Assessed. This section was daylighted in late 2008/2009. We would like to ask that it be added as a testing site.

Response: *The Department will add this section of the Norwalk River to the list of monitoring locations and work to be considered for aquatic life assessments for the 2021 and evaluate the segmentation of the Norwalk River following additional field sampling. Additionally, we will review the description of this segment for revision within the 2022 Integrated Water Quality Report.*

Comment #14: All three sections of the Norwalk River in Redding around Factory Pond have missing information. It would be great to test for stressors around this brownfield as the community is trying to bring about action to remediate the site.

Response: *The Department has completed a thorough Stressor Identification on the Norwalk River the most probable causes of the aquatic life impairment were noted as total phosphorus, copper, and zinc. The Department has a statewide strategy for phosphorus reduction that includes the Norwalk River. As noted, there is a historic industry, the former Gilbert and Bennett facility that is located adjacent to Factory Pond and the Norwalk River. Starting in the 1930s and continuing until the facility was shut down in the late 1980s, a treatment plant operated south of the main facility to treat the acidic waste waters prior discharge of the waste waters into lagoons. This resulted in contamination of the groundwaters on the site and discharging to the river. Over the years, the sludge was landfilled, or disposed of in unknown ways. In 2000, EPA performed a "removal action" treating the remaining sludge on site with lime kiln dust (or some such material) to reduce the leachability of the metals in the material. The material EPA treated (and some it didn't) was buried on-site where it remains. There has been some limited information that indicates that these actions have reduced the transport of zinc to the river. The Department will prioritize sampling of the river to determine the current levels of zinc and other site-related contaminants.*

Carol A. Haskins, Pomperaug River Watershed Coalition (PRWC)

Comment #15: We commend DEEP for presenting a well-organized, well-illustrated, easy-to-follow report that: 1) describes the basis for and nature of the assessments, 2) provides a summary status of the State's waters, and 3) presents comprehensive status listings for individual waterbody segments within the supporting appendices. We also applaud DEEP for its continued improvements in the public outreach on availability of documents such as these.

Response: *The Department thanks you for your recognition.*

Comment #16: We noted two waterbodies (CT68000-10_01, Unnamed Tributary Pomperaug River and CT6802- 05_01, Harvey Brook-01) listed in the Assessments Results in Appendix A (pages 112-113) that indicate "Not Assessed" for both Aquatic Life and for Recreation. If these streams were not assessed, why are they included in the assessments results? Is there inclusion in this list based on results of DEEP's predictive modeling?

Response: *Thank you for the comment. That was an oversight on our part in working with a new data system. The Department will remove CT6800-10_01 and CT6802-05_01 from the final version.*

Comment #17: We believe there is a typo in the location description for Segment CT6803-02_01 Unnamed Tributary to Sprain Brook (Washington)-01. The description reads "Mouth at Confluence of Spring Brook…" instead of Sprain Brook. We hope that this would be corrected in the database to avoid future confusion in locating this site.

Response: *The Department has updated the database to correct this error for future reports.*

Comment #18: The assessment result of segment CT6806-00_01, Transylvania Brook (Southbury)-01 listed in Appendix A-1 indicates that use for Aquatic Life is Not Supporting. Appendix B-4 lists the cause for this being "Flow Regime Impairment". While we agree with this designation based on the timing of the assessments included within this report, we want to applaud the Town of Southbury for addressing the culverts located at the mouth of this stream where it joins into the Pomperaug River (East Flat Hill Road). The culverts were both undersized and perched, creating a significant barrier for passage of fish and wildlife. In 2019, the culverts were replaced with a bridge. In 2018, a similar barrier located at the Spruce Brook Road crossing was also converted to a bridge. Together, the new crossings should alleviate the Not Supporting designation for Aquatic Life. That is, assuming the previously listed cause for this impairment (Ammonia (Unionized), Chlorine, Copper, Zinc) is no longer considered a factor. As you know, the waste water treatment plant that was the source of these pollutants was taken fully offline in 2013. We ask that DEEP continues regular monitoring and assessment of this segment with the anticipation that it should soon be delisted from the Impaired Waters List

Response: *The Department will add Transylvania Brook for consideration in our 2021 Work Plan.*

Comment #19: Within the Priority List of Waters for Action Plan Development found in Appendix C-1, PRWC is pleased to see that DEEP has prioritized developing a TMDL Alternative for Phosphorus Discharges to Freshwater Wadable Streams including the segments of the Pomperaug River located downstream of a wastewater treatment facility. We are similarly pleased to see Transylvania Brook included in the priority list for developing a Bacteria TMDL.

That said, we do hope to see an opportunity for public participation in the development of these TMDLs. We recognize the time-consuming nature of the public participation process may not be realistic. However, our past experience with these (i.e. Bacteria TMDL for Pomperaug River and Weekeepeemee River) is that the TMDLs are generic both in their evaluation of contributing PRWC Comments on pollutant sources and recommended actions to address them. Additionally, the recommended actions call for implementation by local stakeholders (landowners, town agencies, watershed association, etc) who are often not aware such plans exist. Thank you for your assessment and stewardship of Connecticut's waters and for the opportunity to comment on this draft.

Response: *The Department recognizes the importance of Stakeholder's role in implementation. The Department informs the public of future and current plans every 2 years during the IWQR process. If there is any existing data or other information that you have, or would like us to review, please submit it to us through your watershed coordinator, or to the TMDL program. CTDEEP will provide an opportunity for the public to review and comment on any TMDL, alternative or action plan developed. Public comments will be considered before finalizing any plan.*

Kelsey Wentling, Connecticut River Conservancy

Comment #20: CT DEEP's methodology draws on diverse data for prioritizing waterbodies, as outlined on page 41. While integrating, "existing planning efforts within the watershed [and] existing and potential partnerships," are important considerations for prioritization, decision-making based on existing and potential partnership precludes communities without access to natural resources and stewardship opportunities. We are concerned that this methodology, unless paired with significant outreach efforts, skews the list of priority waterbodies in favor of communities that already have access to water advocates. This raises the threat of environmental injustice. For areas not selected for action plans, we ask that CT DEEP explain how they will address impairments and how CT DEEP could partner with non-traditional organizations to involve a greater diversity of public input in the process.

Response: *The selection of the waterbodies for current development of Action Plans was based on water quality priorities, identified by CTDEEP and the public. It was not solely dependent on the presence of watershed partners. That being said, working with partner organizations is important, especially for non-point source pollution sources because it is typically through those partnerships that the actions needed to restore or protect water quality occur. One of the aspects of identifying where to develop a plan includes a consideration of whether or not that plan can/will be implemented. Increasing the likelihood that a plan will be implemented increases the likelihood that water quality will be restored or protected. At this point in our programs, we are developing new approaches to address the water quality challenges identified as priorities by the public. Having successful examples of these new approaches also relies on having partners. Once the demonstration has been made for a new approach, it is easier to bring that approach to areas where active partner organizations might not exist. Please be assured that Action Plans will be developed for all impaired waters as required by the Clean Water Act. Those plans may be TMDLs or other alternative approaches. CTDEEP, through a public process, has identified waterbodies where action plans will be developed within the next few years. Action plans will also be developed for all other impaired waterbodies but the development of those plans will*

occur at a later date. Plans will be developed for all waters in need of such plan whether or not there are partner organizations within the watershed.

Comment #21: Similarly, the report read, "Additional focus is placed on aquatic resources and features of important value to the public." Again, while public input is certainly crucial in this process, it must be paired with outreach to underserved communities in order to solicit a greater diversity of participants.

Response: The Department *has utilized various technical platforms and social media platforms for education and outreach for water quality programs and aquatic resources. Some examples include, the Pawcatuck River Nutrient Management and CT Water Quality Standards online story maps, online training videos, as well as infographics, online meetings, and seminars. In addition, CTDEEP has recently hired a new Director of Communications who will be moving our education and outreach for CTDEEP programs forward. Please sign up to our listservs to receive emails for updates.*

Comment #22: Several links in the document are broken, perhaps due to CT DEEP's recent website update. For example, the text under Figure 1-3 "this BCG web application," does not lead anywhere. Additionally, several of the links to TMDLs in Appendix B2 are not working. We ask that these links be updated.

Response: *We have corrected as many of the broken links in the document as possible. CT DEEP is aware that there are broken links to TMDLs and understands that this is an inconvenience. We are currently working to fix the problem. Copies of all of the TMDL documents can be obtained by emailing rebecca.jascot@ct.gov.*

Comment #23: Does CT DEEP use only Tier I data that is sent directly to the department? Several community science apps, such as Water Reporter and iNaturalist, allow users to upload information that would fall into the Tier 1 category. CT DEEP should consider using these data sources in order to obtain more supporting information for a waterbody. This could also broaden access to public participation in CT DEEP's volunteer program.

Response: The Department uses *Tier 1 data for assessments as stated. If you have specific information to share, we encourage you to send it to walter.tokarz@ct.gov. Deadlines for data to be included in future IWQR reports are specified as follows: Additionally, the Department does use data from community science apps. For example, data from The Cornell Lab of Ornithology (eBird) is being used in the development of TMDLs for lakes impaired by nutrients.*

IWQR Reporting Year	Deadline for Data Submission
2022	11/1/2021
2024	11/1/2023
2026	11/1/2025
2028	11/1/2027
2030	11/1/2029

Sally Rieger, Lower Farmington River and Salmon Brook Wild and Scenic Committee

Comment #24: LFSWS supports the Biological Condition Gradient approach to evaluating stream health. We appreciate that it offers a better opportunity to see and potentially correct declining stream health than the former pass/fail approach. Thank you for the work involved in developing this method.

Response: *The Department thanks you for your recognition.*

Comment #25: We are also glad to see that four segments of the lower Farmington River are on the priority list for Action Plan development (Appendix C), along with the Pequabuck River so that TDMLs of phosphorus for these watercourses will be established. Although the Pequabuck River is not in our Wild and Scenic designation, the LFSWS representative to the Committee tells us that we need to pay attention to the Pequabuck because it contributes a lot of pollution to the lower Farmington River.

Response: *The action plan will be an alternative plan that is based on the Interim Phosphorus Strategy not a TMDL.*

Comment #26: Given the June 8, 2019 PFAS spill from Bradley Airport into the Farmington River in Windsor, we respectfully ask that to the reference to Bradley Airport on page 42 of the IWQR you add, along with problematic substances such as de-icing compounds, chlorides and metals, PFAS related compounds. We also would like to see PFAS included in the Integrated Water Resource Management section of the IWQR report that begins on page 40. We understand that PFAS TMDL standards are not formally established. Nevertheless, PFAS contamination has been established as a serious and important issue that threatens environmental and human health. Our hope is that a reference to PFAS in both places in the report will support our Committee's anticipated future efforts to see that the CT legislature supports the ambient water testing along watercourses for potential sources of PFAS contamination, a measure which is included in the State's PFAS Action Plan. We already know that PFAS contamination was found in fish in the Farmington River upstream of the June,2019 PFAS spill. It is important to understand the extent of the pollution problem before possible remediation efforts can even be begun.

Response: *That is correct PFAS are currently not addressed in TMDLs at this time. CTDEEP is working with the Connecticut Interagency PFAS Task Force to develop monitoring strategies to address PFAS in surface water in CT. Additionally; CTDEEP is working on environmental benchmarks to protect both people and ecological communities from exposures to PFAS. CTDEEP will provide updates as soon as information becomes available.*

Shelley Green/ Holly Drinkuth, The Nature Conservancy's Connecticut Chapter

Comment #27: We strongly support the update of progress on restoration and protection plan development included in the Chapter 3 of the Report. We strongly support the use of new tools and alternative approaches to water quality management beyond traditional TMDLs – in

particular, collaborative, co-developed and action plans highlighted for Bantam Lake and the Natchaug River Watershed.

Response: *The Department thanks you for your support and recognition. In order to keep the public apprised of these and similar projects, we are developing project-specific web pages to provide a place where documents and future updates can be found. Please refer to The Bantam Lake Project website for updates.*

Comment #28: We urge CTDEEP to include additional information and transparency related to the status of action planning and/or alternative remediation strategies for all priority waterbodies identified for plan development by 2022 (Appendix C-1). We recognize the extreme challenges limited agency resources and capacity present to achieve this ambitious timeline, however we believe CTDEEP has the opportunity through implementation of IWRM to build a more unified, integrated, holistic and shared approach to water management in all its forms – described by the US Water Alliance as the One Water approach

Response: *Thank you for your recommendation, CTDEEP will consider your comment to look for additional ways to disseminate information and engage stakeholders on these projects. Currently, we are developing project specific web pages. We also use the Water Quality listserv. However, we will look for additional opportunities to share information with the public, including collaborative meetings.*

Comment #29: The Pawcatuck River Watershed project highlights and encompasses many of these One Water hallmarks and we are very pleased to see meaningful collaboration between CTDEEP, RI DEM and Save the Bay in Rhode Island. We encourage CTDEEP to formalize local or regional partnership representation from Connecticut in this project as well.

Response: *Thank you for your recognition, The Department has been in communication with local stakeholders and environmental groups throughout the Pawcatuck project in Connecticut portion of the watershed.*

Comment #30: We encourage CTDEEP to establish measurable intermediate outcomes and performance objectives to effectively and transparently track progress on these important projects.

Response: *Commissioner Dykes has set forth a 20 by 20 goal initiative to track CTDEEP programs including transparency and progress of environmental quality. Publication of the IWQR every two years is one important tool for tracking the progress and status of CT waterbodies. CT DEEP also holds public meetings to report on action plan development as part of the update.*

Comment #31: While designated use support summaries can be viewed in table 2-1, the addition of an inset pie chart or bar chart in map figures 2-1 through 2-4 indicating the number or percentage of segments supporting, not supporting, insufficient or not assessed in each use category map would further increase clarity. An additional graphic similar to Figure 3-5 (page

47) comparing support summary results from 2018 to 2020 to illustrate changes over the reporting period would help provide context and highlight areas for closer attention.

Response: *Thank you for your comment CTDEEP will consider your suggestion. Some of the highlighted information has been added to the IWQR Fact Sheet that we have developed to support the larger report.*

Comment #32: The Report provides a good overview of key water quality concerns, the Integrated Water Resource Management (IWRM) assessment and the public process used to support identification and review of waterbodies for action plan development by 2022. We recommend including the map of priority water bodies as an additional figure in Chapter 3 or Appendix C-1.

Response: *Thank you for your comment, The Department has included an updated IWRM map in the final document and in Appendix C-1.*

Comment #33: We recommend additional information and clarity outlining the objectives, anticipated timeline and progress-to-date on all action plans and/or alternative remediation strategies for priority waterbodies identified in Appendix C-1

Response: *The plans listed in table C-1 are in various stages of development. CTDEEP will provide updates to each project currently in development as they become available on the projects dedicated web page. Additionally, we will revise the IWRM web page with updated information to provide general status of projects and links to project-specific websites. The IWRM web page is currently up to date. Please see the 2019 presentation posted on the web page.*

Comment #34: To support of ongoing efforts with the Governor's Council on Climate Change (GC3) we recommend establishing and tracking relevant climate adaptation objectives for all priority waterbodies identified in Appendix C-1. Noting that collaborative watershed plan development provides an opportunity to highlight and incorporate any relevant objectives or actions that come out of the GC3 work. Intended to provide more guidance, information and tools for local implementation.

Response: *DEEP is tracking climate change impacts to our lakes, rivers, and estuaries. Two issues of immediate concern are ocean acidification in estuaries and loss of cold-water habitat in our streams. CTDEEP is participating on the Governor's Council on Climate Change (GC3) workgroups and will incorporate recommendations from these workgroups into watershed action plans, where applicable.*

Steve Herzog, No Affiliation

Comment #35: I worked as a groundskeeper at the Yale University golf course (YGC) from 1983 to 1996. YGC is adjacent to Maltby Lakes. When I worked there, YGC used well water for its drinking water. In 1999, independent well water testing showed YGC drinking well water contaminated with p-dichlorobenzene -- found in Dursban, an insecticide -- and nitrates found in fertilizers. Also, Maltby Lakes did not meet water quality standards and had not been used for drinking water since the early 1980s. YGC uses numerous insecticides, herbicides, and

fertilizers, which seep into the many streams on the golf course, some of which flow into Maltby Lakes. Please consider my testimony to stop future contaminations of our drinking watersheds.

Response: *Please* contact *the Department of Public Health's Drinking Water Section and the CTDEEP Pesticide Management Program. However, we will pass this information along to these programs as well.*

Iris Kaminski, Environmental Scientist/Water Expert

Comment #36: I would like to request to prioritize pollution prevention… I am worried that the ongoing use of chemicals on lawns will further pollute our ground and reach our waterways. The constant use of these pollutants, even though not done with malice, will cause irreversible damage that will be extremely costly to remove or remediate. It would be very helpful if DEEP and DPH can find a way to prohibit the use of these dangerous chemicals being applied to lawns. Because there are no limits or supervision of how these chemicals are applied, we have no way to know how much our grounds are being poisoned. We do not know what the prospective damage is to property owners' lawns, to their neighbors' lawns, or to the nearby ecosystem - including local bodies of water.
Actions to take: 1. Warn the public about these dangers; and 2. Use enforcement tools to stop further pollution of our precious natural resources and our water. I would be happy to partner with you and share my ideas.

Response *CTDEEP's P2 (Pollution Prevention) Program addresses some of your concerns. This program has a section on their web page dedicated to Organic Lawn Care and pollutants. Question 10 in the FAQ sections identifies what you should do if your neighbor is using pesticides on their lawns. The Department agrees that outreach and education is important when addressing these matters. Since most land use decisions are made locally, we recommend that you work with your town to share this information with your community.*

Margaret Minor, Rivers Alliance

Comment #37: My first comment is that I greatly appreciate the work that DEEP puts into this document. Going back to the days of the Shepaug River litigation, I have always relied on this document (under its varying names).

Response: *The Department thanks you for your recognition.*

Comment #38: Some of the value of the information is lost to the general reader because key information is divided among multiple documents**:** the FAQ Sheet; the narrative Report; and 10 appendices, which in many ways are the most important section of the report. That's where the public looks to learn about their watersheds. For many people, including me, the way to get needed information from the Report is to do to do a Find on the name of the waterbody and also the name or names of the town(s). One can also do a Find on a topic, such as bacteria or phosphorus. It would be very helpful if one could do a single Find through all these documents.

Response: *Thank you for your comment. We have chosen to separate the document so that readers can find the information that they are looking for more easily. To request a copy of the document in another format please email Rebecca Jascot at Rebecca.jascot@ct.gov . The*

Department is working to create tools in an interactive mapping platform that will provide more transparency and flexibility for reviewing assessment information.

Comment #39: I couldn't find answer to the question: What percent of state waterways are wadable, and what percent of wadable streams have been "monitored" or "assessed" (are these terms the same?).

Response: *We estimate that about 90% of the stream miles are wadable. The Department uses a probabilistic monitoring design so we consider 100% of the wadable streams to have been assessed. However, we have actually sampled approximately 35% of wadable stream miles in CT.*

Comment #40: The high quality of lakes used to puzzle me because so many lake associations, boaters, and others report serious problems. I gather you include reservoirs with lakes. These should be broken out, in my view.

Response: *Thank you for your comment. Most of our lake, pond, and reservoir assessments focus on publicly accessible waters and not many reservoirs. In general, reservoirs make up a small part of our assessment universe since the public are not allowed to use them for recreation in Connecticut and they meet the drinking water use.*

Comment #41: The new(ish) Biological Conditioning Gradient (BCG) is a major step forward. But it still feels like a work in progress. I like (love) using thermal metrics as the foundation of the assessments. But given the dozens of variables and the significant reliance on subjective assessments (professional judgment), it would be very helpful if you would explain how you assess the tool itself. Are its measurements and predictions useful in the field and consistent with direct observations? Do you have some means of recalibrating every so often, and could you explain that? Also, it would be helpful BCG were explained primarily in one place. One could use references to related material. For example, the FAQ sheet has this statement on the usefulness of the BCG method: *"Rather than waiting for these streams to degrade to the point of becoming impaired, CT DEEP is now taking steps to protect these healthy watersheds."* What steps in DEEP taking? In which watersheds? Where can I find this information?

Response: *Thank you for your suggestions. Assessing streams is complex and requires multiple lines of evidence. We weigh the BCG heavily since it measures the biological integrity of streams directly and consistent with our experience and direct observations, This BCG is not a measure that we plan on recalibrating over time since its definitions are derived from the Davies and Jackson manuscript, and these descriptions of BCG tier will not change. That is one of the values of the BCG in that it is a universal scale that can be applied and understood wherever it is used. The Department will prepare a fact sheet on BCG and how we use it in assessments in time for release with the 2022 IWQR. We will use your suggestions as a starting point to build the fact sheet and include a list of streams that are slipping BCG tiers (ie threatened category)*

Comment #42: The BCG could be used to create a category similar to the former Threatened Water Bodies. That category should be revived, perhaps under a new name with particular waterbodies identified. That will help the public doing a quick Find to see what's threatened and what should be done or is being done. You may be getting at this in the section on Healthy Rivers Initiative.

Response: *The BCG is used as a line of evidence to determine the health of a waterbody in our assessment process. We can use the BCG to highlight waters that are threatened as you suggest and will consider your comment when we build the BCG fact sheet. We will also consider highlighting these waters on the BCG map application.*

Comment #43: Do you review and rate accuracy of the other statistical methods used in the IWQR to arrive at good numbers? The Report does have much good information on the designs of the assessment methods.

Response: *The Department uses the best science available to come up with numbers in the report. Please let us know if you have concerns over certain numbers that we report, and we will be glad to speak with you to provide a better explanation.*

Comment #44: Shouldn't there be a category for thermal pollution or impairment? Temperature is a physical characteristic of water.

Response: *The Department evaluates stream temperature combined with several other environmental measures which make up the Aquatic Life Use assessment. When evaluated for assessments, temperature is considered like any other water quality parameter and is not treated any differently. We have conducted studies regarding the relationship between temperature and fish habitats throughout the state, and have identified cold water stream habitats. Please see the CTDEEP Temperature Factsheet and the Cold Water Stream Habitat Study.*

Comment #45: Note, we've been stuck well below 50 percent water bodies assessed forever. Is that OK? Are you relying mainly on statistics at this point?

Response: *The Department is charged with evaluating all waters of Connecticut as meeting or not meeting standards in accordance with the Clean Water Act. Connecticut is fortunate to have abundant water resources and likely will never have the resources to sample all of its water. To address this fact, we have developed strategies to assess more by target. For many years the main focus was targeting and addressing gross water quality issues and using regulations to enforce improvements. The RBV volunteer program is another example of this targeted focus to monitor more of our stream resources. We also use probabilistic assessments that represent the whole state, similar to the way an opinion poll can represent the views of a population without interviewing everyone. This approach gives us a representation of the population of water resources in CT with known certainty.*

Comment #46:
The work in DEEP Healthy Rivers Initiative (described in a separate paper) seems relevant to the goals in the IWQR and the steps DEEP is taking. For example:
One bright outcome of this work, however, was the identification of 'Streams of Hope' in Connecticut. These streams are those that are at a tipping point; active management could potentially return these waterbodies to healthy waters status. Which are the Streams of Hope**?** Can they be identified in the IWQR? To me they sound a little like streams that would go into a Threatened category. Are they getting some form of special care?

Response: *The Department completed a report that is on the DEEP website. The reference to that work is as follows:*

Bellucci, C.J., M. Beauchene, and M. Becker. 2008. Streams of Hope: Characterizing the Biological Potential of Moderately Urbanized Connecticut Streams. Connecticut Department of Environmental Protection, Hartford, CT.

We can provide a pdf copy of the document to you. The Department continues to monitor these locations. These streams would be good candidates to highlight along in the BCG threatened comment that was made in comment #42. Additionally, this information was used in the IWRM prioritization work to help identify watersheds for the development of water quality protection plans.

Comment #47: The IWQR cites several watersheds plans as helpful or potentially helpful. But over the years, there have been many different types of watershed studies and management plans. Could DEEP identify the type or types of management studies and plans that have been most effective in protecting water quality? What are the conditions that lead to success (or partial success)? Do the plans cited in this Report meet these conditions?

Response*: Planning projects that have a close connection with an implementing entity have proven successful of the years. In the past, CT DEEP has had success working with permitting staff to enact load reductions from point sources. Going forward with be more challenging because non-point sources are the biggest source of pollution to most waterbodies.*

Comment #48: NPS and stormwater are appropriately highlighted as critical components of pollution. Many approaches to help cure this problem are mentioned. (I was surprised not to see stormwater utilities**.)** But the presentation is confusing. Considering stormwater, there are CWA goals, DEEP goals, descriptions of general problems, many descriptions of good practices, hundreds of river segments with particular problems, and some programs (such as TMDLs) in progress on particular water bodies Perhaps DEEP could consider an umbrella section describing its main goals relative to stormwater cleanup and main projects that are in progress.

Response: *Please see the* Connecticut Watershed Response Plan for Impervious Cover. *This plan has a core document that serves as an "umbrella" and contains general information regarding stormwater management and water quality. There are multiple appendices for watershed specific information regarding stormwater. In addition, there is an MS4 permit which lists 6 minimum measures to address stormwater pollution for MS4 communities which are based on census population data, DOT areas are also covered under this permit. Please also refer to the Stormwater Management web page for more information regarding the permit. Finally, the CT Nonpoint Source Management Plan provides a 5-year plan for addressing nonpoint source pollution (not just stormwater) in the state.*

Comment #49: The criteria for deletions and additions to the 303(d) list are given in one document, but the listings themselves are given elsewhere (in appendices). The List of Waters for Action Plan Development is very long and useful, but lacks information on when and how action plans will be developed or implemented.

Response: *Please see response to comment #33*

Comment #50: I know that many of the rivers listed have low flows and thermal pollution, but I don't see that information in the Report, although other types and causes of impairments may be given. An example of low-flow and thermal pollution is in the Shepaug River in Washington

Depot. In recent years, nature's spring fishing season is almost over by the time the state fishing season begins. Another low-flow, impaired stream is the Bantam River below the hydro dam.

Response: *The rivers and streams that have been identified for low flow are in Appendix B-4, non-pollutant impairments. We have used temperature as a line of evidence in our aquatic life assessments. This is more thoroughly explained in comment #44.*

Comment #51: I suggest adding a section referencing the state's two new water plans and their organizations, the CT Water Planning Council and DPH's WUCCs. Possibly some tasks that could be handed off to these groups, whose plans may already include relevant actions under way or pending.

Response: *Thank you for your comment. We have added a reference to the State Water Plan which was developed by the CT Water Planning Council, to Chapter 1 of the IWQR.*

Comment #52: Fenn Brook in Roxbury receives heavy runoff and stormwater discharges, and has other problems. I don't think it supports much of anything.

Response: *Our latest assessment information puts Fenn Brook into the full support category for aquatic life. We will put Fenn Brook on the list of streams to consider for the 2021 Monitoring Plan.*

Laura Cahn, New Haven Environmental Advisory Council and Madeleine Cahn, New Haven Resident

Comment #53: We should encourage sustainable aquaculture, such as the New Haven Oyster Farm. For about two centuries, this local business has been harvesting oysters -- and filtering water -- in New Haven Harbor and Long Island Sound and reusing empty oyster shells so new oysters will not have to grow on plastic bottles or old sneakers.

Response: *The Department thanks you for your comment.*

Comment #54: We should stop paying for state research into uses of herbicides, such as the exploration of glyphosate (the main ingredient in Roundup) by the Connecticut Agriculture Experiment Station We should not allow the Ag Station, the entity that educates pesticide applicators for state licenses, to teach that Roundup is safe.

Response: *Please contact the CTDEEP Pesticide Management Program and the Connecticut Agriculture Experiment Station directly.*

Comment #55: One (unconfirmed) application occurred at a golf course with a decades-long history of polluting Maltby Lakes, part of our public watershed and a potential drinking water source. This stream on the golf course and Maltby Lakes should be on the impaired waters list – as should any waterbody near a golf course.

Response: *Please see response to comment #35.*

Comment #56: We should ban sod grown on farms. Sod growing pollutes the water with nitrogen and herbicides, and sod upkeep requires even more chemicals and causes more water pollution.

Response: *Please see response to comment #35.*

Comment #57: We should ban artificial turf fields, which are composed of layers of plastic: plastic fabric, Styrofoam, and carpets of plastic needles. Every waterbody near an artificial turf field in Connecticut should be tested for microplastics and added to the impaired waters list.

Response: *Impairment determinations must be based on data and assessments relative to the Water Quality Standards. The science on microplastics is still evolving such that both the measurement of microplastics and appropriate thresholds are highly uncertain. CTDEEP will continue to study the scientific literature on this topic to determine how and where impairments due to microplastics might be made. In 2010, CTDEEP was part of a multi-agency study to evaluate the impact of artificial turf on human health and water quality. The findings of this report are available at The Risk Assessment of Artificial Fields web page. Microplastics. This evaluation pre-dated information on microplastics. CTDEEP subsequently published information about microfibers and microbeads.*

Comment #58: We should limit the use of sprinklers on grass, especially during drought such as we are currently entering. Overuse of municipal water caused discolored water in New Haven.

Response: *The Department agrees that limiting lawn irrigation is an important water conservation measure that can significantly reduce water use, especially during a drought. The State Drought Preparedness and Response Plan includes recommendations for progressively instituting more restrictive irrigation recommendations as a drought worsens. In addition, the Water Planning Council , has identified this as a significant issue through the State Water Planning process and is currently evaluating additional state-wide initiatives around water conservation, and particularly, lawn irrigation.*

Comment #59: We should plant other grasses, especially native varieties, and other ground cover such as clover to save water and encourage pollinators.

Response: *CTDEEP agrees with this statement, riparian areas are critical to water quality health.*

Comment #60: We should insist on restoration of the 18 inches of soil -- Mother Nature's filtering system -- that was removed. The plastics that replaced the soil will disintegrate and/or wind up in landfills waiting to catch fire.

Response: *Please see response to comment #57.*

Comment #61: CT DEEP should more closely monitor abuses such as those described above and provide education and encouragement for local mitigation efforts.

Response: *Please see response to comment #57.*

Comment #62: Since mid-March we have documented 37 applications of herbicides and/or chemical fertilizers in my neighborhood, including six of Prodiamine, a product banned for sale to New York; one of products containing Dicamba, which was banned this month in federal court.

Response: *Please see response to comment #35.*

Alicea Charamut, Rivers Alliance of Connecticut

Comment #63 Thank you for including a protection plan as a management strategy in this report. The Department's primary focus should, of course, be to restore our waters to supporting life and recreation and this effort should continue to receive the majority of funds and resources. However, putting some resources toward a low-cost prevention program will save significant money and effort on future restoration. While the Biological Condition Gradient method is helpful in identifying water bodies where water quality is beginning to degrade, bringing further degradation to heel is challenging. Our "home rule" approach to stormwater, wetlands, and watercourses management makes addressing water quality at any basin scale difficult. The Natchaug River and Mount Hope Watershed Protection Plan is a recipe for success in that there is already a cohesive and engaged stakeholder group in these watersheds. We hope that this action plan will result in a "playbook" that can be replicated in other basins to maintain high quality waters and prevent degradation of at-risk waters.

Response: *Thank you for your recognition, CTDEEP intends on including more protection plans in our water quality planning programs in the future. As mentioned at the June 5, meeting, the Natchaug plan is a pilot, while we will be using this plan as a "play book" we will also be analyzing our approach to a protection plan and identifying where we can work more efficiently and effectively in our planning process to protect water quality degradation.*

Comment #64: "You can't manage what you don't measure," was a statement made during the June 5th informational meeting on the report. We couldn't agree more. To be clear, the staff that work for the water quality monitoring section and the volunteer monitoring program do an excellent job with the resources they have available. But the number of assessments and definitive recreational use support determinations could increase significantly with a modest increase in resources to the monitoring program along with grants to organizations that can contribute data that can be used for these assessments. Massachusetts Department of Environmental Protection is in the second year of their Water Quality Monitoring Grant Program. This year's grant round will distribute approximately $200,000 in available funds in up to $15,000 increments to nonprofit organizations for monitoring for bacteria. Funding cuts to DEEP over the past decade has led to program and staff reductions. In many cases, some or all of these programs were carried on by local volunteer groups and non-profits. Running these programs are costly and often difficult to fund. Such is the case of water quality monitoring programs. We appreciate the budget constraints with which the state and the Department has had to contend but a modest investment in helping your partners fund some of the measuring will mean DEEP staff can spend more time doing the more complicated measurements and on the management aspect. We hope you'll consider implementing a water quality monitoring grant program similar to that of Massachusetts in order to decrease data gaps.

Response: *Thank you for the comment. The Department will investigate the MA approach as suggested. We are very interested in growing our volunteer network and program. In addition,*

the Department provides funding opportunities for monitoring through the 319 Grant Program and Long Island Sound Study grants and will continue this effort as long as funding constraints allow.

Comment #65: Addressing Non-Pollutant Impairments. While prioritization for action plans falls under a different process, this is an opportunity to point out that non-pollutant impairments need to be addressed through some sort of action plan. There are streams that have been on the impaired list for decades. Some have relief in sight with compliance with streamflow regulations by the end of this decade but some rivers and streams are either exempt from streamflow regulations or have no protections under state law. We cannot continue to have a situation where streams are documented to be impaired by altered flow regimes with no recourse in sight for even a fraction of these rivers and streams.

Response: *The Department agrees that the altered flow regimes are causing impairments in our streams. We will continue to collect data on stream connectivity, implement the stream flow regulations, and participate in the Water Planning Council to improve this situation.*

Comment #66: Thank you for listing non-native aquatic plants as an impairment for recreation. Sadly, with a combination of new, very aggressive aquatic invasive plants (such as hydrilla in the Connecticut River) and no centralized invasive species management at DEEP, this list has the potential to grow exponentially every two years. DEEP must reestablish a dedicated position to be the hub of coordination and management of invasive species management in Connecticut. Right now, our invasive species management (aquatic invasive plants, in particular) is done piecemeal. It's not working. DEEP must put resources into filling this gaping hole in water quality management.

Response: *Thank you for this comment. We will consider adding a dedicated position to address aquatic invasive species. One additional funding effort directed at aquatic invasive species that will help this situation will be forthcoming as a result of the new Aquatic Invasive Species Fee that began to be collected in 2020 It is anticipated that this will provide more focus on projects to combat aquatic invasive species. This program is being administered by CT DEEP's Bureau of Natural Resources. We will communicate your comment regarding a dedicated position to coordinate invasive species management.*

APPENDIX A. Original Comments submitted on the 2020 draft Integrated Water Quality Report

The Department thanks you for your comments regarding typographical errors on draft Integrated Water Quality Report. All comments have been addressed and will be reflected in the Final Document.

Commenters

Jean Pillo, Watershed Conservation Project Manager, Eastern Connecticut Conservation District

John Jasper, Fellow of The Explorers Club, Niantic River Watershed Committee, Nitrogen Work Group, Trout Unlimited

Louise Washer, Norwalk River Watershed Association

Carol A. Haskins, Pomperaug River Watershed Coalition (PRWC)

Kelsey Wentling, Connecticut River Conservancy

Sally Rieger, Lower Farmington River and Salmon Brook Wild and Scenic Committee

Shelley Green/ Holly Drinkuth, The Nature Conservancy's Connecticut Chapter

Steve Herzog, No Affiliation

Iris Kaminski, Environmental Scientist/Water Expert

Margaret Minor, Rivers Alliance

Laura Cahn, New Haven Environmental Advisory Council and Madeleine Cahn, New Haven Resident

Alicea Charamut, Rivers Alliance of Connecticut