

## **DAM BUSTERS 201: 1/29/25**

### **“An Overview of New England Dam Removal Research”**

**Speaker: Prof. Noah Snyder, Boston College**

#### SAVED MEETING CHAT

12:00:58 From Denise Paquin to Everyone:

Hi everyone

12:01:47 From Monica Driggers|Mass Rivers Alliance to Everyone:

Hi Denise! And everyone else! Welcome back to Dam Busters - we're now DB201! Please put your name and affiliation in the chat. Thank you.

12:02:13 From Carrie Banks to Everyone:

Carrie Banks, Division of Ecological Restoration

12:02:15 From Charlie Foster | BSC Group to Everyone:

Charlie Foster, Coastal Program Manager at BSC Group

12:02:21 From Courteny Morehouse to Everyone:

Courteny Morehouse, Berkshire Regional Planning Commission

12:02:38 From Emma Sass to Everyone:

Emma Sass, Municipal Vulnerability Preparedness Program

12:02:39 From Ted Beauvais, BRWA to Everyone:

Ted Beauvais, Blackstone River Watershed Assoc.

12:02:42 From Bridget Livers to Everyone:

Bridget Livers, Boston College

12:02:43 From Marea Gabriel to Everyone:

Marea Gabriel, The Nature Conservancy, Freshwater Manager

12:02:46 From Marie Rausch to Everyone:

Marie Rausch, VHB, in the Water Resources group

12:02:47 From Julie Richburg to Everyone:

Julie Richburg, The Trustees of Reservations

12:02:47 From Joe Rogers to Everyone:

Joe Rogers, GZA GeoEnvironmental Inc.

12:02:48 From Jonas Procton to Everyone:

Jonas Procton, Horsley Witten Group

12:02:51 From Mark O'Malley, River-Angler.com to Everyone:

Mark O'Malley, Manager of River-Angler.com

12:02:55 From Chris Hirsch to Everyone:

Chris Hirsch Dam Removal Program Manager DER

12:02:58 From Sonya Vogel to Everyone:

Sonya Vogel, Lake Champlain Basin Program

12:02:59 From Jill Griffiths to Everyone:

Jacob Green, Gomez and Sullivan Engineers

12:03:00 From Cristina Kennedy to Everyone:

Cristina Kennedy, Division of Ecological Restoration

12:03:02 From Alec Wade to Everyone:

Alec Wade, Town of Boxborough  
12:03:04 From Bennett Lamb to Everyone:  
Bennett Lamb, Hazen and Sawyer  
12:03:06 From Leah Farr to Everyone:  
Leah Farr, Restoration Coordinator for Berkshire Clean Cold Connected  
12:03:07 From Seaver Anderson to Everyone:  
Seaver Anderson, Senior Environmental Scientist, Pare Corporation  
12:03:07 From Jennifer Wesolowski to Everyone:  
Jennifer Wesolowski, Gomez and Sullivan Engineers  
12:03:12 From Brian Creamer | Nitsch Engineering to Everyone:  
Brian Creamer, Nitsch Engineering  
12:03:18 From walter tynan to Everyone:  
Walt Tynan,DFW  
12:03:18 From Chad Sumner, SumCo Eco to Everyone:  
Chad Sumner, Founder/Principal, SumCo Eco-Contracting, dam busting contractor (60+ and counting...)  
12:03:19 From Sean McCanty to Everyone:  
Hi all, Sean McCanty from the Neponset River Watershed Association  
12:03:20 From Jo-Anne Burdin to Everyone:  
Hi  
12:03:31 From Elissa Brown to Everyone:  
Elissa Brown, SuAsCo Wild & Scenic River Stewardship Council  
12:03:33 From Kate Willis to Everyone:  
Kate Willis, Boston College  
12:03:39 From Mark Smith to Everyone:  
Mark Smith, Grow Native Massachusetts  
12:03:52 From Derek Schipper to Everyone:  
Derek Schipper, GZA  
12:03:56 From Emily Boudreau to Everyone:  
Emily Boudreau, MassDEP  
12:03:57 From Jill Griffiths to Everyone:  
Molly Osmun, Gomez and Sullivan Engineers  
12:03:57 From Caleigh McLaren to Everyone:  
Caleigh McLaren, Blackstone Watershed Collaborative  
12:04:00 From Betsy Omalley to Everyone:  
Betsy Omalley, Gomez and Sullivan Engineers  
12:04:00 From Robert Kearns to Everyone:  
Robert Kearns, Massachusetts Division of Ecological Restoration, Restoration Partnerships Coordinator  
12:04:00 From Amber Carr to Everyone:  
Amber Carr, MA DER  
12:04:04 From adrienne dunk to Everyone:  
Adrienne Dunk, Natural Resource Specialist, GZA GeoEnvironmental  
12:04:05 From Leo Kenney to Everyone:

Leo Kenney, Norcross Wildlife Foundation

12:04:07 From Bruce Stedman to Everyone:  
Bruce Stedman, Fort River Assoc.

12:04:11 From Dan Galante to Everyone:  
Dan Galante, T Ford Company, Dam Removal and Repair Contractor

12:04:11 From Geraldine herlihy to Everyone:  
Geri Herlihy, Selectman, Town of Holden

12:04:21 From Liz Gorrill to Everyone:  
Liz Gorrill MA DER

12:04:23 From Jo-Anne Burdin to Everyone:  
Jo-Anne Templeton Conservation Commission and The Millers River Watershed Council

12:04:25 From Nathan Callan to Everyone:  
Nathan Callan, OARS and Civil Engineering student at UMass Lowell

12:04:26 From Hillary King to Everyone:  
Reacted to "Caleigh McLaren, Bla..." with 🙌

12:04:33 From Derek Schipper to Everyone:  
Rex Gamble, GZA GeoEnvironmental Inc.

12:04:34 From Denise Paquin to Everyone:  
Denise Paquin  
Barre resident

12:04:46 From Paul Carter to Everyone:  
Paul Carter, Psc Engineering

12:04:48 From Max Reynolds to Everyone:  
Max Reynolds, NA seeking more info about programs I've applied to recently (DER and MA Rivers Alliance) 😊

12:05:00 From Judy Rondeau to Everyone:  
Judy Rondeau, NPS Outreach Coordinator, Watershed Planning Program, MassDEP

12:05:01 From John Buckley to Everyone:  
John Buckley, GZA GeoEnvironmental

12:05:18 From Duncan Simpson to Everyone:  
Duncan Simpson, Princeton Hydro

12:05:18 From Jessica Veysey Powell to Everyone:  
Jessica Veysey Powell, Nashua River Watershed Association

12:05:42 From Monica Driggers|Mass Rivers Alliance to Everyone:  
Welcome to Dam Busters 201! If you just joined us, please put your name and affiliation in the chat.

12:05:46 From Sefatia Romeo Theken to Everyone:  
Sefatia Romeo Theken Deputy Commissioner MA/DFG

12:05:52 From Abigail McCarthy to Everyone:  
Abby McCarthy, hydrologist (open to new opportunities)

12:06:04 From Erin Rodgers to Everyone:  
Erin Rodgers, Program Manager, Trout Unlimited

12:06:14 From Kyle Johnson to Everyone:  
Kyle Johnson, Hazen and Sawyer

12:06:16 From Hillary King to Everyone:  
Reacted to "Jessica Veysey Powel..." with 🙌

12:06:34 From Hillary King to Everyone:  
Reacted to "Robert Kearns, Massa..." with 🙌

12:06:51 From Rania Campbell-Bussiere to Everyone:  
Rania Campbell-Bussiere, Senior Grant Specialist at GZA GeoEnvironmental

12:06:57 From Hillary King to Everyone:  
Hillary King, Municipal Vulnerability Preparedness (MVP) Grant Program

12:07:27 From Daniel Heiter to Everyone:  
Daniel Heiter, Sustainability at New England Biolabs and IRWA. Think metagenome analysis!

12:09:59 From Monica Driggers|Mass Rivers Alliance to Everyone:  
Welcome back to Dam Busters! If you just joined us, please put your name and affiliation in the chat. Thank you!

12:10:42 From Claire Rundelli, Natick Conservation to Everyone:  
Claire Rundelli, Town of Natick (MA) Conservation Agent and Environmental Planner

12:10:49 From Emma Lord to Everyone:  
Emma Lord, NPS Wild and Scenic Rivers

12:10:55 From Kate Bentsen to Everyone:  
Kate Bentsen, MA Division of Ecological Restoration

12:10:56 From Maggie Payne to Everyone:  
Maggie Payne, USDA NRCS

12:11:03 From Chris Hirsch to Everyone:  
The Charles River has been dammed at the Watertown Dam location since 1630s the current dam was built in 1966

12:11:11 From Anna Renkert, Mass Rivers (she/her) to Everyone:  
Reacted to "The Charles River ha..." with 👍

12:11:15 From Carrie Banks to Everyone:  
Reacted to "The Charles River ha..." with 👍

12:11:16 From Derek Schipper to Everyone:  
Reacted to "The Charles River ha..." with 👍

12:11:19 From Robert Kearns to Everyone:  
Reacted to "The Charles River ha..." with 👍

12:11:20 From Monica Driggers|Mass Rivers Alliance to Everyone:  
Replying to "The Charles River ha..."

Thanks Chris!

12:11:45 From Hillary King to Everyone:  
Reacted to "Kate Bentsen, MA Div..." with 🙌

12:11:48 From Ahron Lerman to Everyone:  
Ahron Lerman, City of Newton (MA), Parks & Open Space

12:11:50 From Hillary King to Everyone:  
Reacted to "Claire Rundelli, Tow..." with 🙌

12:11:54 From Dan Codiga to Everyone:  
Dan Codiga, Tetra Tech - Hydrodynamic, Geomorphology, and Water Quality modeling

12:12:03 From Michelle Rowden to Everyone:  
Michelle Rowden, MA EEA MVPP

12:12:19 From Hillary King to Everyone:  
Reacted to "Michelle Rowden, MA ..." with 🙌

12:13:28 From Wenley Ferguson to Everyone:  
Wenley Ferguson, Save The Bay (Narragansett Bay)

12:15:06 From Monica Driggers|Mass Rivers Alliance to Everyone:  
Welcome back to Dam Busters! If you just joined us, please put your name and affiliation in the chat. We're glad you were able to join today.

12:21:00 From Monica Driggers|Mass Rivers Alliance to Everyone:  
Please mark your calendars for the next Dam Busters session on FEBRUARY 5, which will cover .... stream restoration!

12:24:41 From Max Reynolds to Everyone:  
Reacted to "Please mark your cal..." with 👍

12:27:27 From Monica Driggers|Mass Rivers Alliance to Everyone:  
If you have a question for Noah, you can put it in the Q&A feature at the bottom of your screen.

12:29:44 From Susie Bresney to Everyone:  
Susie Bresney, MA division of ecological restoration

12:35:06 From Monica Driggers|Mass Rivers Alliance to Everyone:  
The Dam Busters team loves getting your evaluations! Here's the link to access our quick survey  
[https://docs.google.com/forms/d/e/1FAIpQLSe3VLfe627GuKkfUP2oEDuj\\_PSRm1xd9pd30ivofymPbIKzJg/viewform?usp=sharing](https://docs.google.com/forms/d/e/1FAIpQLSe3VLfe627GuKkfUP2oEDuj_PSRm1xd9pd30ivofymPbIKzJg/viewform?usp=sharing)

12:40:05 From Chris Hirsch to Everyone:  
Has there been any research looking at the impact of sediment impoundment in coastal rivers on saltmarsh accretion in the context of sea level rise?

12:40:48 From Nathan Callan to Everyone:  
What research have you done on sediment contamination?

12:41:45 From Chris Hirsch to Everyone:  
How do we convince others that many dams in new England do not store much sediment? in my experience this is not well understood broadly

12:42:19 From Hillary King to Everyone:  
Reacted to "How do we convince o..." with 👍

12:42:26 From Robert Kearns to Everyone:  
Reacted to "How do we convince o..." with 👍

12:42:34 From Diana G per/they to Everyone:  
Reacted to "Wenley Ferguson, Sav..." with 💜

12:42:37 From Charlie Foster | BSC Group to Everyone:

Reacted to "How do we convince o..." with 👍

12:42:39 From Daniel Heiter to Everyone:

Does anyone regularly do eDNA - ecosystem metagenome studies for before and after dam removal?

12:43:04 From Cristina Kennedy to Everyone:

Replying to "How do we convince o..."

<https://necasc.umass.edu/news/new-publication-sediment-supply-and-potential-impacts-dam-removals> One study related to sediment storage/impact to coastal systems

12:44:32 From Leo Kenney to Everyone:

Replying to "Does anyone regularl..."

No, but this might be of interest. Can you please say more or drop a link with an overview of what implementation looks like, costs etc.? Thank you!!

12:44:46 From Monica Driggers|Mass Rivers Alliance to Everyone:

If you have a story that you'd like to share about permitting issues you've faced, please let us know via this Google Form <https://forms.gle/woNfcjuPkwbrqSC66> On behalf of the folks working on permit streamlining, we thank you!

12:44:58 From Dan Galante to Everyone:

Wouldn't there have been some, or a lot depending on where the dam was sited and built in the river, of the legacy sediment in the areas upstream of the dam that would have been deposited by "normal" large flood events if the dam weren't there in the first place?

12:45:23 From Karen Pettinelli to Everyone:

What do you mean that rivers are sediment starved? What are they missing - Is it related to habitat?

12:46:35 From Karen Pettinelli to Everyone:

And if there are urban areas downstream, how does the sediment release effect them?

12:47:02 From Daniel Heiter to Everyone:

Great Marsh (North Shore Mass.) is subject of marsh land accumulation resulting from ditch restoration/sediment capture by Russ Hopping, Trustees of Reservations

12:47:27 From Karen Pettinelli to Everyone:

If the sediment is contaminated, are there other alternatives to river restoration for fish passage?

12:48:06 From Cristina Kennedy to Everyone:

Brian Yellen, State Geologist/Umass Amherst would be a good connection on sediment relation to coastal systems/salt marsh accretion [byellen@umass.edu](mailto:byellen@umass.edu)

12:48:09 From Hillary King to Everyone:

Replying to "If the sediment is c..."

and long-term climate resilience!?

12:48:17 From Chris Hirsch to Everyone:

Reacted to "Brian Yellen, State ..." with 👍

12:49:31 From Carrie Banks to Everyone:

Reacted to "https://necasc.umass..." with 👍

12:49:52 From Chris Hirsch to Everyone:

Reacted to "https://necasc.umass..." with 👍

12:50:36 From Charlie Foster | BSC Group to Everyone:

Reacted to "Brian Yellen, State ..." with 👍

12:50:47 From Billie Li to Everyone:

Can you please share some more resources on sediment starvation? Thanks! so interesting. I always thought there would be concern about Trout breeding habitat (redds) being filled in by fine sediments.

12:51:19 From Maggie Payne to Everyone:

Reacted to "Brian Yellen, State ..." with 👍

12:54:58 From Wenley Ferguson to Everyone:

In a head of tide dam removal on the Kickemuit River in RI, there was less sediment movement than predicted in the engineers modeling. The two dams at head of tide had impounded water on a former salt marsh for over 100years causing marsh subsidence that resulted in elevations too for marsh recolonization in the flood plain post dam removal.

12:55:11 From Monica Driggers|Mass Rivers Alliance to Everyone:

We're noticing the number of great questions (because we have such a great audience), but we might run out of time. So the Dam Busters team will send the unanswered questions on to Prof. Snyder and we'll mail out his responses afterwards.

12:55:21 From Chris Hirsch to Everyone:

Jason Carmignani, at MassWildlife is a good person to reach out to if you have questions about dam removal and impacts to rare mussels

12:55:42 From Chad Sumner, SumCo Eco to Everyone:

Replying to "If the sediment is c..."

Couple macro options: 1) manage the sediment by removing and disposing or stabilizing in place (capping) and then remove the dam; 2) maintain the dam / head pond elevation to prevent sediment migration and promote fish passage with fish ladders, rock ramp fishways, nature-like bypass channels, etc.

12:56:12 From Leada Fontaine to Everyone:

Reacted to "Jason Carmignani, at..." with 👍

12:56:24 From Paul Carter to Everyone:

What are the issues and approaches dealing with bridge replacement, debris problems, bridge scour and 100 yr flooding elevations with dam removal projects?