

CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION
 CLEAN WATER ADVISORY COMMITTEE – FINAL APPROVED MINUTES

DATE: **Tuesday, August 6, 2019**
 SCHEDULED TIME: 11 a.m. to 12:15 p.m.
 PLACE: CCRPC Offices, 110 West Canal Street, Suite 202, Winooski, VT
 DOCUMENTS: Minutes, documents, and presentations discussed accessible at:
<http://www.ccrpcvt.org/meetings/clean-water-advisory-committee/>

Committee Members in Attendance		
Bolton:	Hinesburg: Merrily Lovell	St. George:
Buels Gore:	Huntington: Darlene Palola	Underhill:
Burlington: James Sherrard	Jericho:	Westford:
Charlotte:	Milton:	Williston:
Colchester: Karen Adams	Richmond:	Winooski: Ryan Lambert, Tim Grover
Essex:	Shelburne:	VAOT: Jennifer Callahan
Essex Junction: Chelsea Mandigo	South Burlington: Tom DiPietro	VANR: Christy Witters
Burlington Airport: Polly Harris (Stantec)	University of VT:	CCRPC Board: Don Meals, Co-Chair
Friends of the Winooski River:	Lewis Creek Assoc:	Winooski NRCO:
Other Attendees: Milly Archer, VLCT; Nisha Nadkarni Blue® Stormwater		
CCRPC Staff: Dan Albrecht, Chris Dubin, Rachel Galus (intern)		

1. **Call to Order.** The meeting was called to order by Don Meals at 11:00 a.m. Introductions were made.

2. **Changes to the Agenda and public comments on items not on the agenda** None.

3. **Review and action on draft minutes of July 2, 2019.**

After a brief recap by Dan Albrecht, *Chelsea Mandigo made a motion, seconded by Karen Adams to approve the minutes as drafted. MOTION PASSED. Abstentions by Harris and Lovell.*

4. **Presentation by Matt Vaughan, PhD. Concentration, load, and trend estimates for nutrients, chloride, and total suspended solids in Lake Champlain tributaries, 1990 – 2017**

For details see link to report here: https://lcbp-089519.s3.us-east-2.amazonaws.com/techreportPDF/86_LC_Tributary>Loading_Report.pdf or see Powerpoint at Committee webpage link above.

Some key points from Dr. Vaughan’s presentation were:

This analysis was made possible by having 18 tributaries with good long-term and concurrent data sets for water quality on one hand and water flow for the other

- **for Total phosphorus:** The Winooski and Missisquoi Rivers, Lake Champlain’s two largest tributaries, each contributed roughly 100 to 300 metric tons of phosphorus to the lake most years. In 10 out of the 18 tributaries, no trends in flow-normalized total phosphorus load were found for any time period.
- **for Dissolved phosphorus:** Dissolved phosphorus loads ranged from roughly 20 to 80 metric tons per year for the Missisquoi River and Otter Creek, and roughly 10 to 40 metric tons per year for the Winooski and Pike Rivers. Seven out of the eighteen tributaries showed no trend in flow-normalized dissolved phosphorus load for all of the three trend periods considered. The LaPlatte River showed a significant decrease in flow-normalized load throughout record, and Otter Creek and Winooski River showed a significant decrease for the first half of the record and full-record trend periods, but not for the second half of record.
- **for Total nitrogen:** The Winooski and Missisquoi Rivers each delivered roughly 750 to 2,000 metric tons of nitrogen to Lake Champlain most years. The Pike River annual flow-normalized total nitrogen yield often exceeded that of other tributaries by a factor of two and Pike River annual mean total nitrogen

1 concentrations were much higher than other tributaries. Trends, mostly downward, in flow normalized
2 load were found for at least one trend period for all but three tributaries.

- 3 • for Chloride: The Winooski River delivered roughly 15,000 to 45,000 metric tons of chloride to Lake
4 Champlain each year; its loads and yields often exceeded those of other tributaries. Full record significant
5 increases in flow-normalized chloride load were observed in all but two tributaries, the LaPlatte and Pike
6 Rivers, where decreasing trends were found.

7
8 Committee members thanked Dr. Vaughan. Discussion continued. Merrily Lovell noted the high potential
9 price tag (~\$10 Million) facing the Town of Hinesburg for mandated upgrades to their sewer plant to further
10 lower phosphorus removal which seems illogical given that wastewater plants only contribute 4% of total P to
11 the Lake. Others noted that further research is needed on tributary loading is needed particularly how it
12 impacts the various lake segments identified in the Lake Champlain TMDL. It is also worth noting that USGS
13 and the MS4s have been gathering similar data on smaller tributaries especially the “impaired” streams.
14 However, while there is good water quality data for these other streams, their data track record is shorter when
15 it comes to concurrent flow measurements.

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17 **5. Updates**

18 Tom DiPietro noted that the Online ANR Atlas seems to be on the fritz as certain known subdivision permits
19 are not showing up. Christy Witters said she would look into it. In the meantime, she encouraged people to use
20 ANR “Environmental Interest Locator” online map

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22 **6. Items for September 3rd meeting agenda.**

- 23 • Draft 3-acre permit

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25 **7. Adjournment.** The meeting adjourned at 12:01 p.m.

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27 *Respectfully submitted, Dan Albrecht*
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