

Appeal Period Expires 8/18/10
 Zoning District MXD

Town of Essex, Vermont
Application for Zoning Permit
 www.essex.org

Application Date 2010-10
 Permit Number 2010-110

All construction is to be completed in accordance with the Town of Essex Zoning Regulations and any/all federal or state regulations now in effect. You are required to post this permit in a conspicuous location on the property and it must remain posted throughout the construction period.

Any interested person may appeal the decision of the Zoning Administrator to the Zoning Board of Adjustment within fifteen (15) days of the permit's date of issuance. Commencing construction within this fifteen (15) day appeal period is prohibited by law.

Occupancy of the premises shall not take place until a Certificate of Occupancy is obtained.

Approval is subject to accuracy of information provided by the applicant.

A Parcel Account Num. (Map-Parcel-Lot) 2-048001-000
 (found in Town Assessor's Office)
 Property Address: 104 Colchester Road
 Owner: William S. Chesbrough
 Owner Address: P.O. Box 8622, Burlington, VT 05402
 Owner Phone: (work) 658-7600 (home) ---
 (cell) 310-0285 (Email) ---
 Contractors name: William S. Chesbrough Phone: 658-7600
 Cell: 310-0285
 Estimated Construction Dates: Start: 8/18/10 Completion: 8/1/11
 Sq. Feet: 1,020 upstairs Estimated Cost (labor & materials): \$89,000
1,020 garage mechanical room

B Sewage Disposal (Please attach Sewer or Septic Application). sewer permit
 Public Private Connection Fee \$ 4-3502 Date Paid: 6/18/10
 Proposed New Bedrooms: 2 Existing Bedrooms ---

C Water (Please attach Water Service Application).
 Public Private Fee \$ --- Date Paid: 1/1

D Driveway (Please attach copy of approved Curbcut / Utility Application).
 Date of approval 1/1 Existing Curb Cut

E Stormwater
 Project disturbs an area greater than or equal to 1 acre - Erosion Control Permit Required. Attach completed permit application. N/A
 Project creates new or expands existing impervious surface greater than or equal to 1/2 acre - Erosion Control Permit and Stormwater Management Permit required. Attach completed permit application. N/A

F Diagram - Show a sketch of project on reverse of this application with property lines, building, and setbacks or attach separate sheet. (Instruction sheet available upon request.)
ON BACK

G Signature of Owner William S. Chesbrough

G

Check box(es) which describe proposed use or construction (circle choice in parenthesis).

N = New A = Addition R = Remodel

Residential:		N	A	R
Single Family	<u>re-build</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Two-family (duplex)(other)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-family		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condominium / Townhouse		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobile home		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inclusions or Additions:				
Garage (attached) (detached)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Porch (enclosed) (<u>open</u>)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deck		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pool (in) (above) ground		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barn (residential) (agriculture)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-residential:				
Commercial / Industrial		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stormwater:				
Stormwater		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Erosion Control		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:				
Change in use		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Miscellaneous		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Renewal		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Office Use Only

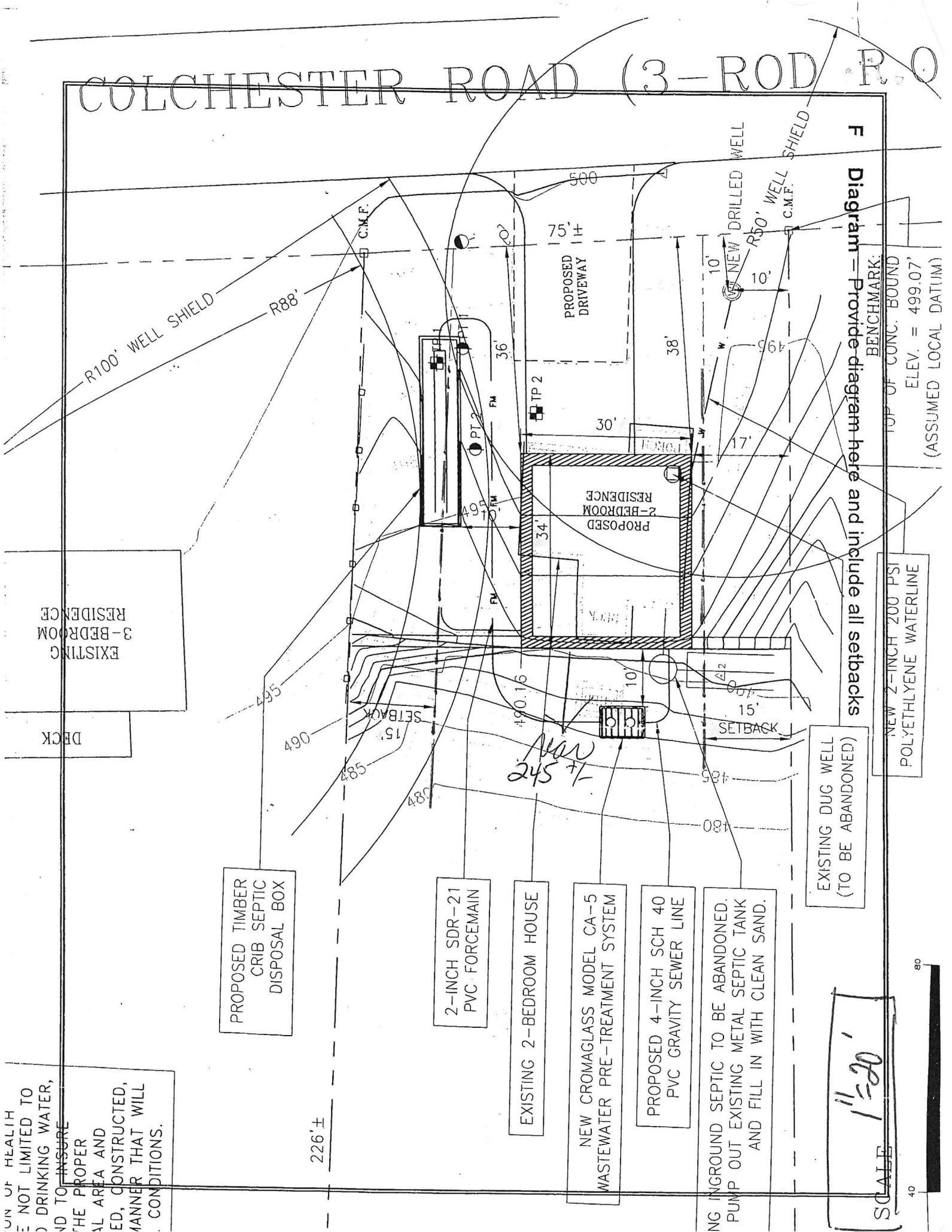
Fees:	Type	Amount	Date Pd
	Permit	\$ <u>222.50</u>	<u>8/3/10</u>
	School	\$ <u>---</u>	<u>1/1</u>
	Recreation	\$ <u>622.00</u>	<u>1/1</u>
	Recording	\$ <u>20</u>	<u>8/3/10</u>
	Other	\$ <u>75</u>	<u>8/3/10</u>

Building Permit
 Approved Rejected Date 8/3/10
 Issued to: William S. Chesbrough
 Zoning Administrator: Sharon L. Kelley
 Notes: Stamp footprint w/ slight addition - all within setbacks. Erosion control measures to be reviewed.
 C.O. Required: Yes No

THIS PERMIT VALID FOR TWELVE (12) MONTHS FROM DATE OF ISSUE

(web) 01/25/06

COLCHESTER ROAD (3-ROD) P.O.



F Diagram - Provide diagram here and include all setbacks

BENCHMARK:
TOP OF CONC. BOUND
ELEV. = 499.07'
(ASSUMED LOCAL DATUM)

NEW 2-INCH 200 PSI
POLYETHYLENE WATERLINE

EXISTING DUG WELL
(TO BE ABANDONED)

PROPOSED TIMBER
CRIB SEPTIC
DISPOSAL BOX

2-INCH SDR-21
PVC - FORCEMAIN

EXISTING 2-BEDROOM HOUSE

NEW CROMAGLASS MODEL CA-5
WASTEWATER PRE-TREATMENT SYSTEM

PROPOSED 4-INCH SCH 40
PVC GRAVITY SEWER LINE

EXISTING INGROUND SEPTIC TO BE ABANDONED.
PUMP OUT EXISTING METAL SEPTIC TANK
AND FILL IN WITH CLEAN SAND.

SCALE
1" = 20'



UN OF HEALTH
E NOT LIMITED TO
DRINKING WATER,
D TO INSURE
THE PROPER
AL AREA AND
ED, CONSTRUCTED,
ANNER THAT WILL
CONDITIONS.

EXISTING
3-BEDROOM
RESIDENCE
DECK

PROPOSED
2-BEDROOM
RESIDENCE

PROPOSED
DRIVEWAY

NEW DRILLED WELL

WELL C.M.F.

WELL SHIELD

R100' WELL SHIELD

R88'

226' ±

75' ±

500

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WDF [SR] [RS]

Vermont Department of Environmental Conservation
Water Quality Division
103 South Main Street, Building 10 North
Waterbury, VT 05671-0408

Agency of Natural Resources

file w/ permit
issued for Colchester Rd
[phone] 802-241-3770
[fax] 802-241-3287

Notice of Issuance of Conditional Use Determination # 2010-109

Please be notified, as per Section 8.4 of the Vermont Wetland Rules, that the request for a Conditional Use Determination received from William Chesbrough for the redevelopment of a single family lot and associated utilities was issued on this 5th day of July, 2011.

It was found by the Agency of Natural Resources that this conditional use will not result in any undue, adverse effects to the protected functions of the significant wetland off 104 Colchester Road in Essex, Vermont.

Complete copies of the decision can be obtained by calling the Water Quality Division at 802-879-5650 or writing to the address below. Any person with an interest in this matter can appeal this decision pursuant to 10 V.S.A. Section 1269. Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The appellant must attach to the Notice of Appeal and the entry fee of \$225.00, payable to the State of Vermont.

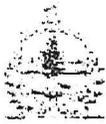
The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permits involved in the appeal.

The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. 802-828-1660).

Julie Foley
Wetlands Ecologist
Water Quality Division
Department of Environmental Conservation
111 West Street
Essex Junction VT 05452-4695

cc: Distribution list



STATE OF VERMONT

AGENCY OF NATURAL RESOURCES

Department of Environmental Conservation

Water Quality Division

111 West Street

Essex Jct., VT 05452

Department of Fish and Wildlife
Department of Forests, Parks & Recreation
Department of Environmental Conservation

FAX 802-879-3871

TEL 802-879-2396

e-mail: julie.foley@state.vt.us

March 23, 2011

Errol Briggs
1 Conti Circle, Suite 5
Barre, VT 05641

Dear Sir or Madam;

This is an acknowledgement that an application, as described below, was received at this office. If the calculations of wetland and buffer zone impacts on the application are correct, you have submitted the appropriate CUD application fee. We received your initial application for a Conditional Use Determination for the above-referenced project on 3/18/11. I have reviewed the application and have determined that it is technically complete. You should be aware that the determination of completeness is not to be viewed as an approval of a proposed project or as a concurrence with your assessment.

Please proceed with the distribution requirements as specified in Section 8.2 of the Vermont Wetland Rules. Please notify me in writing once these distribution requirements have been satisfied so that I can initiate the 15-day public comment period.

Applicant: Bill Chesbrough

Wetland Project Number: 2010-109

Wetland Project Name: Chesbrough Project – 104 Colchester Road

Town(s): Essex

Description: re-development of a single family residential lot, with a new house on previous footprint

Date Received: 3/18/11

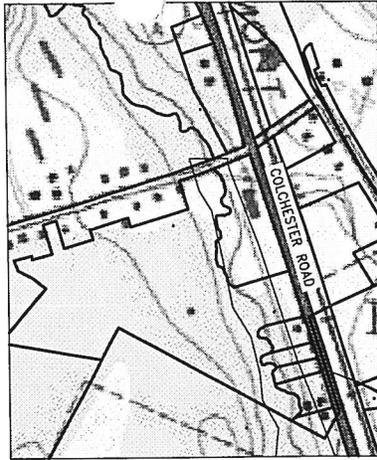
Fee Transaction:	Date	Amount	Check#
	3/23/11	\$234.82	1030

The above information has been entered into our application tracking database. Please contact me at 802-879-2396 if any of the information is inaccurate or if you have questions.

Sincerely,

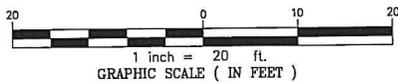
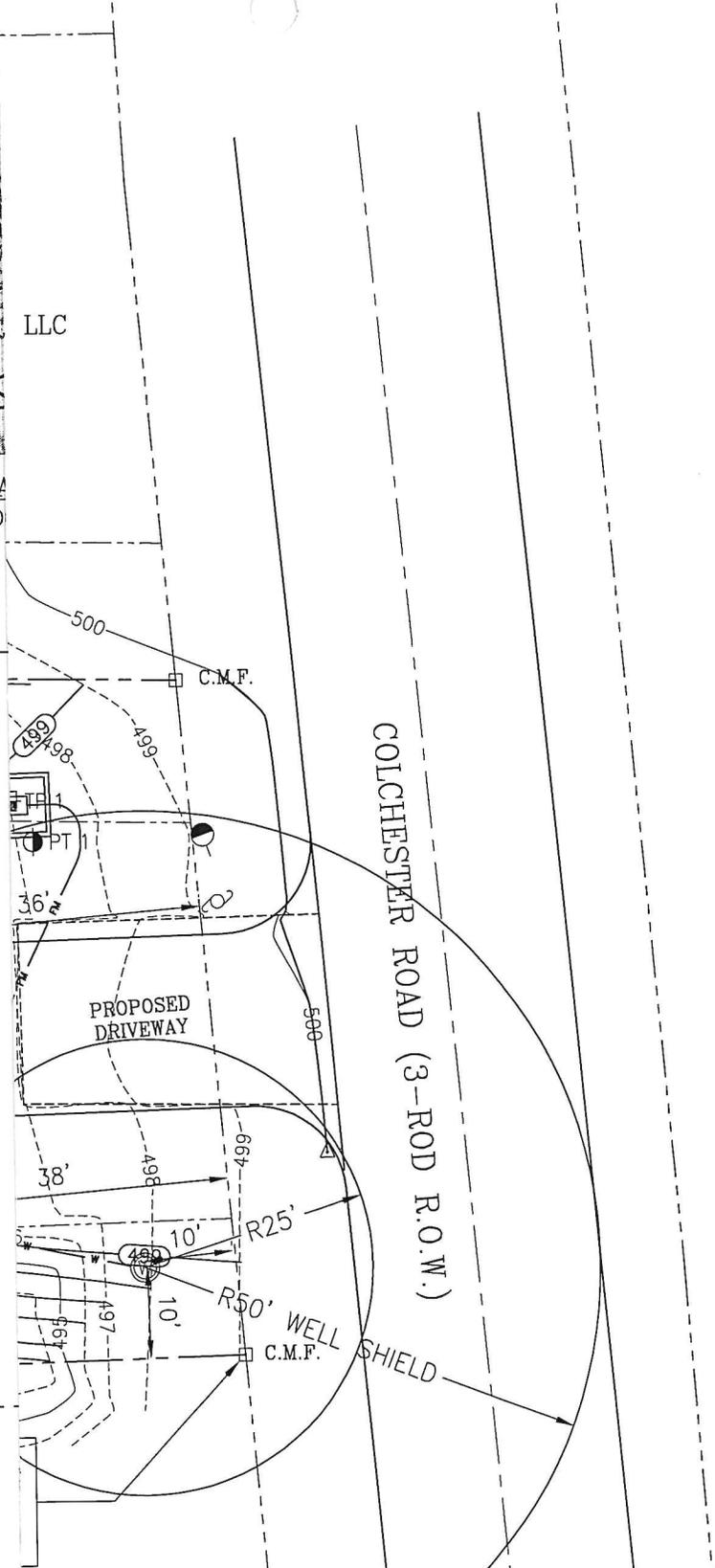
Jim Sandberg for Julie Foley

CC: Bill Chesbrough



LOCATION MAP
SCALE: 1" = 50'

INDIAN BROOK 97'±



THE DRAWINGS FOR THIS PROJECT SHALL NOT BE COPIED, REUSED, REVISED OR ALTERED IN ANY WAY WITHOUT THE EXPRESS WRITTEN APPROVAL AND AUTHORITY OF CHESBROUGH CONSULTING, P.C. CHESBROUGH CONSULTING, P.C. ©



76 Ethan Allen Drive, South Burlington Vermont 05403		Tel: (802) 658-7600 Fax: (802) 658-7613 www.chesbroughconsulting.com		3/15/2011		WETLANDS REVIEW COMMENTS	
PROJECT NAME:				NO DATE		REVISIONS	
WILLIAM S. CHESBROUGH 104 COLCHESTER ROAD ESSEX, VERMONT						DESIGN BY: GEW	
TITLE: PERMITTED TWO BEDROOM SINGLE FAMILY RESIDENCE SITE PLAN						CHECKED BY: WSC	
						PROJECT NO: 101104	
						DATE: SEPTEMBER 14, 2010	
						SHEET: OF 1	

p:\2010\101104 - Essex Colchester Road\dwg\CS\101104-SE1 PLAN REV1.dwg Rev. 28. 2011 - 11:02am

VERMONT WETLAND RULES
CONDITIONAL USE DETERMINATION APPLICATION

Title 10 V.S.A. Chapter 37, Section 905

File number:
Date received:
[] complete
[] incomplete
Date completed:
Check #:
Check amount:
Check from:
DEC receiver:
Application last revised: 6/24/02

Office Use Only

INTRODUCTION

The following questions must be answered in order for this application to be considered complete. If you have questions on any part of this form, please call the Vermont Wetlands Office at (802) 241-3770 for assistance. Please note that there is a non-refundable fee effective July 1, 2002 (see Section 19) as required by the Vermont General Assembly (3 V.S.A. § 2822(j)(26)). Early consultation with the Wetlands Program may result in a reduction of the wetland area impacted. A pre-application site visit is required in order to call this application complete.

NAMES

1. Applicant: **William Chesbrough**
Address: **P.O Box 8622**
Burlington, VT 05402-8622
Telephone: **(802) 658-7600**

2. Landowner (if different)
Address:
Telephone:

(If landowner is other than the applicant, attach copies of any easement, agreements, or other documents conveying permission, and an agreement with the landowner(s) stating who will be responsible for meeting the terms and conditions of the Conditional Use Determination.)

3. Representative: **Errol Briggs**
Address: **Gilman & Briggs Environmental, Inc.**
1 Conti Circle, Suite 5
Barre, VT 05641

Telephone: **(802) 479-7480**

PROJECT DESCRIPTION

- 4. Location (Street Address): **104 Colchester Road, Essex, Vermont**
- 5. Acres owned by the Applicant or Landowner at the project site: **0.4 Acres**
 Acres involved in the project: **0.134 Acres**
- 6. Project purpose: **Re-development of a single family residential lot., with a new house on the previous footprint.**
- 7. General project description (include number and size of buildings; number of lots; length of roads; type of sewage disposal, etc.): **This project proposes a single 2-bedroom residence on a pre-existing footprint. On-site wastewater and wastewater systems have been permitted.**

OTHER INFORMATION

- 8. Are there other federal, state, or local permits required for this project, and if so have they been applied for or obtained?

Required Applied for Obtained

U.S. Army Corps of Engineers Permit
 401 Water Quality Certification
 Vermont Act 250 Permit
 Vermont Stormwater Discharge Permit
 Vermont Lakes and Ponds Permit
 Vermont Stream Alteration Permit
 Local Zoning Permit
 Other WW-4-3502

X	X	X
X	X	X

- 9. Attach the following information to the Application:

- [•] Location map (project area marked on the USGS topographic map or Vermont Significant Wetlands Map.
- [•] Site plans[s] including existing conditions, proposed work, erosion controls, and wetland and buffer zone boundaries (see Sections 3.2 and 4.6 of the Vermont Wetlands Rules for description of methodology].
- [•] Any other narratives or documents that the Applicant intends to rely upon in support of the proposed Conditional Use.

1. Wetland Evaluation

10. List the names and complete mailing addresses of all persons owning property within or adjacent to the wetland or buffer zone in question.

<u>Name</u>	<u>Mailing Address with Zip Code</u>
Painville Realty, LLC	10 Pearl St., Essex Jct., VT, 45452
Denis Berthiaume	100 Colchester Rd., Essex, VT 05451

Plus many others – although narrow, the wetland is a mile long and abuts many parcels.

11. Complete the following for the entire wetland in question:

a. Size of wetland (to the nearest ½ acre): **39 Acres**

b. Check the dominant type of wetland present:

open water	• marsh	wet meadow
shrub swamp	forested swamp	
bog or fen	beaver influenced wetland	
other (explain):		

c. Name all streams, rivers, lakes and ponds adjacent to the wetland and approximate distance from the proposed activity: **Indian Brook flows through the wetland.**

d. Approximate the percentage of each of the following cover types in the area surrounding the wetland:

60 forested	agriculture
old field	open water
lawn	40 residential
commercial/industrial	road
other (specify):	

12. Complete the following for the portion of the wetland and buffer zone in the area of the proposed impact:

a. Area of impact in wetland (sq. ft.): **0.0 ft²**
Area of impact in buffer zone (sq. ft.) **1,540 ft²**

b. Check the type of wetland present (check all that apply):

open water	• marsh	wet meadow
shrub swamp	forested swamp	
bog or fen	beaver influenced wetland	
other (explain):		

c. Description of dominant vegetation: **The wetland in the area of impact is riparian marsh dominated by cat-tails, sedges, bulrushes and need canary-grass.**

- d. Description of soils in the wetland and buffer zone (from Soil Conservation Service soil survey or site investigations): **The wetland and its immediate vicinity is mapped in the Chittenden County Soil Survey as Alluvial Land and the house site is mapped as Adams & Windsor loamy fine sand.**
- e. Check the characteristics of the wetland which apply:
- Flooded most of the time
 - Standing water during at least part of the growing season
 - Water impounded by beavers
 - Soils are saturated during at least part of the growing season
 - Dry most of the year
- f. Description of the buffer zone: **Buffer zone in the project area is steep slope typical of ravines through Adams & Windsor loamy fine sands. There is evidence of past filling, and both abutting parcels are largely on filled land extending into the wetland.**

13. Describe in detail all work that is proposed within the wetland or buffer zone, including erosion control measures, referencing attached plans where appropriate. **See project plan. Re-development of this lot involves removal of a substandard residence and out buildings (including a shed at the wetland edge), removal of substantial amounts of trash from the buffer zone and wetland. The proposed residence will be roughly on the pre-existing footprint, but re-grading and retaining walls will correct existing drainage and erosion problems on the rear slope and in the wetland. The existing silt fence will remain in place until the areas is fully re-vegetated.**

14. Demonstrate how the project as proposed will avoid any adverse impacts on each of the functions. Refer to plans and other attached documents as necessary.

- a. Water storage for flood water and storm runoff. **Because there is no wetland impact, the capacity of the wetland to perform this function will not be affected.**
- b. Surface and groundwater protection. **The capacity of the wetland to perform this function will not be affected because the buffer zone will be re-vegetated and erosion control measures will ensure no runoff to the wetland, as has been the case on this site.**
- c. Fisheries habitat. **Because there is no wetland impact and runoff problems will be corrected, the capacity of the wetland to perform this function will not be affected.**
- d. Wildlife and migratory bird habitat. **The proposed development is essentially a continuation of pre-existing land uses, and therefore the capacity of the wetland to provide wildlife habitat will not be affected.**
- e. Hydrophytic vegetation habitat. **The likely occurrence of the uncommon many-leaved sedge in this wetland will not be affected by the project.**
- f. Threatened or endangered species habitat. **This wetland is not significant for this function.**

g. Education and research in natural sciences **This wetland is not significant for this function.**

h. Recreational value and economic benefits. **This wetland is not significant for this function.**

i. Open space and aesthetics **This wetland is sporadically visible from Colchester Road and local streets, but not from any public vantage point near the project site.**

j. Erosion control through binding and stabilizing the soil. **The wetland's performance of this function will not be affected by the proposed action because erosive forces are found along the stream course (in the middle of the wetland) , well removed from the specific project area. In addition, restoration of vegetation on the slope at the project site and correction of erosion and runoff problems will improve conditions at the wetland boundary.**

15. Demonstrate by narrative and reference to plans that the following mitigation measures have been used to achieve no undue adverse impacts to wetland functions:
- a. Can the proposed activity be located on an upland portion of the site or another site owned, controlled, or available to satisfy the basic project purpose? **The site is small, and setbacks from the state highway and adjacent lots, along with septic disposal and well head requirements dictate that the building be built essentially where the previous structure was located.**
 - b. Demonstrate how all practicable measures have been taken to avoid or minimize adverse impacts on protected functions, including project redesign or project scale-back. **The proposed building will be a replacement for a previous structure, but with grading and abutments that will correct erosion and runoff problems.**
 - c. For wetlands that have been disturbed, what steps will be taken to restore impacted functions (e.g. plantings, mulching exposed soil, removal of fill, etc.)? **Standard erosion control measures will employed to prevent sediments entering the wetland, and disturbed areas will be promptly seeded and mulched.**

16. Wetland compensation (creating replacement wetlands) is a measure to mitigate adverse impacts on protected functions that will only be possible in rare cases for specific functions (see Section 8.5c of the Vermont Wetland Rules). If a compensation plan is a part of this proposal, demonstrate by narrative and reference to plans how the steps in Section 8.5c(1)-(7) will be met.

DISTRIBUTION

17. Submit the original request for Conditional Use Determination to the Wetlands Office, Division of Water Quality, 103 South Main Street, 10 North, 2nd Floor, Waterbury, VT 05671-0408. Notification of receipt will be sent to the Applicant once a complete application has been received by the Wetlands Office.

18. After receiving the notification of completeness from the Wetlands Office, send a complete copy of the application to the Town Clerk and Regional Planning Commission.

Also send copies of the location map, a description of the specific action(s) for which Conditional Use Determination is sought, the supporting narratives, and a listing of where complete copies of the request have been filed to:

- a. the municipal planning commission and/or conservation commission, and
- b. all persons owning property within or adjacent to the wetland and buffer zone (item 10 of the application).

FEES

19. 3 V.S.A. § 2822 (j) 26 FEES:

Conditional Use Determination (minimum application fee)	\$100.00
<u>Plus</u>	
Proposed wetland impact (0.00 sq. ft. × \$0.12/sq. ft.)	\$ 0.00
Proposed buffer zone impact (1498 sq. ft. × \$0.09/sq. ft.)	\$134.82
Total fee enclosed:	\$234.82

Note: If application is for the conversion of Class Two wetland or wetland buffers to cropland, the maximum fee is \$200.00.

SIGNATURES

20. I hereby certify that the information provided above or attached to this application is true and accurate to the best of my knowledge.



Signature of Applicant

COPY
3/18/2011

Date



Signature of Applicant's Representative

15 March 2011

Date

VERMONT WETLAND EVALUATION FORM

Project Name: **104 Colchester Road, Essex**

Date: **10 September 2010**

The wetland at issue is a riparian marsh along Indian Brook that extends for a mile but covers only about 39 acres (according to the VSWI polygon it is only 10 Acres).

SUMMARY OF FUNCTIONAL EVALUATION

- YES** 1. Water Storage for Flood Water and Storm Runoff
- YES** 2. Surface and Groundwater Protection
- YES** 3. Fisheries Habitat
- YES** 4. Wildlife and Migratory Bird Habitat
- YES** 5. Hydrophytic Vegetation Habitat
- NO** 6. Threatened and Endangered Species Habitat
- NO** 7. Education and Research in Natural Sciences
- NO** 8. Recreational Value and Economic Benefits
- YES** 9. Open Space and Aesthetics
- YES** 10. Erosion Control through Binding and Stabilizing the Soil

Note: This form has been developed by the Department of Environmental Conservation as a preliminary field checklist. Under Section 4.7 of the Vermont Wetland Rules, the Department of Environmental Conservation is given authority to issue advisory opinions as to which functions, if any, are provided by a significant wetland. Although the Department may use this form as part of its evaluation of a particular wetland, completion of this form does not constitute a determination by the Department.

Please call the Wetlands Office at 241-3770 with questions about this form or about determining the functions that are provided by any particular wetland.

1. Water Storage for Flood Water and Storm Runoff

Are any of the following conditions present downstream of the wetland, but upstream of a major lake or pond, that could be impacted by loss or reduction of the water storage function?

- YES** 1. Developed public or private property;
- YES** 2. Stream banks susceptible to scouring and erosion;

YES 3. Important habitat for aquatic life.

If so, the wetland is significant if any of the following conditions are met:

- YES** a. Constricted outlet or no outlet and an unconstricted inlet;
- YES** b. Physical space for floodwater expansion and dense, persistent emergent vegetation or dense woody vegetation that slows down flood waters during peak flows and facilitates water removal by evaporation and transpiration;
- YES** c. If a stream is present, its course is sinuous and there is sufficient woody vegetation to intercept surface flows in the portion of the wetland that floods;
- UNK** d. Ratings of High or Moderate for Floodflow Alteration Effectiveness and Opportunity using the Wetland Evaluation Technique (WET).

Describe any characteristics of the watershed that may increase the volume of runoff reaching the wetland, such as large urbanized areas, relatively impervious soils, or steep slopes:

Are any of the following conditions present, which may decrease the significance of the wetland for this function:

- YES** e. Wetland surface is less than 1% of the watershed;
$$\frac{\text{Area of Wetland}}{\text{Watershed Area}} = \frac{39.4 \text{ acres}}{4505 \text{ acres}} \times 100 = .087\%$$
- NO** f. Wetland is contiguous to a major lake or pond that provides storage benefits independently of the wetland;
- NO** g. The wetland's storage capacity is created primarily by beaver dams or other temporary structures.

Comments: Although covering slightly less than 1% of the watershed, the configuration of this wetland gives it significant capacity for storing flood waters and slowing flows through extensive areas of persistent herbaceous vegetation.

2. Surface and Groundwater Protection

Describe any land uses or characteristics of the watershed that may contribute point or nonpoint sources of sediments, toxicants, or nutrients to the wetland, such as: steep erodible slopes; row crops; dumps; areas of pesticide, herbicide, or fertilizer application; feed lots, parking lots, or heavily traveled roads; and septic systems. These factors will influence the importance of this function. **The watershed surrounding the wetland is primarily suburban residential, with major highways and local streets paralleling the broad ravine through which Indian Brook flows. Although mostly wooded, the ravine sides are frequently "backyards" of commercial and residential properties**

and are subject to erosion, runoff, pollution and, too often, trash. At the project site, dozens of tires have been pulled out of the wetland and a considerable amount of trash, construction material, etc., has been removed from the stream bank.

The wetland is likely to be significant for this function if any of the following conditions are met:

- NO** a. The wetland recharges a well head or aquifer protection area or a Class I or Class II groundwater area;
- YES** b. Reduces levels of contaminants in surface waters which recharge underlying or adjacent ground waters;
- NO** c. Contributes to the flows of Class A surface waters;
- YES** d. Enhances or protects water quality through chemical action or by removal of nutrients (3 of the following 6):
 - YES** 1. Constricted or no outlet
 - UNK** 2. Water sampling indicates removal of pollutants or nutrients
 - NO** 3. Fine mineral soils and alkalinity not low
 - YES** 4. No dead forest or shrub areas, and no ditches or channels that confine water
 - YES** 5. Low water velocity through dense, erect vegetation
 - NO** 6. Hydroperiod permanently flooded
- YES** e. Enhances or protects water quality by the retention or removal of sediments or organic matter, or by moderating the adverse water quality effects of soil erosion or stormwater runoff; no artificial channelization of the wetland, no soil tillage and any one of the following:
 - YES** 1. Constricted or no outlet
 - UNK** 2. Water sampling indicates retention of sediments or organic matter
 - YES** 3. Wetlands in depositional environments with erect, persistent vegetation wider than 20 feet
 - NO** 4. Wetlands with persistent vegetation comprising a defined delta, island, bar, or peninsula
- UNK** f. Ratings of High or Moderate for Sediment Retention or Nutrient Removal using the Wetland Evaluation Technique.

Comments: **The wetland intercepts sediments and pollutants from adjacent development and nearby roads and highways.**

3. Fisheries Habitat

The wetland is likely to be significant if any of the following conditions are met:

- YES** a. Provides spawning, nursery, feeding, or cover habitat for fish (documented or professionally judged);
- NO** b. Documented spawning habitat for northern pike
- YES** c. Contains woody vegetation that overhangs the banks of a stream or river and provides any of the following: shading that controls summer water temperature; cover including refuges created by overhanging branches or undercut banks; source of terrestrial insects as fish food; or streambank stability;
- NO** d. Provides cold spring discharge that lowers the temperature of receiving waters and creates summer habitat for salmonid species.

Comments:

4. Wildlife and Migratory Bird Habitat

The wetland is likely to be significant if any of the following conditions are met:

- YES** a. Habitat to support one or more breeding pairs or broods of waterfowl;
- YES** b. Supports or has the resting, staging, or roosting habitat to support waterfowl migration;
- YES** c. Provides a nest site, a buffer for a nest site, or feeding habitat for great blue heron, black-crowned night heron, or snowy egret;
- NO** d. Supports or has the habitat to support one or more breeding pairs of any of the following species of birds: Virginia rail, sora rail, common moorhen (gallinule), American coot, snipe, horned grebe, marsh wren, Wilson's warbler, rusty blackbird, bay-breasted warbler, blue-gray gnatcatcher, black tern, American bittern, pied-billed grebe, least bittern, northern harrier, short-eared owl, black-backed woodpecker, three-toed woodpecker, spruce grouse, and cerulean warbler;
- NO** e. Contains evergreen trees and provides winter or necessary feeding habitat for white-tailed deer;
- NO** f. Provides necessary feeding habitat for black bear or moose;
- UNK** g. Contains evidence that it is used by muskrat, otter, or mink;

- NO** h. Supports an active beaver dam, one or more lodges, or evidence of use in two or more consecutive years by an adult beaver population;
- NO** i. Provides habitat that supports reproduction of Jefferson salamander, blue-spotted salamander, yellow-spotted salamander, or other uncommon amphibians;
- NO** j. Supports or has the habitat to support populations of any of the following reptile species: wood turtle, map turtle, stinkpot turtle, or spotted turtle;
- YES** k. Meets four or more of the following conditions indicative of wildlife diversity:
- NO** 1. Three or more wetland vegetation classes (greater than ½ acre) present (not including wet meadows)
 - YES** 2. The dominant vegetation class is marsh or swamp
 - YES** 3. Located contiguous to a lake, pond, river, or stream
 - YES** 4. 50% or more surrounded by forest, agricultural land, old field, or open land
 - YES** 5. Emergent or woody vegetation occupies 26% to 75% of the wetland, the rest is open water, and
 - YES** 6. One of the following:
 - YES** i. Hydrologically connected to other wetlands of different dominant classes or open water within 1 mile
 - YES** ii. Hydrologically connected to other wetlands of the same dominant class within ½ mile
 - YES** iii. Within ¼ mile of other wetlands of different dominant classes or open water, but not hydrologically connected;
- NO** 1. Owned by state or federal government and managed as a wildlife area; and
- YES** m. Contains evidence that it is used by wetland dependent wildlife species.

5. Hydrophytic Vegetation Habitat

The wetland is significant if any of the following conditions are met:

- NO** a. Wetland is one of the following types of uncommon plant communities: bogs, fens, alpine peatland, or black gum swamp;

- NO b. Exceptional example of one of the following wetland types: deep marsh dominated by rushes and cattails, shallow marsh, shrub swamp, wooded swamp dominated by hardwoods, cedars, or spruce/fir/tamarack;
- YES c. Provides habitat for rare species of hydrophytic vegetation;
- NO d. Contains one or more plant species at their range limits;
- NO e. Contains disjunct plant species 40 miles or more from the nearest population.

Comments: **The wetland likely supports many-leaved sedge (*Scirpus polyphyllus*), an uncommon (S3) species.**

6. Threatened and Endangered Species Habitat

Wetlands that contain species on the federal or state threatened or endangered species lists are significant for this function. The wetland is also likely to be significant if either of the following apply:

- NO a. There is credible documentation that the wetland provides important habitat for any species on the federal or state threatened or endangered species lists;
- NO b. There is credible documentation that threatened or endangered species have been present in the past 10 years.

Comments: **This wetland does not perform this function.**

7. Education and Research in Natural Sciences

The wetland is likely to be significant if any of the following apply:

- NO a. Owned or leased to a public entity dedicated to education or research;
- UNK b. History of use for education or research, or scientific papers exist on the wetland;
- NO c. Has one or more characteristics making it valuable for education or research.

Comments: **This wetland does not perform this function.**

8. Recreational Value and Economic Benefits

The wetland is likely to be significant if any of the following apply:

- NO a. Used for or contributes to recreational activities;
- NO b. Provides economic benefits:

- NO c. Provides important habitat for fish or wildlife which can be fished, hunted, or trapped;
- NO d. Used for harvesting of wild foods.

9. **Open Space and Aesthetics**

The wetland is likely to be significant if either of the following apply:

- YES a. Can be readily observed by the public, and possesses special or unique aesthetic qualities as open space;
- YES b. Has prominence as a distinct feature in the surrounding landscape.

Comments: **This wetland is a prominent feature in the landscape within a suburban landscape, but can be readily observed only at limited points (primarily road crossings).**

10. **Erosion Control through Binding and Stabilizing the Soil**

The wetland is likely to be significant if there are erosive forces present and any of the following characteristics are present:

- YES a. Forested, shrub, or emergent wetland adjacent to a lake, river, or stream;
- YES b. Dense, erect vegetation greater than 20' wide;
- NO c. Wetland substrate exposed to erosive forces is rubble, cobble, or gravel;
- YES d. Good interspersions of persistent emergent vegetation and water along course of stream flow;
- YES e. Studies have shown that wetlands of similar size, vegetation type, and hydrology are important for erosion control;
- UNK f. Ratings of High or Moderate for Sediment Stabilization using the Wetland Evaluation Technique (WET).

What type of erosive forces is present:

- NO 1. Lake fetch and waves;
- YES 2. High current velocities
- NO 3. Water level influenced by upstream impoundment.

March 28, 2011

MAR 29 2011

Julie Foley
District Wetlands Ecologist
Water Quality Division
111 West Street
Essex Junction, VT 05452

Subject: 104 Colchester Road, Essex, Vermont

Dear Julie:

Please find the following have been mailed out the CUD documentation per distribution requirements as specified in Section 8.2 of the Vermont Wetland Rules. We appreciate your assistance with this project.

VANR, 111 West Street, Essex Jct., VT 05452
CCRPC, 110 West Canal Street, Winooski, VT 05404
Town of Essex, 81 Main Street, Essex, VT 05452
Jeannette Villeneuve, 87 Pinecrest Drive, Essex Jct., VT 05452
Denis Berthiaume, 100 Colchester Road, Essex, VT 05451
Kyle & Denise Miller, 98 Colchester Road, Essex Jct., VT 05452
Champlain Valley Exposition, 105 Pearl Street, Essex Jct, VT 05452
Painesville Realty, LLC, 10 Pearl Street, Essex Jct, VT 05452
Keith & Thomas Spaulding, 108 Colchester Rd., Essex Jct., VT 05452

Sincerely,
CHESBROUGH CONSULTING, PC



William S. Chesbrough, P.E.
Owner

C: Project Files

To file - if
you normally
do...
This is
not associated
w/ a particular
particular
particular