



Victoria F. Sheehan  
Commissioner

THE STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.  
Assistant Commissioner

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Beaub

Bureau of Environment  
January 12, 2016

Her Excellency, Governor Margaret Wood Hassan  
and the Honorable Council  
State House  
Concord, New Hampshire 03301

**REQUESTED ACTION**

Authorize the Department of Transportation (DOT), Bureau of Environment, to pay the Department of Environmental Services (DES) Aquatic Resource Mitigation (ARM) (Vendor #177894) Fund \$213,405.29 as documented in E-mail correspondence/ARM fund calculators, effective upon Governor and Council approval, through June 30, 2017. 100% Federal Funds.

Funding is available as follows:

	<u>FY 2016</u>	<u>FY 2017</u>
04-96-96-963515-3054		
Consolidated Federal Aid		
400-500870 Highway Contract Payments	\$68,400.00	\$145,005.29

**EXPLANATION**

Pursuant to RSA 482-A, to compensate for the loss of jurisdictional areas, DES adopted rules that require mitigation for major impact projects, certain minor impact projects with jurisdictional impacts of 10,000 square feet or greater, and projects involving over 200 linear feet of stream impact (Env-Wt 303.02). The ARM Fund authorizes DES to collect mitigation funds in lieu of wetland restoration, wetland creation, or upland buffer preservation, as part of a wetlands permit application. These funds are then pooled by DES with payments from other permit applications to fund projects that have greater conservation value within the same watershed. The ARM program was authorized in legislation that became effective in August 2006.

Three (3) permits for Consolidated Federal Aid projects require mitigation for jurisdictional wetland and stream impacts as listed below:

- Barnstead, 14121E (intersection at the intersection of NH Route 28 with White Oak Road and Peacham Road) requires a payment of \$145,005.29 as mitigation for 31,136 sf of impact to wetlands, and 112 linear feet of impact to stream channel and bank.

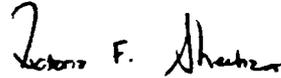
Page 2

- Belmont, 16203 (intersection improvements at NH Route 106/Seavey Road) requires a payment of \$25,680.00 for 107 linear feet of impact to intermittent stream channel.
- Chichester-Epsom, 29533 (pavement and safety improvements along US Route 4 from I-393 to the Epsom traffic circle) requires a payment of \$42,720.00 for 178 linear feet of impacts to intermittent and perennial stream banks and channel.

The funding for the Barnstead, 14121E and Belmont, 16203 projects is 90% federal funds with 10% state match. The funding for the Chichester-Epsom, 29533 project is 80% federal funds with 20% state match. Turnpike toll credit is being used for match requirements, effectively using 100% federal funds.

Your approval of this resolution is respectfully requested.

Sincerely,



Victoria F. Sheehan  
Commissioner

VFS/ktn

Attachments

## Kevin Nyhan

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**From:** Sommer, Lori <Lori.Sommer@des.nh.gov>  
**Sent:** Friday, July 24, 2015 7:38 AM  
**To:** Kevin Nyhan  
**Subject:** RE: Barnstead, 14121E Wetland Mitigation

Hi Kevin,  
The calculations are correct as noted below. Thanks –

Lori

**From:** Kevin Nyhan [<mailto:KNyhan@dot.state.nh.us>]  
**Sent:** Thursday, July 23, 2015 1:09 PM  
**To:** Sommer, Lori  
**Subject:** RE: Barnstead, 14121E Wetland Mitigation

Lori,  
One small correction that does not affect the ARM payment:  
Wetlands (SS/FO/EM): 31,136 sf  
Perennial stream (R2): **126 sf**; 37 lf  
Bank (perennial stream): 75 lf  
*(underlined numbers are for calculating ARM \$)*

The ARM fund mitigation payment we are proposing is as follows:

Wetland Impacts (sf from calculator): \$118,125.29  
Stream/bank impacts (lf from calculator): \$26,880.00  
Total ARM fund payment: \$145,005.29

Sorry,

This is the last one...I (try to) promise. ☺

Kevin

**From:** Kevin Nyhan  
**Sent:** Wednesday, July 22, 2015 11:45 AM  
**To:** 'Sommer, Lori'; Infascelli, Gino  
**Cc:** Matt Urban; Donald Lyford  
**Subject:** RE: Barnstead, 14121E Wetland Mitigation

Hi Lori,

We have recalculated the impact numbers for this project (we made an error). Please confirm these “new” impact numbers.

Thank you,

Kevin

Wetlands (SS/FO/EM): 31,136 sf  
Perennial stream (R2): 334 sf; 37 lf  
Bank (perennial stream): 75 lf  
*(underlined numbers are for calculating ARM \$)*

The ARM fund mitigation payment we are proposing is as follows:

DES AQUATIC RESOURCE MITIGATION FUND STREAM PAYMENT CALCULATION - Barnstead, 14121E		
INSERT LINEAR FEET OF IMPACT on BOTH BANKS AND CHANNEL	Right Bank	37.00
	Left Bank	
	Channel	75.0000
	<b>TOTAL IMPACT</b>	<b>112.0000</b>
	Stream Impact Cost:	\$22,400.00
	DES Administrative cost:	\$4,480.00
<b>***** TOTAL ARM FUND STREAM PAYMENT*****</b>		<b>\$26,880.00</b>

DES AQUATIC RESOURCE MITIGATION FUND WETLAND PAYMENT CALCULATION - Barnstead, 14121E ***INSERT AMOUNTS IN YELLOW CELLS***		
<b>1 Convert square feet of impact to acres:</b>		
INSERT SQ FT OF IMPACT	Square feet of impact =	31136.00
		43560.00
	Acres of impact =	0.7148
<b>2 Determine acreage of wetland construction:</b>		
	Forested wetlands:	1.0722
	Tidal wetlands:	2.1444
	All other areas:	1.0722
<b>3 Wetland construction cost:</b>		
	Forested wetlands:	\$90,777.04
	Tidal Wetlands:	\$181,554.08
	All other areas:	\$90,777.04
<b>4 Land acquisition cost (See land value table):</b>		
INSERT LAND VALUE FROM TABLE WHICH APPEARS TO THE LEFT	Town land value:	7145
	Forested wetlands:	\$7,660.70
	Tidal wetlands:	\$15,321.40
	All other areas:	\$7,660.70
<b>5 Construction + land costs:</b>		
	Forested wetland:	\$98,437.74
	Tidal wetlands:	\$196,875.48
	All other areas:	\$98,437.74
<b>6 DES Administrative cost:</b>		
	Forested wetlands:	\$19,687.55
	Tidal wetlands:	\$39,375.10
	All other areas:	\$19,687.55
<b>***** TOTAL ARM PAYMENT*****</b>		
	Forested wetlands:	\$118,125.29
	Tidal wetlands:	\$236,250.58
	All other areas:	\$118,125.29

<b>***** OVERALL TOTAL ARM PAYMENT*****</b>		
	Wetlands:	\$118,125.29
	Streams/Banks:	\$26,880.00
	All other areas:	\$145,005.29

## Kevin Nyhan

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**From:** Sommer, Lori <Lori.Sommer@des.nh.gov>  
**Sent:** Wednesday, January 06, 2016 9:03 AM  
**To:** Matt Urban; Infascelli, Gino  
**Cc:** Christopher Carucci; Kevin Nyhan; Victoria Chase; Tobey Reynolds  
**Subject:** RE: Belmont 16203 Request for Concurrence on Mitigation

Hi Matt,

Thanks for the information and please note the ARM Fund amount of \$25,680 is accurate. Thanks,

Lori

**From:** Matt Urban [<mailto:MUrban@dot.state.nh.us>]  
**Sent:** Monday, January 04, 2016 9:31 AM  
**To:** Sommer, Lori  
**Cc:** Christopher Carucci; Kevin Nyhan; Victoria Chase; Tobey Reynolds  
**Subject:** Belmont 16203 Request for Concurrence on Mitigation

Good Morning Lori,

This project was reviewed in November of 2013 and again more recently on September 16<sup>th</sup> of 2015. At that meeting it was agreed that an arm fund payment would be an acceptable method of mitigation for the permanent linear ft. of impact to the intermittent stream on this project.

I have included a cut sheet from the plans that show the only area that has permanent linear impacts to the stream. I have also included the arm fund calculator that indicates the amount of mitigation for the 107 LF of impact to intermittent stream channel to be \$25,680.

Can you please concur with the mitigation in this amount.

Please let me know if you have any questions.

Thanks,  
Matt

**DES AQUATIC RESOURCE MITIGATION FUND  
STREAM PAYMENT CALCULATION - Belmont, 16203**

<b>INSERT LINEAR FEET OF IMPACT on BOTH BANKS AND CHANNEL</b>		
	<b>Right Bank</b>	
	<b>Left Bank</b>	
	<b>Channel</b>	107.0000
	<b>TOTAL IMPACT</b>	107.0000
	<b>Stream Impact Cost:</b>	\$21,400.00
	<b>DES Administrative cost:</b>	
		\$4,280.00
<b>***** TOTAL ARM FUND STREAM PAYMENT*****</b>		
		<b>\$25,680.00</b>

## Kevin Nyhan

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**From:** Sommer, Lori <Lori.Sommer@des.nh.gov>  
**Sent:** Friday, January 08, 2016 1:00 PM  
**To:** Matt Urban  
**Cc:** Rebecca A. Martin; Stephanie Micucci  
**Subject:** RE: Chichester-Epsom 29533

Hi Matt,

The answer to the question below is yes, you do not need to mitigate for the area of existing stone. Based on the information provided, I concur with the proposed impacts and that the mitigation payment would result in \$42,720. Thanks,

Lori

**From:** Matt Urban [<mailto:MUUrban@dot.state.nh.us>]  
**Sent:** Friday, January 08, 2016 7:32 AM  
**To:** Sommer, Lori  
**Cc:** Rebecca A. Martin; Stephanie Micucci  
**Subject:** RE: Chichester-Epsom 29533

Hi Lori,

Pending your response to my email below we would like your concurrence on the mitigation for this project. (This amount assumes that we do not need to mitigate for the existing stone as described in my email below.)

I have attached the impact summary sheet that shows the breakdown of Bank and Channel impacts as proposed. I have also attached the Arm-fund Calculator that shows the total for the 178 LF of impacts proposed. (see the 3 columns on the right).

I have also attached the plans so you can see the extent of impacts at each culvert location. (The impacts are fairly limited at each location but cumulatively add up quick.)

Please let me know if you concur with mitigation in the amount of \$42,720

Let me know if you have any questions.

Thanks,  
Matt Urban

**From:** Matt Urban  
**Sent:** Thursday, January 07, 2016 1:55 PM  
**To:** 'Sommer, Lori'  
**Cc:** Rebecca A. Martin; Stephanie Micucci  
**Subject:** Chichester-Epsom 29533

Afternoon Lori-

I am going to be sending you a request for mitigation confirmation for this project in the very near future but before I do there was one culvert location that I wanted to share some photos with you first to get your opinion.

In the pictures that I have provided you will see that the outlet of the structure is already stone lined. With the proposed work we will be adding a small length of stone that we do intend to mitigate for but I wanted to be sure that it was okay not to include the area of existing stone in our mitigation calculations.

Let me know your thoughts,

Thanks.

Matt Urban

**DES AQUATIC RESOURCE MITIGATION FUND    Chichester-  
Epsom, 29533  
STREAM PAYMENT CALCULATION**

<b>INSERT LINEAR FEET OF IMPACT on BOTH BANKS AND CHANNEL</b>		
	<b>Right Bank</b>	50.00
	<b>Left Bank</b>	42.0000
	<b>Channel</b>	86.0000
	<b>TOTAL IMPACT</b>	178.0000
	<b>Stream Impact Cost:</b>	\$35,600.00
	<b>DES Administrative cost:</b>	
		\$7,120.00
<b>***** TOTAL ARM FUND STREAM PAYMENT*****</b>		
<b>\$42,720.00</b>		