

The State of New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

April 08, 2013

Her Excellency, Governor Margaret Wood Hassan and The Honorable Council State House Concord, NH 03301

REQUESTED ACTION

Approve the Trustees of Dartmouth College's request to perform the following work on the Connecticut River, in Hanover. File # 2013-00271. This project will not have significant impact on or adversely affect the values of the Connecticut River.

Construct a 10 ft. x 10 ft. temporary work pad in the river bed, dredge 76 cu. yds. of sediment from 975 sq. ft. of river bed, remove and replace a 26.5 ft. x 12 ft. concrete pad, extend an existing 170 ft. x 10 ft. floating wharf to be a 218 ft. x 10 ft. wharf accessed by the existing 70 ft. x 15 ft. walkway and 60 ft. wide metal ramp on 1,470 ft. of frontage along the Connecticut River, in Hanover.

The Department imposed the following conditions as part of this approval:

- 1. All work shall be in accordance with plans by Milone & MacBroom as revised February 12, 2013, as received by the NH Department of Environmental Services (DES) on February 21, 2013 and plan sheets SP-2 and SP-4 by Milone & MacBroom as revised February 27, 2013 and as received by the NH Department of Environmental Services (DES) on March 1, 2013.
- 2. This permit shall not be effective until it has been recorded with the Grafton County Registry of Deeds office by the Permittee. A copy of the recorded permit shall be submitted to the DES Wetlands Bureau, by certified mail, return receipt requested, prior to construction.
- 3. The repair of the concrete pad shall maintain the size, location and configuration of the pre-existing structure.
- 4. This permit to replace or repair existing structures shall not preclude the DES from taking any enforcement action or revocation action if the DES later determines that the structures represented as "existing" were not previously permitted or grandfathered.
- 5. All construction related debris shall be placed outside of the jurisdiction of the DES Wetlands Bureau.
- 6. All dredged material shall be placed outside of the jurisdiction of the DES Wetlands Bureau.
- 7. Appropriate siltation and erosion controls shall be in place prior to construction, maintained during construction, and shall remain in place until the area is stabilized.

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- 8. Appropriate turbidity controls shall be installed prior to construction, shall be maintained during construction such that no turbidity escapes the immediate dredge area, and shall remain until suspended particles have settled and the water at the work site has returned to normal clarity.
- 9. Work associated with the proposed dredging and concrete pad replacement shall be done during periods of low flow.
- 10. Work authorized shall be carried out such that discharges in spawning or nursery areas during spawning seasons shall be avoided, and impacts to such areas shall be avoided or minimized to the maximum extent practicable during all times of the year.
- 11. Work shall be carried out in a time and manner such that disturbance to migratory waterfowl breeding areas and spawning areas shall be avoided.
- 12. This shall be the only docking structure on this water frontage and all portions of the dock shall be at least 20 ft. from abutting property lines or the imaginary extension of those lines into the water.
- 13. The floating wharf shall be a seasonal structure and shall be removed from the river for the non-boating season.
- 14. No portion of the wharf shall extend more than 50 ft. from the shoreline at ordinary high water.
- 15. All activities shall be in accordance with the Shoreland Water Quality Protection Act, RSA 483-B. The owner is responsible for obtaining any Shoreland Permit that may be required per RSA 483-B, for construction, excavation or fill that will occur within the Protected Shoreland.

EXPLANATION

The DES Wetlands Bureau approved this project on March 5, 2013. DES supported its decision with the following findings:

- 1. This project is classified as a major project per Rule Env-Wt 303.02(d), modification of a docking facility providing 5 or more slips.
- 2. The Applicant has 1,470 ft. of frontage along the Connecticut River.
- 3. A maximum of 20 slips may be permitted on this frontage per Rule Env-Wt 402.13, Frontage Over 75'.
- 4. The proposed docking facility will provide 18 slips as defined per RSA 482-A:2, VIII and therefore meets Rule Env-Wt 402.13.
- 5. Public hearing is waived with the finding that the project impacts will not significantly impair the resources of the Connecticut River.
- 6. The Upper Valley River Subcommittee of the Connecticut River Joint Commissions submitted comments on March 5, 2013. The comments included the concerns that the rain garden and drainage structures did not meet stormwater treatment standards and that there was insufficient detail to assess the impacts of the access ramp.
- 7. The rain garden and drainage structures are outside of the jurisdiction of the Wetlands Bureau as defined under RSA 482-A. The impacts associated with these structures shall be addressed during the review of the Applicant's concurrent Shoreland Impact application in accordance with RSA 483-B.

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- 8. The access ramp is an existing structure and shall have no additional impact as a result of this project.
- 9. The Applicant has submitted documentation to show that the project will not adversely impact endangered or threatened species.

Application file documents are being forwarded to the Governor and Executive Council in connection with their consideration of this matter pursuant to RSA 482-A:3,II.(a) as it is a major project in public waters of the state.

We respectfully submit this request for your consideration.

Thomas S. Burack Commissioner

TSB/CGA/emk

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THE STATE OF NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES LAND RESOURCES MANAGEMENT WETLANDS BUREAU Concord, NH 03302-0095 Concord, NH 03302-0095 271-6588

29 Hazen Drive, PO Box 95, Concord, NH 03302-0095 Phone: (603) 271-2147 Fax: (603) 271-6588

Website: http://des.nh.gov/organization/divisions/water/wetlands/index.htm Permit Application Status: http://des.nh.gov/onestop/index.htm

WETLANDS PERMIT APPLICATION

File No 13 - 00271	Check 277932	Amous 830, 20	Initials: Enk
DE Administrative E Use JAN 22 2013 NHDES LAND RESOURCES MANAGEMENT	COMPULETE JAN 2 2 2013	Administrative Use Only	Administrațive Use Only

Expedited.			### (###)		
Standard Review (Minimu	m, Minor or Major Impact)		☐ Exp	edited Review (M	linimum Impact)
2. PROJECT LOCATION: As	eparate application must be filed	with each m	unicipality that jurisdic	ctional impacts will	occur in.
ADDRESS: Connecticut River Fro	ontage northeast of Wheelock	s Street and	TuckDrive	TOWN/CITY	: Hanover
TAX MAP: 33	BLOCK:		LOT: 83-2		UNIT:
US GEOLOGICAL SURVEY TOPO	MAP WATERBODY NAME:	LOCAT	ION COORDINATES	(if known): N 446	0146.71, E 817484.65
Connecticut River			☐ Latitude/Longitude	e ☐ UTM 🖾 Sta	ate Plane
	APPLICANT INFORMAT emission from the property owner.				
NAME: Ellen Arnold c/o Truste	es of Dartmouth College				
MAILING ADDRESS: 4 Currier Pla	ace, Suite 305				
TOWN/CITY: Hanover				STATE: NH	ZIP CODE: 03755
EMAIL or FAX: Ellen.L.Arnold@	dartmouth.edu		PHONE: (603) 646	6-2067	
By initialing here, I, hereby authorize	DES to communicate all matters	relative to th	is application electror	nically (RSA 482-A:	3, XIV (b) : <u>PLT</u>
4. AGENT INFORMATION:					
NAME: Roy Schiff		COMPAN	y: Milone & MacB	room, Inc.	
MAILING ADDRESS: 1 South Mai	in Street, 2 nd Floor				
TOWN/CITY: Waterbury				STATE: VT	ZIP CODE: 05676
EMAIL or FAX: roys@miloneand	macbroom.com		PHONE: (802)88	2-8335	ATED RIVER
EMAIL or FAX: roys@miloneand By initialing here, I, hereby authorize I	DES to communicate all matters	relative to th	s application electron	DESTUNION (RSAF482-A:	UNDER RSA 403

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5. PROPERTY OWNER / AUTHORIZED APPLICANT / AUTHORIZED AGENT SIGNATURE: A letter of authorization from the property owner/applicant is required if the property owner/applicant does not sign below. Note the property owner permission requirement in no.3 above.

By signing the application, I am certifying that:

- 1. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900.
- 2. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type.
- 3. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative.
- Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered grandfathered per Env-Wt 101.44.
- 5. I have submitted a copy of the application materials to the NH State Historic Preservation Officer. Link:http://www.nh.gov/nhdhr/review/ (Copy link to your web browser)
- 6. I authorize DES and the municipal conservation commission to inspect the site of the proposed project.
- 7. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate.
- 8. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action.
- 9. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining.
- The mailing addresses I have provided are up to date and appropriate for receipt of DES correspondence. DES will not forward returned mail.

Elect Chiold

EURIS L. ARNOW

1/17/13

Property Owner/ Applicant / Authorized Ag

Print name legibly

Date

APPLICATION SUBMITTAL DIRECTIONS:

- The Conservation Commission signature is ONLY required for Expedited Review; Standard Review applications do NOT require the Conservation Commission's signature;
- Submit the original application form and materials, four copies, application fee and any required municipal fees (authorized by RSA 482-A:3,I) to the town/city clerk for the REQUIRED town /city clerk's signature and mailing via certified mail to DES. Municipal fees means an administrative fee not to exceed \$10 plus the cost of postage by certified mail.

6. This section is to be completed by the Town/City Clerk

As required by Chapter 482-A:3 (amended 1991), I hereby certify that the applicant has filed five application forms, five detailed plans, and five USGS location maps with the town/city indicated below and I have received and retained certified postal receipts (or copies) for all abutters identified by the applicant.

Dopus Town Chit

Drint name legible

Date

Town/City

TOWN CLERK SUBMITTAL & MAILING DIRECTIONS:

Per RSA 482-A:3:l(d):

- For applications where "Expedited Review" is checked on page 1, only accept the application if the Conservation Commission's signature has been obtained (Standard Review Applications do NOT require the Conservation Commission's signature);
- 2. Collect from the applicant the postal receipts demonstrating that all abutters and the Local Advisory Committee were sent proper notice;
- 3. Collect any administrative fees, not to exceed \$10 plus the cost of postage by certified mail (RSA 482-A:3,I).
- 4. Immediately sign the original application and four copies in the signature space provided in the space above;
- 5. Retain one copy of the application form and all attachments that will remain with the town/city clerk and will be made reasonably accessible to the public;
- 6. Immediately distribute a copy of the application with attachments to the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board in accordance with RSA 482-A:3, I; and
- 7. IMMEDIATELY send (DO NOT HOLD FOR OTHER MUNICIPAL REVIEWS) the original application materials and filing fee, by CERTIFIED MAIL to the NHDES Wetlands Bureau at the address indicated on the front of this application.

7. CONSERVATION COMMISSION SIGNATURE FOR EXPEDITED REVIEW ONLY:

ONLY Expedited Review applications require that the Conservation Commission signature is obtained prior to submittal the final application to the Town/City Clerk for signature and mailing to the NHDES Wetlands Bureau. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, then the application is not eligible for expedited review and the "Standard Review" box should be checked on page 1. The application shall be reviewed in the standard review time.

The signature below certifies that the municipal conservation commission has reviewed this application, and: 1) waives its right to intervene per RSA 482-A:11; 2) believes that the application and submitted plans accurately represent the proposed project; and 3) has no objection to permitting the proposed work.

Authorized Commission Signature

Print name legibly

Date

8.	RELATED FILES/APPROVALS: If applicable, indicate files and approvals that are related to the proposed project or project site. Link to all NHDES Programs, Bureaus and Units: http://des.nh.gov/programs/index.htm (Copy link to your web browser)
Wet	lands Bureau enforcement, emergency authorizations:
1	lands Bureau approvals, denials:
	reland/ Alteration of Terrain/ Subsurface: Shoreland (submission to follow)
Othe	
Out	J
9.	PROJECT DESCRIPTION: Provide a brief description of the project, outlining the scope of work to be performed, including the area of impact (square feet) of permanent impacts, temporary impacts (impacts that are not intended to remain after the project is completed), and after-the-fact impacts (work completed prior to receipt of this application by DES) to each jurisdictional area that will be impacted (wetlands, streams, rivers, lakes/ponds, prime wetland/buffer, tidal waters, salt marsh, sand dune, [upland] tidal buffer zone & docking structures). Docking structures provide the square footage of seasonal docking structures and permanent docking structures. Please provide only a brief project description as instructed above and attach additional sheets to provide other information requirements, but DO NOT reply "See Attached" in the space provided below.
In D proj whil Coll (1) (ope crev elim ovel duri Area	s project consists of improving the existing Dartmouth College Seasonal Crew Dock on the Connecticut River. December 2012, Milone & MacBroom, Inc. completed an alternatives analysis that indicated that these four ject elements meet a balance of improving environmental quality and College programs along the riverfront le controlling project impact area and cost. Each of these objectives has been identified as priorities for the lege in a recent riverfront master planning effort. Four project components include: Crew dock reconfiguration to expand docking area for three new coaches' launches for improved safety and rations; (2) Gravel dredging to remove existing gravel deposited next to river bank previously eroded from the w dock access ramp; (3) Ramp resurfacing to improve access to the back of the existing FODR boathouse, ninate erosion of the ramp, and reduce water quality impacts to river; and (4) Rain garden and stormwater rflow pipe installation to capture and retain stormwater for smaller storms to treat water quality, to slow runoffing floods to reduce erosion, and to improve aesthetics. a of Impact:
Perr	manent Bank Disturbance = 138 square feet manent OHW Disturbance = 2,063 square feet sonal Docking Structure Expansion = 487.5 square feet
	APPLICATION REQUIREMENTS: <u>This application will be returned to you if items outlined in A – J.1 are not provided.</u> If applicable items outlined in J.2 - L are not provided, you may receive a letter requesting the outstanding information. Please note that a DES request letter is a courtesy and applications that do not include the required information may be denied. Copy links to your web browser.
⊠ A	. 1. Is the project within a ¼ mile of a designated river? X Y IN
	Designated river list and map link: http://des.nh.gov/organization/divisions/water/wmb/rivers/designv.htm
	2. If yes: Indicate river: Connecticut River
	 As required by RSA 482-A:3,I(d)(2), I have notified the Local River Advisory Committee (LAC) by sending a copy of the complete application and supporting materials via certified mail on: Month: 1 Day: 17 Year: 2013
	LAC link: http://des.nh.gov/organization/divisions/water/wmb/rivers/lac/index.htm
⊠ B.	Property Owner or <u>Authorized</u> Applicant/Agent and Town/City Clerk signatures, no.'s 5 & 6 on pg. 2 of this form (Env-Wt 501.02(a) & 505.01(l))
⊠ C.	. Narrative of the project description, no. 9 above (Env-Wt 501.02(a) & 505.01(l))
⊠ D.	Documentation from the Department of Resources and Economic Development's Natural Heritage Bureau (NHB) indicating that NHB has reviewed your project. Documentation can be obtained online at: https://www2.des.state.nh.us/nhb_datacheck/ or by phone (603) 271-2215 x 323. Please attach the REQUIRED letter/memo and map provided by NHB.
⊠ E.	A copy of a U. S. Geological Survey topographic map upon which the property lines and project limits have been outlined (surveyed property boundaries not required). The map must be at an <u>unaltered</u> scale of 1:24,000 or 1" = 2,000 feet (1:25,000 metric map). (Env-Wt 501.02(a)(4) & 505.01(g)) Topographic Map Links: http://des.nh.gov/organization/divisions/water/wetlands/categories/technical.htm
⊠ F.	Attach legible and labeled color photographs clearly depicting the jurisdictional areas to be impacted, the resource outside of impact area, any shoreline structures and culvert inlet/outlets (Env-Wt 501.02(a)(3) & 505.01(i))
⊠ G.	Attach drawing(s)/plan(s) (including a construction sequence) showing additional data requirements listed in Env-Wt 501.02(a)(2) & 505.01(h). See no. 11 on pg.'s 4 & 5 for drawing/plan requirements.
⊠ H.	Attach a completed U.S. Army Corps of Engineers New Hampshire Programmatic General Permit (PGP) Appendix B – Required Information and Corps Secondary Impact Checklist: http://www.nae.usace.army.mil/Regulatory/SGP/NH_PGP.pdf (scroll to page 29 of 34 to reach Appendix B).

APPLICATION REQUIREMENTS CONTINUED:

1Ö.

- ☑ I. Attach the application fee, check or money order payable to: "Treasurer-State of NH" (RSA 482-A:3,I & Env-Wt 505.01(c))
 - Minimum Impact (Standard & Expedited Review): Flat fee of \$ 200 OR
 - Minor or Major Impact (Standard Review): Complete the minor & major application fee table below.

MINOR & MAJOR APPLICATION FEE:	7.50 2.50	1.1	A _c s.	
Permanent impacts (non-docking):	1723.5 sq. ft.	_ x	\$0.20 =	\$ 342.70
Temporary impacts (non-docking):	0 sq. ft.	_ x	\$ 0.20 =	
Temporary (seasonal) docking structure:	487.5 sq. ft.	_ x	\$1.00 =	\$ 487.50
Permanent docking structure:	sq. ft.	_ x	\$2.00 =	
Projects	proposing shoreline structure	es ado	d \$200 =	
			Total =	\$ 830.20
The Application Fee is the above calc	ulated Total or \$200, whichev	ver is	greater =	\$ 830.20

- ☑ J.1. Legible copy or tracing of the tax map from the municipal office (Env-Wt 501.02(a)(1)& 505.01(e)).
 - Confirm the submitted tax map illustrates the property of the applicant, the location of the proposed project on the property, and
 the location of properties of abutters (defined Env-Wt 101.03) with each lot labeled with the abutter's name(s) and mailing
 address(es); or provide a list of abutters' names and mailing addresses to cross-reference with the tax map (Env-Wt 501.02(a)(1)&
 505.01(f))
 - Abutter Notification Exceptions see Env-Wt 501.01(c).
 - If jurisdictional impacts occur within 20 feet of an abutting property line or imaginary extension thereof over surface water signed permission letter(s) from the affected abutters must be included with this application (Env-Wt 304.04). This letter must be notarized if your project is a boat docking facility (RSA 482-A:3-XIII(c)). Notarized abutter permission is not required for maintenance projects.

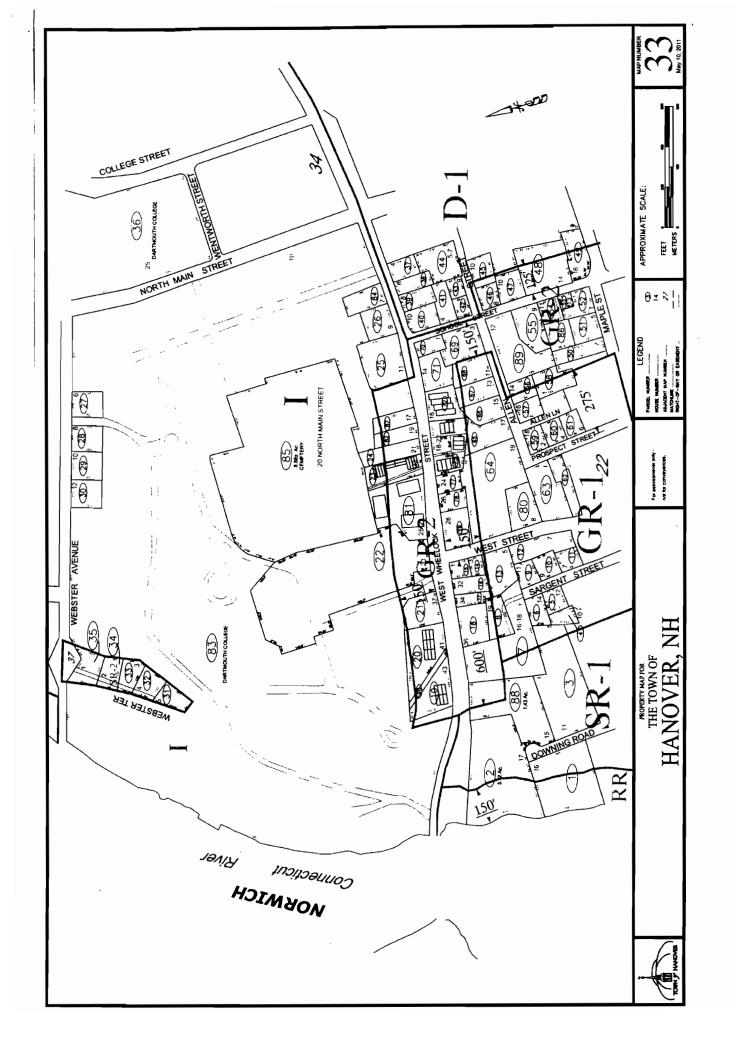
- Minimum: 1. Attach a statement demonstrating need for the proposed project (Env-Wt 302.03); and
 - 2. Attach a statement demonstrating that the proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction. (Env-Wt 302.03 & 505.01(d)&(y)); OR
- Minor & Major: Attach a response to questions outlined in Wetland Rule Env-Wt 302.04(a)
- ☑ L. Minor & Major Impact Projects ONLY: Does the project require compensatory mitigation pursuant to Env-Wt 302.03?

☐Y ☑ N If yes: Attach a completed Mitigation Agreement Form and materials outlined on the form (Env-Wt 501.02(a)(6) & 501.06) Link: http://des.nh.gov/organization/commissioner/pip/forms/wetlands/documents/mitigation_form.doc

1.1. Review the "Project Types" listed below. For all "Project Types" that describe your project, refer to the corresponding wetlands rules (Env-Wt) or guidance listed under "Information Requirements" for site, design and drawing/plan information necessary to accurately describe your project. If applicable "Information Requirements" listed next to your "Project Types" are not provided, you may receive a letter requesting the outstanding information. Please note that a DES request letter is a courtesy and applications that do not include the required information may be denied.

Wetland Rules Link: http://des.nh.gov/organization/commissioner/legal/rules/documents/env-wt100-900.pdf (Copy link to your web browser)

Project Types:	Information Requirements:
Minimum general plan requirements	Confirm the submitted drawing referenced in 10 G, pg. 3 includes: 1. An accurate drawing with detailed dimensions clearly annotated to document existing site conditions and to show the impact of the proposed activity on areas in department jurisdiction and detailing the precise location of the project (Env-Wt 505.01(h)); 2. Identification of the type of landform to be affected as follows: salt marsh, tidal water, sand dune, bog, freshwater marsh, swamp, wet meadow, river, perennial stream, seasonal stream, lake, upland tidal buffer zone or other (Env-Wt 505.01(k)); 3. The number of linear feet of shoreline frontage for projects located on water bodies (Env-Wt 505.01(r)); 4. The linear distance of project from abutting property boundaries (Env-Wt 505.01(s)); 5. Type of docking structure (Env-Wt 505.01(t)); 6. The diameter of culvert(s) to be used for road or driveway crossings (Env-Wt 505.01(u));
Minor & Major general plan requirements	Env-Wt 501.02 (Note: Tidal wetlands: 501.02(b), Surface water shoreline: 501.02(c), Shoreland: 501.02(d))
Minor & Major wetland delineation & classification and vernal pool survey	Env-Wt 301.01 [wetland delineation], 301.02 [wetland classification] Env-Wt 301.01 & 302.04(a)(7)(f) [vernal pool survey and report]
Subdivision	Env-Wt 304.09
Vegetative & riprap bank stabilization (river, stream, lake, pond)	Env-Wt 404.03 & 404.04
Freshwater Retaining Walls	Env-Wt 404.05(a)
Beach construction & replenishment	Env-Wt 304.08 (provide the cubic yards of proposed sand on plans or in narrative)
Surface water dredge	Provide the cubic yards of proposed dredge on plans or in narrative
All Shoreline Structures	Provide the Average Shoreline Frontage (linear feet), using the below formula: (Straight line distance pin to pin:) + (Actual natural navigable shoreline pin to pin) 2
Dock configuration	Env-Wt 402.01
Dock dimensions	Env-Wt 402.03
Seasonal docks	Env-Wt 402.05
Permanent docks	Env-Wt 402.06
Breakwaters	Env-Wt 402.07
Stairways to access docks	Env-Wt 402.10
Marinas	Env-Wt 402.16
Tidal water retaining walls	Env-Wt 404.05(b)
Dikes, Tide Dams, and Tide Gates	Env-Wt 403.03
Protected Shoreland (SWQP)	Env-Wt 501.02(d)
	·





MILONE & MACBROOM' I South Main Street, 2nd Floor

Waterbury, Vermont 05676 (802) 882-8335 Fax: (802) 882-8346 www.miloneandmacbroom.com

MM1#: 4459-07

SOURCE: NHDOT

MXD: P: Permit-Location-Topo

NH GRANIT

Dartmouth College Seasonal Crew Dock

Map By: JCL Date: Jan 2013

Scale: 1"=2,000'

SHEET: 1

Memo



1233 Shleburne Road Roy Schiff Suite 150 Į.

South Burlington, VT 05602

1/11/2013 (valid for one year from this date) Date:

Melissa Coppola, NH Natural Heritage Bureau

From:

Review by NH Natural Heritage Bureau

This project consists of improving the existing Dartmouth College Season Crew Dock on the Connecticut River. Four project Location: Tax Maps: map 33, 83-2 Town: Hanover NHB13-0211 NHB File ID: Description:

components include:

Crew dock reconfiguration to expand docking area for three new coaches' launches for improved safety and operations;

Gravel dredging to remove existing gravel deposited next to river bank eroded from the crew dock access ramp; 36

Ramp resurfacing to improve access to the back of the existing FODR boathouse, eliminate erosion of the ramp, and reduce water quality impacts to river; and

Rain garden creation to capture and retain stormwater for smaller storms to treat water quality, to slow runoff during floods to reduce erosion, and to improve aesthetics. 4

Kim Tuttle, Susi von Oettingen

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

Comments: This site is within an area flagged for possible impacts on the federally-listed Alasmidonta heterodon (dwarf wedgemussel) in Connecticut

Notes Federal State1 Invertebrate Species

Contact the NH Fish & Game Dept and the US Fish & Wildlife Service (see below).

Dwarf Wedge Mussel (Alasmidonta heterodon)

Contact the NH Fish & Game Dept (see below). Notes Federal State [-

Bald Eagle (Haliaeetus leucocephalus)

Vertebrate species

'Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = 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. Contact for federally-listed species: Susi von Oettingen, US FWS, at (603) 223-2541.

information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain 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

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

PO Box 1856 Concord NH 03302-1856

DRED/NHB

DRED/NHB PO Box 1856 Concord NH 03302-1856

New Hampshire Natural Heritage Bureau - Animal Record

Dwarf Wedge Mussel (Alasmidonta heterodon)

Legal Status Conservation Status

Federal: Listed Endangered Global: Critically imperiled due to rarity or vulnerability
State: Listed Endangered State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Historical records only - current condition unknown.

Comments on Rank: Several field surveys by C. Fichtel of Vermont Heritage Program in the past 15 years have

failed to relocate this occurrence. Presumed extirpated.

Detailed Description: No date: Johnson deposited ten valves (#33218) at MCZ.

General Area: General Comments: Management Comments:

Location

Survey Site Name: Connecticut River at Hanover

Managed By: Mink Brook - North Side

County: Grafton USGS quad(s): Hanover (4307263)
Town(s): Hanover Lat, Long: 434214N, 0721759W

Size: 229.4 acres Elevation: 390 feet

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: Connecticut River at Hanover.

Dates documented

First reported: Last reported: NO DATE

New Hampshire Natural Heritage Bureau - Animal Record

Bald Eagle (Haliaeetus leucocephalus)

Legal Status

Conservation Status

Federal: Not listed

Global: Demonstrably widespread, abundant, and secure

State: Listed Threatened 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:

1998: One adult (male?) starting 12/2/1997, joined by a second (female?) on

1/25/1998.1993: Most perching observed between dam south to Rte. 4. Roosting near Rte. 5/91 intersection in White River Junction. Sightings near Lebanon dump (off Rte. 12a) and off River Road (opposite Ottaqueechee River). 1991: Just 1 bird, perches frequently near dam, roosts in Vermont north of West Lebanon. Same bird has been returning for 8 years.

General Area:

1998: Tall pines on the bank of the Connecticut River, in the vicinity of a dam.

General Comments:

1998: Perch preference indicates that the male may be the same bird that has wintered in this

area since 1981-82, and the female may be the same that has shared the area since 1992-93.

Management Comments:

Location

Survey Site Name:

Connecticut River, Hanover to Plainfield

Managed By:

Mink Brook - South Esker

County: Sullivan

USGS quad(s): Hanover (4307263) Lat, Long:

433457N, 0722144W

Size:

Town(s): Plainfield 173.5 acres

Elevation:

330 feet

Precision:

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

Directions:

From the mouth of the Ompompanoosuc River on the Connecticut River south to the mouth of the

Ottauquechee River.

Dates documented

First reported:

1981

Last reported:

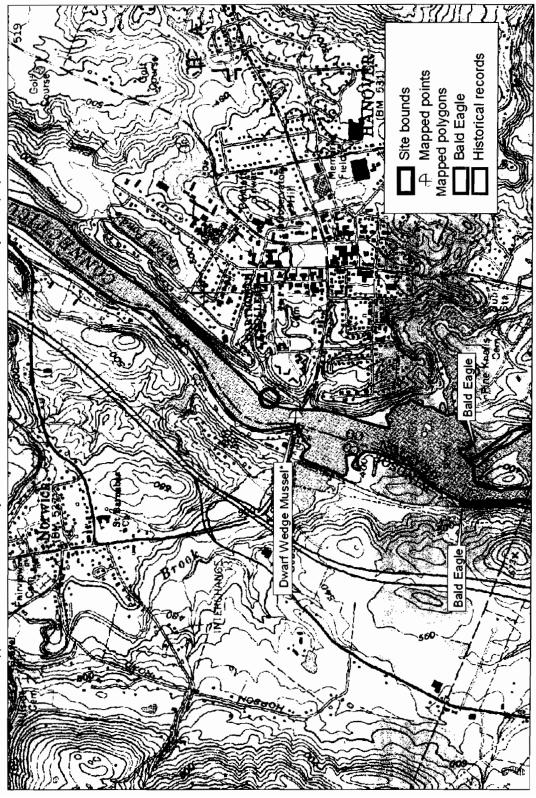
1998

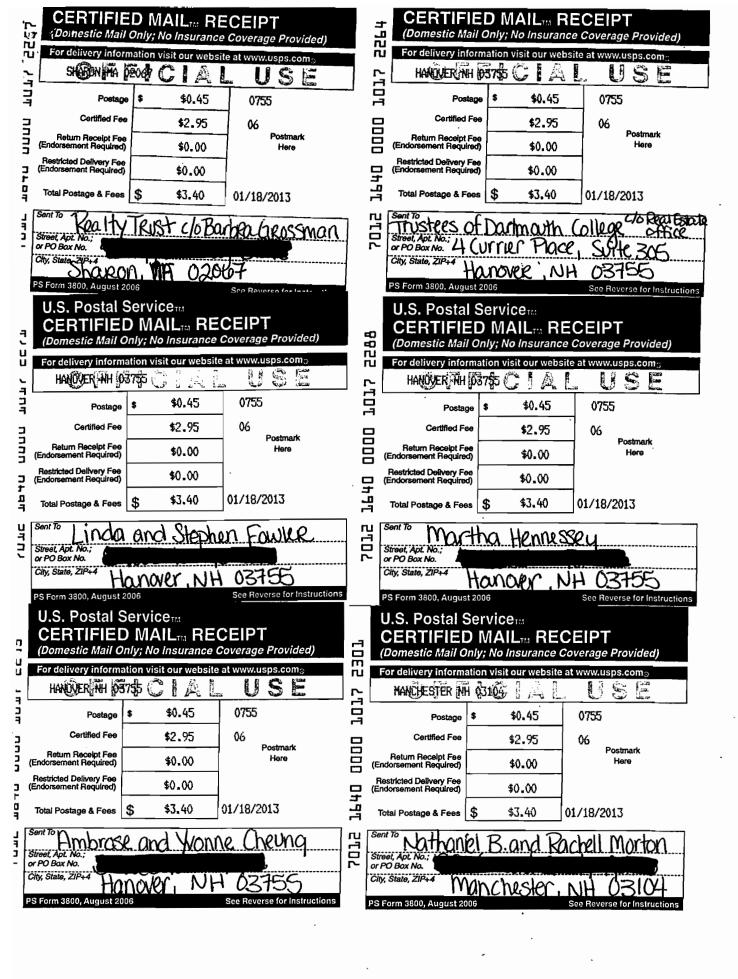
Martin, Chris. 2011. Identification of bald eagle wintering habitat based on decades of personal experience.

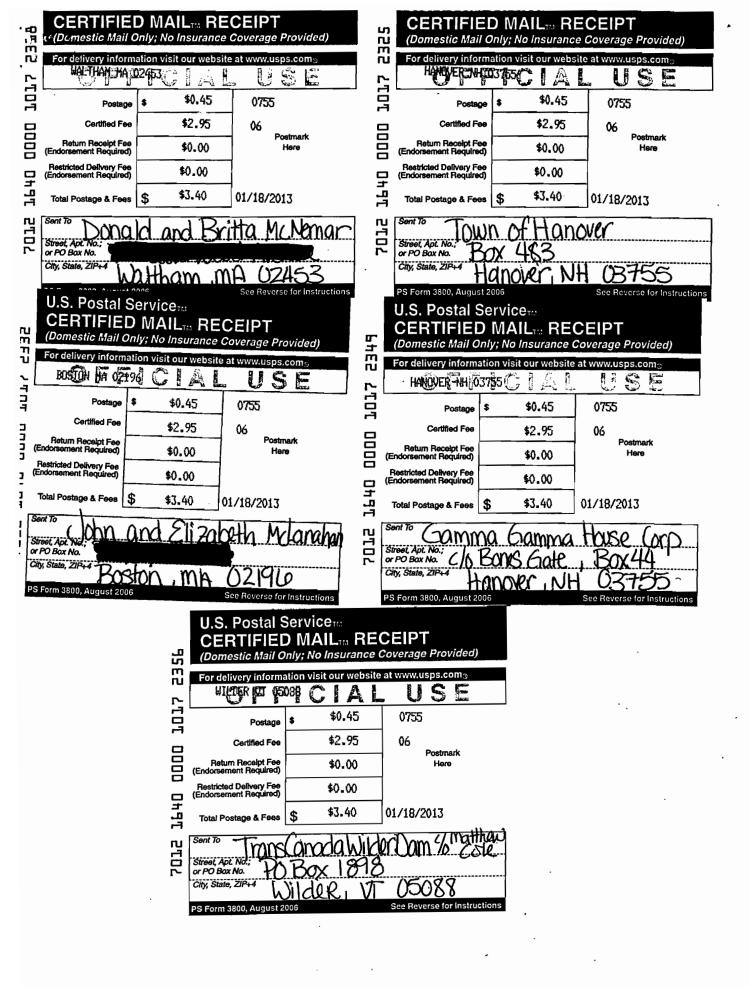
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Known locations of rare species and exemplary natural communities

Note: Mapped locations are not always exact. Occurrences that are not in the vicinity of the project are not shown.







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