



City of Keene, New Hampshire

AMENDED AGENDA

CONSERVATION COMMISSION

Monday, October 16, 2017

4:30 PM

**2nd Floor Conference Room
City Hall**

Commission Members

Thomas P. Haynes, Chair
Sadie Butler, Vice Chair
Councilor George Hansel
Councilor Jan Manwaring
Denise Burchsted

Andrew Madison
Brian Reilly
Eloise Clark, Alternate
Alexander Von Plinsky IV, Alternate

SITE VISIT:

At 3:30 PM there will be a site visit of the Emerald Street Eversource Substation.

- 1. Call to Order**
- 2. Minutes – September 18, 2017**
- 3. Wetland Permit by Notification – Branch River Dam – Dubois & King on behalf of the Town of Swanzey**
- 4. Surface Water Protection Conditional Use Permit – Eversource Emerald Street Substation**
- 5. Greater Goose Pond Forest Stewardship Plan RFQ Update**
- 6. Aquatic Resource Mitigation Subcommittee Update**
- 7. Conservation Master Plan Retreat Discussion**
- 8. Commission Membership**
- 9. Public Education and Outreach**
- 10. Staff Updates**
- 11. New or Other Business**
- 12. Adjournment - Next meeting date Monday, November 20, 2017**

City of Keene
New Hampshire

CONSERVATION COMMISSION
MEETING MINUTES

Monday, September 18, 2017

4:30 PM

**2nd Floor Conference Room,
City Hall**

Members Present:

Thomas Haynes, Chair
Councilor Jan Manwaring
Councilor George Hansel
Brian Reilly
Denise Burchsted
Alexander Von Plinsky IV, Alternate

Staff Present:

Members Not Present:

Sadie Butler, Vice Chair
Andrew Madison
Eloise Clark, Alternate

1) Call to Order

Chair Haynes called the meeting to order at 4:33 PM.

2) Approval of Minutes – August 21, 2017

Dr. Burchsted made a motion to approve the minutes of August 21, 2017, which was seconded by Dr. Reilly.

Dr. Burchsted noted on page 2/7, “detention basin” should be corrected to “tension basin.” Dr. Reilly noted on page 2/7, “mild steel bolts” should be corrected to “meld steel bolts.”

The motion to approve the minutes of August 21, 2017 as amended carried unanimously.

3) Communication and Notifications

No communications or notifications.

4) Greater Goose Pond Forest Stewardship Plan RFQ Updates

Chair Haynes said right now Moosewood Ecological is working on a scope of work and budget to be approved through the City. He is unsure what the delay is; Councilor Hansel said it may be waiting to go through a Committee cycle for approval and if going before the Finance Committee that will likely occur next week. Chair Haynes said this has to occur before they can sign the contract and hopefully it will happen sooner than later so they have the entire fall season to collect data.

Dr. Reilly recalled the Committee was supposed to receive the first 12 pages of the RFQ that Moosewood Ecological submitted. Chair Haynes will ask Ms. Kessler to send it. Councilor Manwaring inquired about Ms. Kessler’s absence, noting there is a shortage of staff for Committee’s but statutorily, this Committee is required to have staff representation; if she will

not be as present, the Commission needs to know how to step up and fill the gaps they can. Chair Haynes noted she has had conflicts for the past few meetings and as far as he knows she is still with the Commission. Dr. Burchsted noted it is really the Planning Department in general that is shorthanded right now; Councilor Hansel noted they are not short-staffed but have many big projects going on, like the Land Use Code Update. Chair Haynes said he thinks all staff would like Committee's to do as much as they can to help and Ms. Kessler will let the Commission know how they can help; the dialogue is open and will continue.

5) Aquatic Resource Mitigation Subcommittee Update

Dr. Burchsted reported that she, Chair Haynes, and Mr. Von Plinsky had met in the last month and discussed compiling the information she shared with the Commission. She said the idea of the schematic presented was to have a visual of all the possible projects discussed so far and how they have been arranged into the identified target areas (Ashuelot River north of West Street, Beaver Brook, Hurricane/Grimes Brook, and other identified projects). She wanted to check-in with the Commission for any feedback and will email Ms. Clark to review it with her as well. She has a follow-up call into Lori Sommer at NH DES to make sure this list is on the right track. Dr. Burchsted has the impression that synergistic target area projects would be more favorable to DES but wants to make sure.

Dr. Reilly asked if a project hits several different ARM fund categories if it would be higher priority. Dr. Burchsted cautioned use of the word priority, but they may be more likely to fund such projects; they also favor multiple-component projects. Councilor Hansel, Councilor Manwaring, and Dr. Reilly thanked the subcommittee for their work. Dr. Burchsted asked for comments on strategy, details, and who else should be asked to review.

Councilor Hansel said it looks good but wonders what the Commission will do when it is complete. Dr. Burchsted replied that is one of her questions for Ms. Sommer – how to move forward. She will try to speak with Ms. Sommer before the subcommittee meets again next week. She assumes this is too much to submit to DES and it will need to be further streamlined. Councilor Hansel suggested when this strategy document is complete it can be passed up through City Council with a presentation to keep it on the radar. While staff will ultimately submit this, it is the Commission's job to present it to Council so that staff knows what to work with. Councilor Manwaring agreed the Commission is setting the stage for how money will be spent so Council can be reassured it is being spent well.

Councilor Manwaring suggested that the Ashuelot River north of West Street is good but should include Goose Pond and the Farrar property. She also thinks a greenspace on the Kingsbury property should be included with Beaver Brook. Dr. Burchsted agreed she intends to add restoring the channelized section of Beaver Brook at Kingsbury as well as the Brownfield information. Councilor Manwaring said it is her opinion that ultimately the City will take that land because it is a Brownfield site.

Dr. Burchsted noted she included some locations/projects highlighted in grey that seem unlikely but can act as placeholders. Councilor Hansel said he does not think some of them are that unlikely. He also suggested Carpenter Field, though he knows it has been tried before, it has never been shut down. Dr. Burchsted noted the Planning Director was very clear that is not going anywhere. Councilor Manwaring agreed it is unlikely; she asked if the habitat in the swamp at Woodlawn Cemetery is not finished. Dr. Burchsted replied no, but it has a good start.

Dr. Reilly asked if there are only four categories from DES. Dr. Burchsted replied the four categories displayed were the ones the subcommittee decided on and can be modified. She noted the ARM fund Sample Priority List:

- Land protection priorities can include acquisitions such as: Parcels adjacent to existing conservation lands; Town forests or parcels acquired not currently protected (consider habitat value for restoration); Land in vicinity to drinking water supplies; Floodplains and riparian areas, vernal pool habitat; Farmlands with focus for enhancing wetland and stream buffers.
- Habitat restoration priorities includes projects such as: Wetland restoration—remove fill, restore hydrology, remove ditching; Restoration of streams where they have been culverted, buried, channels straightened; Enhancement of buffers where they may be lacking; Water quality improvements—look at impaired waters for best locations for improvements.
- Infrastructure modification priorities include projects such as: Culvert replacements and dam removals; Connecting sections of streams to improve passage for aquatic organisms, fish passage; Stream bank restoration / vegetated enhancement.
- Native species restoration priorities include projects such as: Eradication of invasive species—with long-term monitoring program established.

Compiling a list of projects for Keene will allow immediate applications to the ARM fund when projects are shovel-ready. Dr. Burchsted noted she is also investigating sources of funding that may be available to supplement the ARM fund. Some projects are ready to go, like the culvert replacements; they are just waiting on funds. Councilor Hansel said while there may be four projects shovel-ready, for example, the Commission should be working to get the other shovel ready in the meantime with the Land Use Tax Fund. Dr. Burchsted agreed having as many projects as possible shovel-ready allows the Commission to take advantage of any situation that arises to keep moving them all along.

Mr. Von Plinsky asked if there was anything to add from a structural standpoint on potential target area layout. Dr. Reilly suggested adding the Beech Hill Conservation Easement under the miscellaneous list, although it is not aquatic. Dr. Burchsted and Chair Haynes agreed it could be considered aquatic because there are vernal pools and upland habitat. Councilor Hansel said this is a great example of what the Commission should be doing and is an opportunity to show the Council how active the group is.

6) Conservation Master Plan Retreat Discussion

Chair Haynes reported that he has been emailing with Barbara Richter, who is interested in helping. Her dilemma is timing as she is currently planning the NH Conservation Commissions annual meeting in November. He will continue following-up with her; finding a facilitator is still ongoing. Dr. Burchsted noted David Montgomery, who is a National Academy of Science member, will be speaking at the meeting and at KSC. The Commission agreed the annual meetings are a great opportunity with workshops on diverse topics. Chair Haynes will make sure everyone gets the flyer about it.

7) Public Education and Outreach

Chair Haynes noted little progress since the last meeting but asked to brainstorm City parcels to promote as opportunities when approaching people to facilitate. He listed Goose Pond and Drummer Hill as possibilities all year. Dr. Reilly suggested Beech Hill. Councilor Manwaring suggested getting permission to walk to Woodward Pond, where visitors are not typically welcomed at the Dam; she is unsure where the reservoir plan stands, but it could be an

educational opportunity. She also suggested the Roaring Brook watershed. Chair Haynes agreed that could combine with a walk through historic Roxbury. Dr. Burchsted suggested Stearns Hill. Dr. Burchsted also suggested floating up and down the Ashuelot River (from Court Street to the dam) with an expert. She said the floodplain wetlands are fantastic and the float would be best in spring so there is enough water. Chair Haynes asked for additional ideas to be sent to him or Ms. Kessler.

8) New or Other Business

Councilor Manwaring noted she did not work on a criteria list and will for next month.

Councilor Hansel suggested putting a financial update on the agenda for next month; it is good timing to start looking at it.

Chair Haynes recalled that Councilor Manwaring's term expires at the end of the year and he will find out if any others expire as well. Dr. Burchsted suggested Ken Bergman as a possible new member. She will invite him to an upcoming meeting to see if he is interested. The term limit is three years, you can serve a maximum of two terms, and there must be at least one Councilor on the Commission; these are statutory guidelines.

9) Adjournment – Next meeting date Monday October 16, 2017

Hearing no further business, Chair Haynes adjourned the meeting at 5:19 PM.

Respectfully submitted by,
Katie Kibler, Minute Taker

Reviewed and edited by,
Tara Kessler, Planner

Conservation

Permit Application
New Hampshire Department of Environmental Services
Wetlands Bureau

Name of Project:
Branch Dam Diversion Temporary Shutdown
Keen, NH
DuBois & King Project No. 123144

Owner/Applicant:
Town of Swanzey
PO Box 10009
Swanzey, NH 03446

Prepared by Authorized Agent:

**DuBois
& King^{INC.}**

28 North Main Street
Randolph, VT 05060
Phone: (802) 728-3376
Fax: (802) 728-4930

Dated: September 22, 2017

RECEIVED
SEP 29 2017



WETLANDS PERMIT BY NOTIFICATION (PBN)

Land Resources Management

Check the status of your submitted notification: www.des.nh.gov/onestop/index.htm



RSA/Rule: RSA 482-A/ Env-Wt 100-900

1. PROJECT TYPES	
<p><input type="checkbox"/> 1 Freshwater Seasonal Dock: Construction or modification of a seasonal pier or wharf (dock), located on a non-tidal stream or river or in a lake or pond.</p>	<p><input type="checkbox"/> 8 Culvert/Bridge Replacement: The replacement of a culvert/bridge on a watercourse with a contributing watershed less than or equal to 25 acres to permit vehicular access to one single family lot or for noncommercial recreational use.</p>
<p><input type="checkbox"/> 2 Retaining Wall Repair and Replacement: Repair or replacement in-kind of a retaining wall (<i>in the dry during draw down</i>).</p>	<p><input type="checkbox"/> 9 Beach Replenishment: Replenishment of an existing non-tidal beach with less than 10 cubic yards of sand.</p>
<p><input type="checkbox"/> 3 Maintenance Dredge: Maintenance dredging, when necessary to provide continued usefulness of nontidal drainage ditches, man-made ponds, and spillways <i>Stormwater detention ponds, fire ponds, or agricultural ponds may be exempt from permitting pursuant to RSA 482-A:3, IV-b. See the project specific criteria document for further information.</i></p>	<p><input type="checkbox"/> 10 Seasonal Dock Anchoring Pad: Construction of an anchoring pad for a seasonal dock in non-tidal waters.</p>
<p><input checked="" type="checkbox"/> 4 Temporary Cofferdams: Temporary cofferdams and other water control devices constructed in flowing water or adjacent to dams in conjunction with the repair or maintenance of existing structures. All work must be designed, and supervised by a professional engineer (PE).</p>	<p><input type="checkbox"/> 11 Boatlift: Installation of <i>one</i> seasonal boatlift in non-tidal waters and not within 20 feet of abutter's property line.</p>
<p><input type="checkbox"/> 5 Docking Structure Repair: Repair of <u>existing</u> tidal docking structures or repair of non-tidal docking structures.</p>	<p><input type="checkbox"/> 12 Watercraft Lift: Installation of <i>one or two</i> personal watercraft lift(s) in non-tidal waters adjacent to a dock.</p>
<p><input type="checkbox"/> 6 Dry Hydrant: For a dry hydrant <u>ONLY</u>, excavation of less than 10 linear feet within the bank and bed of a surface water that does not exceed 200 square feet in total jurisdictional impact to the bed.</p>	<p><input type="checkbox"/> 13 Residential Utilities: installation of a residential utility line. Stream impacts limited to a contributing watershed of 25 acres.</p>
<p><input type="checkbox"/> 7 Maintenance of a Non-Docking Structure: Maintenance, repair or replacement of a non-docking structure.</p>	<p><input type="checkbox"/> 14 Utility Right-of-Ways: Temporary impacts associated with the inspection, maintenance and repair of existing utility lines within an existing utility right of way. <i>Use the <u>Utility Maintenance Notification form</u> for this project type.</i></p>

2. RELATED NHDES LAND RESOURCES MANAGEMENT PERMIT APPLICATIONS ASSOCIATED WITH THIS PROJECT:

Please indicate if any of the following permit applications are required and, if required, the status of the application.

To determine if other Land Resources Management Permits are required, refer to the [Land Resources Management Web Page](#).

Permit Type	Permit Required	File Number	Permit Application Status
Alteration of Terrain Permit Per RSA 485-A:17	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Individual Sewerage Disposal per RSA 485-A:2	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Subdivision Approval Per RSA 485-A	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Shoreland Permit Per RSA 483-B	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.
			Check No.
			Amount.
			Initials

3. PROJECT LOCATION

A separate application must be filed with each municipality that jurisdictional impacts will occur in.

ADDRESS: Dam located between Marlboro St. and Swanzey Factor Rd. in Branch River		TOWN/CITY: Keene	
TAX MAP: 906	BLOCK:	LOT:	UNIT:
US GEOLOGICAL SURVEY TOPO MAP WATERBODY NAME: Branch River			
LOCATION COORDINATES (If known): 42.913092, -72.255488			<input checked="" type="checkbox"/> Latitude/Longitude <input type="checkbox"/> UTM <input type="checkbox"/> State Plane

4. PROJECT DESCRIPTION:

Provide a brief description of the project, outlining the scope of work to be performed, including a narrative that describes the sequence of construction including pre-construction through post-construction activities and the relative timing and progression of all work. Do not write "see attached."

The project includes temporarily blocking the diversion of flow from the Branch River at the Branch Dam to the Upper and lower Wilson Ponds. Due to limited hydraulic capacity at both of the downstream dams, the Town wishes to temporarily eliminate flows from the Branch Dam and observe hydraulic conditions for a period of one year. Sandbags will be used to block off the overflow at the Branch River Dam to determine if sufficient baseflow is available at Upper Wilson and Lower Wilson Ponds to maintain normal water levels and provide adequate turn over to maintain water quality. The diversion will be put into place on October 30, 2017 and will be removed on October 30, 2018. The project meets the requirements of Env-Wt 303.04 and 506.04.

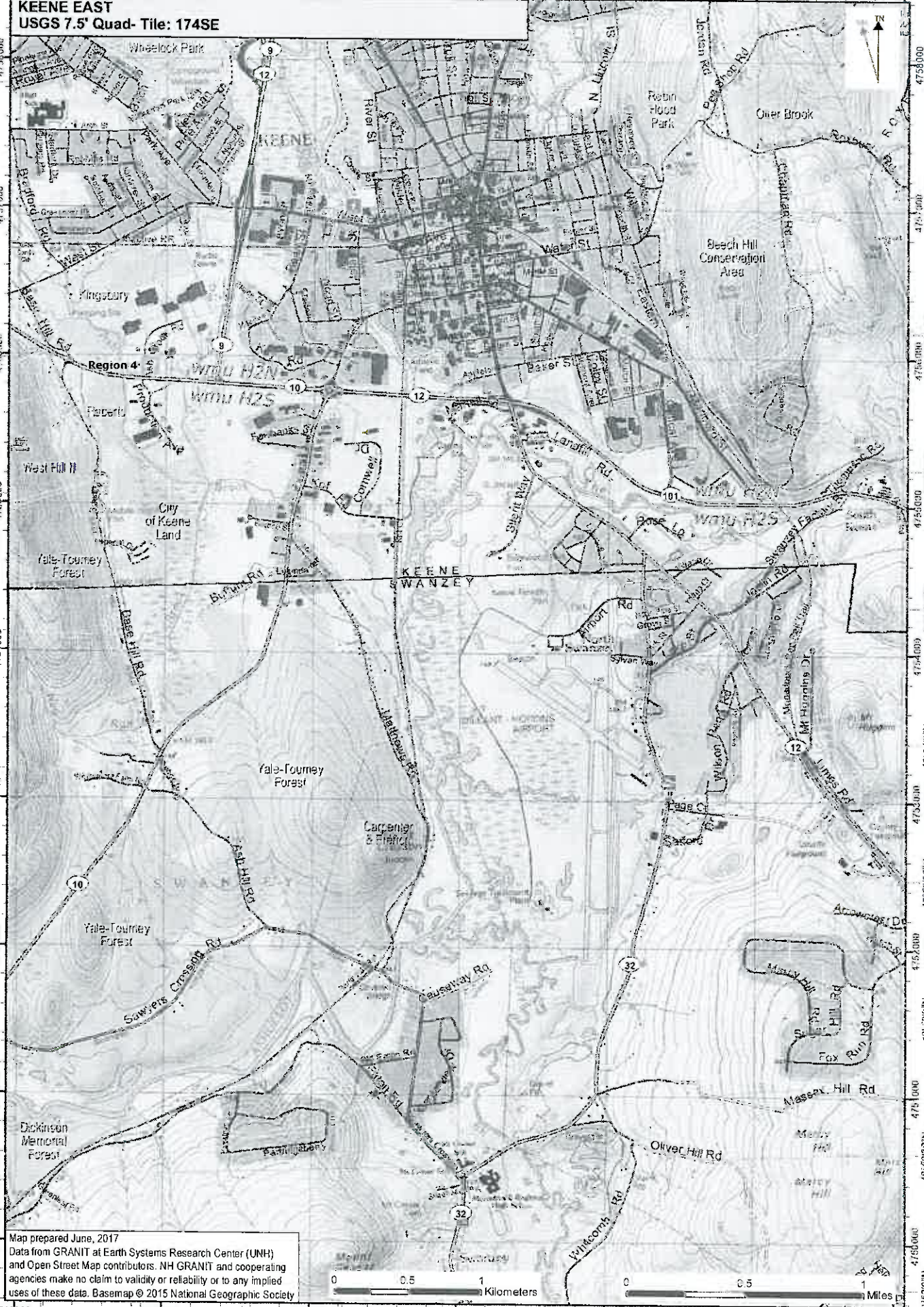
5. IMPACT AREA:

For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact
Temporary = impacts not intended to remain (and will be fully restored to pre-construction conditions) after the project is completed

Jurisdictional Area	Permanent Sq. Ft.	Temporary Sq. Ft.	Jurisdictional Area	Permanent Sq. Ft.	Temporary Sq. Ft.
Forested wetland	0	0	Lake	0	0
Emergent wetland	0	0	Pond	0	110
Wet meadow	0	0	Tidal water	0	0
Intermittent stream	0	0	Previously-developed upland in TBZ	0	0
Perennial stream / river	0	0	Other	0	0

NHDES-W-06-027

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KEENE EAST
USGS 7.5' Quad- Tile: 174SE

Map prepared June, 2017
Data from GRANIT at Earth Systems Research Center (UNH)
and Open Street Map contributors. NH GRANIT and cooperating
agencies make no claim to validity or reliability or to any implied
uses of these data. Basemap © 2015 National Geographic Society



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Memo



NH NATURAL HERITAGE BUREAU
NHB DATACHECK RESULTS LETTER

To: Loren Wehmeyer, DuBois & King
28 North Main Street
Randolph, VT 05060

From: Amy Lamb, NH Natural Heritage Bureau
Date: 9/7/2017 (valid for one year from this date)
Re: Review by NH Natural Heritage Bureau
NHB File ID: NHB17-2522

Town: Swanzey, Keene
Location: Branch River Dam, near Marlboro Street
and Swanzey Factory Rd

Description: Proposing to modify the intake structure at Branch River Dam to reduce the amount of inflow to Wilson Pond Dam from 300 cfs to 0 cfs temporarily by shutting off the diversion with a cofferdam (sand bags) to evaluate the potential impact to water quality in Upper and Lower Wilson Ponds and to allow residences and users of both ponds to experience what impacts may result from a permanent modification.

cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments: Please contact NH Fish & Game.

Invertebrate Species

Dwarf Wedge Mussel (<i>Alasmidonta heterodon</i>)	State ¹	Federal	Notes
	E	E	Contact the NH Fish & Game Dept and the US Fish & Wildlife Service (see below). ¹ Codes: "E" = Endangered, "T" = Threatened, "S" = Special Concern, "L" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

New Hampshire Natural Heritage Bureau - Animal Record

Dwarf Wedge Mussel (*Alasmidonta heterodon*)

Legal Status

Federal: Listed Endangered
State: Listed Endangered

Conservation Status

Global: Critically imperiled due to rarity or vulnerability
State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank:

Detailed Description: 2010: Ashuelot River - Cresson Bridge to Homestead Dam: Critical habitat throughout this stretch of river. 496 mussels collected and relocated. Relocation site 1: 17 animals relocated from vicinity of Thompson covered bridge. Relocation site 2: 166 animals relocated from pre-drawdown survey. Relocation site 3: 313 animals relocated from surveys conducted during drawdown. 2003: Obs_id 2421: 1 adult male observed. Obs_id 2459: 14 seen, age and sex unknown. 2001: A total of 13 shells at six sites along a two-mile stretch of river. Upstream of this stretch, four sites in a 1.25-mile stretch downstream of the confluence of the Ashuelot and The Branch each had no *A. heterodon* found. Sites 5 - 8: one shell observed. Site 10: 5 shells and some juveniles observed. Site 11: four shells observed.

General Area: 2010: Ashuelot River - Cresson Bridge to Homestead Dam: High quality habitat throughout stretch of river. Mussels occurred on stable banks, often in less than 6 inches of water. 2003: Freshwater - Stream or river (Obs_id 2421). 2001: Up- and down-stream of an effluent pipe for a wastewater treatment plant. Site 5: Very slow flow (less than 0.05 m/s), substrate of large boulders and sand. Canopy fairly dense, and the river is well shaded. Site 6: Flow fairly quick (0.2-0.4 m/s). River is 10-15 yards wide, 1-4 feet deep, with a substrate of large boulders, gravel, and sand. Heavy riparian canopy. Site 7: Slow flow (less than 0.10 m/s). River is 1-6 feet wide, with a substrate a mix of sand, gravel, and boulders. Receives a lot of sunlight, since riparian canopy minimal. Site 8: Very slow flow (less than 0.10 m/s). River is 20-25 yards wide and less than 3 feet deep except for deeper spots along the banks. Substrate is almost entirely sand with silt and clay on the margins and much woody debris (almost no stable substrate). Little riparian canopy. Site 10: Flow rate very slow (less than 0.10 m/s). River is 2-6 feet (up to 11 feet) deep. Substrate mostly sand and silt but becoming very rocky where the mussels were found. Woody debris common throughout. Site 11: Very slow flow (less than 0.10 m/s). River generally 2-6 feet deep, reaching 8-10 feet. Substrate rocky (boulders, cobble, sand) in mussel area.

General Comments: 2010: Mussel survey was coordinated with the removal of the Homestead Dam on the Ashuelot River, as well as repairs to the Thompson covered bridge. Prior to bridge repairs, all mussels found near the footprint of the construction work were relocated to Relocation site 1. Prior to dam removal, all mussels found upstream to Cresson Bridge were collected and relocated to Relocation site 2. During the impoundment drawdown following the dam removal, all mussels observed were collected and relocated to Relocation site 3. 2003: Scuba search of 500 yard site (2.5 hrs. x 2 people) found one large (>40mm) male DWM. Tesselated darters abundant throughout. Also *A. undulata* (>50 live) and *S. undulatus* (20-50 live). Lat./long. by Terrain Navigator near mid-point of site (Obs_id 2421). Information taken from "Freshwater Mussels of the Ashuelot River -- Keene to Hinsdale, August 2003," written by Ethan Nadeau of Biodiversity consulting firm. Report submitted to NHFG and USFWS (Obs_id 2459).

Management Comments: 2001: Diverse mussel communities at sites 10 and 11, 700 and 1500 yards downstream of the effluent pipe, respectively, suggest no lasting negative consequences from the wastewater effluent.

Location

Survey Site Name: Keene
Managed By: Dickinson Memorial Forest

County: Cheshire
Town(s): Swanzey
Size: 61.8 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

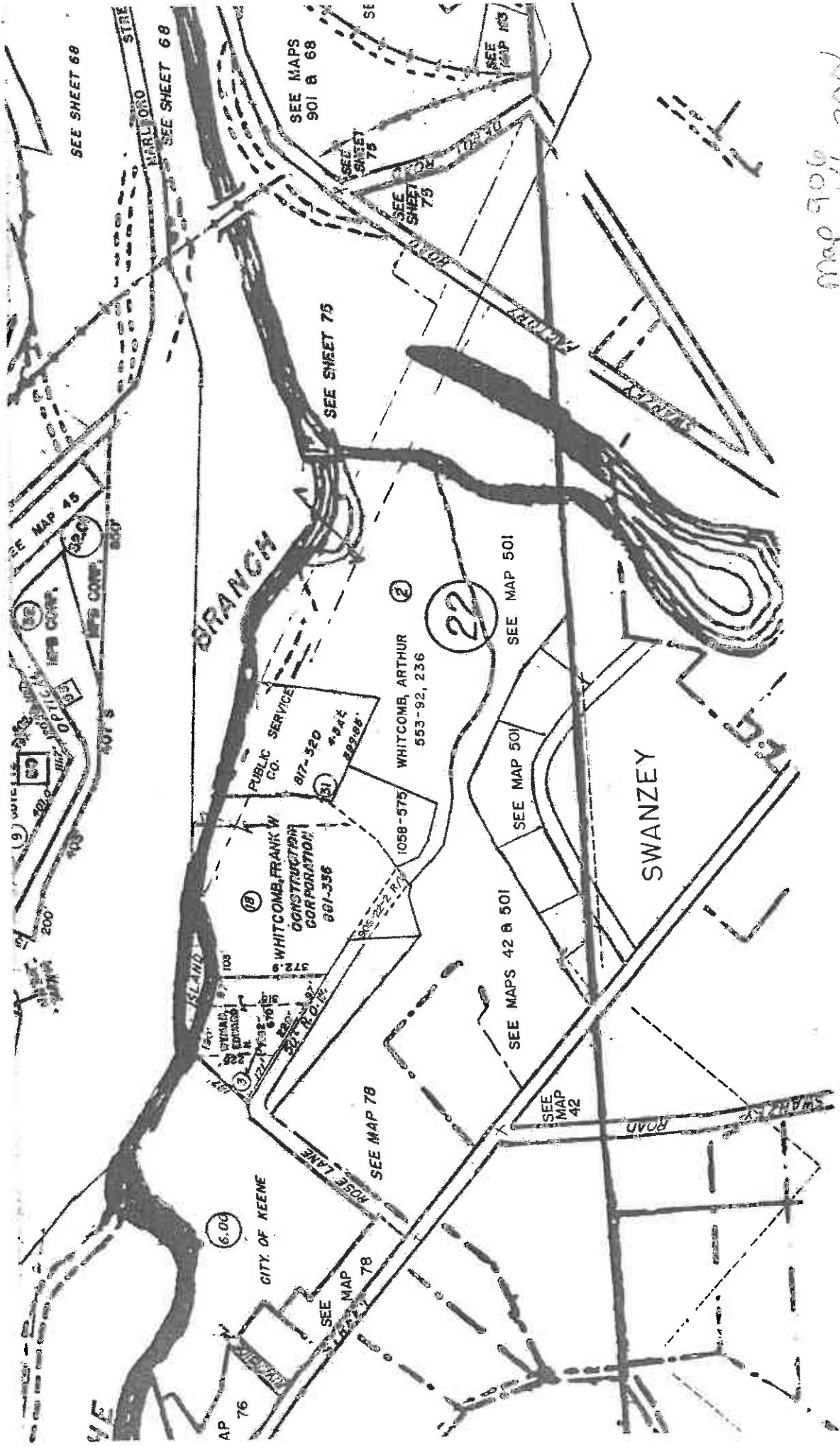
Directions: 2010: Relocation sites 1 & 2: Upstream of Cresson Bridge. Relocation site 3: Downstream of Cresson Bridge. 2003: Obs_id 2421: 30-60 meters upstream of the covered bridge at Swanzey Dam. (Swanzey Dam Site #16, Freshwater Mussels of the Ashuelot River -Keene to Hinsdale, August 2003) (Obs_id 2421). From NH Rte 10 in Swanzey, take Sawyers Crossing Road ca. 2 miles east to the covered bridge over the Ashuelot River. 2001: Site 5: canoe upstream ca. 1.6 miles to where powerlines border the river upstream of a bend. Site 6: ca. 900 yards downstream of site 5 and 1000 yards upstream from the wastewater treatment plant effluent pipe. Site 7: ca. 600 yards upstream of the effluent pipe, just downstream of a bend in the river. Site 8: ca. 100 yards upstream of the effluent pipe, along the western shore. Site 10: ca. 200-300 yards upstream of the covered bridge, on the western side of the river. Site 11: canoe downstream of the covered bridge ca. 700 yards to an area on the eastern side of the river downstream of a sharp bend with a steep, rocky bank.

Dates documented

First reported: 2001-08-08

Last reported: 2010-08-12

The U.S. Fish & Wildlife Service has jurisdiction over Federally listed species. Please contact them at 70 Commercial Street, Suite 300, Concord NH 03301 or at (603) 223-2541.



Map 906
Scale 1" = 300'

SEE SHEET 68

SEE SHEET 68

SEE MAPS
901 & 68

SEE SHEET
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SEE SHEET
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SEE SHEET 75

SEE MAP 501

SEE MAP 501

SEE MAPS 42 & 501

SEE MAP
42

SEE MAP 78

SEE MAP
78

(6.00)

(22)

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AP 76

CITY OF KEENE

BRANCH

SWANZEY

SWANZEY

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ISLAND

MARLBORO STIRE

ROSE LANE

ROAD

SEE MAP 103

SEE MAP 45

SEE MAP 45

SEE MAP 45

SEE MAP 45

SEE MAP 45

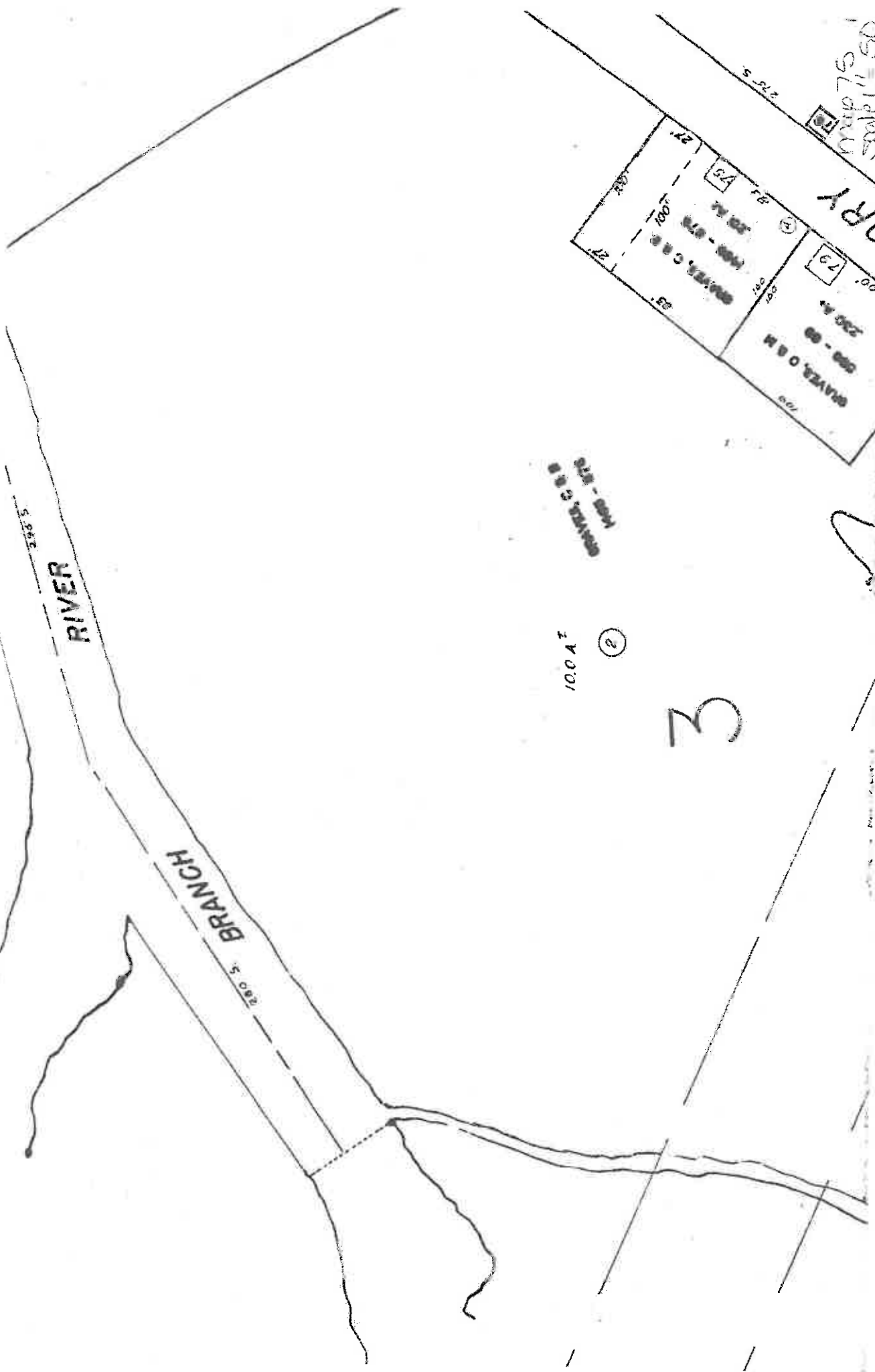
SEE MAP 45

SEE MAP 45

SEE MAP 45

SEE MAP 45

SEE MAP 45



RIVER

BRANCH

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COPY

Scale 1" = 50'

280.5

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NOT FOR CONSTRUCTION PRELIMINARY PLANS

NO.	REV.	DATE	BY	CHKD.

TOWN OF SWANSEY
 NEW HAMPSHIRE

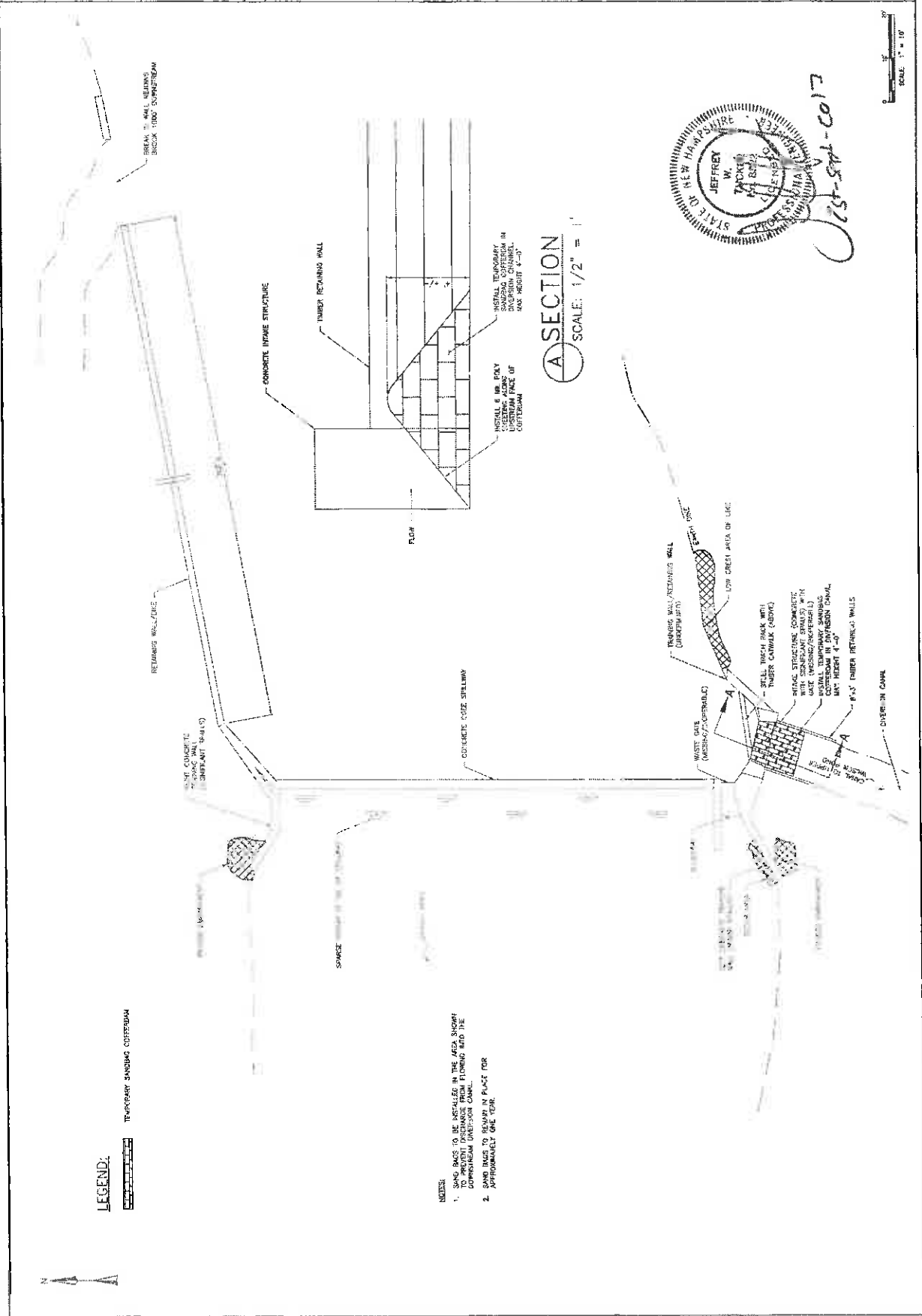
SWANSEY DAMS

SHEET TITLE
 BRANCH RIVER DAM
 (DART NO. 125.12)
 SITE PLAN

DATE	BY
2012	
2012	
2012	
2012	
2012	
2012	
2012	
2012	
2012	

SHEET NUMBER
B-1

SHEET 1 OF 3

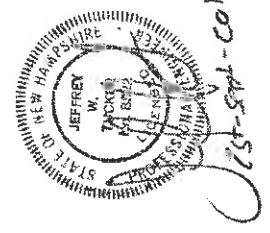


LEGEND:



- NOTES:**
1. SAND BAGS TO BE INSTALLED IN THE AREA SHOWN FLOWING INTO THE DOWNSTREAM DIVERSION CANAL.
 2. SAND BAGS TO REMAIN IN PLACE FOR APPROXIMATELY ONE YEAR.

A SECTION
 SCALE: 1/2" = 1'



SCALE: 1" = 10'

Appendix C – Inspection Photographs – Branch Dam



Dam View – Looking Upstream



Right Abutment Training Wall



Concrete Spillway



Left Abutment Training Wall

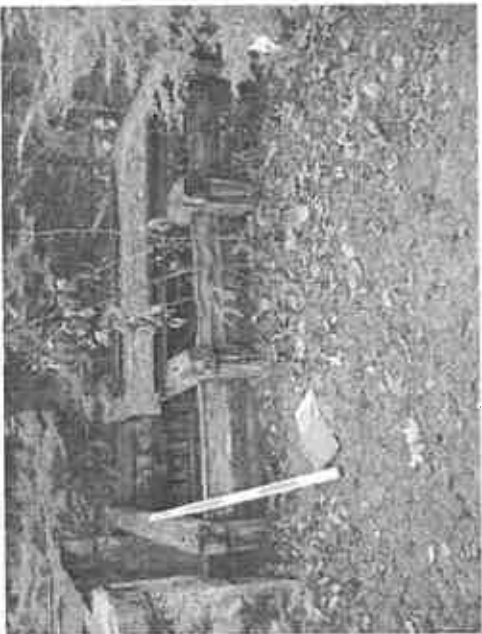
Appendix C – Inspection Photographs - Branch Dam



Waste Gate



Diversion Intake Structure



Timber Diversion Structure



Upstream Training Wall, Left Abutment

Section Three: Required items included with this submittal

- 2 Copies of the application.
- 1 Copy of Notarized abutters list required as part of the Site Plan Review Application, including Name, Address, and Tax Map # of owner, agent, and all abutters within 200 feet.
- 1 Copy of the scaled and dimensioned plot plan of the property, showing existing conditions and proposed changes, detailing all the relevant features of the site including surface waters and buffer zones.
- 1 Copy of the plan reduced to 8½ X 11 inches.
- 2 Copies of the written narrative that includes all information outlined in Section 4.
- 3 Copies of wetland delineation reports completed by a NH Certified Wetland Scientist including location, area, and limits of all surface waters and associated buffers (9 copies for the Planning Board may be required after staff review).
- 2 Copies other reports: Stormwater Memorandum

Section Four: Conditional Use Permit Criteria

All applicants must comply with the standards of Section 102-1480 Surface Water Protection of the Keene Zoning Ordinance (Please refer to the Keene Zoning Ordinance for a full description.). All applicants *must* submit documentation that supports the following:

Documentation of proposed mitigation measures, including details of how mitigation has been designed to prevent adverse impacts to surface water resources

Disclosure of any State or Federal Permits needed in addition to CUP requirements

Written narrative explaining:

Why proposed use or activity cannot be placed outside of Overlay District

How encroachment into buffer zone has been minimized to maximum extent possible

How proposed use was designed to avoid adverse impacts to surface water resources

How the buffer will be maintained in natural state

Location and connectivity of surface water in relation to surrounding watershed

Extent to which buffer serves as wildlife habitat

Please note that the submittal of this signed application grants members of the Planning Board and City employees to access the project site for matters related to site plan and conditional use permit review from the time of application submittal to the time of the final decision rendered by the Planning Board.



Memorandum

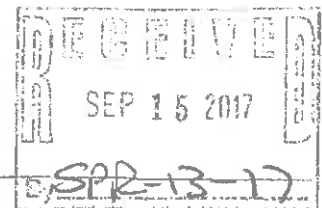
To: Ms. Michele Chalice
City of Keene - Planner
3 Washington Street, 4th Floor
Keene, New Hampshire 03431

Date: September 14, 2017

Project #: 13563.33

From: Malia Ohison, P.E.
Senior Project Engineer

Re: Conditional Use Permit Criteria
Emerald Street Substation
Keene, NH 03431



VHB has prepared this narrative to demonstrate conformance with the conditional use criteria for the proposed substation rebuild on Emerald Street as outlined in Section 102-1490 of the Zoning Ordinance.

The Emerald Street Substation rebuild includes the retirement of aging equipment, upgrades to existing equipment, and installation of new equipment which will be supported by a new switchgear building on an expanded pad. In association with this work, new fence will be installed, existing fencing will be replaced and underground conduit will be constructed. No State or Federal permits are required for the proposed project.

Two surface waters are located on the site which would be considered part of the Surface Water Protection Overlay District. Mill Creek is located on the west side of the site and a wetland is located to the south of the site. See wetland delineation memorandum for a detailed description of the surface waters, under separate cover. The site is located in the Commerce District, therefore a reduced buffer of 30-feet applies to both surface waters.

The proposed work within the Surface Water Protection Overlay District is located within the existing substation yard with a small portion of underground conduit work connecting to existing poles within the wetland and wetland buffer. The substation expansion areas are located to the north of the site and are outside of the overlay district.

- a. The proposed work includes a rebuild of the existing equipment with a minor expansion of the substation yard. The work within the Surface Water Protection Overlay District is associated with conduit connected to existing poles and upgrades to existing poles. All other work has been minimized within the Surface Water Protection Overlay District.
- b. The expansion of the substation yard will be to the north of the site to minimize further impacts to the wetlands and the 30-foot buffer. The expansion of the substation yard will be outside of the Mill Creek buffer. However, upgrades to existing poles will be located in the Creek buffer. Work will be performed in a way as to minimize impacts to the natural state of the Mill Creek buffer.
- c. The site is an existing electric substation. The proposed work is a rebuild of the existing use. The expansion of the yard has been located to minimize impacts within the Surface Water Protection Overlay District and a large portion of the site will be maintained in its current undeveloped state.
- d. The buffer for Mill Creek will be minimally impacted where the existing poles are located. The buffers natural state will be maintained to the maximum extent possible. The work within the buffer for the on-site wetland is limited to underground conduit to existing poles within the conduit. The ground

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Bedford, NH 03110-6532
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cover over the conduit will be re-established with vegetation. The remaining buffer will not be impacted.

- e. A portion of the proposed work is within the 30-foot buffer, but it is limited to upgrades or conduit connections to the existing utility poles already located within the buffer. The expansion of the substation yard will occur outside of the surface water buffers.
- f. A wetland delineation memorandum is included in the application package and addresses surface water characteristics as associated with Mill Creek and the on-site wetland. A stormwater memorandum is also included in the application package which addresses stormwater impacts in rate and volume for the proposed site.