

From: [Russell Bradley](#)
To: [McChesney, Gerry](#)
Cc: [Shore, Jonathan](#)
Subject: RE: Need your input on Farallon Target Viability
Date: Sunday, May 7, 2017 11:08:12 AM
Attachments: [NFWF progress report 11 2016.pdf](#)
[2016-17 SEFI Pinniped Report_V01_RB.docx](#)
Importance: High

Hi Gerry

I will try and help you the best I can with this. But there are challenges, here are my initial thoughts. First of all I'm out here on the island and busy all week without too much time for extra projects. I can give you my best opinion on these but keep in mind this is your process, and whatever info I give shouldn't be interpreted as an official "point blue endorsement". That would likely be difficult to get, and definitely not by your timeline and not without a lot more debate from our end. Higher up the chain There's so much subjectivity in these definitions of what is poor, fair etc. we will still always focus our analysis on actual trends.

On ASSP you should check out this interim progress report we did for NFWF on updated trends (through 2015), more coming on that front and on our revised ASSP paper which is ALMOST done and we should be ready to share soon. On ASSP pop size, I think modelled population size index is better as an overall metric than just CPUE. That is what we are using for updated analysis and the paper. For survival, keep in mind that the trends in survival are an excellent time series to be compared to itself in terms of changes in trend, but the actual values they generate are too low to considered on their own due to low recap rates and some methodological challenges. You have to adjust the survival in the modeling to match pop trends. Examples of those values (see adult values below) would be values you might consider for your survival definitions. This comes from the ASSP/Owl/Mouse paper analysis through 2012.

Table 7. Ashy storm-petrel survival values used to model current conditions with no owl reduction. Four different baseline scenarios are modeled: A) "Observed Steep Decline", 14.4% decline per year; B) "Moderate Decline", 6.10% per year; C) "Moderate Increase", 3.03% increase per year; D) "Historic Decline", 2.86% decline per year; see text and Appendix B for details.

Age	Survival Relative to Adult ¹	Scenario A Survival ²	Scenario B Survival ²	Scenario C Survival ²	Scenario D Survival ²
1	0.72	0.549	0.608	0.672	0.630
2	0.86	0.656	0.726	0.803	0.753
3	0.98	0.748	0.827	0.915	0.858
Age 4-15	1	0.763	0.844	0.933	0.876
16+	0.95	0.725	0.802	0.887	0.832

¹ - Nur et al. 1999a.

² - Adult survival calibrated to produce baseline trend for that scenario

I think your general seabird repro and pop size is ok. How the definitions work is different than pinnipeds though, as it seems like here you are considering single species (which I would argue makes more sense), vs pinnipeds where you are looking at suites of species. For pinnipeds, we do have current trends on all species, see this draft report with my comments in it that Ryan put together. Final draft should be ready soon, you can get from him. But there's tons of stuff in here that can help with that element.

Hope this is helpful, we can talk further on the phone if need be and go back and forth with definitions etc. Lots going on here, and lots of time constraints so I'll try to help the best I can.

Russ

PS. This is a separate issue we can follow up on later but on ecosystem report – separate to pinniped and seabird report, I never received feedback on the design and layout of that in the 2015 version. We all thought that was crucial to get your input on that front before moving forward on those because they were new. We should try and keep them as simple as possible going forward, and budget cuts may impact that as well.

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From: McChesney, Gerry [mailto:gerry_mcchesney@fws.gov]

Sent: Friday, May 05, 2017 5:01 PM

To: Russell Bradley

Cc: Jonathan Shore

Subject: Need your input on Farallon Target Viability

Hi Russ,

We're trying to finish off the target viability worksheet. If you recall, you helped us get this started several weeks ago. We need this wrapped up before our next workshop on May 16.

We've been forced to narrow this down further. Categories are now ASSP pop size, ASSP survivorship, seabird (non-ASSP) repro success, seabird population size, native plant cover and composition, and pinniped population size.

Can you please look this over and provide any comments you have. Keep in mind that what we decide in this process will impact the surveys that are done on the island, so your input is important.

In particular, I'd like you to review:

- Indicator,
- the definitions for Poor, Fair, Good and Very Good condition;
- Scale Information Source,
- Current measure year (should use most recent available)
- Trend (this is best estimate of current trend).
- Goal statement.

I know you're in the field and tough to work on this now, but whatever you can do would really help.

For ASSP pop size and survivorship, we gleaned what we could from the Nur et al. report, but I'm not sure we interpreted the info correctly. The actual estimates were not provided; only models. Is that information more readily available? The values we give now can be modified later, but we're trying to provide the best we can now and at least make sure the method we're proposing makes sense.

For seabird breeding success rating, we debated whether to use current method of comparing annual to long-term mean or going with long-term trend to measure status (basically, the way Sydeman et al. looked at breeding success and identified that WEGU and ASSP were on declining trend). We end up going with current method because that's what we have now, but we could modify if we feel trend is better. One of the hard parts of this is how to identify Poor, Fair, etc. for seabirds as a whole. So I'd appreciate your feedback on this.

For pinnipeds, we decided that best measure for population trend was adult and pup counts during the breeding season. I think this works ok for most but maybe not for Zalophus, which are still mainly a non-breeder and peak numbers are in usually in fall. But since the main one goal is to provide what the minimum survey effort would be, breeding season counts (June-July for most, Jan-Feb for E Seals), that's what we decided on. However, I'm not sure we have current trends for all species. Please take a look. I'm not aware of a 2016 ecosystem report. Is there one?

If you want to go over this on the phone, we can do that. Let me know what would work for you.

Thanks!

Gerry

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