

RIGHTS OF WAY, LAND USE, & GLYPHOSATE in LAKE CHAMPLAIN BASIN

March 2014

This chart estimates distances where rights-of-way adjacent to water can contribute the herbicide glyphosate as a source of phosphorus to the Lake Champlain Basin. Parallel miles are approximated using DeLorme Vermont Atlas & Gazetteer 2000. Google ortho maps are used in comparison with VELCO's map to locate transmission lines and substations. See references () for VELCO's map and explanation of buffers for glyphosate buffers. (compiled by Sylvia Knight, www.earthcommunityadvocate.info)

| LAND USE | Water Body | # Crossings | # of parallel miles | Towns | DeLorme Atlas VT Page | Velco map |
|--|------------------------------------|-------------|---------------------|-----------------------------|-----------------------|-----------|
| MISSISQUOI RIVER & BAY | | | | | | |
| Highway Rt 78 (2) | Missisquoi R | 1 | 4.8 | Swanton | 50-51 | |
| | Missisquoi NWR | | 2.4 | Swanton | 50-51 | |
| | Carman's WMA | | 1.0 | West Swanton | 50 | |
| | L Champlain | | 1.0 | West Swanton, E.Alburg | 50 | |
| NECR (1) | Missisquoi R & NWR | 1 | 9.6 | Swanton, W. Swanton | 50-51 | |
| | Missisquoi R | 4 | | Swanton, W. Swanton | 50-51 | |
| VELCO Substation (5) | Missisquoi R trib | (adjacent) | | Highgate at routes 78 & 207 | Google | * |
| VELCO Transm. | Missisquoi R & trib | 2 | | Highgate | | * |
| AGRICULTURE & HIGHWAY 78 | Missisquoi R at oxbow -both shores | | 4.8 | Highgate | 51; Google | |
| MISSISQUOI RIVER: TOTAL PARALLEL MILES | | | 23.6 | | | |
| ST. ALBANS BAY | | | | | | |
| RESIDENTIAL | St. Albans Bay Shore | | 12.8 | St. Albans, Georgia | 50-51 | |
| (potential residential landscape use of glyphosate; no buffers required) | | | | | | |
| NECR | Deer Brook | | 2.4 | Georgia | 51 | |
| | Mill R wetland | | 1.6 | Georgia | 51 | |
| | Mullens Creek & wetland | | 0.8 | Milton | 45 | |
| ST. ALBANS BAY TOTAL PARALLEL MILES | | | 17.6 | | | |

MALLETTS BAY

| | | | | | |
|--|-----------------------|---|------------|------------------------|----|
| RESIDENTIAL | Malletts Bay | | 5.6 | Colchester | 44 |
| RT 127 | Winooski R & wetlands | 1 | 4.0 | Burlington, Colchester | 44 |
| MALLETTS BAY TOTAL PARALLEL MILES | | | 9.6 | | |

BROAD LAKE

| | | | | | |
|--------------|---------------------------------------|----------|-------------|----------------------------------|--------------------------------------|
| NECR | Winooski R. (Chitt.Co) | 2 | 18.4 | Williston, Richmond, Bolton | 45-46 |
| | Winooski R. (Wash.Co to Mtplr) | | 22.0 | Waterbury, Middlesex, Montpelier | 40 |
| VT RR yard | Burlington Bay, LC | | 1.2 | Burlington | 60 |
| VT RR tracks | Burlington Bay @barge canal | | 1.6 | Burlington | 60 |
| VT RR | Shelburne Bay, LC | | 1.6 | Shelburne | 44 |
| | Potash Bk | 1 | | So. Burlington | 44 |
| | Monroe Bk (1) | 1 (6) | | Shelburne | 44 |
| | LaPlatte R | 1 | | Shelburne | 44 |
| | McCabes Bk | 1 | | Shelburne | 44 |
| | Holmes Ck | 1 | | Charlotte | 38 |
| | Pringle Bk | 1 | | Charlotte | 38 |
| | Thorp Bk | 1 | | Charlotte | 38 |
| | Kimball Bk | 1 | | Ferrisburgh | 38 |
| | Lewis Ck | 1 | | Ferrisburgh | 38 |
| | Little Otter Ck | 1 | | Ferrisburgh | 38 |
| VELCO | Potash Bk | 1 | | So. Burlington | } All empty to Shelburne Bay |
| | Munroe Bk | 1 | | Shelburne | } NOTE same streams crossed by VT RR |
| | LaPlatte R | 1 | | Shelburne | } |
| | McCabes Bk | 1 | (wetland) 1 | Shelburne | } VELCO map (4) |
| | Holmes Ck | 1 | | Charlotte | |
| | Pringle Bk | 1 | | Charlotte | |
| | Thorp Bk | 1 | | Charlotte | |
| | Kimball Bk | 1 | | Ferrisburgh | |
| | Lewis Ck | 1 | | Ferrisburgh | |
| | Little Otter Ck | 1 | | Ferrisburgh | |

| LAND USE | Water Body | # Crossings | # of parallel miles | Towns | DeLorme Atlas VT Page | Velco map |
|-------------|------------|-------------|---------------------|------------------------------|-----------------------|-----------|
| AGRICULTURE | Dead Creek | | 9.6 | Ferrisburgh, Panton, Addison | 38 | |

BROAD LAKE: TOTAL CROSSINGS: 20. (How many RR abutments are treated with glyphosate 2 ft from water?)
TOTAL PARALLEL MILES: 54.4

SOUTHERN WATERSHEDS

| | | | | | | |
|------------------|---|----------------------|-------------|---|--------|---|
| VELCO substation | Whipple Hollow wetland (Castleton R watershed) | 300 X 300 ft approx. | | West Rutland | 29 | * |
| VT RR | Little Otter Ck trib | | 3.6 | New Haven | 38-39 | |
| | Otter Creek, associated wetlands | | 16.0 | Middlebury, Salisbury, Leicester, Brandon | 32-33 | |
| | Otter Creek | | 17.6 | Pittsford, Rutland | 29 | |
| | Otter Creek | | 9.6 | Clarendon, Wallingford | 29 | |
| | Otter Creek | | 8.0 | Danby, Dorset | 25 | |
| US RT 7 | Otter Creek (at guardrails) | | 9.6 | Wallingford, Danby | 29, 25 | |

SOUTHERN WATERSHEDS TOTAL PARALLEL MILES 64.4

REFERENCES

- (1) Railroads are permitted to use glyphosate products (Accord, Rodeo) up to **2 feet** from water at bridge abutments, 15 visible feet from parallel waters, to tie end where water is less than 10 feet from railroad ties.
- (2) Vtrans permit for highway weed management allows glyphosate up to 10 feet from edge of parallel waters; up to 15 feet at bridge abutments; 30 feet from water at crossings.
- (3) VELCO is permitted to use glyphosate up to 10 feet from water.
- (4) * indicates map of VELCO Transmission System and Waters of the State. www.earthcommunityadvocate.info/VELCOwetlands7_13.jpg
- (5) Herbicide use at substations is currently unregulated even though their infrastructure makes them both point- and non-point sources of pollution and contamination. See www.earthcommunityadvocate.info for more information.
- (6) Munroe Brook TMDL www.epa.gov/waters/tmdl/docs/35084_Munroe%20Brook%20VT%20TMDL.pdf Quote: "The TMDL establishes the allowable pollutant loading from all contributing sources at a level necessary to attain the applicable water quality standards."