

**From:** [Zee, Stacey \(FAA\)](#)  
**To:** [Hanson, Amy \(FAA\)](#); [Orms, Mary](#); [Gardiner, Dawn](#); [Ardizzone, Chuck CA](#); [Sherman, Steven](#); [Zaccagnino, Jimmy](#)  
**Subject:** RE: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum  
**Date:** Tuesday, November 14, 2023 10:42:44 AM

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Hey Mary – when I talked to jeff fleming, he did not want the document going outside of the agencies because it is signed and would need an updated signature.

Is it possible to send SpaceX a non-signed document? That will be confusing for them otherwise.

Please let us know what is feasible.

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**From:** Hanson, Amy (FAA) <Amy.Hanson@faa.gov>  
**Sent:** Tuesday, November 14, 2023 12:37 PM  
**To:** Orms, Mary <mary\_orms@fws.gov>; Zee, Stacey (FAA) <Stacey.Zee@faa.gov>; Gardiner, Dawn <dawn\_gardiner@fws.gov>; Ardizzone, Chuck CA <chuck\_ardizzone@fws.gov>; Sherman, Steven <Steven.Sherman@icf.com>; Zaccagnino, Jimmy <Jimmy.Zaccagnino@icf.com>  
**Subject:** RE: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

I'll edit it and send it to them.

Amy

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**From:** Orms, Mary <mary\_orms@fws.gov>  
**Sent:** Tuesday, November 14, 2023 11:29 AM  
**To:** Hanson, Amy (FAA) <Amy.Hanson@faa.gov>; Zee, Stacey (FAA) <Stacey.Zee@faa.gov>; Gardiner, Dawn <dawn\_gardiner@fws.gov>; Ardizzone, Chuck CA <chuck\_ardizzone@fws.gov>; Sherman, Steven <Steven.Sherman@icf.com>; Zaccagnino, Jimmy <Jimmy.Zaccagnino@icf.com>  
**Subject:** Re: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Amy,

No, we did not provide Amanda or SpaceX a copy of the draft. We typically leave that to the consulting agency to distribute the draft to whomever they would like to release it to for review.

I recommend FAA provide SpaceX with a copy of the draft with ICF's comments and attach my emailed response for their review, instead of me revising the draft with your comments and awaiting it to go through review and signature again here.

Mary

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**From:** Hanson, Amy (FAA) <Amy.Hanson@faa.gov>  
**Sent:** Tuesday, November 14, 2023 11:12 AM

**To:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>  
**Subject:** RE: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

FAA has no further comments. We have not sent the latest versions to SpaceX since we assumed you were doing so to Amanda or others.

Amy

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**From:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>  
**Sent:** Tuesday, November 14, 2023 11:09 AM  
**To:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>  
**Subject:** Re: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Amy,

Response in blue noted. Would like to verify, these are all the final comments? We are not awaiting any further comments for anyone? SpaceX?

If there are no further comments, the Service will finalize the document and transmit a Final BCO Addendum.

Mary

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**From:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>  
**Sent:** Tuesday, November 14, 2023 11:03 AM  
**To:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>  
**Subject:** RE: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Please see below in blue:

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**From:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>  
**Sent:** Tuesday, November 14, 2023 10:59 AM  
**To:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>  
**Subject:** Re: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Received the following three comments from ICF:

1. Page 14. The ablation is from the plume contacting the stainless-steel **plumate** comprised of chromium, nickel, and iron, not a chemical reaction from the vehicle (FAA 2023)

ICF comment: Revise to "plate".

FWS response: Will revise. The word was changed by FAA reviewer to plumate on first review.

If FAA sent that prior comment it was in error.

2. Page 18-19 Reasonable and Prudent measures missing #3.

ICF Comment: Terms and conditions mention there are 3 R&Ps but only 2 show.

FWS Response: R&Ps should read:

1. The Service believes the following.....recommendations for corrective actions (if any) will be reported to the Service, as outlined in the monitoring plan once it is developed.

2. FAA and SpaceX will coordinate with the Service to review and update all plans, in particular the Biological Monitoring Plan outlined in the May 12, 2022, BCO as needed. Reviews will focus on needed updates of survey methods, their effectiveness in tracking take issued in the 2022 BCO, and potential remediation solutions if needed.

3. FAA will make implementation of the voluntary conservation measures listed on page 7 as well as reasonable and prudent measures listed above and, in the Terms and Conditions section of this document, a condition of its launch license, such that SpaceX is required to implement all the Terms and Conditions of the 2022 BCO and this 2023 Addendum #1.

Noted.

3. Page 20 Monitoring and Reporting Requirements

ICF comment 33739: Missing the requested "SpaceX will"..FAA previously requested it sate: "Upon locating a dead, injured, or sick listed specis on refuge lands SpaceX will contact Refuge"

FWS response: Will add wording as requested. There was also another yellow highlighted note on the phone number to the refuge but no comment was made. Is that suppose to be empty or was there a comment ICF wanted to make?

No additional comment. Thank you.

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**From:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>

**Sent:** Tuesday, November 14, 2023 10:06 AM

**To:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>

**Subject:** RE: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Mary – additional comments:

Amy

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**From:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>

**Sent:** Tuesday, November 14, 2023 9:15 AM

**To:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>

**Subject:** Re: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Amy,

Sorry the numbering got off and I didn't catch it. It should read:

1. ....recommendations for corrective actions (if any) will be reported to the Service, as outlined in the monitoring plan once it is developed.
2. FAA and SpaceX will coordinate with the Service to review and update all plans, in particular the Biological Monitoring Plan outlined in the May 12, 2022, BCO as needed. Reviews will focus on needed updates of survey methods, their effectiveness in tracking take issued in the 2022 BCO, and potential remediation solutions if needed.
3. FAA will make implementation of the voluntary conservation measures listed on page 7 as well as reasonable and prudent measures listed above and, in the Terms and Conditions section of this document, a condition of its launch license, such that SpaceX is required to implement all the Terms and Conditions of the 2022 BCO and this 2023 Addendum #1.

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**From:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>

**Sent:** Tuesday, November 14, 2023 9:03 AM

**To:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>

**Subject:** Re: [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

Let me check on it, I am in a meeting right now.

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**From:** Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>

**Sent:** Tuesday, November 14, 2023 8:58 AM

**To:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>; Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>

**Cc:** Gardiner, Dawn <[dawn\\_gardiner@fws.gov](mailto:dawn_gardiner@fws.gov)>; Ardizzone, Chuck CA <[chuck\\_ardizzone@fws.gov](mailto:chuck_ardizzone@fws.gov)>; Sherman, Steven <[Steven.Sherman@icf.com](mailto:Steven.Sherman@icf.com)>; Zaccagnino, Jimmy <[Jimmy.Zaccagnino@icf.com](mailto:Jimmy.Zaccagnino@icf.com)>

**Subject:** [EXTERNAL] RE: Transmittal of DRAFT Biological and Conference Opinion Addendum

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Mary,

The terms and conditions section references a "reasonable and prudent measure 3" but the reasonable and prudent measures section doesn't actually have a 3rd measure. What is reasonable and prudent measure 3?

Amy

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**From:** Orms, Mary <[mary\\_orms@fws.gov](mailto:mary_orms@fws.gov)>

**Sent:** Monday, November 13, 2023 2:54 PM

**To:** Zee, Stacey (FAA) <[Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov)>; Hanson, Amy (FAA) <[Amy.Hanson@faa.gov](mailto:Amy.Hanson@faa.gov)>

**Subject:** Transmittal of DRAFT Biological and Conference Opinion Addendum

Good Afternoon Stacey and Amy,

Please see the attached DRAFT Biological and Conference Opinion Addendum for your review and comment. Once we receive your comments and edits are complete we will issue a Final.

Mary