

STATE OF VERMONT

SUPERIOR COURT

ENVIRONMENTAL DIVISION  
Docket No.

Natural Resources Board,  
Petitioner,

v.

Country Club of Vermont, Inc.,  
Respondent.

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ASSURANCE OF  
DISCONTINUANCE

**VIOLATIONS**

- I. Failure to comply with Permit Conditions 1, 8 and 15 of Land Use Permit 5W1264.
- II. Failure to comply with Conclusion 2 of Land Use Permit 5W1264 Memorandum of Decision dated April 4, 1997.
- III. Failure to obtain an Act 250 Permit Amendment pursuant to Act 250 Rule 34(A).

**ASSURANCE OF DISCONTINUANCE**

Pursuant to the provisions of 10 V.S.A. § 8007, the Natural Resources Board and Country Club of Vermont, Inc. (Respondent) hereby enter into this Assurance of Discontinuance (Assurance), and stipulate and agree as follows:

**STATEMENT OF FACTS AND DESCRIPTION OF VIOLATIONS**

**Background**

- 1. According to tax records, Respondent owns approximately 330.99 acres, located at 2800 Country Club Road in the town of Waterbury Center, Vermont (the "Project Tract").
- 2. On February 21, 1997, the District 5 Environmental Commission (the "Commission") issued Land Use Permit 5W1264 to Respondent for the construction of Phase 1 of an overall golf course project located on the Project Tract. Phase 1 consisted of the golf course, an access road, a maintenance building and its parking lot, subsurface disposal systems, a supply and storage building, shelters, comfort stations, pump house and starter's booth.

3. On March 3, 1997, the District Commission received a letter dated February 28, 1997, from the permittee's consultant in which he outlined five aspects of the Findings of Fact issued on February 21, 1997, which required clarification. Although not captioned as such by the consultant, the content of the February 28th letter was the equivalent of a Motion to Alter under Environmental Board Rule 31(A), and the District Commission considered the letter in that context. The District Commission deliberated on the Motion to Alter on March 25, 1997 and issued a Memorandum of Decision and Land Use Permit 5W1264(Revised) on April 4, 1997. Land Use Permit 5W1264(Revised) incorporated revisions consistent with the Memorandum of Decision.
4. On June 15, 2017, in Response to an anonymous complaint alleging unpermitted construction and vegetation removal near Holes 3 and 15, the Board's Enforcement Officer visited the Project Tract. On June 26, 2017, ANR Fisheries Program Manager Rich Kirn also visited the Project Tract.

#### **Act 250 Land Use Permit Conditions Violated**

5. Condition 1 of Land Use Permit 5W1264 states,

"The project shall be completed, maintained and operated as set forth in Findings of Fact and Conclusions of Law #5W1264, in accordance with the plans and exhibits on file with the District Commission, and in accordance with the conditions of this permit. No changes shall be made in the project without the written approval of the District Commission."

Exhibit 2 Parties states, in relevant part,

"Rich Kirn, District Fisheries Biologist with the Vermont Department of Fish and Wildlife (VTDFW) has reviewed the application and reports the following. The project area includes portions of Graves Brook and Thatcher Brook, two perennial streams. In order to prevent the degradation of those streams (and the fish habitat supported therein) from the effects of erosion, Mr. Kirn recommends that the Land Use Permit include a condition which requires the maintenance of undisturbed, naturally vegetated buffer strips of no less than 50 feet for Graves Brook and 75 feet for Thatcher Brook. Such buffer strips shall be measured from the top of each stream bank. The larger buffer strip for Thatcher Brook is necessitated by the highly erosive nature of that brook. This requirement shall apply to the entire project area with the exception of two areas, at holes 3 and 15, as specified by the applicant in Schedule B, under Criterion 1(E)."

Exhibit 3, Schedule B, states, under Criterion 1(E) Streams, in relevant part,

"There are two brooks which exist on or near the project land. . . . These brooks are clearly delineated on the project plans. The closest point of construction along Graves Brook is the fairway hole #15, where portions of the edge of the fairway come approximately 25' from the brook. The closest point of construction to Thatcher Brook

is approximately 50' along hole #3."

Exhibit 3, Schedule B, states, under Criterion 1(D) Floodways, in relevant part,

"The floodway exists along the edge of the third hole, and the course has been carefully laid out to avoid impacts to the floodway. There will be no filling or construction within the floodway." "The only area which requires filling is around the third green. This is approximately one half of an acre in area which will be filled approximately 3' above the floodplain."

Exhibits 22, 25, and 40 depict the following:

- 50 feet or more of horizontal distance between Thatcher Brook and the Hole 3 fairway.
- 25 feet or more of horizontal distance between Graves Brook and the Hole 15 fairway.

Exhibits 24 and 25 depict the following:

- "Wetland L" just north of the Hole 3 fairway.

Exhibit 25 depicts:

- "Floodway" just north to the Hole 3 fairway.

Finding 43 of Findings of Fact 5W1264 states, in relevant part,

"As depicted on Exhibit 40, Thatcher Brook and Graves Brook run through the tract. Neither stream will be physically altered during project construction. Construction on the hole #15 fairway will be within 25 feet of Graves Brook. Construction on hole #3 will come within 50 feet of Thatcher Brook. (Exhibit 3)."

Finding 44 of Findings of Fact 5W1264 states, in relevant part,

"The Department of Fish and Wildlife did not object to the construction described in Finding 43 if the applicant is diligent in implementing its erosion control plan. The Department recommended a land use permit condition that will require the applicant to maintain undisturbed (no mowing, cutting, etc.) naturally vegetated buffer strips of no less than 50 feet in width for Graves Brook and 75 feet for Thatcher Brook after the completion of construction. The Department noted that the highly erosive nature of Thatcher Brook requires the larger buffer strip. (Exhibit 2 - Parties). The applicant agreed to this condition at the hearing."

Finding 49 of Findings of Fact 5W1264 states, in relevant part,

“The project will also not disturb any of the Class 3 wetlands on the tract.”

6. Conclusion 2 of Country Club of Vermont, Inc. 5W1264 Memorandum of Decision states,

“Finding #44 – The Commission agrees with the permittee’s interpretation of the comments from District Fisheries Biologist Rich Kirn as stated in Exhibit 2 – Parties. The Commission recognizes that reduced buffer zones will result at golf course holes 3 and 15 and Finding #44 is herein revised accordingly.”

7. Condition 8 of Land Use Permit 5W1264 states,

“The permittee shall comply with Exhibits 3, 19, 25, 32 and 40 for erosion control. Hay bale dams and silt fences shall be installed as depicted on the plans prior to commencement of construction. From October 15th to April 15th of any calendar year, all non-vegetated disturbed areas of the construction site shall be mulched until final vegetative cover is established.”

8. Condition 15 of Land Use Permit 5W1264 states,

“The permittee shall strictly adhere to all exhibits and representations with respect to the maintenance of undisturbed vegetated buffer zones along Graves Brook, Thatcher Brook and all wetlands situated on the project tract.”

9. Act 250 Rule 34(A)

Act 250 Rule 34(A) states, in relevant part, that “an amendment shall be required for any material change to a permitted development or subdivision, or any administrative change in the terms and conditions of a land use permit. Commencement of construction on a material change to a permitted development or subdivision without a permit amendment is prohibited.”

Act 250 Rule 2(C)(6) defines “material change” as “any change to a permitted development or subdivision which has a significant impact on any finding, conclusion, term or condition of the project's permit or which may result in a significant adverse impact with respect to any of the criteria specified in 10 V.S.A. §§ 6086(a)(1) through (a)(10).”

### **Description of Alleged Violations**

#### **Failure to Establish and Maintain Stream Buffers**

10. Portions of the designated natural stream buffer areas adjacent to Fairways 3 and 15 have been converted to lawn, and have been regularly mowed and weed-whacked, reducing buffer widths in these areas to as little as zero.
11. Respondent constructed portions of the Hole 15 green and a bunker within the buffer zone of Graves Brook.

12. In approximately 2012, Respondents constructed an extension of the cart path near Hole 3 within the buffer zone of Thatcher Brook.
13. Starting in late October of 2016, Respondent used a mini excavator and chain saw to remove woody vegetation and stumps from an island and surrounding stream banks near Hole 15 within the Riparian Buffer Zone of Graves Brook.
14. In approximately 2016, Respondent used a mini excavator to remove woody vegetation and disturbed earth in the vicinity of a beaver dam near Hole 15 within the Riparian Buffer Zone of Graves Brook.
15. By constructing golf course infrastructure, mowing, weed-whacking, cutting, scraping and excavating earth; and failing to establish and maintain undisturbed, naturally vegetated buffer strips along Thatcher Brook and Graves Brook, Respondent violated conditions 1 and 15 of Land Use Permit 5W1264, and Conclusion 2 of Country Club of Vermont, Inc. 5W1264 Memorandum of Decision.

#### **Disturbance of Class 3 Wetland**

16. Starting in late October of 2016, Respondent rerouted subterranean drainage pipes into "Wetland L," just north of Fairway 3. This work, conducted for the purpose of reducing wet conditions elsewhere on the course, altered the natural hydrology of Wetland L and further disturbed the buffer strip along Thatcher Brook.
17. By installing drainage pipe and altering the hydrology of Wetland L, Respondent violated conditions 1 and 15 of Land Use Permit 5W1264.

#### **Filling Within The Floodway**

18. During the installation of drainage infrastructure near Hole 3, soils and other excavated debris were deposited within the area adjacent to Thatcher Brook identified as "Floodway" on Exhibit 25. This area is within the state-designated River Corridor.
19. By filling in the Floodway, Respondent violated condition 1 of Land Use Permit 5W1264.

#### **Failure to Implement Winter Stabilization**

20. Starting in late October of 2016, respondent performed excavation and floodplain filling activities near Hole 3, and excavation and land clearing activities near Hole 15 without complying with Exhibits 3, 19, 25, 32 and 40 for erosion control. Silt fence and mulch were not installed on all disturbed areas.
21. By failing to implement adequate erosion control between October 15th and April 15th, Respondent violated condition 8 of Land Use Permit 5W1264.

### Respondent's Subsequent Actions

22. On November 9, 2017, the Respondent met with the Board's Enforcement Officer and ANR's Fisheries Program Manager to measure stream buffer zones on the ground. Small flags were placed in the ground to demarcate minimum stream buffers at that time.
23. On February 1, 2018, the Respondent provided the Board with a draft buffer restoration plan for review and comment.
24. On March 15, 2018, the Respondent met with the Board to discuss the terms of a final buffer restoration plan, which is incorporated into this Assurance.
25. Respondent admits the factual findings described above, solely for purposes of resolving this case.
26. The parties now resolve the above claims and agree that this settlement will avoid the costs and uncertainties of litigation, is a just resolution of the disputed claims, and is in the public interest.

### AGREEMENT

Based on the aforementioned Statement of Facts and Description of Violations, the parties hereby agree as follows:

- A. Respondent shall comply with the Permit and all amendments.
- B. In the vicinity of Holes 3 and 15, Respondent shall clearly demarcate adjoining property boundaries on the ground, and immediately discontinue management of these adjoining areas, including, but not limited to, the stream frontage on Thatcher Brook and the island in Graves Brook.
- C. By no later than **October 15, 2018**, Respondent shall restore all disturbed portions of the designated Stream Buffer Zones as follows:
  - a. Replant all areas of the Buffer Zones indicated on Exhibits A and B (Stream Buffer Restoration Plan) that are not already dominated by woody plants with a combination of native shrubs and trees as follows:
    - a. Plant a variety of suitable tree and shrub species to insure structural and ecological diversity and long-term viability of the riparian area.
    - b. Plant species, quantities, sizes, spacing, and locations shall be as identified on Exhibits A and B and the written Planting Plan (Exhibits C and D).
    - c. Plant a total stem density of 400 stems/acre with at least 50% comprised of tree species.

- d. Trees shall be 8-15 feet tall, and 1-3" caliper. Respondent shall maximize the use of large trees.
  - e. Shrubs shall be at least 1 foot in height.
  - f. All trees shall be spaced a maximum of 15-20 feet apart with equidistant spacing from existing trees and each other.
  - g. All shrubs and willows shall be spaced a maximum of 3-5 feet apart with equidistant spacing from existing willows and shrubs and each other.
  - h. The planting objective shall be to enable the formation of a future overstory of native hardwood forest or native mixed hardwood and softwood forest on upland areas of the Buffer Zones, with native willows dominating lower-lying areas closest to the banks of the brooks.
  - i. Zone 15-2, identified on Exhibit B, shall extend upslope from the edge of Graves Brook to 25 feet inland from, and perpendicular to, the top of the bank of Graves Brook.
  - j. Within zone 15-2, native shrubs shall be planted from the edge of Graves Brook, extending upslope to the top of the bank, and inland to within 10 feet from the top of the bank of Graves Brook.
  - k. The outer 15 feet of zone 15-2 shall remain unmanaged, except that brush hogging shall be allowed within the outer 15 feet of this zone once each year, in the fall as the course closes. Brush hogging shall not be done during the spring or summer months.
  - l. Respondents shall clearly demarcate the boundaries of Zone 15-2 on the ground, and shall install signage along Zone 15-2 identifying that specific area as a special management area where limited vegetation management is permitted.
  - b. Plantings shall be watered as needed during the first year of establishment. Other than maintenance to ensure the health or survival of the plants (e.g., watering and staking), no maintenance, including mowing, cutting, brush hogging, or pruning, shall be permitted (except as outlined in paragraphs C1.h-C1.k).
  - c. Twelve to eighteen months following initial installation, dead plants shall be replaced in accordance with the specifications outlined in Paragraph 1.
- D. On or before **October 15, 2018**, Respondent shall contact the Board to arrange a site visit. The site visit may be attended by Respondent or their representative, and the Board's Enforcement Officer, and shall occur on or before October 31, 2018, to confirm that all of the terms of this Restoration Plan have been fully implemented. Respondent shall promptly address deficiencies identified during the site visit, if any. In such case, Respondent shall contact the Board's Enforcement Officer when the deficiencies have been remedied; and shall participate in an additional site visit, at a mutually decided time, to confirm completion of the remedy work.

- E. No later than **30 days** following the entry of this Assurance as an Order by the Superior Court, Environmental Division, the Respondent shall pay the following:
1. pursuant to 10 V.S.A. §8010(e)(2), the amount of **\$3,046.12**, to reimburse the Natural Resources Board for the costs of this enforcement action by good check made payable to the "State of Vermont."
  2. the amount of **\$10.00**, for the purpose of paying the recording fee for the filing of a notice of this Assurance in the Waterbury land records, by good check made payable to the "Town of Waterbury, Vermont."
  3. In mitigation of adverse impacts to aquatic and riparian resources on the Project Tract, Respondents shall pay to the Friends of the Winooski River (Recipient), the sum of **\$8,000.00** for a Supplemental Environmental Project (SEP) (10 V.S.A. § 8007(b)(2)). Respondent shall make the SEP payment by check made payable to "Friends of the Winooski River," but shall send payment to the address specified in paragraph (E)(5), below. The Recipient shall use this sum for the restoration of riparian lands within the Winooski River Watershed for the following purpose and subject to the following guidelines:
    - a. *For the restoration of riparian lands within the Winooski River Watershed. The money shall be used for the purchase of trees and shrubs for riparian restoration plantings or for associated expenses such as event supplies, equipment rental, contract labor, or staff costs for oversight of riparian restoration events and activities.*
    - b. *SEP funds may be used only for the purposes outlined herein.*
    - c. The Recipient agrees:
      - i. To maintain a current accounting of all monies received and expended in furtherance of the Project, to be made available to the Board upon request;
      - ii. To complete the Project no later than December 1, 2019;
      - iii. To provide to the Board a final accounting of all receipts and expenditures in furtherance of the Project within thirty (30) days of the completion of the Project;
      - iv. To provide to the Board, within thirty (30) days of the completion of the Project, a brief report of the Project, certifying that the funds have been expended in furtherance of the Project; and that



- v. SEP funds may not be used for litigation or lobbying purposes, nor may they be used in the preparation or presentation of matters before any state agency or board. The Recipient agrees to these restrictions.
- 4. The Board and the Respondent agree the SEP as outlined meets the requirements of 10 V.S.A. §8007(b)(2).
- 5. All payments and documents required by this Assurance shall be sent to the following address:
  - Natural Resources Board
  - 10 Baldwin Street
  - Montpelier, Vermont 05633-3201
- F. Respondent shall not deduct, nor attempt to deduct, any payment made to the State pursuant to this Assurance from Respondent's reported income for tax purposes or attempt to obtain any other tax benefit from such payment.
- G. Without formally admitting or denying wrongdoing or liability, Respondent agrees to this settlement of the violations alleged above to resolve all outstanding disputes.
- H. Respondent agrees that the violations alleged herein, and their underlying facts and circumstances, shall be considered as part of Respondent's record of compliance in any future proceeding, such as permit review proceedings and calculating civil penalties under Title 10, section 8010.
- I. No later than 30 days following the entry of this Assurance as an Order by the Superior Court, Environmental Division, the Respondent shall mail the Board notarized, written acknowledgement of receipt of the Court's Order.
- J. The State of Vermont and the Natural Resources Board reserve continuing jurisdiction to ensure compliance with all statutes, rules, and regulations applicable to the facts and violations set forth herein.
- K. Nothing in this Assurance shall be construed as having relieved, modified, waived or otherwise affected the Respondent's continuing obligation to comply with applicable state or local statutes, regulations or directives.
- L. This Assurance shall become effective only after it is signed by all parties and entered as an order of the Superior Court, Environmental Division. When so entered by the Superior Court, Environmental Division, this Assurance shall become a judicial order pursuant to 10 V.S.A. § 8007(c). In the event that such order is vacated, the Assurance shall be null and void.

**Assurance of Discontinuance**

*Natural Resources Board v. Country Club of Vermont, Inc.*

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- M. Pursuant to 10 V.S.A. § 8007(d), the Respondent shall not be liable for additional civil or criminal penalties with respect to the specific facts set forth herein, provided that the Respondent fully complies with this Assurance.
- N. The Board reserves the right to make reasonable extensions of any deadline contained herein, upon prior request by the Respondent, for good cause beyond either Respondent's control.
- O. This Assurance sets forth the complete agreement of the parties, and except as provided herein, may be altered, amended, or otherwise modified only by subsequent written agreements signed by the parties hereto or their legal representatives and incorporated in an order issued by the Superior Court, Environmental Division.
- P. Alleged representations not set forth in this Assurance, whether written or oral, shall not be binding upon any party hereto, and such alleged representations shall have no legal force or effect.
- Q. When this Assurance is entered as a judicial order, violation of any provision of this Assurance shall be deemed to be a violation of a judicial order and may result in the imposition of further enforcement action including injunctive relief, contempt proceedings, and/or penalties, including penalties under 10 V.S.A. chapters 201 and/or 211.
- R. This Assurance is subject to the provisions of 10 V.S.A. §§ 8007 and 8020.

[SIGNATURES ON FOLLOWING PAGES]

SIGNATURES

The provisions set forth in this Assurance of Discontinuance are hereby agreed to and accepted.


Dated at Waterbury, Vermont, this 29<sup>th</sup> day of October, 2018.

COUNTRY CLUB OF VERMONT, INC.

By   
William Reedy, President of the Board of Directors,  
Duly Authorized Agent

STATE OF VERMONT  
COUNTY OF Washington, ss.

BE IT REMEMBERED that on the 29 day of October, 2018, personally appeared **WILLIAM REEDY**, individually and as the duly authorized agent of **COUNTRY CLUB OF VERMONT, INC.**, signer and sealer of the foregoing instrument who is known to me or who satisfactorily established his identity to me and acknowledged the same to be his free act and deed and the free act and deed of **COUNTRY CLUB OF VERMONT, INC.** and that he has the authority to contract on behalf of **COUNTRY CLUB OF VERMONT, INC.** and that he has been duly authorized to enter into the foregoing Assurance on behalf of that entity.

Before me,  
  
Notary Public  
My Commission Expires: 2-10-19

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The provisions set forth in this Assurance of Discontinuance are hereby agreed to and accepted.

Dated in Montpelier, Vermont, this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

**NATURAL RESOURCES BOARD**

By: \_\_\_\_\_  
Diane B. Snelling, Chair

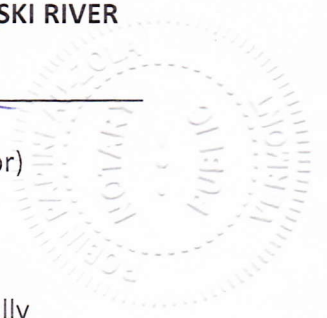
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As to entirety of Paragraph (E)(3) and its subdivisions, only (Supplemental Environmental Project).

Dated in Montpelier, Vermont, this 4<sup>th</sup> day of September, 2018.

**FRIENDS OF THE WINOOSKI RIVER**

By: \_\_\_\_\_  
Michele Braun  
(Executive Director)



BE IT REMEMBERED that on the 4 day of September, 2018, personally appeared **Michele Braun**, as the duly authorized agent of **FRIENDS OF THE WINOOSKI RIVER**, signer and sealer of the foregoing instrument who is known to me or who satisfactorily established his identity to me and acknowledged the same to be his free act and deed and the free act and deed of **FRIENDS OF THE WINOOSKI RIVER** and that she has the authority to contract on behalf of **FRIENDS OF THE WINOOSKI RIVER** and that she has been duly authorized to enter into the foregoing Assurance on behalf of that entity.

Before me,  
\_\_\_\_\_  
Notary Public  
My Commission Expires: 2/10/19





## EXHIBIT C

June 5, 2018

Natural Resources Board  
Dewey Building  
National Life Drive  
Montpelier, VT 05620-3201

RE: Country Club of Vermont  
Guptil Road, Waterbury  
NOAV dated October 6, 2017

Attached please find 2 plan sheets, one each for holes 3 and 15, which were prepared to address issues in the NOAV issued October 6, 2017. The NOAV requires that the respondents provide the Board with a restoration plan. The responses below and the attached spreadsheet provide the narrative required by section 2 of the NOAV.

### RIPARIAN AREA RESTORATION, HOLE #3

Hole #3, along Thatcher Brook, will be re-vegetated with a combination of (24 total) Silver Maples, Red Maples, and White Pine as larger trees. Balsam Poplar and Quaking Aspen will be used for smaller tree species (60 total). The areas of concern are depicted on the attached plans and the larger trees are marked on the map.

The exposed bank on hole 3 will be live stake planted with 2 rows of sandbar willows and speckled Alder, stakes to be 5' on center in staggered rows (40 total).

Upland areas on hole 3 will be planted with a mixture of Shadbush serviceberry, Silky dogwood, Red-osier dogwood, Choke cherry, and Elderberry, 5' on center with triangular spacing (44 total).

Upon completion of planting these areas will be left to re-generate naturally, with the exception of maintenance (watering), the replacement of unsuccessful plantings, and removal of trees that pose a hazard to the golfers.

The edge of areas on hole 3 where the above plantings will be done will be demarked with red stakes, which defines the area as a hazard for the golfers, and defines the area where the maintenance crews will be directed to avoid as no cutting of any vegetation (excepting trees that pose a hazard to the golfing public and invasive species) will be allowed. This area will be an undisturbed buffer and is depicted on the attached plans. It is anticipated that within a few years the shading and filtering provided by the buffer will exceed what originally existed.

### RIPARIAN AREA RESTORATION, HOLE #15

Buffer 15-2 is along the top of slope of the Graves Brook overflow channel. The bank will be planted with 2 rows of live stake sandbar willows 5' on center (50 total). The outer 15 feet of the

buffer will be unmanaged, except that brush hogging shall be allowed once each year. Brush hogging shall not be done during the spring or summer months.

The remainder of the Riparian Buffer Strip on hole 15 will be planted with Willows, Speckled Alder and Quaking Aspen 5' on center with triangular spacing (54 total). A combination of (31 total) Silver Maples, Red Maples, and White Pine as larger trees will be planted 20' apart. Balsam Poplar and Quaking Aspen will be used for smaller tree species (35 total).

The edge of the hole 15 buffers will be demarked with red stakes, which defines the area as a hazard for the golfers, and also defines the area where the maintenance crews will be directed to avoid as no cutting of any vegetation, excepting trees that pose a hazard to the golfers, will be allowed.

In all buffer areas - for the first 6 weeks all plantings will be watered a minimum of 3 x per week if no substantial rain falls and during dry spells for the remainder of the first summer after planting. Dead or dying trees shall be replaced with similar stock as soon as practical.

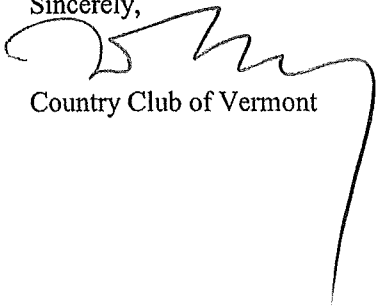
In all no-cut buffer areas the removal of invasive species is allowed and encouraged.

- Trees shall be 8-15 feet tall, and 1-3" caliper.
- Small Trees shall be 36" tall
- Shrubs shall be at least 1 foot in height

In addition to this written plan is an accompanied specific planting plan that includes numbers of trees and species.

We believe this provides the required information. Please contact us if you have any questions or if you need any additional information.

Sincerely,



Country Club of Vermont



EXHIBIT D

Hole 3 (0.5 acres; 575 linear feet)				
Plant	Number	Size	Species	Planting guidance
Trees (large)	24	8-12' tall; 1-3" caliper	Red Maple, Silver Maple, White Pine	two staggered rows; 20' apart
Trees (small)	60	36" tall minimum	Balsam Poplar, Quaking Aspen	8-10 feet apart
Shrubs/willows	84	36" tall minimum	Speckled Alder, Willow	3-5 feet apart
<b>Total</b>	<b>168</b>			
Hole 15 - green side (0.2 acres; 350 linear feet)				
Plant	Number	Size	Species	Planting guidance
Trees (large)	22	8-12' tall; 1-3" caliper	Red Maple, Silver Maple, White Pine	two staggered rows; 20' apart
Trees (small)	24	36" tall minimum	Balsam Poplar, Quaking Aspen	8-10 feet apart
Shrubs/willows	34	36" tall minimum	Speckled Alder, Willow, Quaking Aspen	3-5 feet apart
<b>Total</b>	<b>80</b>			
Hole 15 - bend (150 linear feet)				
Plant	Number	Size	Species	Planting guidance
Trees (large)	0			
Trees (small)	0			
Shrubs/willows	50	36" tall minimum	Speckled Alder, Willow, Quaking Aspen	3-5 feet apart
<b>Total</b>	<b>50</b>			
Hole 15 - upstream of bend (0.1 acres; 150 linear feet)				
Plant	Number	Size	Species	Planting guidance
Trees (large)	9	8-12' tall; 1-3" caliper	Red Maple, Silver Maple, White Pine	two staggered rows; 20' apart
Trees (small)	11	36" tall minimum	Balsam Poplar, Quaking Aspen	8-10 feet apart
Shrubs/willows	20	36" tall minimum	Speckled Alder, Willow, Quaking Aspen	3-5 feet apart
<b>Total</b>	<b>40</b>			

TREE SPECIES (large)	
Red maple	Acer rubrum
Silver maple	Acer saccharinum
White Pine	Pinus strobus
TREE SPECIES (small)	
Balsam poplar	Populus balsamifera
Quaking aspen	Populus tremuloides
Black willow	Salix nigra
SHRUB SPECIES	
Speckled alder	Alnus rugosa
Shadbush serviceberry	Amelanchier canadensis
Silky dogwood	Cornus amomum
Red-osier dogwood	Cornus sericea
Choke cherry	Prunus virginiana
Elderberry	Sambucus canadensis
Willow	- see VFWD guidance document