

Administrative Procedures – Proposed Coversheet

Instructions:

In accordance with Title 3 Chapter 25 of the Vermont Statutes Annotated and the “Rule on Rulemaking” adopted by the Office of the Secretary of State, this proposed filing will be considered complete upon the submission and acceptance of the following components:

- Proposed Rule Coversheet
- Adopting Page
- Economic Impact Statement
- Public Input Statement
- Scientific Information Statement (if applicable)
- Incorporated by Reference Statement (if applicable)
- Clean text of the rule (Amended text without annotation)
- Annotated text (Clearly marking changes from previous rule)

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person, and all filings are to be submitted at the Office of the Secretary of State, no later than 3:30 pm on the last scheduled day of the work week.

The data provided in text areas of the proposed coversheet form will be used to generate a notice of rulemaking in the newspapers of record. Publication of notices will be charged back to the promulgating agency based on the word count of the notices.

Certification Statement: As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I approve the contents of this filing entitled:

Rule Title: Vermont Wetland Rules

WMartin, on 9/15/16
 (signature) (date)

Printed Name and Title:

Deborah Markowitz, Secretary
 Agency of Natural Resources

By: Trey Martin, Deputy Secretary
 Agency of Natural Resources

RECEIVED BY: _____

- Proposed Rule Coversheet
- Adopting Page
- Economic Impact Statement
- Public Input Statement
- Scientific Information Statement (if applicable)
- Incorporated by Reference Statement (if applicable)
- Clean text of the rule (Amended text without annotation)
- Annotated text (Clearly marking changes from previous rule)
- ICAR Approval received by E-mail.

1. TITLE OF RULE FILING:

Vermont Wetland Rules

2. ADOPTING AGENCY:

Agency of Natural Resources

3. PRIMARY CONTACT PERSON:

(A PERSON WHO IS ABLE TO ANSWER QUESTIONS ABOUT THE CONTENT OF THE RULE).

Name: Laura Lapierre

Agency: Agency of Natural Resources

Mailing Address: One National Life Drive, Main 2,
Montpelier, Vermont, 05620

Telephone: 802 490 - 6177 Fax: 802 828 - 1544

E-Mail: laura.lapierre@vermont.gov

Web URL *(WHERE THE RULE WILL BE POSTED)*:

<http://dec.vermont.gov/laws>

4. SECONDARY CONTACT PERSON:

(A SPECIFIC PERSON FROM WHOM COPIES OF FILINGS MAY BE REQUESTED OR WHO MAY ANSWER QUESTIONS ABOUT FORMS SUBMITTED FOR FILING IF DIFFERENT FROM THE PRIMARY CONTACT PERSON).

Name: Hannah Smith

Agency: Agency of Natural Resources

Mailing Address: One National Life Drive, Davis 2,
Montpelier, Vermont 05620

Telephone: 802 461 - 8187 Fax: 802 828 - 1544

E-Mail: hannah.smith@vermont.gov

5. RECORDS EXEMPTION INCLUDED WITHIN RULE:

(DOES THE RULE CONTAIN ANY PROVISION DESIGNATING INFORMATION AS CONFIDENTIAL; LIMITING ITS PUBLIC RELEASE; OR OTHERWISE EXEMPTING IT FROM INSPECTION AND COPYING?) No

IF YES, CITE THE STATUTORY AUTHORITY FOR THE EXEMPTION:

PLEASE SUMMARIZE THE REASON FOR THE EXEMPTION:

6. LEGAL AUTHORITY / ENABLING LEGISLATION:

(THE SPECIFIC STATUTORY OR LEGAL CITATION FROM SESSION LAW INDICATING WHO THE ADOPTING ENTITY IS AND THUS WHO THE SIGNATORY SHOULD BE. THIS SHOULD BE A SPECIFIC CITATION NOT A CHAPTER CITATION).

10 V.S.A. 905b(18)

7. CONCISE SUMMARY (150 WORDS OR LESS):

Certain administrative updates to the Vermont Wetland Rules are necessary to reflect statutory updates effective since the Rules were last amended in 2010, provide procedural changes necessary to come into conformance with the permit process reform requirements of Act 150 of 2016, and to add four wetlands to the list of Class I wetlands to increase their protections. Changes to the existing rule include:

1. Replacement of references to the Water Resources Panel with references to the Secretary of the Agency of Natural Resources.
2. Updates to outdated statutory references.
3. Clarification of notice and comment requirements.
4. A permit amendment process.
5. Descriptions of four new proposed Class I wetlands.

8. EXPLANATION OF WHY THE RULE IS NECESSARY:

Wetlands provide important services for the people and environment of Vermont. They are critically important for flood water storage, water quality protection, erosion control, fish and wildlife habitat, rare species habitat, have natural communities, are important for recreation, aesthetics and scientific research. Wetlands can be easily drained or filled. Vermont has historically lost 35% of its wetlands and only 5% of the state is wetland. In order to protect these natural resources, activities within and adjacent to them need to be regulated so that there is no loss of the above mentioned function or value. 10 V.S.A. 905(b)(18) gives the DEC the responsibility of issuing or denying permits within wetlands and their buffers. Updates to the existing rule are necessary to provide Wetlands Program staff, as well as the public, with clarity regarding the classification of wetlands and administration of the wetland permitting program. The addition of four proposed Class I wetlands is necessary to provide added protections to those irreplaceable wetland resources. Additionally, updates are necessary to reflect DEC's authority to administer the Rule, and

to reflect recent reforms to DEC's permit process regulations.

9. LIST OF PEOPLE, ENTERPRISES AND GOVERNMENT ENTITIES AFFECTED BY THIS RULE:

Individuals required to obtain an individual wetland permit, or authorization under the general permit.

State agencies and departments, particularly the Vermont Agency of Transportation (VTrans).

Property owners statewide, including business owners (and excluding farmers engaged in farming activities that are exempt under the rules) engaged in activities that impact wetlands or their buffers that are not allowed uses as articulated by the rule.

Engineers, designers, consultants, developers, and contractors who design and build structures that may impact a wetland or a wetland buffer.

The public at large, with an interest in wetland integrity and water quality.

10. BRIEF SUMMARY OF ECONOMIC IMPACT (150 WORDS OR LESS):

The majority of the changes are administrative in nature and will have no economic impact. In specific instances, the increased length of time required for public noticing, in conformance with Act 150, may increase the amount of time required to issue permits. This may have a nominal economic impact on developers, who may need to extend development schedules to accommodate the notice period. The elimination of the requirement to publish newspaper notice will give a positive economic impact on the Agency. The designation of the four Class I wetlands will protect water quality and flood storage in a state where poor water quality and flooding events have harmed the state economy. The majority of these wetlands are already protected by their landowners - VT Fish and Wildlife, The Nature Conservancy, and the Town of Vernon and no economic impact is anticipated in those areas. In areas owned by other entities, the Class I designation would prevent new structures from being built within the wetlands.

11. A HEARING IS SCHEDULED .

12. HEARING INFORMATION

(THE FIRST HEARING SHALL BE NO SOONER THAN 30 DAYS FOLLOWING THE POSTING OF NOTICES ONLINE).

IF THIS FORM IS INSUFFICIENT TO LIST THE INFORMATION FOR EACH HEARING PLEASE ATTACH A SEPARATE SHEET TO COMPLETE THE HEARING INFORMATION NEEDED FOR THE NOTICE OF RULEMAKING.

Date:
Time: AM
Street Address:
Zip Code:

13. DEADLINE FOR COMMENT (NO EARLIER THAN 7 DAYS FOLLOWING LAST HEARING):

14. KEYWORDS (PLEASE PROVIDE AT LEAST 3 KEYWORDS OR PHRASES TO AID IN THE SEARCHABILITY OF THE RULE NOTICE ONLINE).

Wetlands
Vermont Wetland Rules
Water Quality
Class I wetlands
Wetland mitigation
Notice and comment

Administrative Procedures – Adopting Page

Instructions:

This form must be completed for each filing made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

Note: To satisfy the requirement for an annotated text, an agency must submit the entire rule in annotated form with proposed and final proposed filings. Filing an annotated paragraph or page of a larger rule is not sufficient. Annotation must clearly show the changes to the rule.

When possible the agency shall file the annotated text, using the appropriate page or pages from the Code of Vermont Rules as a basis for the annotated version. New rules need not be accompanied by an annotated text.

1. TITLE OF RULE FILING:

Vermont Wetland Rules

2. ADOPTING AGENCY:

Agency of Natural Resources

3. AGENCY REFERENCE NUMBER, IF ANY:

None

4. TYPE OF FILING (*PLEASE CHOOSE THE TYPE OF FILING FROM THE DROPDOWN MENU BASED ON THE DEFINITIONS PROVIDED BELOW*):

- **AMENDMENT** - Any change to an already existing rule, even if it is a complete rewrite of the rule, it is considered an amendment as long as the rule is replaced with other text.
- **NEW RULE** - A rule that did not previously exist even under a different name.
- **REPEAL** - The removal of a rule in its entirety, without replacing it with other text.

This filing is **AN AMENDMENT OF AN EXISTING RULE** .

5. LAST ADOPTED (*PLEASE PROVIDE THE SOS LOG#, TITLE AND LAST DATE OF ADOPTION FOR THE EXISTING RULE*):

SOS Log#: 10-027.

The Vermont Wetland Rules were adopted on February 7, 1990, and amendments were last adopted on July 16, 2010.

Administrative Procedures – Economic Impact Statement

Instructions:

In completing the economic impact statement, an agency analyzes and evaluates the anticipated costs and benefits to be expected from adoption of the rule. This form must be completed for the following filings made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

Rules affecting or regulating public education and public schools must include cost implications to local school districts and taxpayers in the impact statement (see 3 V.S.A. § 832b for details).

The economic impact statement also contains a section relating to the impact of the rule on greenhouse gases. Agencies are required to explain how the rule has been crafted to reduce the extent to which greenhouse gases are emitted (see 3 V.S.A. § 838(c)(4) for details).

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person.

Certification Statement: As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I conclude that this rule is the most appropriate method of achieving the regulatory purpose. In support of this conclusion I have attached all findings required by 3 V.S.A. §§ 832a, 832b, and 838(c) for the filing of the rule entitled:

Rule Title: Vermont Wetland Rules

WDM, on 9/15/16
(signature) (date)

Printed Name and Title:

Deborah Markowitz, Secretary
Agency of Natural Resources

By: Trey Martin, Deputy Secretary
Agency of Natural Resources

BE AS SPECIFIC AS POSSIBLE IN THE COMPLETION OF THIS FORM, GIVING FULL INFORMATION ON YOUR ASSUMPTIONS, DATABASES, AND ATTEMPTS TO GATHER OTHER INFORMATION ON THE NATURE OF THE COSTS AND BENEFITS INVOLVED. COSTS AND BENEFITS CAN INCLUDE ANY TANGIBLE OR INTANGIBLE ENTITIES OR FORCES WHICH WILL MAKE AN IMPACT ON LIFE WITHOUT THIS RULE.

1. TITLE OF RULE FILING:

Vermont Wetland Rules

2. ADOPTING AGENCY:

Agency of Natural Resources

3. CATEGORY OF AFFECTED PARTIES:

LIST CATEGORIES OF PEOPLE, ENTERPRISES, AND GOVERNMENTAL ENTITIES POTENTIALLY AFFECTED BY THE ADOPTION OF THIS RULE AND THE ESTIMATED COSTS AND BENEFITS ANTICIPATED:

The rule will affect individuals, property owners, and state agencies, seeking to obtain or amend a wetland permit. The proposed rule is expected to have relatively limited economic impacts on affected parties because the changes proposed are primarily administrative, and the proposed rule does not change when a wetland permit is required.

Property owners intending to conduct activities that will impact the newly proposed Class I wetlands will be subject to a higher standard for demonstrating that the proposed activity is necessary and thus qualifies for a permit. This may increase the costs of their proposed project, if they are required to seek alternative sites or designs to limit the impact on the Class I wetlands and their buffers.

The additional protections afforded to the proposed Class I wetlands may have an overall positive economic impact, as those wetlands will continue to provide flood storage and water quality protection services to the general public.

4. IMPACT ON SCHOOLS:

INDICATE ANY IMPACT THAT THE RULE WILL HAVE ON PUBLIC EDUCATION, PUBLIC SCHOOLS, LOCAL SCHOOL DISTRICTS AND/OR TAXPAYERS:

Schools seeking a wetland permit may be impacted by the changes to the procedural requirements proposed in the rule, but the proposed rule does not change when a school would be required to seek a permit.

5. COMPARISON:

COMPARE THE ECONOMIC IMPACT OF THE RULE WITH THE ECONOMIC IMPACT OF OTHER ALTERNATIVES TO THE RULE, INCLUDING NO RULE ON THE SUBJECT OR A RULE HAVING SEPARATE REQUIREMENTS FOR SMALL BUSINESS:

The changes in permit notice requirements may increase the time it will take to issue permits and amendments which may have a minimal economic impact on developers, while also increasing the amount of time the public has to review the proposed permits and amendments. If the notice requirement changes were not in this Rule change, the new notice requirements would come into effect regardless on January 1, 2018, the effective date of Act 150 of 2016.

The proposed Class I wetlands are all currently Class II wetlands and regulated by the Vermont Wetland Rules. The change will prevent development and other activities from occurring within these wetlands unless the activity is exempt from the rule or unless the activity is necessary to meet a compelling public need to protect public health or safety. The Class II status allows for some development of the wetland so long as impacts are mitigated. Since some of the functions of these proposed Class I wetlands are irreplaceable, it would be impossible to permit some activities within these wetlands if the losses could not be mitigated. By giving these wetlands Class I status, it provides developers with clear guidance regarding the development potential of certain properties, and which areas not to purchase for development. It also provides current property owners with clarity regarding the development potential of those properties impacted by the new designations.

The Black Gum Swamps are owned in entirety by Fish and Wildlife and the Town of Vernon, VT. The swamps provide the significant functions and values of surface and groundwater protection, wildlife habitat, exemplary wetland natural community, rare, threatened and

endangered species habitat, education and research in natural science, and recreational value. These wetlands are of an extremely rare natural community type: Red Maple-Black Gum Swamp. The wetlands, having little value for timber or other extractable resources, have been left alone for hundreds of years and are now among the oldest forest communities in Vermont and therefore are of irreplaceable value to the state. The Class I status will ensure that the wetland will continue to provide these functions and values into the future. The Town's management plan protects the swamps and prevent timber harvest within 300 feet of the swamps. The Department of Fish and Wildlife also manages their lands with the goal of protecting the Black Gum Swamps.

Chickering Fen in Calais Vermont is owned entirely by The Nature Conservancy (TNC). TNC also owns all but one small portion of the proposed buffer zone. The Nature Conservancy purchased this land to protect Chickering Fen. The Fen provides the significant functions and values of surface and groundwater protection, wildlife habitat, exemplary natural community, rare, threatened and endangered species habitat, education and research in natural science, recreation value, and erosion control. It is considered exemplary and irreplaceable due to being one of the largest high quality intermediate Fen in the state, for providing rare, threatened and endangered species habitat and for its value for education and research in natural sciences. The Class I status will ensure that the wetland will continue to provide these functions and values off into the future. If the additional landowner wishes to perform activities within the 50 feet of the 300 ft. buffer zone, they would now be required to seek a permit.

The Dennis Pond and Mud Pond wetlands are located in the town of Brunswick on historic timber lands which are now mostly owned by Vermont Fish and Wildlife and The Nature Conservancy. Both of these owners manage the land in a way which protects the wetlands. The Dennis Pond Wetlands provide the significant functions and values of surface and groundwater protection, fish

habitat, wildlife habitat, exemplary wetland natural communities, rare, threatened and endangered species habitat, education and research in natural science, recreation value, and open space and aesthetics. The following functions are considered exemplary or irreplaceable: wildlife habitat, exemplary wetland natural community of a poor fen, and rare, threatened and endangered species habitat. The Class I status will ensure that the wetland will continue to provide these functions and values into the future.

The Sandbar wetlands in Milton and Colchester is also predominantly owned by Vermont Fish and Wildlife for the purpose of protecting and managing the wetland's wildlife habitat. The Sandbar wetland complex is over 1,000 acres in size and is located on a large delta between the mouth of the Lamoille River and Lake Champlain. The Sandbar wetland complex provides all ten significant functions and values: flood water storage, surface and groundwater protection, fish habitat, wildlife habitat, exemplary wetland natural community, rare, threatened and endangered species habitat, education and research in natural science, recreational value and economic benefits, open space and aesthetics, and erosion control. The following functions are considered exemplary or irreplaceable to Vermont's natural heritage: flood water storage, surface and groundwater protection, fish habitat, wildlife habitat, exemplary wetland natural community, rare, threatened and endangered species habitat, education and research in natural science, and erosion control. The Class I status will ensure that the wetland will continue to provide these functions and values off into the future. There are multiple landowners along the fringe of this wetland complex who will not be able to perform certain activities within the wetland unless there is a compelling need for public health or safety and will need a permit to perform activities within an additional 50 feet of protected buffer zone. Route 2 and a power line runs through the center of this wetland to provide access and power to the island region. The Class I status would not prevent the routine repair and maintenance of these structures,

however any substantial expansion to these structures would require a permit. A permit for adding a utility line or an extra lane on Rte. 2 would only be issued if it was needed for public health or safety and if there was no other practicable alternative.

Although the ten functions and values described in the above wetland descriptions are "free" ecosystem services, they are considerably important to the economy of Vermont. For example, a recent study from the Gund Institute of the University of Vermont found that large intact wetlands and floodplains prevented over 1.8 million dollars in damages to the town of Middlebury during tropical storm Irene, which is up to 78% of the potential damages. Hunting, fishing, hiking and sightseeing are all popular activities in the State which contribute to the quality of life of citizens and contributes considerably to tourism. A 2015 study conducted by Responsive Management for Vermont Fish and Wildlife found that a large majority of citizens surveyed believe it is very important that people have the opportunity to participate in wildlife related recreation in Vermont and a large majority (75%) disagree that economic development is more important than wildlife.

Compared to the alternative of not amending the existing Vermont Wetland Rules, the minimal economic impact described above would be eliminated. But this would occur at the expense of the protection of wetland resources, particularly those irreplaceable resources provided by the proposed new Class I wetlands.

6. FLEXIBILITY STATEMENT:

COMPARE THE BURDEN IMPOSED ON SMALL BUSINESS BY COMPLIANCE WITH THE RULE TO THE BURDEN WHICH WOULD BE IMPOSED BY ALTERNATIVES CONSIDERED IN 3 V.S.A. § 832a:

The proposed changes to the Vermont Wetland Rules do not change when a small business would be required to obtain a wetland permit. The Agency is not aware of any alternatives that would benefit a small business and conform with the requirements of 3 V.S.A. 832a(b) and 10 V.S.A. 913.

7. GREENHOUSE GAS IMPACT: *EXPLAIN HOW THE RULE WAS CRAFTED TO REDUCE THE EXTENT TO WHICH GREENHOUSE GASES ARE EMITTED, EITHER DIRECTLY OR INDIRECTLY, FROM THE FOLLOWING SECTORS OF ACTIVITIES:*

a. TRANSPORTATION —

IMPACTS BASED ON THE TRANSPORTATION OF PEOPLE OR PRODUCTS (e.g., “THE RULE HAS PROVISIONS FOR CONFERENCE CALLS INSTEAD OF TRAVEL TO MEETINGS” OR “LOCAL PRODUCTS ARE PREFERENTIALLY PURCHASED TO REDUCE SHIPPING DISTANCE.”):

Rule prevents the construction of new roads within the Class I wetlands unless the road is needed to meet a compelling public need to protect health or safety. This may prevent the creation of a road with a shorter distance which would reduce travel time.

b. LAND USE AND DEVELOPMENT —

IMPACTS BASED ON LAND USE AND DEVELOPMENT, FORESTRY, AGRICULTURE ETC. (e.g., “THE RULE WILL RESULT IN ENHANCED, HIGHER DENSITY DOWNTOWN DEVELOPMENT.” OR “THE RULE MAINTAINS OPEN SPACE, FORESTED LAND AND /OR AGRICULTURAL LAND.”):

The Rule for specific Class I wetland designations maintains open space and existing structures. The designations, unless to meet a compelling public need to protect public health or safety, prevent additional development within those wetlands which are found to provide functions and values to a level which is exemplary and/or irreplaceable. Forestry may continue in the four Class I wetlands so long as it is conducted in accordance with a plan approved by the Commissioner of Forests, Parks, and Recreation. The Rule will prevent any new conversions of swamp to growing food or crop in connection with farming activities. The Rules allow for the maintenance all existing activities. Dennis Pond wetlands and the Black Gum Swamps are providing carbon sequestration with their deep peat organic accumulations.

c. BUILDING INFRASTRUCTURE —

IMPACTS BASED ON THE HEATING, COOLING AND ELECTRICITY CONSUMPTION NEEDS (e.g., “THE RULE PROMOTES WEATHERIZATION TO REDUCE BUILDING HEATING AND COOLING DEMANDS.” OR “THE PURCHASE AND USE OF EFFICIENT ENERGY STAR APPLIANCES IS REQUIRED TO REDUCE ELECTRICITY CONSUMPTION.”):

None.

d. WASTE GENERATION / REDUCTION —

IMPACTS BASED ON THE GENERATION OF WASTE OR THE REDUCTION, REUSE, AND RECYCLING OPPORTUNITIES AVAILABLE (e.g., “THE RULE WILL RESULT IN REUSE

OF PACKING MATERIALS.” OR “AS A RESULT OF THE RULE, FOOD AND OTHER ORGANIC WASTE WILL BE COMPOSTED OR DIVERTED TO A ‘METHANE TO ENERGY PROJECT.’”):

The Rule will neither produce or reduce waste.

e. OTHER —

IMPACTS BASED ON OTHER CRITERIA NOT PREVIOUSLY LISTED:

None.

Administrative Procedures – Public Input Statement

Instructions:

In completing the public input statement, an agency describes what it did do, or will do to maximize the involvement of the public in the development of the rule. This form must be completed for the following filings made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

1. TITLE OF RULE FILING:

Vermont Wetland Rules

2. ADOPTING AGENCY:

Agency of Natural Resources

3. PLEASE LIST THE STEPS THAT HAVE BEEN OR WILL BE TAKEN TO MAXIMIZE PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF THE PROPOSED RULE:

The landowners, municipalities, and planning commissions in the communities where the proposed Class I wetland and buffers are located were sent a package of materials about the Class I proposal including the draft determination, draft mapping, and brochures. The Agency fielded phone calls, held meetings with some landowners and in two cases visited lands where landowners wanted to know the exact location of the buffer zone.

A stakeholder group was formed and a meeting was held August 11, 2016 to discuss the proposed changes and take comments. The group was comprised of representatives of various groups including environmental groups, utilities, state agencies, housing and development, environmental consultants, and the federal government. The group was given the draft materials before the meeting for discussion. Comments were received and responded to, and minor changes were made in response to the comments.

Brochures highlighting the qualities of each proposed Class I wetland have been created for additional public

outreach, as well as a brochure explaining the Class I protection status.

4. BEYOND GENERAL ADVERTISEMENTS, PLEASE LIST THE PEOPLE AND ORGANIZATIONS THAT HAVE BEEN OR WILL BE INVOLVED IN THE DEVELOPMENT OF THE PROPOSED RULE:

Barrows, Corey

Biester, Helen

Brunswick, Town of

Cadreact, David and Katherine

Calais, Town of

Camp Dudley at Kinyia YMCA

Central Vermont Regional Planning Commission

Champlain Water District

Chase, Marilyn

Chickering, Authur and Joanne

Curtis, Bradley

Department of Fish and Wildlife

Department of Forest, Parks, and Recreation

Dunklee, Alfred

French, Stratton

Gould, Keith

Henderson, Julie

Hryckiewicz, Henry and Donna

Kvam, Matthew

LaPlant Glenn

Levine, Suzanne

Milton, Town of

Moran, Mark and Ann

Morway, Amy

Natural Resources Conservation Services

Nelson, Jeffery

Nelson, Lorraine

North East Kingdom Regional Planning Commission
Pierce, Gordon
Reed, Christopher and Rebecca
Renewable Energy Vermont
Sampsonville Homeowners
Scott, Laurie
Simmons, Clyde
Simmons, David and Dan
The Nature Conservancy
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
Vermont Agency of Agriculture
Vermont Electric Cooperative
Vermont Natural Resources Council
Vernon Recreation Department
Vernon Trail Breakers
Vernon, Town of
Vtrans
Weber, Rebekah
Weyerhaeuser
White, David
Woodward, Michael

Administrative Procedures – Scientific Information Statement

Instructions:

In completing the Scientific Information Statement, an agency shall provide a brief summary of the scientific information including reference to any scientific studies upon which the proposed rule is based, for the purpose of validity.

This form is only required when a rule relies on scientific information for its validity.

1. TITLE OF RULE FILING:

The Wetland Rules

2. ADOPTING AGENCY:

Agency of Natural Resources

3. BRIEF EXPLANATION OF SCIENTIFIC INFORMATION:

The information includes published and unpublished documents which describe the quality, functions and values of the four proposed Class I wetlands as a basis for the designations.

4. CITATION OF SOURCE DOCUMENTATION OF SCIENTIFIC INFORMATION:

Engrstrom, Brett. "Significant Floodplain Forests of Vermont". Vermont Nongame and Natural Heritage Program, 1997.

Lapin, Marc and Brett Engstrom. "Natural Communities and Rare Vascular Plants of West Mountain Wildlife Management Area and Nulhegan Basin Division of the Silvio O. Conte National Fish and Wildlife Refuge, Essex County, Vermont. Mapping Description and Ecological Management Recommendations." 2002.

Responsive Management, Opinions on Fish, Wildlife, and Land Use Among Vermont Residents, Hunters, and Anglers. For Vermont Fish and Wildlife. 2015.

Thompson, Elizabeth H., and Eric R. Sorenson (2000). "Wetland, Woodland, Wildland: A Guide to the Natural Communities of Vermont". Montpelier, Vermont: Department of Fish and Wildlife and the Nature Conservancy.

Vermont Institute of Natural Science. A breeding bird survey of the West Mountain Wildlife Management Area

and the Nulhegan Basin Division of the Silvio O. Conte National Fish and Wildlife Refuge. Vermont Institute of Natural Science, Woodstock, Vermont.

Vermont Nongame and Natural Heritage Program,
"Significant Hardwood Swamps of Vermont: Vernon Black Gum Swamps", 2004

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #3762 - Red Maple-Black Gum Swamp, Black Gum Swamp, Vernon Vermont, 2001.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #164, Black Gum Swamp, Vernon Vermont, 2012. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #785, Black Gum Swamp, Vernon Vermont, 2007. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #5679, Black Gum Swamp, Vernon Vermont, 2007. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #6414, Black Gum Swamp, Vernon Vermont, 2009. (not included, confidential)

Thompson, E. and Sorenson, E. 2005. "Wetland, Woodland, Wildland: A Guide to the Natural Communities of Vermont" University Press of New England, Hanover. Lambert, J.D. (2000).

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: Poor Fen, Dennis Pond, Mud Pond, Brunswick, 2007.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #368, Dennis Pond, Mud Pond, Brunswick, 2002. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #1506,

Dennis Pond, Mud Pond, Brunswick, 1981. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #2336, Dennis Pond, Mud Pond, Brunswick, 2001. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #2412, Dennis Pond, Mud Pond, Brunswick, 2001. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #2639, Dennis Pond, Mud Pond, Brunswick, 2008. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #2643, Dennis Pond, Mud Pond, Brunswick, 2008. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #3261, Dennis Pond, Mud Pond, Brunswick, 2002. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #3279, Dennis Pond, Mud Pond, Brunswick, 2008. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #3723, Dennis Pond, Mud Pond, Brunswick, 2000. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #4049, Dennis Pond, Mud Pond, Brunswick, 2000. (not included, confidential)

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: #5098, Dennis Pond, Mud Pond, Brunswick, 2008. (not included, confidential)

Vermont Natural Heritage Inventory Report, Vermont Fish and Wildlife Department: Sandbar, Milton and Colchester, 1991.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: Lakeside Floodplain Forest, Lamoille River Delta, Milton and Colchester, 2008.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: Silver Maple-Ostrich Fern Riverine Floodplain Forest, Lamoille River Delta, Milton and Colchester, 2014.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report: Silver Maple- Sensitive Fern Riverine Floodplain Forest, Lamoille River Delta, Milton and Colchester, 2008.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 5388: Lamoille River Delta, 1994.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 918: Lamoille River Delta, Milton, 1994.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 8484: Lamoille River Delta- Sandbar Refuge, 2002.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 9119: Lamoille River Delta, 1963.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 1369: Sandbar Refuge South, Milton, 2004.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 4857: Lamoille River Delta, Milton, 1994.

Vermont Natural Heritage Inventory, Vermont Fish and Wildlife Department, Element Occurrence Report 5853: Lamoille River-Lower, Delta Island, Lamoille River Delta-Sandbar Refuge South, Milton and Colchester, 2011.

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5. INSTRUCTIONS ON HOW TO OBTAIN COPIES OF THE SOURCE DOCUMENTS OF THE SCIENTIFIC INFORMATION FROM THE AGENCY OR OTHER PUBLISHING ENTITY:

Many of these are located on our webpage for stakeholders:

<https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wetlands/stakeholder/>

Element Occurrence reports may be requested by contacting Everett Marshall, Information Manager for the Fish and Wildlife Department, at 802-371-7333

everett.marshall@vermont.gov

UVM's Middlebury Flood Damage Report Summary may be found here:

<http://www.uvm.edu/giee/?Page=news&&storyID=23116&category=gund&preview=true>