

**From:** [Thomas, Sue](#)  
**To:** [Sandell, Todd A \(DFW\)](#)  
**Cc:** [BrownScott, Jennifer](#)  
**Subject:** Re: [EXTERNAL] FW: Forage Fish Surveys  
**Date:** Monday, April 15, 2019 1:49:21 PM  
**Attachments:** [Copy\\_JST\\_NaturalResources\\_NearParcel.tif](#)

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Thank you for keeping us in the loop, Todd. We've shared the following map with the tribe showing forage fish data we were able to access online. Looks like the map in the link you provided jives with ours, so that's good. I believe the surf smelt and sand lance data were from 1993, so a bit out of date, but we did the best we could. Thanks for taking the time to compile.

In case you are wondering, the 2,000' buffer for forage fish is from the Final Biological Opinion: Programmatic Consultation for Shellfish Activities in Washington State Inland Marine Waters available here: [https://www.nws.usace.army.mil/Portals/27/docs/regulatory/160907/USFWS\\_Final%20BiOp\\_AO%2020160826.pdf](https://www.nws.usace.army.mil/Portals/27/docs/regulatory/160907/USFWS_Final%20BiOp_AO%2020160826.pdf) with conservation measures, including the 2,000' buffer for forage fish on pgs 33-37. These measures were required by the US Army Corp for all shellfish aquaculture in WA.

Nice to see the herring data in a compiled map!  
Sue

Sue Thomas  
Wildlife Biologist  
Washington Maritime NWRC  
715 Holgerson Rd  
Sequim, WA 98382  
360-457-8451

On Mon, Apr 15, 2019 at 12:49 PM Sandell, Todd A (DFW) <[Todd.Sandell@dfw.wa.gov](mailto:Todd.Sandell@dfw.wa.gov)> wrote:

Hi Sue- here is the map we sent, and the email thread below. As far as sand lance and surf smelt spawning, I haven't replied to them yet but the map is at (scroll to the bottom): <https://wdfw.wa.gov/fishing/management/marine-beach-spawning>

And you can click on any area to bring up historical survey data for that point.

Cheers-

Todd

\*\*\*Please note that the 2019 herring season is underway with significant field work scheduled. As a result I may be slow to reply to email until mid-April. I will respond to you as soon as possible!\*\*\*

Todd Sandell, Ph.D.

Senior Forage Fish Biologist

Puget Sound Marine Fish Science Unit

Mill Creek Annex

(work cell) 425-287-2877

Mail:

16018 Mill Creek Blvd.

Mill Creek, WA 98012

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**From:** Elizabeth Tobin <[etobin@jamestowntribe.org](mailto:etobin@jamestowntribe.org)>  
**Sent:** Monday, April 15, 2019 12:24 PM  
**To:** Sandell, Todd A (DFW) <[Todd.Sandell@dfw.wa.gov](mailto:Todd.Sandell@dfw.wa.gov)>; Kelly Toy <[ktoy@jamestowntribe.org](mailto:ktoy@jamestowntribe.org)>  
**Cc:** Lindquist, Adam P (DFW) <[Adam.Lindquist@dfw.wa.gov](mailto:Adam.Lindquist@dfw.wa.gov)>; Zitomer, Danielle R (DFW) <[Danielle.Zitomer@dfw.wa.gov](mailto:Danielle.Zitomer@dfw.wa.gov)>  
**Subject:** RE: Forage Fish Surveys

Hi Todd,

We are very appreciative of you providing this historical herring spawning map for Dungeness Bay. We are looking to acquire the most accurate and updated information available on forage fish spawning in the area to better inform our discussions with USFWS and site-specific conservation measures. Do you have any additional information that you could share on Surf Smelt or Sand Lance spawn in Dungeness Bay? It is no problem if you don't have this information, we just want to make sure we are working with the best available forage fish data to guide our planning and discussions.

Thank you,

Elizabeth

Elizabeth Tobin, Ph.D.

Shellfish Biologist

Jamestown S'Klallam Tribe

*Office:* 360-681-4656

*Cell:* 360-912-2961

[etobin@jamestowntribe.org](mailto:etobin@jamestowntribe.org)

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**From:** Sandell, Todd A (DFW) [<mailto:Todd.Sandell@dfw.wa.gov>]  
**Sent:** Monday, April 15, 2019 11:25 AM  
**To:** Kelly Toy <[ktoy@jamestowntribe.org](mailto:ktoy@jamestowntribe.org)>  
**Cc:** Elizabeth Tobin <[etobin@jamestowntribe.org](mailto:etobin@jamestowntribe.org)>; Lindquist, Adam P (DFW) <[Adam.Lindquist@dfw.wa.gov](mailto:Adam.Lindquist@dfw.wa.gov)>; Zitomer, Danielle R (DFW) <[Danielle.Zitomer@dfw.wa.gov](mailto:Danielle.Zitomer@dfw.wa.gov)>  
**Subject:** RE: Forage Fish Surveys

Hi Kelly- apologies for the delay. Attached is a map Adam made of historical herring spawn in that area. As you will see there has been spawn documented within the project area, though in the 1980-2005 historical window. We don't survey that part of the bay as frequently b/c of the pilings and bottom debris pose a risk for hanging up the sampling rake.

The 25ft setback from eelgrass doesn't seem adequate within that tide range, but most of the recent spawning activity is not in the proposed area. I have CC'd the DFW habitat biologist for that region here to keep everyone in the loop;

since this is a matter of federal and tribal projects, I'm not sure how much the state needs to be involved. Please let me know if we can provide any other info-

Todd

\*\*\*Please note that the 2019 herring season is underway with significant field work scheduled. As a result I may be slow to reply to email until mid-April. I will respond to you as soon as possible!\*\*\*

Todd Sandell, Ph.D.

Senior Forage Fish Biologist

Puget Sound Marine Fish Science Unit

Mill Creek Annex

(work cell) 425-287-2877

Mail:

16018 Mill Creek Blvd.

Mill Creek, WA 98012

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**From:** Kelly Toy <[ktoy@jamestowntribe.org](mailto:ktoy@jamestowntribe.org)>

**Sent:** Monday, April 15, 2019 10:55 AM

**To:** Sandell, Todd A (DFW) <[Todd.Sandell@dfw.wa.gov](mailto:Todd.Sandell@dfw.wa.gov)>

**Cc:** Elizabeth Tobin <[etobin@jamestowntribe.org](mailto:etobin@jamestowntribe.org)>; Lindquist, Adam P (DFW) <[Adam.Lindquist@dfw.wa.gov](mailto:Adam.Lindquist@dfw.wa.gov)>

**Subject:** RE: Forage Fish Surveys

Todd,

I know you are busy but when do you think you can get the forage fish information to us? We have a meeting coming up soon and it would be extremely helpful. Thanks.

Kelly

Kelly Toy

Shellfish Program Manager

Jamestown S'Klallam Tribe

Work: 360-681-4641

Cell: 360-460-1327

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**From:** Sandell, Todd A (DFW) [<mailto:Todd.Sandell@dfw.wa.gov>]  
**Sent:** Monday, April 01, 2019 10:05 AM  
**To:** Kelly Toy <[ktoy@jamestowntribe.org](mailto:ktoy@jamestowntribe.org)>  
**Cc:** Elizabeth Tobin <[etobin@jamestowntribe.org](mailto:etobin@jamestowntribe.org)>; Lindquist, Adam P (DFW) <[Adam.Lindquist@dfw.wa.gov](mailto:Adam.Lindquist@dfw.wa.gov)>  
**Subject:** Re: Forage Fish Surveys

Hi Kelly- apologies for the delay in responding, your email got sent to my junk folder. I've asked Adam to update our maps of spawning areas in Dungeness bay. Spawning there has been low in recent years but I'll need to check the maps to give an opinion on potential impacts.

I'm in the field every day but will get back to you later in the week.

Todd

Sent from mi Ifone

On Mar 20, 2019, at 5:25 PM, Kelly Toy <[ktoy@jamestowntribe.org](mailto:ktoy@jamestowntribe.org)> wrote:

Hi Todd,

Don Velasquez sent me your contact information. Jamestown staff are in need of information concerning forage fish and potential impacts. We are in the middle of addressing comments to the re-opening of our oyster farm in Dungeness Bay. The USFWS Wildlife refuge is setting a 2,000 foot action area along the inner bay that includes our oyster farm. The refuge feels that the farm will impact forage fish which are prey items for birds. We do have best management practices that would avoid spawning area and eggs that may attach to our oyster bags. The first thing we would like to know is if you have any maps documenting where forage fish have spawned in Dungeness Bay and secondly, your professional opinion about potential impacts. The farm is between and +3 and -2.5 tidal elevation with a 25 ft. buffer from eel grass. I've attached a map so you can see the general area. We appreciate any information you can give us. Thanks.

Kelly

Kelly Toy

Shellfish Program Manager

Jamestown S'Klallam Tribe

Work: 360-681-4641

Cell: 360-460-1327

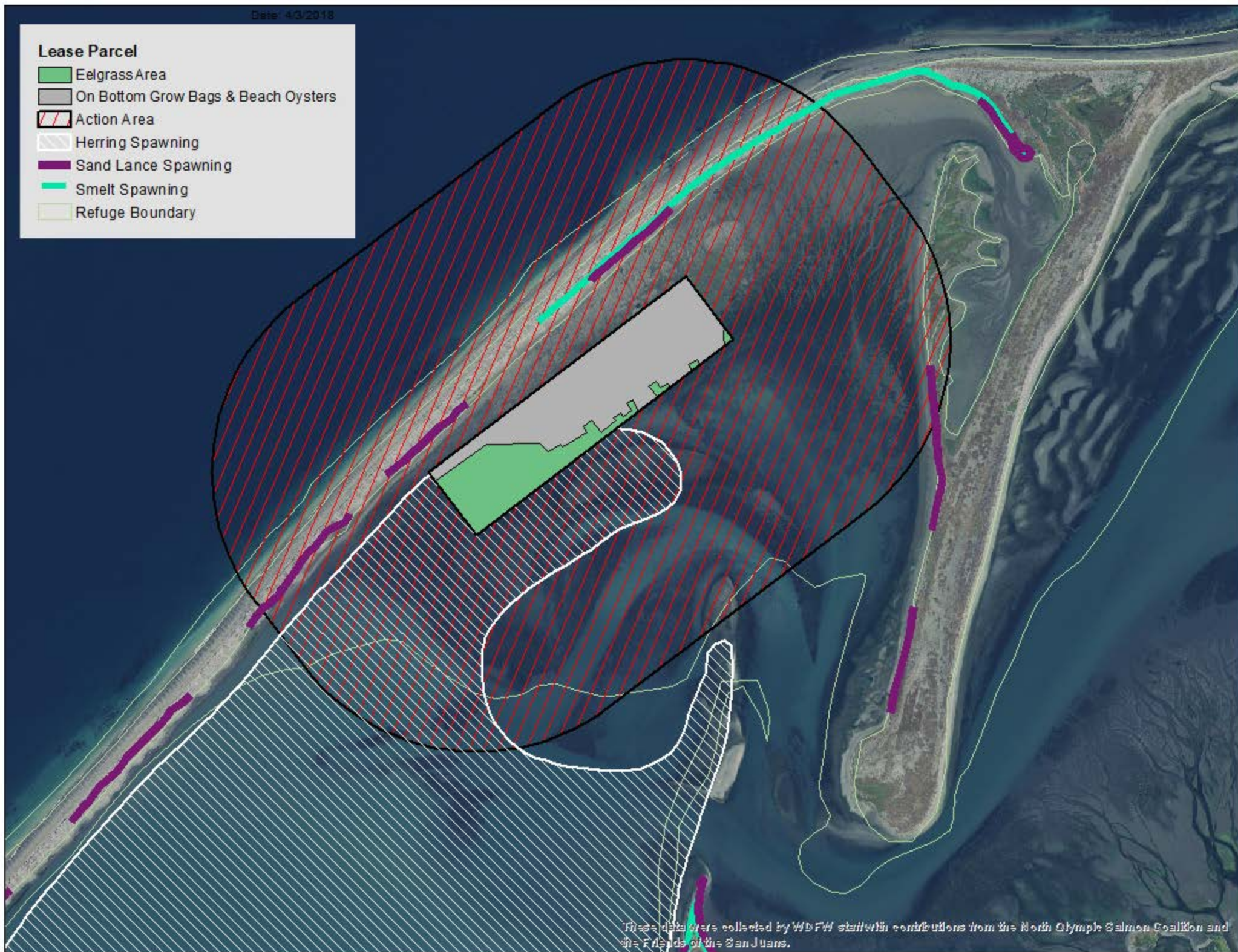
<Dungeness Bay Oyster Farm.pdf>



Date: 4/3/2018

### Lease Parcel

- Eelgrass Area
- On Bottom Grow Bags & Beach Oysters
- Action Area
- Herring Spawning
- Sand Lance Spawning
- Smelt Spawning
- Refuge Boundary



This data was collected by WDFW staff with contributions from the North Olympic Salmon Coalition and the Friends of the San Juans.