



Great River Hydro

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August 5, 2026

Town of Norwich
Town Clerk
300 Main Street
Norwich, VT 05055

Emailed

RE: Great River Hydro, LLC – 2026 Appeal to BCA of Parcel 70-006.000 Flowage and River Rights

Dear Town Clerk:

Great River Hydro, LLC (GRH) in compliance with 32 V.S.A Sec. 4404, hereby appeals to the Board of Civil Authority as a result of the Lister's July 23, 2026, decision to deny GRH's grievance of tax year 2026 (fiscal year 2026/27) assessment of parcel 70-006.000.

This appeal challenges the 2025 revaluation of GRH's flowage easements in Norwich, VT along the Connecticut River that has resulted in an **181% increase** in the Town's assessment of these property interests. The previous value of \$750,000 was set as part of a settlement agreement in 2020 that resolved outstanding litigation for tax years 2018-2019. The Town's current assessment values the flowage easements at \$2,109,938. Great River Hydro maintains its *de novo* right to modify its opinion of value when new information becomes available, as it moves through the appeal's process.

GRH finds fault with two primary components of the "Measurement and Recommended Town-wide Revaluation Assessment of Flowage Rights..." prepared by the Town's consultant, Sansoucy Associates (SA): (1) the number of acres that should be assessed for flowage easements; and (2) the proper methodology for valuing the flowage easements on those acres.

The basis for this grievance largely circulates around the findings of a case decided by the Orange County Superior Court and upheld by the Vermont Supreme Court, *TransCanada Hydro Northeast Inc. v. Town of Newbury, State of Vermont*, 2016 VT 117. This is the leading Vermont case on flowage easements and taxation, and it relates specifically to other flowage easements held by Great River Hydro there.

For background, the flowage easements in question were mostly deeded to Great River Hydro's predecessor in the 1940s when Wilder Dam was being planned and constructed downstream as part of the Wilder Hydroelectric Project (Federal Energy Regulatory Commission License No. P-1892). A few easements were granted prior to 1921 in connection with a smaller dam in the same vicinity. A typical easement granted to the dam owner:

[T]he perpetual right and easement to flow and otherwise damage so much of the hereinafter described land with the buildings and personal property thereon as may be flowed and damaged by reason of the construction, maintenance and operation (as hereinafter provided) of the dam of the Grantee across the Connecticut River between the towns of Hartford,...Vermont and Lebanon,...New Hampshire.¹

With this contextual groundwork laid, here is a complete description of GRH's main grievances:

Issue No. 1: Number of Acres.

If there is any value at all to the flowage easements, that value can only be assigned to flowage easements within the 100-year flood plain. In *TransCanada Hydro Northeast Inc. v. Town of Newbury*, the trial court held that flowage easements outside the 100-year flood plain have no value (Paragraph 18). In upholding the trial court's decision, the Supreme Court explained that the value of flowage easements is to protect the holder from an action in trespass for flooding caused by the dam. (Paragraph 17). If there is no risk of flooding, there is at most nominal value in the easement.

¹ *TransCanada Hydro Northeast Inc. v. Town of Newbury, State of Vermont*, 2016 VT 117, Paragraph 4.

During the 2018 and 2019 appeals between Great River Hydro and the Town of Norwich, the Company calculated that there are 467.3 acres of Company flowage easements located within the 100-year flood zone in Norwich, of which 206 acres are inundated under normal operations. A map demonstrating these measurements is attached herein. The State of Vermont and Town previously calculated that there are approximately 470 acres of Company flowage easements located within the 100-year flood zone in Norwich. Accordingly, there is no material difference between the parties as to the number of acres of flowage easements located within the 100-year flood zone as both parties had followed the Supreme Court endorsed methodology for calculating it.

In the report as of April 1, 2025, the Town of Norwich's consultant inexplicably fabricated a different methodology. SA instead calculated "wet acres", and "dry acres", which resulted in an increase of 760.7 acres. SA apparently based this calculation on draft project maps for that were submitted with the Company's application for a new FERC license.² SA states "Flowage easement mapping, produced by GRH has improved over recent years." However, SA ignores the notes on those maps that plainly state the maps are not intended to delineate the flowage easements areas.

GRH believes that the correct acreage that should be valued is the previously agreed 470 acres within the 100-year flood plain.

Issue No. 2: Proper Valuation Method.

The paired sales methodology of valuation, simply defined, is a real estate appraisal technique that estimates the value of a specific feature or improvement by comparing the sale prices of nearly identical properties that differ by only that one feature. This valuation approach has been widely endorsed by numerous federal cases. The leading case for valuing flowage easements is *United States v. Virginia Electric and Power Company*, 365 U.S. 624 (1961) and it has been applied extensively in the lower federal courts and in state court proceedings. There the Court held that "[t]he valuation of an easement upon the basis

² Until FERC approves any new project area maps, the project area maps for Wilder remain the Exhibit K Wilder Project Maps dated November 1980.

of its destructive impact upon other uses of the servient fee is a universally accepted method of determining its worth.” *Id.* at 630.

The paired sales methodology for determining the fair market value of flowage easements is also expressly set forth in the Federal regulations, which establish standards for determining the fair market value in condemnation proceedings. 32 C.F.R. § 644.46(c)(2) provides that: ‘The market value of fee simple title to each property over which a flowage easement is required will first be appraised in the usual manner. This estimate will be followed by appraisal of the market value of the property after imposition of the easement. The market value of the easement is then computed on the basis of the amount the market value of fee title is reduced by imposition of the easement.

Using this methodology, GRH’s consultant in the Newbury case had determined that the value of regularly inundated land within the 100-year flood plain was \$500/acre. The value of other land within the 100-year flood plain was \$600/acre.

In Norwich, these values would be applied as follows:

Inundated during normal operations	206 acres at \$500 per acre	\$103,000.
Subject to inundation within 100-year zone	264 acres at \$600 per acre	\$158,400.
Acreage outside 100-year flood zone		\$ 500.
	Total	\$261,900.

Instead of using the standard paired-sales analysis, the Town’s consultant utilizes the erroneous “wet” and “dry” acreages as previously described and then multiplies it by excess (residential) land table values that the Town of Norwich provided. SA arbitrarily assigned an encumbrance factor to the easement areas. Somehow, “dry” lands (only portions of which are within the 100-year flood zone and have a 1% annual chance of being flooded) earned an encumbrance factor of 25%. Furthermore, SA applies full excess land value to “wet” acres under flowage easement. How can these easements be valued the same as excess fee-interest land in Norwich such as excess woodland that are available for timber harvest, development, recreation, etc.? There is no other way to describe SA’s approach to valuation of flowage easement other than arbitrary and capricious.

Great River Hydro, LLC respectfully submits this appeal to the Board of Civil Authority on parcel 70-006.000, this the 5th day of August 2026. Please call me at 603-349-0341 or email me at jbarrett@greatriverhydro.com to notify me of the hearing date and time, in addition to mailing via USPS.

Sincerely,

A handwritten signature in cursive script that reads "Jocelyne M. Barrett".

Jocelyne M. Barrett

Sr. Property Tax Specialist



Great River Hydro

Analysis of Acreage Impacted by Flowage Easements in Norwich, Vermont

May 15, 2020

In accordance with the Stipulated Schedule in *Great River Hydro, LLC v. Town of Norwich and State of Vermont; Docket No.445-10-18 Wrcv*, Great River Hydro (“GRH”) hereby provides its analysis of the acreage impacted by GRH’s flowage easements in Norwich, Vermont.

Number of Acres in 100-Year Flood Zone. Consistent with the *Newbury* court decision that flowage easements located outside the 100-year flood plain have no value, we have calculated the number of acres located inside the 100-year flood plain within the Wilder FERC project boundary in Norwich. *TransCanada Hydro Northeast Inc. v. Town of Newbury*, 2017 VT 117, ¶ 18.

According to our calculations, there are 467.3 acres in the 100-year flood zone within the Wilder FERC project boundary in Norwich. Those 467.3 acres are comprised of (i) 206 acres that are inundated under normal operations at Wilder dam, and (ii) 261.3 acres that may be inundated during high flow conditions such as a 100-year flood weather event. GRH’s map showing the 100-year flood zone in Norwich within the FERC project boundary is attached as Exhibit A.

Calculation Method. The State of Vermont has a geographic information systems (GIS) portal that has a variety of data sources that the State either collects from other agency sources or other sources generally. The State makes that data available on its website for public use. GRH used (i) the subset of the FEMA data that Vermont offers for public use, (ii) the town boundary data (i.e., municipal town lines) that Vermont offers for public use, and (iii) the Town of Norwich assessor’s data offered for public use.

More specifically, GRH calculated the 100-year flood zone in Norwich using then-current publicly available GIS data. This included FEMA Flood Hazard Area data, downloaded from the State of Vermont’s GIS online data warehouse, available here: <http://geodata.vermont.gov/datasets/VTANR::flood-hazard-areas-only-fema-digitized-data>. In addition, GRH used publicly available town boundary data and Town of Norwich assessor’s parcel data, also acquired from the Vermont State GIS portal, available here: <https://geodata.vermont.gov/>. The Wilder project boundary GIS data, drawn in accordance with FERC regulations (18 CFR § 4.41), is also publicly-available on GRH’s relicensing website, www.greatriverhydro-relicensing.com.

To calculate the area of 100-year flood zone area associated with the Connecticut River in Norwich, GRH first clipped the FEMA data to the Norwich town boundary data using ArcGIS software. “Clipping” data uses one data set (in this case, town boundary data) to precisely select a portion of

another data set (in this case, FEMA data) like a cookie-cutter, so that the “clipped” data (the FEMA data) can be extracted and analyzed to a specific geographic extent (the Norwich town boundary).

The next step was to select the clipped portions of 100-year flood zone areas within Norwich that adjoin or overlap with the Wilder project boundary. Using a GIS technique called merging, the selected separate but adjacent flood zone areas along and/or within the length of the Wilder project boundary were merged to dissolve arbitrary internal lines and to create a single uniform polygon for the 100-year flood zones associated with the Connecticut River within the Norwich town boundary.

Because the Vermont state line is set as the low water mark of the Connecticut River, GRH simply used the same clipping method described earlier to clip the portion of the town boundary data for Norwich as it overlaps with the Wilder project boundary, thus creating a shape for lands in Norwich inundated due to normal operations.

GRH then calculated the acreage shown within these areas (see map attached as Exhibit A) by using the “calculate geometry” feature in the ArcGIS software program to calculate the acreage shown within the 100-year flood zone areas and the area inundated by normal operations.

The area shown on Exhibit A as “Assessor Parcel” (1,179.9 ac.) was calculated by using a “select by location” feature in the ArcGIS program that captured all of the Norwich tax assessor parcels, based on the publicly available Norwich tax assessor data, that intersect with the 100-year flood zone. In order to calculate the acreage of these tax parcels, GRH used the “calculate geometry” feature in the ArcGIS program for each parcel and added the number of acres for each tax parcel, to conclude to the total acreage of 1, 179.9 acres. To be clear, 1,179.9 is not GRH’s calculation of the number of acres impacted by the flowage easements in Norwich. 1,179.9 is the total parcel area for those parcels touched by the 500-year flood zone (as indicated on the map attached as Exhibit A). As stated above, the total number of acres within the 100-year flood zone within the Wilder project boundary is 467.3 acres.

Identification by SPAN. GRH has identified the parcels shown on the map by tax parcel number. A table of tax parcels and their acreage, according to records GRH obtained from Vermont’s Center for Geographic Information (available at <https://maps.vcgi.vermont.gov/ParcelViewer/>) is attached as Exhibit C. An annotated copy of the map attached as Exhibit A is attached as Exhibit C. The annotations provided on the map in Exhibit B are intended to identify the areas shown on the map with the table of School Property Account Numbers (SPANs) in the table provided in Exhibit B.

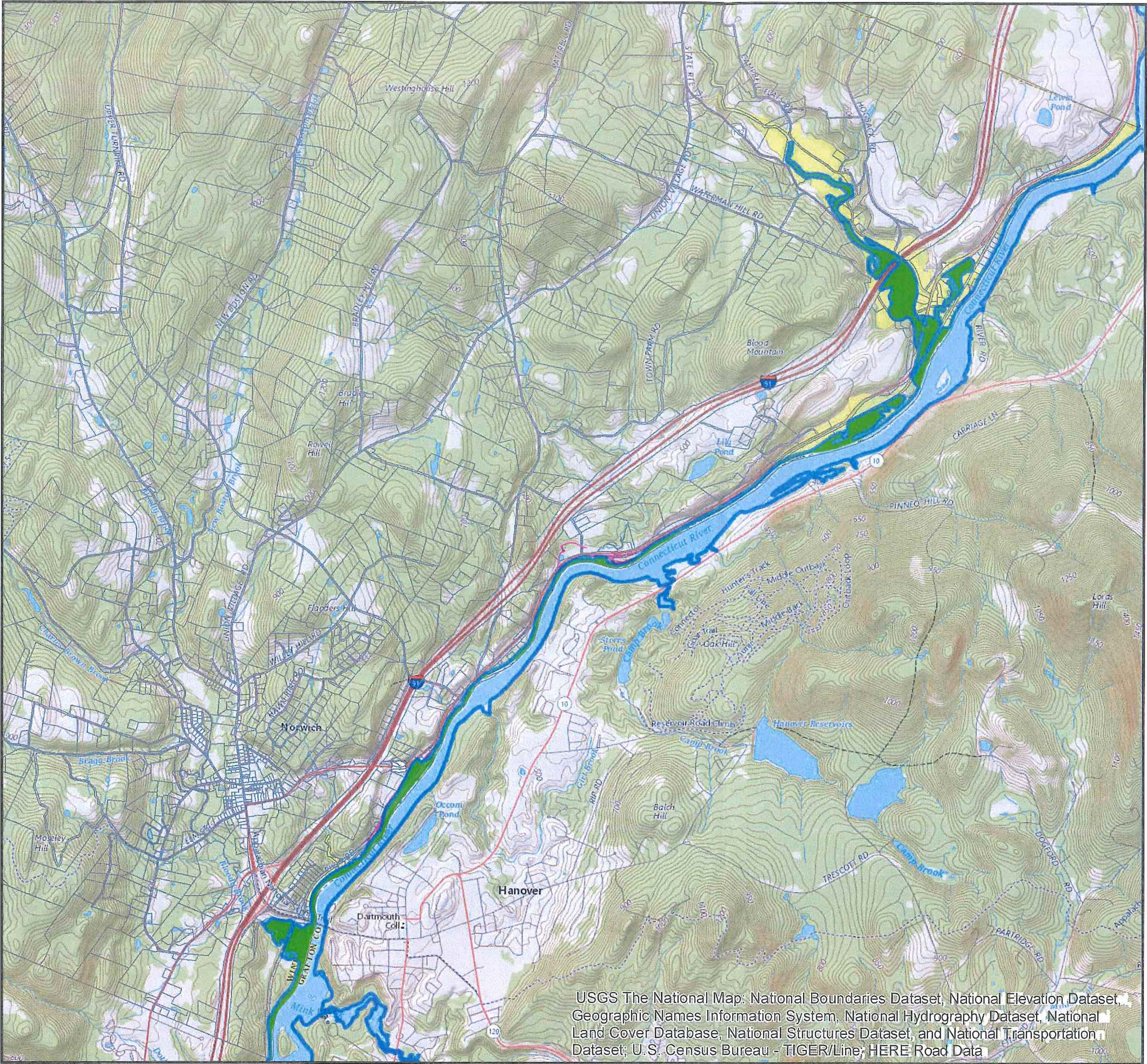
Exhibit A

Flowage & Flood Zones
Norwich, VT

Flowage & Flood Zones

Norwich, VT

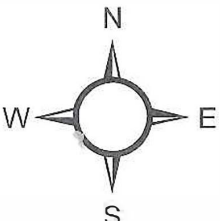
FEMA Flood Zones with
Assessor Parcels



- Assessor Parcel (1,179.9 ac.)*
- ▬ FERC Boundary (P-1892)
- FEMA National Flood Hazard Zone
 - 1% Flood (467.3 ac.)
 - 0.2% Flood (1%+21.8 ac.)
 - Normal Operation (206.0 ac.)

* Assessor parcel acreage is total parcel area for those parcels touched by the 0.2% flood line. Only 489.1 acres are affected during a 0.2% flood event.

USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data



National Flood Hazard Zones from
Federal Emergency Management Agency
<https://www.fema.gov/national-flood-hazard-layer-nfhl>

Exhibit B

PRIVILEGED - Prepared for Purposes of Settlement Discussions

Great River Hydro, LLC

Town of Norwich, VT

Flowage Easements

Source: Vermont Plat Map Website

100 Yr. Flood Map	Map Page	SPAN No.	Parcel No.	Acres	100 Yr. Flood Map	Map Page	SPAN No.	Parcel No.	Acres
	3	45014212477		67.3		6		12-001.400	13.1
	3A	45014212479		28.4	A	6	45014212703		161.6
						6	45014213133		1.6
	4	45014212655		34.3		6	45014213134		1.2
	4		06-074.000	6.2		6	45014212708		3.5
	4	45014212651		0.8		6A	45014212702		8.1
	4	45014212197		8.5		6A	45014212702		2
	4	45014212649		27		6A		12-003.010	0.8
	4A	45014212179		0.7		6A	45014212686		2
	4A	45014212180		1.7		6A	45014212684		1.9
	4A	45014212183		1.5					
	4A	45014212184		1.4	B	7	45014212612		1
	4A	45014212187		1.4	C	7		12-026.000	0.1
	4A	45014212188		1	D	7	45014212764		88.8
	4A	45014212190		0.9	E	7	45014213146		15.6
	4A	45014212193		1		7	45014212769		13.8
	4A	45014212194		0.9		7	45014212770		10.2
	4A1	45014212181		4.3	F	7	45014212770		16.7
	4A1	45014212186		2.9		7	45014212772		5.1
	4A1	45014212195		0.5		7	45014212772		5.8
	4B	45014212245		2.8	G	7	45014212774		14
	4B	45014212165		36.8	H	7	45014212775		14.1
	4B	45014212163		3.5		7	45014212041		14.7
	4B	45014212162		3.4		7		06-051.000	0.2
	4B	45014212164		2.3		7	45014211759		2.2
					I	7	45014211760		3
	5	45014212667		1.5		7	45014212043		5.4
	5	45014212667		1		7	45014211760		1.1
	5	45014212668		1.5	J	7	45014211762		1.9
	5	45014212671		8.9	K	7	45014211764		16.4
	5	45014211721		23.6	L	7	45014211764		44
	5	45014212673		2.7		7	45014211764		1.5
	5	45014212675		27.4		7		6-030.000	3.1
	5	45014212677		48.6		7	45014211767		16.5
	5	45014212682		10		7		06-072-010	0.9
	5		12-001.100	35.8		7	45014212728		159.6
	5A	45014211723		2					
	5A	45014211725		13	M	8	45014212728		17
	5A	45014212686		86.2					
Total Acres - All Parcels				1,170.20					
Notes:									
(1) Map page numeric number (excluding alph) reflects the FERC Drawing Exhibit G, Wilder Project - No. 1892 page.									
#	100-Yr. Flood Zone beyond the normal operations flowage easement area.								
(2) Parcels listed reflect flowage easement parcels with total parcel area, and not the flowage easement area . Those parcels hi-lighted in yellow are parcels where a portion of the parcel area is affected by the 100-yr. flood. Again, the acres listed reflect ther entire parcel not just the flowed area.									

Exhibit C

Annotated Map of Flowage & Flood Zones
Norwich, VT

Flowage & Flood Zones

Norwich, VT

FEMA Flood Zones with
Assessor Parcels

Assessor Parcel (1,179.9 ac.)*

FERC Boundary (P-1892)

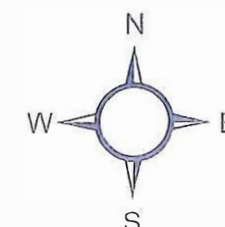
FEMA National Flood Hazard Zone

1% Flood (467.3 ac.)

0.2% Flood (1%+21.8 ac.)

Normal Operation (206.0 ac.)

* Assessor parcel acreage is total parcel area for those parcels touched by the 0.2% flood line. Only 489.1 acres are affected during a 0.2% flood event.



National Flood Hazard Zones from
Federal Emergency Management Agency
<https://www.fema.gov/national-flood-hazard-layer-nfhl>

3/15/2018

