

**From:** [Jennifer Schultz - NOAA Federal](#)  
**To:** [Pam lawrence](#)  
**Cc:** [Crane, Drew](#)  
**Subject:** Re: Data on thermal discharges for Section 7 Consultations re EPA's 316b (cooling water) rule  
**Date:** Monday, November 18, 2013 7:53:45 AM

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Thank you!

**Jennifer Schultz, Ph.D.**  
*Endangered Species Act Interagency Cooperation Division  
Office of Protected Resources  
NOAA Fisheries  
U.S. Department of Commerce  
301-427-8443*

[jennifer.schultz@noaa.gov](mailto:jennifer.schultz@noaa.gov)  
[www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)



On Mon, Nov 18, 2013 at 11:41 AM, Pam lawrence <[pamela.lawrence@noaa.gov](mailto:pamela.lawrence@noaa.gov)> wrote:

(b)(5) Attorney-Client Communication

On 11/18/2013 11:40 AM, Jennifer Schultz - NOAA Federal wrote:

Hi Pam,

(b)(5) Attorney-Client Communication

Thank you!

Jenny

**Jennifer Schultz, Ph.D.**  
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NOAA Fisheries  
U.S. Department of Commerce  
[301-427-8443](tel:301-427-8443)*

[jennifer.schultz@noaa.gov](mailto:jennifer.schultz@noaa.gov)  
[www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)



On Mon, Nov 18, 2013 at 11:38 AM, Pam lawrence

<[pamela.lawrence@noaa.gov](mailto:pamela.lawrence@noaa.gov)> wrote:

(b)(5) Deliberative Process

(b)(5) Attorney-Client Communication

[REDACTED]

[REDACTED]

----- Original Message -----

**Subject:**Re: Data on thermal discharges for Section 7 Consultations  
re EPA's 316b (cooling water) rule

**Date:**Mon, 18 Nov 2013 11:21:27 -0500

**From:**Crane, Drew <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>

**To:**Jennifer Schultz - NOAA Federal

<[jennifer.schultz@noaa.gov](mailto:jennifer.schultz@noaa.gov)>

**CC:**Edan Rotenberg <[edan@superlawgroup.com](mailto:edan@superlawgroup.com)>, Reed Super  
<[reed@superlawgroup.com](mailto:reed@superlawgroup.com)>, Joshua Berman  
<[Josh.Berman@sierraclub.org](mailto:Josh.Berman@sierraclub.org)>, "Pamela Lawrence - NOAA  
Federal" <[pamela.lawrence@noaa.gov](mailto:pamela.lawrence@noaa.gov)>

Hi Edan,

Thank you for the additional information. I am fairly open for a call  
this week, except for Wednesday.

Thanks

Drew Crane  
Biologist, Branch of Consultation & HCPs  
U.S. Fish and Wildlife Service  
4401 N. Fairfax Drive, Room 415  
Arlington, VA 22203  
Phone: [\(703\) 358-2409](tel:(703)358-2409)  
Fax: [\(703\) 358-1735](tel:(703)358-1735)

On Mon, Nov 18, 2013 at 11:04 AM, Jennifer Schultz - NOAA Federal  
<[jennifer.schultz@noaa.gov](mailto:jennifer.schultz@noaa.gov)> wrote:

Hi Edan,

It was good to meet you, Reed, Josh, and Paul last week. I hope that your meeting with OMB went well. Thank you for your informative presentation and follow-up information. At present, I am available for a call at any time this week, with the exception of Thursday at 2:00.

Thank you,

Jenny

**Jennifer Schultz, Ph.D.**  
*Endangered Species Act Interagency Cooperation Division*  
*Office of Protected Resources*  
*NOAA Fisheries*  
*U.S. Department of Commerce*  
[301-427-8443](tel:301-427-8443)

[jennifer.schultz@noaa.gov](mailto:jennifer.schultz@noaa.gov)  
[www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)



On Mon, Nov 18, 2013 at 10:57 AM, Edan Rotenberg  
<[edan@superlawgroup.com](mailto:edan@superlawgroup.com)> wrote:

Hi Jenny and Drew,

Thanks again for your time on Friday, and I want to reiterate how impressed I am by the scope of the BiOps that you are tasked with writing and the incredible amount of work that it takes to pull it off. Sierra Club, Riverkeeper and our many partners want to offer whatever support we can.

**First**, here are citations to the two most important articles on quantifying the impacts of thermal discharge that we discussed on Friday. They are companion articles, one by each of the

cooperating research groups:

Stewart et. al., Horizontal cooling towers: riverine ecosystem services and the fate of thermoelectric heat in the contemporary Northeast US, Environ. Res. Lett. 8 (2013) 025010  
online: [stacks.iop.org/ERL/8/025010](https://stacks.iop.org/ERL/8/025010)  
doi: 10.1088/1748-9326/8/2/025010  
Supplementary Data: [stacks.iop.org/ERL/8/025010/mmedia](https://stacks.iop.org/ERL/8/025010/mmedia)

Miara et. al., Riverine ecosystem services and the thermoelectric sector: strategic issues facing the Northeastern United States, Environ. Res. Lett. 8 (2013) 025017  
online: [stacks.iop.org/ERL/8/025017](https://stacks.iop.org/ERL/8/025017)  
doi: doi:10.1088/1748-9326/8/2/025017  
Supplementary Data: [stacks.iop.org/ERL/8/025017/mmedia](https://stacks.iop.org/ERL/8/025017/mmedia)

**Second**, as promised, I got in touch with both research groups and am trying to get as much info from them as I can, including figuring out who is the point person in each research group for further discussion with you. I would like to put both teams in touch with you two so you can talk to them directly about their modelling methodology and results and can ask them the questions you think are most important. Can you suggest any times that you would be available for a call with the researchers (with or without me) on Wednesday, Thursday, or Friday?

**Third**, I am trying to compile information about the plumes from particular facilities that discharge waste heat that you might look at as case studies. As a start, this link (courtesy of Sierra Club) will take you to two documents describing the thermal plume at the Bridgeport coal fired power plant in Connecticut:  
<https://app.box.com/s/y3r7lgm6hkast94erxcr>

I am going to get similar (and voluminous) information about thermal plumes at the Indian Point Nuclear Generating Station and will forward separately. As such studies continue to come in, I'll keep passing them on to you.

**Fourth**, I wanted to pass along one of the older policy reports (circa 2007) by the National Academy of Sciences on the uses of metagenomic sampling to replace or supplement older environmental sampling techniques, like the ones still used at power plants for impingement and entrainment sampling: [http://www.nap.edu/catalog.php?record\\_id=11902](http://www.nap.edu/catalog.php?record_id=11902).

Every power plant in the country has access to this technology today. Why should the government be hampered in its efforts to monitor impacts on endangered species by relying on outdated research methods that are unlikely to detect the presence of endangered species?

Thanks, and I hope all is well on your end.

Sincerely,

Edan

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Edan Rotenberg  
Super Law Group, LLC  
131 Varick Street, Suite 1033  
New York, New York 10013

[212-242-2355](tel:212-242-2355) (main)  
[646-662-4271](tel:646-662-4271) (mobile)  
[855-242-7956](tel:855-242-7956) (fax)  
skype: edan.rotenberg  
[edan@superlawgroup.com](mailto:edan@superlawgroup.com)

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