

**Reclassification Information and Petition Form
(per 10 V.S.A. § 1253)
Classification of waters designated, reclassification**



Caspian Lake and surrounding landscape (courtesy of Jim Fredericks)

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| Petition Form Submittal Instructions | | | |
|---|--|--------------|-----------------|
| <ul style="list-style-type: none"> ● If submitting via US post: <p style="text-align: center;">Mail to: Lakes and Ponds Program Watershed Management Division One National Life Drive, Davis 3 Montpelier, VT 05620</p> <ul style="list-style-type: none"> ○ Please submit a CD or flash drive for petitions that contain large files (1 MB or greater) ● Petitions can also be submitted via email to the following address: <p>oliver.pierson@vermont.gov with the Subject Line of “Reclassification Petition” or “Reclassification Application”</p> | | | |
| 1. Petitioner Name - Individual or organization | Stewards of the Greensboro Watersheds JoAnn Hanowski (co-chair) | | |
| 2. Address | Street/P.O. Box | | |
| | 257 Collier Road | | |
| | Town | State | Zip Code |
| | Greensboro | VT | 05841 |
| 3. Phone | 802-922-2428 | | |
| 4. Email of contact person | joannhanowski@gmail.com | | |
| 5. Petition Preparer Name | JoAnn Hanowski | | |
| 6. Co-Sponsors | Town of Greensboro Greensboro Land Trust Greensboro Association | | |

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|--------------------------------------|---|-----------------------------------|------------------------|
| 7. Waterbody Name(s) | Caspian Lake | | |
| 8. Portion of waterbody for petition | Location (add stream reach id if applicable) | Waterbody Coordinates (DD) | Elevation (ft.) |
| | From: | Latitude: 44.53N | 1398 Ft |
| | To: | Longitude | |

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| | | 72.31 W | |
| 9. Petition Type (<i>Check one</i>) | <input type="checkbox"/> Reclassification (stream / river) | <input checked="" type="checkbox"/> Reclassification (lake or pond) | |

| Reclassification Only (#x) | | | |
|--|--|---|---------------------|
| | Use: | Proposed: | Current Use: |
| 10. Water body Use proposed to be reclassified, current, and proposed classification. See Vermont Water Quality Standards §29A-306 for description of each use | <input type="checkbox"/> Aquatic Biota | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| | <input type="checkbox"/> Aquatic Habitat | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| | <input checked="" type="checkbox"/> Aesthetics | A(1) <input checked="" type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| | <input type="checkbox"/> Fishing | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| | <input type="checkbox"/> Swimming | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| | <input type="checkbox"/> Boating | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| | <input type="checkbox"/> Public Water Source | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |
| Other | <input type="checkbox"/> Riparian Habitat <input type="checkbox"/> Rare Species <input type="checkbox"/> Significant Natural Communities <input type="checkbox"/> Upland Uncommon Natural Community <input type="checkbox"/> Highest Priority Riparian Connectivity <input type="checkbox"/> Exemplary Surface Waters <input type="checkbox"/> Highest Priority Habitat Block, Connectivity Block, and Interior Forest Block | A(1) <input type="checkbox"/> A(2) <input type="checkbox"/> B(1) <input type="checkbox"/> B(2) <input type="checkbox"/> | |

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| Reclassification Criteria | |
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| Reclassification Criteria 11. List specific criteria per the Vermont Water Quality Standards (2017), Environmental Protection Rule Chapter 29A | Aquatic Biota: Biological criteria (<i>see Appendix G. biocriteria for fish and macroinvertebrate communities in Vermont wadeable streams and rivers - Vermont Water Quality Standards, 2017</i>) <input type="checkbox"/> Numeric water quality criteria (e.g., appended data records) <input type="checkbox"/> Documentation of Rare, Threatened or Endangered species <input type="checkbox"/> Documentation of Rare and Irreplaceable Natural Area or significant natural community <input type="checkbox"/> Documentation of numeric water quality chemistry (e.g., nutrient levels, turbidity, dissolved oxygen levels, alkalinity, pH) <input type="checkbox"/> Documented absence of toxic or radioactive substances <input type="checkbox"/> Undeveloped riparian zones <input type="checkbox"/> Limited human activity within the watershed |
| | Aquatic Habitat: <input type="checkbox"/> Natural Flow Regime (<i>Documented attainment of hydrology and stream protection criteria - § 29A-304 of the Vermont Water Quality Standards, 2017</i>) <input type="checkbox"/> Temperature (data appended) <input type="checkbox"/> Documentation of Rare, Threatened or Endangered species <input type="checkbox"/> Documentation of Rare and Irreplaceable Natural Area or significant natural community <input type="checkbox"/> Undeveloped riparian zones <input type="checkbox"/> Limited human activity within the watershed <input type="checkbox"/> Other Aquatic Habitat Assessments (Describe or append assessment used) |
| | Aesthetics: <input checked="" type="checkbox"/> Documented aesthetic qualities and characteristics <input type="checkbox"/> Documented water characteristics, flows, water level, bed and channel characteristics, and flowing and falling waters in their natural condition. <input checked="" type="checkbox"/> Documented maintenance of level of water quality that provides for the attainment and maintenance of the water quality standards of downstream waters (for lakes only). |
| | Recreational Fishing: <input type="checkbox"/> Documented temperature in attainment with Cold Water Fish Habitat criteria (<i>for use in Wild Salmonid Stream re-classification petitions</i>) <input type="checkbox"/> Documented temperature in attainment with Cold Water Fish Habitat criteria (<i>temperature criteria in § 29A-302(B) of the Vermont Water Quality Standard</i>) <input type="checkbox"/> Measures of wild salmonid densities, biomass, and age composition consistent with those expected in waters in their natural condition. <input type="checkbox"/> Documented high incidence of accessibility to water <input type="checkbox"/> Documented high use by anglers (i.e., fishing identified as existing use) <input type="checkbox"/> Limited human activity within the watershed <input type="checkbox"/> Upstream/ downstream use attainment |

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| | <p>Recreational Boating:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Boating to the full extent naturally feasible without degradation due to artificial flow and water level management or artificial physical impediments <input type="checkbox"/> Boating to the extent feasible with no more than minor degradation due to artificial flow and water level management or artificial impediments, and with appropriate mitigation for artificial physical impediments <input type="checkbox"/> Prospective waters shall comply with the Hydrology Criteria in § 29A-304 of the Vermont water Quality Standards with respect to any flow alterations <input type="checkbox"/> Areas where existing boating use has been determined to be present and where, over some appreciable distance, certain features, free flowing water and/or notable whitewater or flat-water boating opportunities are found. |
| | <p>Recreational Swimming:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Prospective waters achieve and maintain a level of water quality compatible with very good or excellent quality swimming and other primary contact recreation with negligible risk of illness or injury from conditions that are a result of human activities. <input type="checkbox"/> Areas where existing swimming use has been determined to be present that have consistent <i>E. coli</i> values below <i>E. coli</i> criterion and which, over some appreciable distance, also possess certain high-quality features. <input type="checkbox"/> Well-known locally or regionally as a swimming area; <input type="checkbox"/> Documented pool(s) for swimming and/or water features that are enjoyable for swimming or bathing including chutes, cascades, waterfalls, cliffs, jumping rocks; |
| | <p>Public Water Source:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Existing A(2) was never developed and/ or was developed but then abandoned <input type="checkbox"/> or, prospective waters are currently managed, as necessary, for consistency with use as a public water source. Where sustained direct contact with the water occurs, waters shall be managed to achieve and maintain a negligible risk of illness or injury from conditions that are a result of human activities, <input type="checkbox"/> or, prospective could be managed to achieve and maintain a uniformly excellent character and a level of water quality highly suitable for use as a public water source with filtration and disinfection or other required treatment. |

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| <p>12. Purpose and need for reclassification – i.e., why is the change in classification now warranted? (<i>summary</i>)</p> | <p>Caspian Lake is a cherished body of water in the Northeast Kingdom of Vermont and especially to the town of Greensboro. Located in the headwaters of the Lamoille River Basin, it has a drainage basin of 4,510 acres. is 789 acres in size and has an average depth of 57 feet. Despite the Lake’s outstanding water clarity (over 30 feet), the water quality over the past 30 years has diminished. Based on lay water quality monitoring data, the total phosphorus concentrations in both spring and summer have significantly increased ($P < 0.01$). Despite these increases in total phosphorus, it is still considered to be in the top 20% of all Vermont Lakes. Local residents, action groups and Town officials are concerned that if nutrient levels in this very clean and clear lake continue to rise, it could change the trophic status of the lake.</p> <p>The Greensboro broader community is requesting the reclassification of Caspian Lake from B(2) to A(1) to recognize the high value that the Lake has to the community, the region and to the State. The community has prioritized the protection of water quality in the Lake and in a recent Community Visit Process with the Vermont Council on Rural Development, protecting Caspian Lake emerged as one of the top priorities for the Town. The Stewards of the Greensboro Watersheds group emerged from this process and is committed to protecting water quality in all of Greensboro’s waters. They recently partnered with Orleans County Natural Resources to gain funding for a Watershed Action Plan for Caspian Lake that will begin in 2022. A LakeWise program has also been initiated on the Lake with partial funding from the Greensboro Association and the Town of Greensboro.</p> <p>Water quality data in Appendix 4 provides evidence that Caspian Lake meets DEC’s data requirements for reclassification to A(1) for aesthetics based on the Vermont Water Quality Standards Aesthetics Use Numeric Nutrient Criteria (Table 3) and the requirements in the Vermont Surface Water Listing and Assessment Methodology (L&A Methodology).</p> <p>Appendix 4 provides the raw data from Caspian Lake water quality monitoring and Appendix 5 shows mean annual values for all years. Over the past 10 years, the mean sechhi disk reading was 7.86m, the mean Chl-a was 2.12 ug/l and the mean summer TP was 9.99 ug/L.</p> <p>Based on mean data over the past 10 years, Caspian Lake meets the requirements of the VT WQS and the L&A methodology. We understand that the DEC is revising the L&A Methodology to 1) use at least 10 years of data (starting from the most recent year data is available) and 2) calculate either a geometric mean or use a simple or simple T test to determine a lake’s TP value at a 95% confidence interval AND using either of these two</p> |
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| | <p>approaches, Caspian meets the standard for full support of aesthetics uses at the A(1) classification based on LMP data.</p> <p>The momentum in the community to protect Caspian Lake is building. The timing could not be better to reclassify Caspian Lake and to begin the outreach, education and actions required to protect its water quality.</p> |
| <p>13. Town(s) adjacent to proposed waterbody (append letters of support from municipality and/or Regional Planning Commission and/or Natural Resource Conservation District and/or watershed organization</p> | <p>Greensboro. Letters of support from the Town of Greensboro, Greensboro Land Trust, and Greensboro Association and are provided in attachments 8, 9, and 10. A letter of support from Vermont Chapter of Native Fish Coalition is attachment 52.</p> |

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| <p>14. Potentially interested parties (abutting landowners, municipal and civic organizations, business interests, etc.) Provide names, address and phone numbers for each party.</p> | <p>Additional information should be attached and listed in box 14.</p> <p>Names and addresses of 312t privately owned land parcels in the watershed are included in Attach 51. During the summer of 2021 we started a petition asking for support of the reclassification. We estimate that of the nearly 400 signees about 153 are current watershed landowners. See attachments 38 and 50 for signatures and names of individuals who signed our reclassification petition.</p> |
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| <p>15. Supporting Documentation (maps can be created using the ANR Atlas) <i>*required</i></p> | <p>Required</p> <ul style="list-style-type: none"> ● Map with location information and delineated area for petition with known public and private conserved land within the watershed ● Water quality monitoring data ● Map of Rivers and streams ● Map of lakes and Ponds <hr/> <p>Recommended</p> <p>One-page document describing:</p> <ul style="list-style-type: none"> ● Existing zoning or protection at town level that may preclude or support designation ● Additional map(s) that include: <ul style="list-style-type: none"> ● Watershed boundary current land use and waterbody encroachments, including roads and structures ● Water quality and quantity impacts, including wastewater and stormwater, physical alterations, and (if available) stream geomorphic condition ● Land parcels conserved <p>Photos of petition area</p> <p>Letter(s) of support</p> |
| <p>16. List of supporting materials attached</p> | <p>List attachment by number with names and dates: (ex. 1. Map of Waterbody to be Reclassified 4/5/2017; 2. Photographs of Waterbody for Reclassification 4/5/2017; 3. One Page Supporting Document 4/10/2017)</p> <p>Attach 1. Caspian watershed with topography and streams Attach 2. Caspian watershed air photo Attach 3. Caspian watershed land-use lake basin 11/28/2016 Attach 4. Caspian Lake lay monitoring data 9/15/2021 Attach 5. Caspian Lake scorecard 1/2021 Attach 6. Caspian Lake conserved and public map 9/15/2021 Attach 7. Greensboro Zoning Summary 9/16/2021 Attach 8. Town of Greensboro letter of support 9/18/2021 Attach 9. Greensboro Land Trust Letter 9/14/2021 Attach 10. Greensboro Association Letter 9/26/2021 Attach 11. Letter of support from djanukjatis 9/8/2021 Attachments 12-37. Scanned copies of signed reclassification petitions 9/15/2021 Attach 38. List of signees from change.org petition 9/15/2021 Attach 39. Caspian Lake Water Depth Map Attachments 40-47 Photos of Caspian Lake misc dates</p> |

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| Lead Sponsor Information | | | |
| Lead Sponsor Name: JoAnn Hanowski | | | |
| Address: 257 Collier Road | | City/Town: Greensboro | |
| | | State: | |
| | | Zip: | |
| State: VT | Zip: 05841 | Phone: 802-922-2428 | |
| Email Address: joannhanowski@gmail.com | | | |
| Lead Sponsor Signature: <i>JoAnn Hanowski</i> | | Date: 9/25/2021 | |

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| Co-Sponsor Signatures | |
| Name: Peter Romans | |
| Organization: Town of Greensboro, Select Board Chair | |
| Co-Sponsor Signature: <i>Peter Romans</i> | Date: 9/25/2021 |
| | |
| Name: Clive Gray | |
| Organization: Greensboro Land Trust, Chair | |
| Co-Sponsor Signature: <i>Clive Gray</i> | Date: 9/25/2021 |
| | |
| Name: Vince Cabbage | |
| Organization: Greensboro Association, Chair | |
| Co-Sponsor Signature: <i>Vince Cabbage</i> | Date: 9/25/2021 |
| | |
| Name: | |
| Organization: | |

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| Co-Sponsor Signature: | Date: |
|------------------------------|--------------|

| DEC use | | | |
|---|---|--|-----------------------|
| Coordinates from / to of affected area | From (lat/long) | To (lat/long) | |
| | | | |
| Elevation | At mouth: | At source- end of blue line: | |
| | | | |
| Total drainage area km ² at mouth or area of standing water in acres | | Drainage area of proposed water (km ²) | |
| Land use | % Natural | % Developed | % Agricultural |
| | | | |
| Available data to support specific use proposed reclassification | | | |
| Bio site ID (RM as xx), WBID | Bio Site ID | WBID | |
| | | | |
| Map of waterbody, watershed and conserved lands in drainage | Include attached map title below | | |
| | | | |
| Recommended Classification | | | |