VERMONT

Vermont Department of Environmental Conservation *Agency of Natural Resources*
Watershed Management Division
Rutland Regional Office [cell] 802-490-6163
88 Merchants Row, Suite 430 Asa Bloomer Building [fax] 802-786-5915
Rutland, VT 05701-5903 http://dec.vermont.gov/watershed

AUTHORIZATION TO CONDUCT STREAM ALTERATION ACTIVITIES

Pursuant to Section C.2.2 of the VT Stream Alteration General Permit (Reporting activities not requiring an application)

Project Number: **SA-07-028-2016**

Watercourse: **Tributary to Mettawee**

Applicant Name: **Rob Gaiotti - Town Manager**

Email: townmanager@gmail.com

Mailing Address: **Town of Dorset PO Box 715 East Dorset, VT 05253**

Phone: **(802) 362-4571**

Project Location: **Lower Hollow Road, below #1312**

Lat/Lon: **N 43.2808 / W 73.0468**

The Secretary of the Vermont Agency of Natural Resources (VT ANR) has determined that:

1. This project authorizes under **Section C.2.2.6, the installation of a stone weir to allow aquatic organism passage.**
2. The proposed activity is eligible for coverage under the VT ANR Stream Alteration General Permit.
3. The proposed activity will meet the terms and conditions of the General Permit provided:
   a) The project will be completed and approved **as proposed by Trout Unlimited, Inc. on plans dated 08/31/2016, with revisions as requested by RME,** and as approved by the Vermont Agency of Natural Resources.
   b) The project will not adversely affect the public safety by increasing flood hazards
   c) The project will not significantly damage fish life or wildlife.
   d) The project will not significantly damage the rights of riparian owners.
   e) The project will not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
   f) The project is conducted in a manner which minimizes or avoids any discharge of sediment or other pollutants to surface waters in violation of the VT Water Quality Standards.
   g) The ANR River Management Engineer is notified by phone or email when construction begins and when the project is complete.
   h) **In-stream working dates for all GP activities are from June 1st through October 15th**; any in-stream work outside these dates will require consultation with and prior authorization by the River Management Engineer (RME).
   i) This authorization has been posted for three days public comment. This authorization constitutes final approval.

Additional Conditions: **Please contact RME at least 3 days prior to commencing instream work to schedule onsite meeting.**

If there are any changes in the project plan or deviation in construction from the approved plans, the Permittee must notify the ANR RME immediately via phone (802) 490-6163 or email joshua.carvaial@vermont.gov.

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

Signed this 31st day of August, 2016 **This permit expires on October 1, 2017**.

Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

by: _____
Josh Carvajal, P.E. CFM, River Management Engineer

METTAWEE RIVER RESTORATION PROJECT

AT

LOWER HOLLOW ROAD

TOWN OF DORSET, VERMONT

PREPARED FOR:

USDA FOREST SERVICE and

THE TOWN OF DORSET, VERMONT

PREPARED BY:

TROUT UNLIMITED, INC.

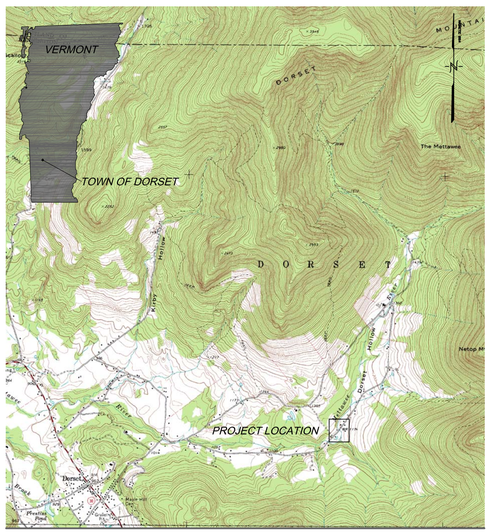
100% DESIGN

ISSUED: AUGUST, 2016

APPROVED BY:

ROB GAIOTTI
TOWN OF DORSET, TOWN MANAGER

DRAWING INDEX



Project Vicinity
Scale: 1" = 1,000'

Project Location
Scale: 1" = 40'

TROUT UNLIMITED, INC.
54 PORTSMOUTH STREET
CONCORD, NH 03301

METTAWEE RIVER RESTORATION PROJECT
AT LOWER HOLLOW ROAD
TOWN OF DORSET, VERMONT

COVER SHEET

DESIGNED G. BOLIN
DRAWN G. BOLIN
APPROVED XX
DATE AUGUST, 2016
SCALE AS SHOWN

1

1 OF 5

General Notes:

1. Specifications for design, materials and construction shall meet or exceed the following:

   1.1. AASHTO – American Association of State Highway and Transportation Officials "AASHTO LRFD Bridge Design Specifications", Sixth Edition, 2012, and additional interim specifications as amended.

   1.2. AASHTO – "A Policy on Geometric Design of Highways and Streets", 2004.

   1.3. AASHTO – "Guidelines for Geometric Design of Very Low–Volume Local Roads", 2001.

   1.4. VTrans – Vermont Agency of Transportation "Standard Specifications for the Construction Book", 2011, with current standard plans and supplemental specifications.

   1.5. This plan set and all conditions, specifications and supplements to standard specifications contained within the contract documents.

2. Final resolution to conflicts within the specifications or any substitutions shall be determined by the Engineer.

3. Utilities:

   3.1. The Contractor shall be responsible for determining the location of all utilities prior to any construction procedure. There are overhead power transmission lines and potentially other utilities with roadway crossings and lines in the immediate vicinity of the bridge. The Contractor is advised that extreme caution will be required in the operation of equipment, especially cranes. Contact DIG–SAFE at 1–888–DIG–SAFE.

   3.2. Temporary relocation of utilities, if necessary, during construction is the responsibility of the Contractor.

   3.3. Damage to any utility by the Contractor shall be reported to the utility company. Repair of the utility shall be paid for by the Contractor.

4. The Contractor shall not disturb any existing property corner, monument, survey marker, or benchmark without first making provisions for its replacement or relocation.

5. The Contractor shall perform all work within the existing right–of–way unless otherwise noted.

General Construction Notes:

1. Note that permits have not yet been received for this project, and will be acquired prior to construction by the Owner's representatives. Work can not proceed until permits are acquired.

2. Areas outside the limits of proposed work disturbed by the Contractor's operations shall be restored by the Contractor to their original condition at the Contractor's expense.

3. All soil moving equipment shall be thoroughly cleaned to make it free of soil, non–native invasive species or other debris that could contain or hold seeds prior to being delivered to the project site. Equipment shall be considered free of non–native or invasive species and other such debris when a visual inspection by the Engineer, completed prior to the equipment being moved to the site, does not disclose such material present. A current list of non–native invasive species of concern is provided in the contract documents.

4. The color of stone used for streambed construction shall be either earth tones or medium to dark gray and shall be approved by the Engineer prior to placement. White stone is not acceptable.

5. Suitable material used for the weir construction shall consist of an inert material that is hard, durable stone and sand free from loam, clay, surface coatings and deleterious materials, and shall meet the gradation requirements in the notes titled "Weir Construction Notes" on Sheet 5 and must be approved by the Engineer prior to placement.

Trout Unlimited, Inc.
54 Portsmouth Street
Concord, NH 03301
603-228-2200

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. BOLIN
DRAWN BY: G. BOLIN
CHECKED BY: XX
APPROVED BY: XX
FILE: AS SHOWN
DATE: AUGUST, 2016

METTAWEE RIVER RESTORATION PROJECT
AT LOWER HOLLOW ROAD
TOWN OF DORSET, VERMONT

GENERAL NOTES

2

SHEET NO. 2 OF 5

MAGNETIC 2015

Mettawee River

LOWER HOLLOW ROAD (GRAVEL)

T.L. 49/6
Bob & Susan Shaw
1409 Lower Hollow Road
Dorset, VT 05251

T.L. 65/6
Catherine & John Redpath
1312 Lower Hollow Road
Dorset, VT 05251

T.L. 60.01/6
Catherine & John Redpath
1312 Lower Hollow Road
Dorset, VT 05251

T.L. 66/6
Catherine & John Redpath
1312 Lower Hollow Road
Dorset, VT 05251

60d Nail
N: 9978.254'
E: 9933.073'
Elev: 999.25'

60d Nail
N: 10000.000'
E: 10000.000'
Elev: 1000.00'

EXISTING 10" HDPE CULVERT

EXISTING CONCRETE DECK + WINGWALLS

existing wooden weir

steel pipe

existing well structure

pipe to pond

private driveway

existing stone wall

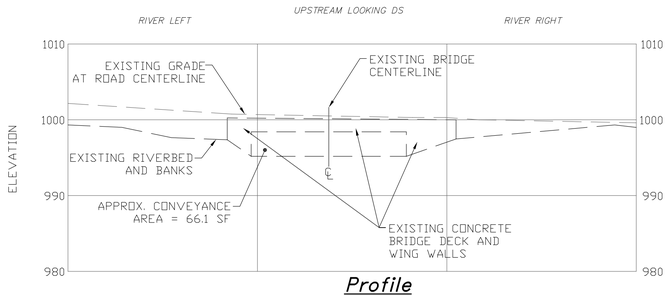
to Dorset Hollow Rd.

Point Table

Point #	Description	Northing	Easting	Elevation
1	60d Nail	9978.254'	9933.073'	999.25'
2	60d Nail	10000.000'	10000.000'	1000.00'
3	60d Nail	10227.893'	9945.411'	1003.49'
4	60d Nail	9740.717'	9990.530'	991.76'

Legend

- Overhead utility wires/pole
- Major contour
- Minor contour
- Vegetation line
- Edge of gravel
- Existing river top of bank
- Approximate right-of-way



Profile

Horizontal Scale: 1" = 10'
Vertical Scale: 1" = 10'

Survey Notes:

1. Bearings refer to the true meridian based on a 2015 compass bearing of the initial line of backsight, accounting for a declination of 14°30" W. Coordinates refer to an arbitrary horizontal datum.
2. Contour interval = 2 feet. The vertical datum is arbitrary.
3. Site survey was performed in December 2015 by the following personnel: Brian Austin, David Donahue and Alan Rhodes (USFS, Green Mountain National Forest, Rutland, VT), and Erin Rodgers (Trout Unlimited, Inc., Brattleboro, VT), using a Nikon Nivo 5.C 5" Total Station.
4. This is not a boundary survey and does not meet the legal requirements of a boundary survey as described in 27 V.S.A. § 1403.
5. Lower Hollow Road right-of-way is assumed to be 3 rods (49.5') wide. No road records research has been performed.
6. Utility locations shown on this plan should be considered approximate. Contractor required to verify utility locations prior to work.

Plan

Scale: 1" = 10'

Trout Unlimited, Inc.
54 Portsmouth Street
Concord, NH 03301
603-228-2200

10 0 10 20 40 ft
2 0 5 10 m
1 inch = 10 feet
(1 : 120)

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY:	G. BOLIN
DRAWN BY:	G. BOLIN
CHECKED BY:	XX
APPROVED BY:	XX
FILE:	AS SHOWN
DATE:	AUGUST, 2016

METTAWEE RIVER RESTORATION PROJECT
AT LOWER HOLLOW ROAD
TOWN OF DORSET, VERMONT

EXISTING FEATURES PLAN & PROFILE

3

SHEET NO. 3 OF 5

Aug 31, 2016 11:38am Gabe.Bolin E:\TU\CAD\Mettawee_River\Lower_Hollow_Road\Mettawee_Lower_Hollow_Road_V1_recover.dwg SHEET_3_R

MAGNETIC 2015

Legend

- Overhead utility wires/pole
- Major contour
- Minor contour
- Vegetation line
- Edge of gravel
- Existing river top of bank
- Approximate right-of-way
- 90 Proposed contour
- Proposed weir rock

Mettawee River

LOWER HOLLOW ROAD (GRAVEL)

T.L. 49/6
Bob & Susan Shaw
1409 Lower Hollow Road
Dorset, VT 05251

T.L. 65/6
Catherine & John Redpath
1312 Lower Hollow Road
Dorset, VT 05251

T.L. 60.01/6
Catherine & John Redpath
1312 Lower Hollow Road
Dorset, VT 05251

T.L. 66/6
Catherine & John Redpath
1312 Lower Hollow Road
Dorset, VT 05251

EXISTING 10" HDPE CULVERT

EXISTING 10" HDPE CULVERT

EXISTING 10" HDPE CULVERT

EXISTING CONCRETE DECK WINDOW

60d Nail
N: 10000.000'
E: 10000.000'
Elev: 1000.00'

60d Nail
N: 9978.254'
E: 9933.073'
Elev: 999.25'

INSTALL ROCK WEIR USING EXISTING MATERIALS AND IMPORTED MATERIALS NOT TO EXCEED 1.5 CY SEE DETAIL SHEET 5

EXISTING WOODEN WEIR TO REMAIN

existing wooden weir

existing well structure

inlet pipe

outlet pipe to pond

private driveway

existing stone wall

to Dorset Hollow Rd.

997.95 997.76 997.93 997.45 997.63 996.60 995.80 996.16 995.68 996.30 995.14 994.94 994.76 995.00 1000.75 995.12 1000.30 994.08 994.36 991.56 990.90 992.77 992.55 992.11 992.02 991.20 993.30 993.94 991.36 991.01 991.54 990.60 991.44 990.42 990.22 990.39

Plan
Scale: 1" = 10'

Stream Simulation Plan Notes:

1. Existing river top of bank limits and existing width of river to be maintained.
2. Contractor to install loam and seed along disturbed banks and other areas of disturbance per the direction of the Engineer.

Trout Unlimited, Inc.
54 Portsmouth Street
Concord, NH 03301
603-228-2200

10 0 10 20 40 ft
2 0 5 10 m
1 inch = 10 feet
(1 : 120)

REVISIONS				
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APPROVED BY: xx
FILE: AS SHOWN
DATE: AUGUST, 2016

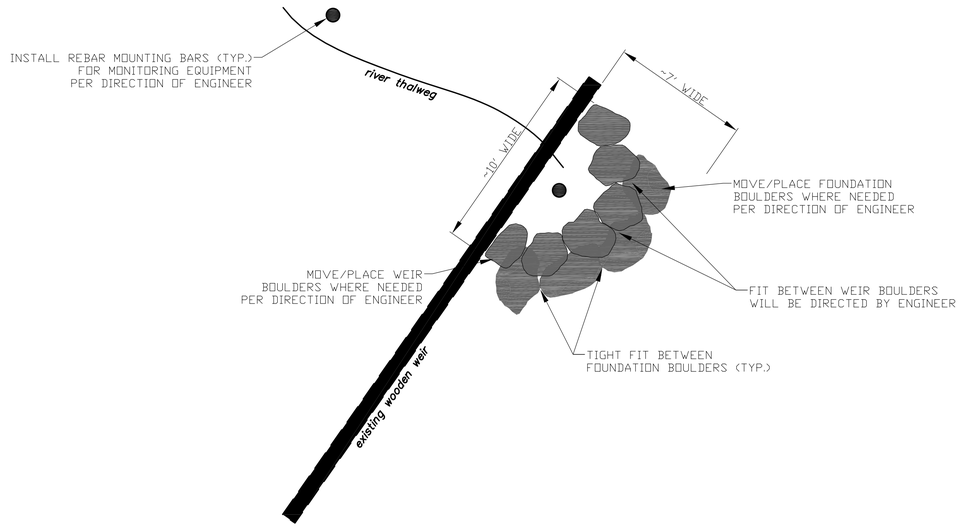
METTAWEE RIVER RESTORATION PROJECT
AT LOWER HOLLOW ROAD
TOWN OF DORSET, VERMONT

STREAM SIMULATION & RESTORATION PLAN

4

SHEET NO. 4 OF 5

Aug 31, 2016 12:05pm Gabe.Bolin E:\TU\CAD\Mettawee_River\Lower_Hollow_Road\Mettawee_Lower_Hollow_Road_V1_recover.dwg SHEET_4_R

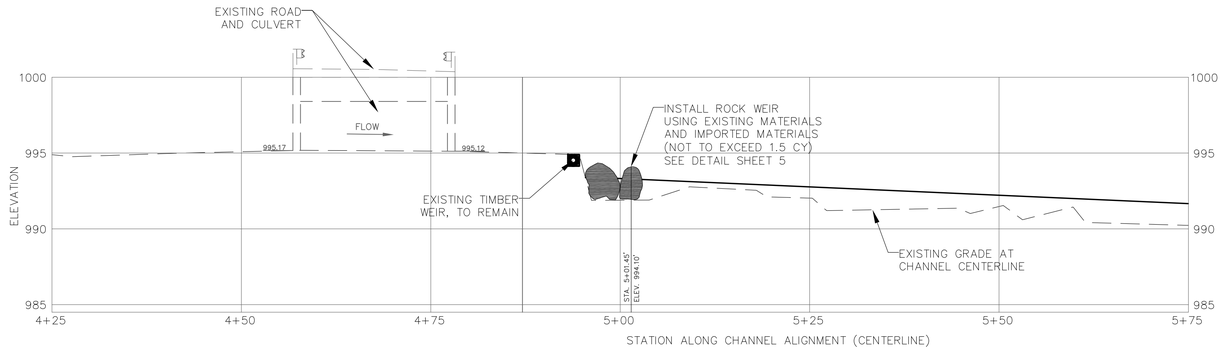


Rock Step – Plan View

Scale: NTS

Weir Construction Notes:

1. Rock weir and boulder placement locations provided on Sheet 4.
2. Step and foundation boulder sizes to match existing boulders on river left just downstream of existing wooden weir, and will average 2–3' in size along the stone intermediate axis (i.e. the second largest dimension).
3. Foundation boulders shall be keyed into the river bed approximately 6" – 1'.
4. Imported materials shall not exceed a total of 1.5 CY.



Profile

A / S5

Horizontal Scale: 1" = 10'
Vertical Scale: 1" = 5'

Stream Simulation Profile Notes:

1. Bridge and substructure geometry may seem distorted due to vertical scale exaggeration of 2.

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54 Portsmouth Street
Concord, NH 03301
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METTAWEE RIVER RESTORATION PROJECT
AT LOWER HOLLOW ROAD
TOWN OF DORSET, VERMONT

STREAM SIMULATION & RESTORATION
PROFILE & DETAILS

5

SHEET NO. 5 OF 5