

## **Relevant extracts from a briefing 13.11.19**

**Meeting** with the Missing Salmon Alliance

### ***Key Message(s)***

- Very conscious of the perilous state of salmon stocks and the need to work together to address this
- Welcome the agreement to work in partnership on the proposed “West Coast Smolt Tracking Project”
- Scottish Government acting across a range of pressures

### ***Who***

“Ambassador”, Missing Salmon Alliance  
CEO – Atlantic Salmon Trust  
University of Stirling

### ***Supporting official***

Salmon and Recreational Fishing  
Salmon and Recreational Fishing  
MSS Freshwater Fisheries Laboratory

### ***Briefing contents***

Annex E: West Coast Smolt Tracking Project

## **SUMMARY**

### **West Coast Smolt Tracking Project**

In recent weeks Marine Scotland and the AST have agreed in principle to work in partnership on a ground-breaking project to track smolt migration on the west coast of Scotland. Funding has been identified to allow the first tranche of work to progress very quickly and the intention is to draw together a Board to guide delivery. This Board would ideally involve Marine Scotland, AST, SEPA and the aquaculture industry.

**Further detail on this project is at Annex E.**

## **POINTS TO MAKE**

### **General**

Wild salmon is one of Scotland’s most iconic species, recognised the world over and whose success is often the litmus test for a strong and vibrant environment. However we are all aware that across the world the sector faces significant challenges, including declining numbers.

Ministers are determined to work alongside stakeholders – both at home and internationally – to address the pressures on our precious salmon stocks.

Welcome the recent discussions and the agreement in principle to work in Partnership with AST and others to deliver the proposed West Coast Smolt Tracking Project. Aware that the details are still being worked up, but conscious of the potential importance of this project.

Scottish Government, along with Fisheries Management Scotland and their member district salmon fisheries boards and rivers trusts, has identified 12 “high level” pressures impacting salmon in our waters and further afield.

### West coast smolt tracking project

Marine Scotland has recently been working closely with the Atlantic Salmon Trust, Fisheries Management Scotland and others including the aquaculture industry to agree to deliver a project to track salmon smolts on their migration on the west coast of Scotland. This ground-breaking project has great potential to expand our knowledge of the behaviour and migration of smolts. In part this work would be funded using additional monies committed by Mr Gove last December for fisheries and marine purposes, of which we have £3m available to commit and spend before next March. We currently plan to priorities some £750,000 of this funding for the project, which supports of aquaculture planning.

**More detail on this project is at Annex E.**

(From Annex E)

## **THE WEST COAST SMOLT TRACKING PROJECT**

In recent weeks Marine Scotland has been in discussion with Atlantic Salmon Trust, Fisheries Management Scotland and other stakeholders, including representatives of the aquaculture industry, regarding a project to tag and track salmon smolts on their migration on the west coast. This had previously been identified as a priority project by Marine Scotland’s Senior Leadership Team (SLT), which could utilise additional funding made available by Mr Gove last year – see funding arrangements below.

This is set to be a large-scale smolt tracking project, which, amongst other things will support aquaculture planning in the future. The project will be run through Fisheries Management Scotland. It would involve the Atlantic Salmon Trust moving their acoustic buoys to the west coast between mainland and Hebrides together with other strategic area.

Large numbers of salmon smolts (up to 2,000 fish) would be tagged in six to ten rivers. Receivers could be deployed in February and Marine Scotland would assist in deploying equipment. Data collected would be compared with modelled smolt movement trajectories and feed directly into aquaculture planning at this critical stage in the development of the industry as more offshore locations are sought.

### Current position and next steps

On 9 October, [REDACTED], Head of Marine Scotland Science wrote to [REDACTED] to confirm in principle that we could provide the funding to enable work to start on the project. Work has been progressing on scoping the long term budget and project deliverables and, again, good progress is being made. We understand that [REDACTED] hopes to confirm matching industry contributions to the project in the next few days and he may be able to confirm this at the meeting.

Longer term, we have suggested that a project board should be convened, comprising Marine Scotland, AST, Fisheries Management Scotland and representatives from the industry to take the project forward.

While it will not be possible to announce the project formally in the period leading up to the general election, work is continuing to ensure that we can deliver the first year tasks and spend by March next year.

### Relevant extracts from a speaking note for the Cabinet Secretary for Environment, Climate Change and Land Reform at a Wild Salmon Roundtable on 7 January 2020.

- I can announce today funding of **£750k funding for an innovative project between the Scottish Government , Atlantic Salmon Trust and Fisheries Management Scotland** who will work in partnership to track smolt migration on the west coast of Scotland. The project will greatly enhance our understanding of this wonderful fish.

### Relevant extracts from a briefing relating to the same event

#### **Communications**

**Quote for FMS News Release** – announcing Scottish Government funding of £750k in 2019/20 for AST-led West Coast Smolt Tracking Project

#### West Coast Smolt Tracking Project

Recently Marine Scotland AST **and Fisheries Management Scotland** agreed to work in partnership on a ground-breaking project to track smolt migration on the west coast of Scotland. Scottish Government has made available £750k to the AST for this project which is being announced via News Release on the day of the Roundtable.

**Relevant extracts from a speaking note for the Minister for Further Education, Higher Education and Science at a Wild Salmon Roundtable on 7 January 2020 (evening reception).**

Earlier today you will have heard Ms Cunningham announcing funding **of £750k funding for an innovative project between the Scottish Government, Atlantic Salmon Trust and Fisheries Management Scotland.** These organisations will work in partnership to track smolt migration on the west coast of Scotland. The project will greatly enhance our understanding of this wonderful fish.

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 05 December 2019 15:51  
**To:** [REDACTED]  
**Subject:** West coast smolt tracking project

Hi [REDACTED]

As discussed we're content with your suggestion & the MFF monies are available this financial year, we'll just monitor the project summer 2021 so we can see the benefits realised. I can confirm the project has been approved & you can go ahead, I'll get the award letter out as soon as I can.

Thanks,

[REDACTED]  
[REDACTED]

\*\*\*Please note new address\*\*\*

Grants Team  
Marine Scotland  
Spur X1 Rm 11  
Saughton house  
Edinburgh  
EH11 3XD  
[REDACTED]

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 31 January 2020 08:53  
**To:** [REDACTED]  
**Subject:** West coast moorings

[REDACTED]

I was planning to poke around on this subject this morning through [REDACTED] [REDACTED] and [REDACTED] [REDACTED] I see that you have a skype meeting with [REDACTED] and [REDACTED] which I guess is on the same subject.

Do you want me to involved? Join the skype for example?

[REDACTED]

[REDACTED]

Scottish Government  
Marine Laboratory  
P O Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

[REDACTED]

w: <http://www.gov.scot/marinescotland>

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 31 January 2020 09:55  
**To:** [REDACTED]  
**Subject:** RE: West coast moorings

[REDACTED]

OK. There should be time after 1030 today.

[REDACTED]

[REDACTED]

Scottish Government  
Marine Laboratory  
P O Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

[REDACTED]

w: <http://www.gov.scot/marinescotland>

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**From:** [REDACTED]  
**Sent:** 31 January 2020 09:50  
**To:** [REDACTED]  
**Subject:** RE: West coast moorings

Hi [REDACTED]  
Can we have a chat about this before you chat with [REDACTED] and [REDACTED]

Thanks,

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 31 January 2020 08:53  
**To:** [REDACTED]  
**Subject:** West coast moorings

[REDACTED]

I was planning to poke around on this subject this morning through [REDACTED] and [REDACTED] I see that you have a skype meeting with [REDACTED] which I guess is on the same subject.

Do you want me to involved? Join the skype for example?

[REDACTED]

[REDACTED]  
[REDACTED]  
Scottish Government  
Marine Laboratory  
P O Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

w: <http://www.gov.scot/marinescotland>



[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 04 November 2019 16:20  
**To:** [REDACTED]  
**Subject:** RE: AST Smolt Tracking

[REDACTED]

There should be two – an east coast and a west coast .

[REDACTED]

[REDACTED]

Scottish Government  
Marine Laboratory  
P O Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

[REDACTED]

w: <http://www.gov.scot/marinescotland>

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**From:** [REDACTED] >  
**Sent:** 04 November 2019 15:58  
**To:** [REDACTED]  
**Subject:** RE: AST Smolt Tracking

[REDACTED]

Not as yet, but I presume this will come in with all other requests from the programme....??  
Regards,

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 01 November 2019 19:33  
**To:** [REDACTED]  
**Subject:** FW: AST Smolt Tracking

[REDACTED]

Have you received any ship time requests for this work?

[REDACTED]

[REDACTED]

Scottish Government

Marine Laboratory  
P O Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

w: <http://www.gov.scot/marinescotland>

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[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Large redacted text block]

[REDACTED]

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**From:**

**Sent:**

[REDACTED]  
07 November 2019 10:31

**To:**

**Subject:**

[REDACTED]  
WEST coast smolts

[REDACTED]

You will know that [REDACTED] has committed to assisting the AST with west coast smolt tracking this coming year, including deployment of detectors. Please confirm that SFF will be putting in the necessary ship time requests to support this work.

[REDACTED]

Scottish Government  
Marine Laboratory  
P O Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

[REDACTED]

w: <http://www.gov.scot/marinescotland>

[Redacted]

**From:** [Redacted]  
**Sent:** 06 February 2020 10:22  
**To:** [Redacted]  
**Subject:** FW: Lochasber site visit this Friday

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**From:** [Redacted]  
**Sent:** 06 February 2020 10:16  
**To:** [Redacted]  
**Subject:** Re: Lochasber site visit this Friday

Hi all,

Thank you for your email, [Redacted]

I think it is important that we all meet tomorrow as planned. I would really like to have all the decisions made at this meeting tomorrow. I have asked [Redacted] (cc'd) to also attend this meeting. [Redacted] will be temporarily overseeing both East and West coast projects. At our meeting tomorrow we will be able to finalise which sites are being tagged, where receivers are being deployed etc.

Are you all happy to meet tomorrow as planned?

Kind Regards,

[Redacted]

[Redacted]

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[REDACTED]  
Sent: 06 February 2020 09:56

[REDACTED]  
Subject: Re: Lochaber site visit this Friday

[REDACTED]

I had rather planned round meeting tomorrow. My problem is I am away after tomorrow until 20th Feb. Does [REDACTED] departure change much about planning here in Lochaber? [REDACTED] email would suggest not, just that the AST team has been reshuffled to cover all the necessary roles. Happy to do whatever everyone thinks best. But last week in Feb best for me if we reschedule.

[REDACTED]

[REDACTED]

On Thu, 6 Feb 2020, 08:43 [REDACTED] wrote:

Dear All,

Just a quick email in light of yesterday's news about [REDACTED] leaving. I spoke to [REDACTED] yesterday and we discussed whether it is worth everyone meeting on Friday. Without [REDACTED] will it be possible to finalise who is doing what, the main reason most of us were attending? I can show [REDACTED] round the sites and then I suggest MSS, LDSFB, LFT, FMS and AST have a teleconf or meeting, preferably next week, to finalise staffing in Lochaber.

Is everyone happy with this?

Best wishes

[REDACTED]

--

[REDACTED]  
[REDACTED]  
[www.lochaberfish.org.uk](http://www.lochaberfish.org.uk)

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[Redacted]

**From:**  
**Sent:**  
**To:**

[Redacted]

24 January 2020 17:11

[Redacted]

[Redacted]

[Redacted]

**Subject:**

RE: Tagging

Hi everyone,

Some updates for the tagging training. We have now all our dates in places (yeah!), please see below, dates to book in your calendar:

February 11-12 : Home office training at SCENE

February 25: Marine Scotland Training by [Redacted] at SCENE

March 3: Training provided by [Redacted] + assessment at SCENE

There are few questions that I will like to ask to each of you, please take the time to fill out the survey below:

1. How many nights do you need at SCENE, are you arriving in the morning (Feb 11) or the night before (Feb 10). Training day (25 th and 3th) will start late enough to ensure that everyone can drive in the morning. If you arrive on the 10 th, please note that the dinner will not be provided.
2. Any dietary requirements (vegan/vegetarian/ medical or religious)?
3. Please let us know which glove size you were (for the tagging kit)
4. Please let us know if you need to have a measuring board at your disposal, if not AST will provide one in the tagging kit.

[Redacted] should have send you some material to read before their training...some preparation is required....if you didn't receive the material, please let me know and I will ensure to rectify the situation.

If you have any comments or questions, please don't hesitate to contact me.

Cheers

[Redacted]

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**From:**

[Redacted]

**Sent:** 17 January 2020 13:17

**To:**

[Redacted]

**Subject:** Tagging

Hi everyone!

Just a quick email as you registered for the home office course on February 11-12 (so these dates should be booked in your calendar). AST will provide accommodation and food for you during the course (mileage can be claimed to AST). We also booked a date for training, your first day of training will be provided by Marine Scotland [REDACTED] will be the leader) February 25 (if accommodation needed, room at scene will be available), and a second day of training provided by SCENE where [REDACTED] will assess your technic (date TBD)

Please put these days in your calendar as all days are **mandatory**, if you are missing any of these days, you will not be able to tag this year.

Looking forward to working with you as a tagger this year for the Moray Firth and the West Coast projects!  
Cheers

[REDACTED]



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[REDACTED]

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**From:** [REDACTED]  
**Sent:** 16 January 2020 13:22  
**To:** [REDACTED]  
**Subject:** RE: training - talked with [REDACTED]

Great! Thank you!  
Will see you Monday 😊  
Enjoy your weekend!  
cheers  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 16 January 2020 13:12  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: training - talked with [REDACTED]

Hi [REDACTED]

Ive just spoken to [REDACTED] He could do the 24/25 February.

Catch up with you on Monday.

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 16 January 2020 12:41  
**To:** [REDACTED]  
**Subject:** RE: training - talked with [REDACTED]

Hi [REDACTED]

Absolutely, and we are working with Scene [REDACTED] to achieve this (since it is under his project license), as well working with Marine Scotland. I want to be throughout.

I am not at SCENE tomorrow, I am meeting the [REDACTED] I will be meeting you Monday, we can talk about the training day [REDACTED] will provide (content and how), but I just wanted to know if you are ok if I send an email today to ask people to block Feb 24-25 in their calendar for a training provided by [REDACTED] (based on his availability)?

Cheers  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 16 January 2020 12:35  
**To:** [REDACTED]  
**Subject:** RE: training - talked with [REDACTED]

Hi [REDACTED]

It does make sense that all tagging that takes place is harmonised across the groups so the same techniques and equipment are used. I think there needs to be agreement with SCENE to how this



will be achieved as this year any fishery board work will come under their licence. I am in Edinburgh today but am back in my office tomorrow and will try to talk to you then.

Thanks

---

**From:** [REDACTED]

**Sent:** 15 January 2020 15:10

**To:** [REDACTED]

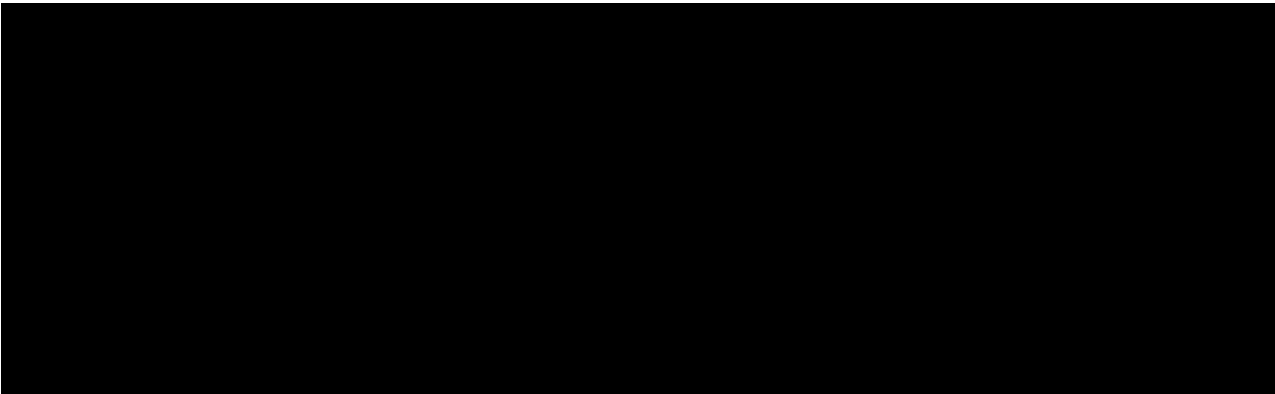
**Subject:** training - talked with [REDACTED]

Hi [REDACTED]

I had a good chat with [REDACTED] today in regards of the training session of river board/trust. I left you a message on your voice message trying to explain the plan we come up, so you can evaluate if you are ok with it. The home office training and certification will be February 11-12. Then we will give a surgical pad to everyone, they will have time to practice their technics. Then, I just froze (in scene booking calendar) Feb 24 (night – accommodation) and Feb 25 for a day of training with [REDACTED] at Scene. [REDACTED] thought it will be better to come at Scene for lecture/hand on tagging technique training on dead fish since the Lochy idea can only be done in April (good idea but timeline doesn't work since all biologist need to be ready to hit the field early April). If you are ok with the plan and dates (this was based on [REDACTED] availabilities), then I will send an email to River Trust/Board biologist so they can block the date in their agenda. I was hoping to do this before the end of the week.

Cheers

[REDACTED]



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[Redacted]

**From:** [Redacted] 11:19  
**To:** [Redacted]  
**Subject:** RE: West Coast Arrays

Hi [Redacted]

I'm sure I can fit some time in today for a phone call. I should have free time around 14:00 if you can manage that time.

Office phone: [Redacted]

Thanks

[Redacted]

---

**From:** [Redacted] <[Redacted]>  
**Sent:** 15 January 2020 10:11  
**To:** [Redacted]  
**Subject:** RE: West Coast Arrays

That is grand, thank you!! Would you have time for a phone call today to talk about the training day for the tagger (from river trust/board) this year? If so, let me know what time would suit you.  
Cheers

[Redacted]

---

**From:** [Redacted] <[Redacted]>  
**Sent:** 15 January 2020 10:09  
**To:** [Redacted] <[Redacted]>  
**Cc:** [Redacted] <[Redacted]>  
**Subject:** RE: West Coast Arrays

Morning all,

Apologies for the slow response, I'm only just back from leave today. I will have a look through the positions that I worked up before Christmas and send over a spreadsheet.

Many thanks

[Redacted]

---

**From:** [Redacted] <[Redacted]>  
**Sent:** 03 January 2020 12:26  
**To:** [Redacted]  
**Cc:** [Redacted] <[Redacted]>  
**Subject:** Re: West Coast Arrays

Morning All

Thanks for the introductions [REDACTED] Happy New Year to all.

Hi [REDACTED] I'm guessing that your software will also throw up the Lat and Long of these plotted receiver locations as well as the depths. If this is the case, would you be kind enough to include these coordinates in the spreadsheet please as this will help [REDACTED] and I further down the line.

---

**From:** [REDACTED]  
**Sent:** 03 January 2020 09:51  
**To:** [REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>  
**Cc:** [REDACTED]  
**Subject:** West Coast Arrays

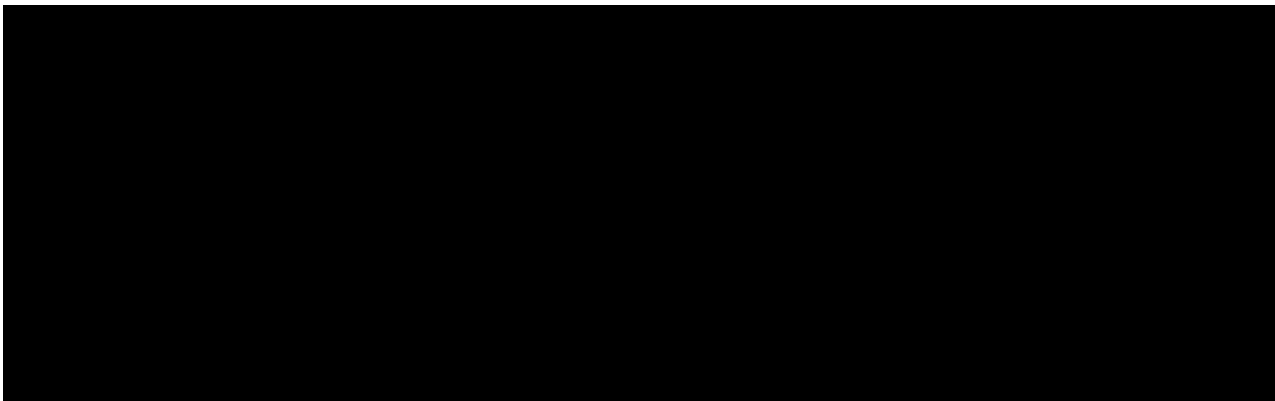
Morning [REDACTED]

First of all Happy New Year and I hope that you managed a good break over the festive period. We will be back at full strength on Monday as people return from leave. However could I introduce [REDACTED] who is in charge of the practical logistics for both the West Coast and Moray Firth tracking projects. He will be working with [REDACTED] who remains the lead for the scientific aspects of the two projects, with support from [REDACTED].

[REDACTED] – you kindly sent over the routes for the Skye to South Uist arrays and the depths. Would it be possible to send over the exact depth of water that each of the receivers will be in. The info in an Excel would help enormously.

All the best and many thanks

[REDACTED]



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INTERNATIONAL  
YEAR OF THE SALMON

**Only together can we make a leap forward**

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[Redacted]

**From:** [Redacted]  
**Sent:** 14 January 2020 15:57  
**To:** [Redacted]  
**Subject:** RE: West Coast Tracking Governance

Afternoon [Redacted]

I am actually at Faskally seeing [Redacted] this coming Monday and it would appear to work for [Redacted] so are you available? [Redacted] and I are meeting in the morning at 11 but it should take no more than an hour. The afternoon is also possible if that is more convenient.

[Redacted]

---

**From** [Redacted]  
**Sent:** 14 January 2020 15:29  
**To:** [Redacted]  
**Subject:** West Coast Tracking Governance

Dear [Redacted],

I am aware that we have been running at full tilt to sort plans and logistics with no time to formalise our Governance arrangements for the West Coast Tracking work. As outlined by [Redacted] at the inception, we need a Tripartite Governance Board comprising Fisheries Management Scotland, Marine Scotland Science and Atlantic Salmon Trust. It would be good to meet to discuss governance and review planning, with a focus on clarifying who does what as we progress.

In terms of publicising the work, we should be consistent that it is a collaboration between our three organisations (AST, FMS and MSS) based on funding from Scottish Government (as well as any other support from other groups). We should jointly agree the programme of work and any documented outputs. I think that it is extremely important to emphasise the pilot nature of the work and to manage expectations within a general context of what is required to answer our questions of interest fully.

I hope this is acceptable and that we can organise a meeting reasonably soon. If you indicate your general availabilities then we can home in on a suitable date.

All the best for 2020

[Redacted]

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[Redacted]

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**From:** [Redacted]  
**Sent:** 14 January 2020 15:48  
**To:** [Redacted]  
**Subject:** RE: West Coast Tracking Governance

Dear [Redacted]

Thank you for this and I agree that we should get this in place as soon as possible. I would also suggest including [Redacted] from Glasgow University, as they will be a key partner in helping us to deliver the project.

In terms of dates I am currently available on:

January 20, 27, 28 and 30  
February 3-7 and 18

Once we have a date perhaps we can look to put together a suitable agenda.

Kind regards

[Redacted]

---

**From:** [Redacted]  
**Sent:** 14 January 2020 15:29  
**To:** [Redacted]  
**Subject:** West Coast Tracking Governance

Dear [Redacted],

I am aware that we have been running at full tilt to sort plans and logistics with no time to formalise our Governance arrangements for the West Coast Tracking work. As outlined by [Redacted] at the inception, we need a Tripartite Governance Board comprising Fisheries Management Scotland, Marine Scotland Science and Atlantic Salmon Trust. It would be good to meet to discuss governance and review planning, with a focus on clarifying who does what as we progress.

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I hope this is acceptable and that we can organise a meeting reasonably soon. If you indicate your general availabilities then we can home in on a suitable date.

All the best for 2020

[Redacted]



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[Redacted]

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**From:** [Redacted]  
**Sent:** 17 January 2020 09:29  
**To:** [Redacted]  
**Subject:** FW: West Coast Tracking Project

Hi [Redacted]  
As per our discussion yesterday, please see below from the AST. Grateful if you could send another letter.  
Thanks  
[Redacted]

[Redacted] | Wild Salmon and Recreational Fisheries | Scottish Government | Victoria Quay ( Area GB North)|  
Edinburgh EH6 6QQ | Scotland | UK | [Redacted]

---

**From:** [Redacted]  
**Sent:** 17 January 2020 08:49  
**To:** [Redacted]  
**Subject:** Re: West Coast Tracking Project

Morning [Redacted]

Many thanks for looking into this. I can confirm that we haven't received any documents, so would be grateful if a set could be sent out.

For ease our address is Battleby House, Redgorton, Perthshire, PH1 3EW.

Kind regards

[Redacted]

Sent from my iPhone

On 16 Jan 2020, at 15:47, [Redacted] wrote:

Dear [Redacted]

[Redacted] tells me that you are awaiting confirmation of the funding for the tracking project. My colleagues tell me that the award letter was issued on 6<sup>th</sup> December.

Let me know if you want me to arrange for another copy to be put in the post.

Kind regards

[Redacted]

[Redacted] | Wild Salmon and Recreational Fisheries | Scottish Government | Victoria Quay ( Area GB North)|  
Edinburgh EH6 6QQ | Scotland | UK | [Redacted]

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\*\*\*\*

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[REDACTED]

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**From:** [REDACTED]  
**Sent:** 17 January 2020 09:28  
**To:** [REDACTED]  
**Subject:** RE: West Coast Tracking Project

Hi [REDACTED] will do. Thanks, [REDACTED]

[REDACTED] | Wild Salmon and Recreational Fisheries | Scottish Government | Victoria Quay ( Area GB North)|  
Edinburgh EH6 6QQ | Scotland | UK [REDACTED]

---

**From:** [REDACTED]  
**Sent:** 17 January 2020 08:49  
**To:** [REDACTED]  
**Subject:** Re: West Coast Tracking Project

Morning [REDACTED]

Many thanks for looking into this. I can confirm that we haven't received any documents, so would be grateful if a set could be sent out.

For ease our address is Battleby House, Redgorton, Perthshire, PH1 3EW.

Kind regards

[REDACTED]

[REDACTED]

On 16 Jan 2020, at 15:47, [REDACTED] > wrote:

Dear [REDACTED]

[REDACTED] tells me that you are awaiting confirmation of the funding for the tracking project. My colleagues tell me that the award letter was issued on 6<sup>th</sup> December.

Let me know if you want me to arrange for another copy to be put in the post.

Kind regards

[REDACTED]

[REDACTED] | Wild Salmon and Recreational Fisheries | Scottish Government | Victoria Quay ( Area GB North)|  
Edinburgh EH6 6QQ | Scotland | UK | [REDACTED]

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[REDACTED]

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**From:** [REDACTED]  
**Sent:** 16 January 2020 15:42  
**To:** [REDACTED]  
**Subject:** RE: West coast tracking

Hi [REDACTED]

This is for [REDACTED] West Coast Salmon Smolt Tracking Project? If so I issued the award letter on the 6<sup>th</sup> December, it went to the AST at Battleby House?

Thanks,  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 16 January 2020 15:35  
**To:** [REDACTED]  
**Subject:** FW: West coast tracking

[REDACTED]

As per below: the AST is still awaiting the confirmation of the funding for the West Coast tracking Project. Could you perhaps give [REDACTED] an update, and copy me in?

Thanks  
[REDACTED]

[REDACTED] | Wild Salmon and Recreational Fisheries | Scottish Government | Victoria Quay ( Area GB North)|  
Edinburgh EH6 6QQ | Scotland | UK | [REDACTED]

---

**From:** [REDACTED]  
**Sent:** 16 January 2020 15:19  
**To:** [REDACTED]  
**Subject:** West coast tracking

Hi [REDACTED]  
[REDACTED] mentioned that he still has not had finance confirmed- I think that [REDACTED] was dealing with it. Could you perhaps sort that out by a direct chat? [REDACTED]

[REDACTED]

[REDACTED]

**From:** [REDACTED]  
**Sent:** 15 January 2020 15:45  
**To:** [REDACTED]  
**Subject:** RE: West Coast Salmon Smolt Tracking Project

Hello [REDACTED]

Thank you (an [REDACTED]) very much for the amended text.

I will add both projects to the document for the Board's Working Group, with the first project under the original SALSEA-Track project 'West-coast Scottish Arrays'.

Kind regards,  
[REDACTED]

---

**From** [REDACTED]  
**Sent:** 15 January 2020 15:30  
**To:** [REDACTED]  
**Subject:** RE: West Coast Salmon Smolt Tracking Project

Hi [REDACTED]

[REDACTED] have kindly suggested some amendments, which are included in the final text below.

Best  
[REDACTED]

### 1. Tracking salmon smolts in the West Scotland coast

At present there is little information on the distributions of salmon smolts over time as they leave the Scottish coasts. Such information is important for informing spatial planning decisions, particularly in relation to salmon aquaculture. It is impractical to track salmon smolts from many river systems and hence there is a need to develop a general model of dispersal. To this end, Marine Scotland Science has developed particle tracking models that predict dispersal depending on swimming vectors of smolts, coupled with local water currents. It is now necessary to ground truth such models by experimental determination of swimming vectors and empirical estimates of smolt movements and distributions at sea.

The Atlantic Salmon Trust, Fisheries Management Scotland and Marine Scotland Science are collaborating to oversee a project to start to map locations of acoustically-tagged salmon smolts at sea. Glasgow University are providing field tagging teams in support. This project is designed to be capable also of detecting smolts tagged in the EU Sea Monitor project being conducted to the south.

An array of receivers will be established extending to the north and south of the Outer Hebridean Islands and between the islands. A further array will be deployed within the Minch. Smolts will be captured and tagged in a number of rivers in the west and south-west of Scotland. The main objectives at this pilot stage will be to determine whether the arrays pick up tags and are capable of differentiating among several possible swimming vectors. It is

anticipated that as a next stage (subject to availability of funding), a grid array of receivers will be deployed within the Minch to refine further the actual swimming vectors of smolts and so develop a dispersal model that can be used for planning.

## 2. Impacts of tagging on smolt survival

Marine Scotland Science will commence a project in 2020 (with first tagging of smolts in 2021) to evaluate the impacts of tagging and tag size on subsequent survival of salmon smolts. The project will use smallest acoustic tags and tagging of pre-smolts as a “minimum impact baseline” for comparison with effects of larger tags and of handling and tagging fish as they emigrate from the river. The project is funded and will involve collaboration with Fisheries Management Scotland members on four east coast rivers. The project will inform on-going work funded by the Atlantic Salmon Trust to assess losses of tagged smolts within rivers.

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[REDACTED]

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**From:** [REDACTED]  
**Sent:** 14 January 2020 15:29  
**To:** [REDACTED]  
**Subject:** West Coast Tracking Governance

Dear [REDACTED],

I am aware that we have been running at full tilt to sort plans and logistics with no time to formalise our Governance arrangements for the West Coast Tracking work. As outlined by [REDACTED] at the inception, we need a Tripartite Governance Board comprising Fisheries Management Scotland, Marine Scotland Science and Atlantic Salmon Trust. It would be good to meet to discuss governance and review planning, with a focus on clarifying who does what as we progress.

In terms of publicising the work, we should be consistent that it is a collaboration between our three organisations (AST, FMS and MSS) based on funding from Scottish Government (as well as any other support from other groups). We should jointly agree the programme of work and any documented outputs. I think that it is extremely important to emphasise the pilot nature of the work and to manage expectations within a general context of what is required to answer our questions of interest fully.

I hope this is acceptable and that we can organise a meeting reasonably soon. If you indicate your general availabilities then we can home in on a suitable date.

All the best for 2020

[REDACTED]

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 14 January 2020 16:06  
**To:** [REDACTED]  
**Subject:** RE: West Coast Tracking Governance

Great, Monday morning would work well for me. Thanks [REDACTED]

---

**From:** [REDACTED]  
**Sent:** 14 January 2020 15:57  
**To:** [REDACTED]  
**Subject:** RE: West Coast Tracking Governance

Afternoon [REDACTED]

I am actually at Faskally seeing [REDACTED] this coming Monday and it would appear to work for [REDACTED] so are you available? [REDACTED] and I are meeting in the morning at 11 but it should take no more than an hour. The afternoon is also possible if that is more convenient.

---

**From:** [REDACTED]  
**Sent:** 14 January 2020 15:29  
**To:** [REDACTED]  
**Subject:** West Coast Tracking Governance

Dear [REDACTED]

I am aware that we have been running at full tilt to sort plans and logistics with no time to formalise our Governance arrangements for the West Coast Tracking work. As outlined by [REDACTED] at the inception, we need a Tripartite Governance Board comprising Fisheries Management Scotland, Marine Scotland Science and Atlantic Salmon Trust. It would be good to meet to discuss governance and review planning, with a focus on clarifying who does what as we progress.

In terms of publicising the work, we should be consistent that it is a collaboration between our three organisations (AST, FMS and MSS) based on funding from Scottish Government (as well as any other support from other groups). We should jointly agree the programme of work and any documented outputs. I think that it is extremely important to emphasise the pilot nature of the work and to manage expectations within a general context of what is required to answer our questions of interest fully.

I hope this is acceptable and that we can organise a meeting reasonably soon. If you indicate your general availabilities then we can home in on a suitable date.

All the best for 2020

[REDACTED]

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[Redacted]

**From:** [Redacted]  
**Sent:** 14 January 2020 16:05  
**To:** [Redacted]  
**Subject:** RE: West Coast Tracking Governance

Thanks [Redacted]

I think we should retain the three-way high level Governance arrangement and bring in other partners, such as Universities and [Redacted] as an operational group. We are happy to work with all necessary collaborators (and the number is likely to grow as we progress), but I think our three organisations have a particular role to play in overall strategy and assurance of delivery.

Best

[Redacted]

---

**From:** [Redacted] >  
**Sent:** 14 January 2020 15:48  
**To:** [Redacted]  
**Subject:** RE: West Coast Tracking Governance

Dear [Redacted]

Thank you for this and I agree that we should get this in place as soon as possible. I would also suggest including [Redacted] from Glasgow University, as they will be a key partner in helping us to deliver the project.

In terms of dates I am currently available on:

January 20, 27, 28 and 30  
February 3-7 and 18

Once we have a date perhaps we can look to put together a suitable agenda.

Kind regards

[Redacted]

---

**From:** [Redacted]  
**Sent:** 14 January 2020 15:29  
**To:** [Redacted]  
**Subject:** West Coast Tracking Governance

Dear [Redacted],

I am aware that we have been running at full tilt to sort plans and logistics with no time to formalise our Governance arrangements for the West Coast Tracking work. As outlined by [Redacted] at the inception, we need a Tripartite Governance Board comprising Fisheries Management Scotland, Marine Scotland Science and Atlantic Salmon Trust. It would be good to

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In terms of publicising the work, we should be consistent that it is a collaboration between our three organisations (AST, FMS and MSS) based on funding from Scottish Government (as well as any other support from other groups). We should jointly agree the programme of work and any documented outputs. I think that it is extremely important to emphasise the pilot nature of the work and to manage expectations within a general context of what is required to answer our questions of interest fully.

I hope this is acceptable and that we can organise a meeting reasonably soon. If you indicate your general availabilities then we can home in on a suitable date.

All the best for 2020



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[REDACTED]

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**From:** [REDACTED]  
**Sent:** 26 February 2020 16:05  
**To:** [REDACTED]  
**Subject:** RE: Follow Up

Hi [REDACTED]

I thought it was a very useful meeting and great that we have agreement on the various aspects. [REDACTED] will be at the meeting tomorrow. I will have to get on with other pressing issues, but by all means email/phone me if I can be of any help.

Best

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 26 February 2020 15:42  
**To:** [REDACTED]  
**Subject:** Follow Up

Dear [REDACTED]

It was a useful meeting yesterday and we covered a lot of ground, so thank you for taking the time to come down to Battleby.

[REDACTED] has spoken to [REDACTED] and they have agreed to remove reference to adipose clipping from the SOP. As this will be the SOP for all our tracking projects it will also apply to the Moray Firth. Now that we have covered the remaining points in the SOP [REDACTED] will make the necessary changes, circulate in due course and will present on it tomorrow.

We are currently looking at the options of getting the additional receivers in place on the Isle of Lewis (Point), West Sutherland and the Sound of Mull. The ones on Mull should not present a logistical challenge. We are looking at the two sets further north and have identified suitable receivers, so it looks to be feasible. The key will be the actual boat deployment/recovery, as they are new areas logistical speaking, but we should have an answer by the end of play tomorrow. Once we have this we will also have to cover off the licensing aspects. Overall, it will really push the team but everyone recognises the value.

It would be good to have representation by MSS at the Stakeholder Meeting tomorrow and I hope that [REDACTED] can come along. You are also very welcome but I understand if you cannot make it.

All the best

[REDACTED]



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**Company registered in England: Reg No. 904293  
Registered Charity No. England 252742 & Scotland SCO 37902**

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**INTERNATIONAL  
YEAR OF THE SALMON**

**Only together can we make a leap forward**

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[Redacted]

**From:** [Redacted]  
**Sent:** 14 January 2020 15:57  
**To:** [Redacted]  
**Subject:** RE: West Coast Tracking Governance

Afternoon [Redacted]

I am actually at Faskally seeing [Redacted] this coming Monday and it would appear to work for [Redacted] so are you available? [Redacted] and I are meeting in the morning at 11 but it should take no more than an hour. The afternoon is also possible if that is more convenient.

[Redacted]

---

**From:** [Redacted]  
**Sent:** 14 January 2020 15:29  
**To:** [Redacted]  
**Subject:** West Coast Tracking Governance

Dear [Redacted],

I am aware that we have been running at full tilt to sort plans and logistics with no time to formalise our Governance arrangements for the West Coast Tracking work. As outlined by [Redacted] at the inception, we need a Tripartite Governance Board comprising Fisheries Management Scotland, Marine Scotland Science and Atlantic Salmon Trust. It would be good to meet to discuss governance and review planning, with a focus on clarifying who does what as we progress.

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I hope this is acceptable and that we can organise a meeting reasonably soon. If you indicate your general availabilities then we can home in on a suitable date.

All the best for 2020

[Redacted]

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[REDACTED]

**From:**

[REDACTED]

**Sent:**

15 January 2020 15:30

**To:**

[REDACTED]

**Subject:**

RE: West Coast Salmon Smolt Tracking Project

Hi [REDACTED]

[REDACTED] have kindly suggested some amendments, which are included in the final text below.

Best

[REDACTED]

## 1. Tracking salmon smolts in the West Scotland coast

At present there is little information on the distributions of salmon smolts over time as they leave the Scottish coasts. Such information is important for informing spatial planning decisions, particularly in relation to salmon aquaculture. It is impractical to track salmon smolts from many river systems and hence there is a need to develop a general model of dispersal. To this end, Marine Scotland Science has developed particle tracking models that predict dispersal depending on swimming vectors of smolts, coupled with local water currents. It is now necessary to ground truth such models by experimental determination of swimming vectors and empirical estimates of smolt movements and distributions at sea.

The Atlantic Salmon Trust, Fisheries Management Scotland and Marine Scotland Science are collaborating to oversee a project to start to map locations of acoustically-tagged salmon smolts at sea. Glasgow University are providing field tagging teams in support. This project is designed to be capable also of detecting smolts tagged in the EU Sea Monitor project being conducted to the south.

An array of receivers will be established extending to the north and south of the Outer Hebridean Islands and between the islands. A further array will be deployed within the Minch. Smolts will be captured and tagged in a number of rivers in the west and south-west of Scotland. The main objectives at this pilot stage will be to determine whether the arrays pick up tags and are capable of differentiating among several possible swimming vectors. It is anticipated that as a next stage (subject to availability of funding), a grid array of receivers will be deployed within the Minch to refine further the actual swimming vectors of smolts and so develop a dispersal model that can be used for planning.

## 2. Impacts of tagging on smolt survival

Marine Scotland Science will commence a project in 2020 (with first tagging of smolts in 2021) to evaluate the impacts of tagging and tag size on subsequent survival of salmon smolts. The project will use smallest acoustic tags and tagging of pre-smolts as a "minimum impact baseline" for comparison with effects of larger tags and of handling and tagging fish as they emigrate from the river. The project is funded and will involve collaboration with Fisheries Management Scotland members on four east coast rivers. The project will inform on-going work funded by the Atlantic Salmon Trust to assess losses of tagged smolts within rivers.

[Redacted]

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**From:** [Redacted]  
**Sent:** 21 February 2020 10:08  
**To:** [Redacted]  
**Subject:** n of Roseanna Cunningham MSP  
**Attachments:** 200110 - FMS - Letter to Roseanna Cunningham..pdf

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**From:** [Redacted] >  
**Sent:** 10 January 2020 11:32  
**To:** [Redacted]  
**Subject:** FW: Letter for the attention of Roseanna Cunningham MSP

Hi- forwarding for info.

Kind regards,

[Redacted]

---

**From:** [Redacted]  
**Sent:** 10 January 2020 09:11  
**To:** [Redacted]  
**Subject:** Letter for the attention of Roseanna Cunningham MSP

Please find attached a letter from Fisheries Management Scotland for the attention of the Cabinet Secretary for Environment, Climate Change and Land Reform. Please don't hesitate to contact me if you require any further clarification.

Kind regards,

[Redacted]

[Redacted]  
Fisheries Management Scotland  
11 Rutland Square, Edinburgh, EH1 2AS  
[Redacted]  
[www.fms.scot](http://www.fms.scot)



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[Redacted]

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**From:** [Redacted]  
**Sent:** 21 February 2020 09:56  
**To:** [Redacted]  
**Subject:** FW: West Coast Salmon Smolt Tracking Project

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**From:** [Redacted]  
**Sent:** 15 January 2020 15:45  
**To:** [Redacted]  
**Subject:** RE: West Coast Salmon Smolt Tracking Project

Hello [Redacted]

Thank you (and [Redacted]) very much for the amended text.

I will add both projects to the document for the Board's Working Group, with the first project under the original SALSEA-Track project 'West-coast Scottish Arrays'.

Kind regards,  
[Redacted]

---

**From:** [Redacted]  
**Sent:** 15 January 2020 15:30  
**To:** [Redacted]  
**Subject:** RE: West Coast Salmon Smolt Tracking Project

Hi [Redacted]

[Redacted] have kindly suggested some amendments, which are included in the final text below.

Best

[Redacted]

### 1. Tracking salmon smolts in the West Scotland coast

At present there is little information on the distributions of salmon smolts over time as they leave the Scottish coasts. Such information is important for informing spatial planning decisions, particularly in relation to salmon aquaculture. It is impractical to track salmon smolts from many river systems and hence there is a need to develop a general model of dispersal. To this end, Marine Scotland Science has developed particle tracking models that predict dispersal depending on swimming vectors of smolts, coupled with local water currents. It is now necessary to ground truth such models by experimental determination of swimming vectors and empirical estimates of smolt movements and distributions at sea.

The Atlantic Salmon Trust, Fisheries Management Scotland and Marine Scotland Science are collaborating to oversee a project to start to map locations of acoustically-tagged salmon smolts at sea. Glasgow University are providing field tagging teams in support. This project is designed to be capable also of detecting smolts tagged in the EU Sea Monitor project being conducted to the south.

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**2. Impacts of tagging on smolt survival**

Marine Scotland Science will commence a project in 2020 (with first tagging of smolts in 2021) to evaluate the impacts of tagging and tag size on subsequent survival of salmon smolts. The project will use smallest acoustic tags and tagging of pre-smolts as a “minimum impact baseline” for comparison with effects of larger tags and of handling and tagging fish as they emigrate from the river. The project is funded and will involve collaboration with Fisheries Management Scotland members on four east coast rivers. The project will inform on-going work funded by the Atlantic Salmon Trust to assess losses of tagged smolts within rivers.

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[Redacted]

**From:**  
**Sent:**  
**To:**

)  
10 January 2020 16:01

[Redacted]

**Subject:**

Line to clear - smolt tracking/round table - Sunday Post

[Redacted]

The Sunday Post is looking for any update we can give following this week's announcement of a £750,000 SG contribution to track smolt migration on the west coast.

We have discussed with policy officials and SpAds, and suggest reissuing previous lines with the addition in bold below. Grateful for clearance to proceed on this basis.

Thanks,

[Redacted]

A Scottish Government spokesperson said:

"As the Environment Secretary announced this week, we are providing a £750,000 funding contribution for an innovative project between the Scottish Government, Atlantic Salmon Trust and Fisheries Management Scotland, to work in partnership to track smolt migration on the west coast of Scotland to improve our understanding of this important species.

"The decline in the numbers of wild salmon returning to Scottish rivers is of great concern, and caused by a range of complex factors.

[Redacted]

**We will continue to work alongside key stakeholders to do everything possible to safeguard the future of Scotland's wild salmon."**

Background

Further details on the recent round table on the future of wild salmon, where the funding was announced, is available [online](#)

[Redacted]



[Redacted]

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**From:** [Redacted]  
**Sent:** 10 March 2020 10:33  
**To:** [Redacted]  
**Subject:** FW: Key points and decisions from meeting on 07.02.2020 with Lochaber Fisheries Trust

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**From:** [Redacted]  
**Sent:** 11 February 2020 14:50  
**To:** [Redacted]  
**Subject:** FW: Key points and decisions from meeting on 07.02.2020 with Lochaber Fisheries Trust

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**From:** [Redacted]  
**Sent:** 10 February 2020 16:45  
**To:** [Redacted]  
**Subject:** Key points and decisions from meeting on 07.02.2020 with Lochaber Fisheries Trust

Hi everyone,

Here are the key points and decisions made at our meeting on Friday.

Present : [Redacted]

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Best wishes,

[REDACTED]



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[Redacted]

**From:** [Redacted]  
**Sent:** 10 March 2020 10:41  
**To:** [Redacted]  
**Subject:** FW: West Coast Tracking

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**From:** [Redacted]  
**Sent:** 23 January 2020 09:21  
**To:** [Redacted]  
**Subject:** Re: West Coast Tracking

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**From:** [Redacted]  
**Sent:** 10 March 2020 10:33  
**To:** [Redacted]  
**Subject:** FW: Key points and decisions from meeting on 07.02.2020 with Lochaber Fisheries Trust

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**From:** [Redacted]  
**Sent:** 11 February 2020 14:50  
**To:** [Redacted]  
**Subject:** FW: Key points and decisions from meeting on 07.02.2020 with Lochaber Fisheries Trust

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## **West Coast Salmon Smolt Tracking Project – Briefing Note**

### **Project Status**

This document is the basis of a proposal and associated funding application to Scottish Government and the aquaculture industry on behalf of Fisheries Management Scotland and the Atlantic Salmon Trust. It is supported by all of the Fishery Trusts and District Salmon Fishery Boards in the target area in terms of providing manpower and logistical support. Please note that this document may be liable to change as the application process continues.

### **Purpose of the Project**

At present there is little information on the routes that salmon smolts take as they head out to sea from rivers in the west of Scotland, leading to gaps in how people respond to marine planning developments. Therefore, the aim of this project is to establish the ocean migration patterns for salmon smolts in the inshore waters around the north-west coast of Scotland. In addition, over the course of the project, freshwater survival of smolts will be determined and potential causes of mortality assessed.

### **Background To Acoustic Tracking**

Acoustic telemetry provides an opportunity to track smolts in the freshwater and marine environments. This involves inserting a unique acoustic tag into a suitably sized salmon smolt. A suitably sized smolt means one that will not be impaired by the implanting of a tag (literature reviews available on request). The tag emits a coded ping which is then detected by a hydrophone, known as a receiver, up to 400-500m away in the case of the proposed equipment. The receivers are either placed individually, typically in freshwater or for narrow straights at sea, or in arrays that cordon off a section of the coastline. For either freshwater or marine deployments the receivers are located on the river or sea bed. To extract the information the receivers must be recovered and downloaded.

It should be noted that whilst acoustic tracking systems are a major innovation in understanding the freshwater and marine migrations of species such as salmon, there are significant limitations that need to be understood when interpreting the data. For example, this project will not be able to provide mortality rates for salmon smolts at sea.

### **Project Design**

An initial three-year project is envisaged and this document details the work planned for the 2020 smolt tracking season. Information from the results generated in 2020 will be used to refine the design and associated project finances for years two and three.

#### *Tagging of Fish*

The project will tag up to 800 salmon smolts across approximately eight rivers. The rivers will be chosen on the following criteria:

1. Suitability of operating a rotary screw trap or adapted fyke net in terms of physical characteristics of river and availability of staff to operate the trap.
2. Likelihood of sufficient smolts of the target size being available for capture.
3. Geographic spread of rivers across the west coast of Scotland in relation to the aim of the study and proposed receiver infrastructure.
4. Previous studies that can be built upon.

At present the following list of candidate rivers/areas has been established for the 2020 smolt tagging programme: Nith, Bladnoch, Clyde, Loch Lomond, Awe, Lochy and Torridon/Shieldaig. Additional rivers on Skye, West Sutherland and the Outer Hebrides are also being evaluated. For those rivers within the project where it is not known whether there are smolts of sufficient size and number to be tagged in 2020, rotary screw traps will be deployed to assess the length frequency of the salmon smolt run.

The fish will be tagged by a combination of trained tagging teams from Glasgow University, Marine Scotland and local Fishery Trust biologists. To ensure that all fish are tagged to the same high standard an ongoing quality control programme will be operated by AST staff. The two tagging teams from Glasgow University, for four of the rivers, have kindly been donated to the project as they will be employed by the adjacent Sea Monitor programme in 2020 to 2022.

### *Receiver Placement*

Figure 1 details the location of the main arrays for the West Coast Salmon Smolt Tracking Project (WCSSTP). At present there is little empirical information about the salmon smolt migration pathways from the west coast of Scotland. As such there has been little prior knowledge to base the array system on. Therefore, a stepwise process of building up infrastructure and deploying it will be applied to assessing the migration pathways. This will involve reviewing the results of the tracking each year and refining where the receivers are located in the future so that pertinent questions can be addressed.

Over the period of 2020-2022 the Sea Monitor Project will fund and operate an array between Malin Head and Islay, along with smaller ones to the mainland from Islay. In addition, they will operate a Waveglider marine drone to patrol the area south-west of the Hebrides, out to the continental shelf. The Waveglider will be fitted with a receiver that will pick up any tags within range.

The WCSSTP will deploy two arrays, starting in 2020 and finishing in 2022. The first in 2020 will be established between the Isles of Skye and Benbecula. In 2021 an additional array or Waveglider system will be established between the northern most point of the Isle of Lewis and the mainland. In 2022 these arrays will either be maintained or the assets deployed in a different way to fine tune the understanding of smolt migration. The two arrays are constrained by military operations, water conditions and the presence of benthic trawling fisheries such as scallop dredgers. As such they are a compromise of the most direct route and the avoidance of damaging operations that would result in a loss of equipment and stored information. The arrays will also be equipped with sentinel tags and additional receivers so that the performance of the array (probability it will detect a passing fish) can be assessed.

In addition to the fixed arrays an allowance has been made to purchase and deploy forty additional receivers. These will be strategically located to allow for the patterns of fish migration around points of interest, such as a stretch of coastline or sea loch, to be quantified.

The receivers and tags used by both the Sea Monitor Project and WCSSTP are compatible with one another, allowing a greater synergy between the two projects.

### **Project Outputs**

The aim of the project is to quantify the migration pattern of salmon smolts. The results of the 2020 programme will initially be:

1. The speed and direction of individual fish migrations and establishment of any trends. Two potential examples would be (1) the proportion and route of fish that head out to the

continental shelf or enter the Minch proper (2) the migration of salmon in and around the sea lochs and coastal waters adjacent to Mull.

2. Test and refine the smolt dispersal model developed and published by Marine Scotland Science.
3. Monitor freshwater smolt survival on up to four rivers in 2020 and compare with Moray Firth Tracking Project information.
4. Identify areas to focus on for the 2021 tracking season.

### **Project Timetable**

The project timetable has been truncated due to the nature of the finance involved, which necessitates a significant financial spend ahead of March 31<sup>st</sup> 2020. With this in mind the project has the following key milestones:-

*Project Award* – This must be completed by the middle of November to allow sufficient time for the decision to be taken to proceed or not.

*Procurement* – Procurement of receiver, tags and ancillary telemetry equipment has commenced, along with purchase of six rotary screw traps.

*Deployment* – All staff involved in the project need to be recruited, trained and equipped prior to the deployment of the freshwater equipment in March 2020. The marine receivers will be deployed in the first week of April by Marine Scotland research vessels.

*Trapping and Tagging* – Traps will be monitored on a daily basis from early April 2020 through to the end of the salmon smolt run, typically mid to end of May. Fish will be tagged according to a protocol agreed with partners and this will be monitored by AST members of staff on site on a weekly basis for each river.

*Recovery* – The process of recovering the receivers and associated infrastructure will commence in July 2020 and be completed no later than mid-August.

*Analysis & Reporting* – The analysis will commence as soon as the receivers have been recovered with initial results due in early October 2020. These results will be to inform the shape and nature of the 2021 tracking programme. Full detailed results will be published in late 2020 or early 2021, followed by peer reviewed scientific publications in due course, where appropriate.

### **Project Finance**

The project has a total cost of just under £1.2 million to procure and deliver the 2020 tracking programme. The bulk of the finance for the 2020 programme will come from Scottish Government via a Maritime Fisheries Fund. It should be noted that funds from Scottish Government have to be applied for annually due to the nature of the funding. Talks are ongoing with the aquaculture industry, via the Scottish Salmon Producers Organisation, to provide the necessary match funding. Due to the nature of the funding it is anticipated that similar amounts will be applied for annually, with respect to the 2021 and 2022 tagging seasons.

Figure 1.

### West Coast Tracking Project – Layout of Arrays



### West Coast Salmon Tracking Project – Tagging Sites & Teams

