

September 22, 2008

To: Dr. Susan Roberts, Director, Dr. Pete Peterson, Chair, and members, Ocean Studies Board Drake's Estero panel, National Research Council, National Academy of Sciences

From: Dr. Corey Goodman, resident Marshall, CA; member, National Academy of Sciences

RE: **I. NPS scientific misrepresentations to your NRC panel on September 4, 2008 and to the public & press on September 9, 2008 concerning impact of DBOC on seals in Drakes Estero**

Summary of Conclusions

1. The NPS misrepresented their own NPS harbor seal data in their testimony to the Marin County Board of Supervisors on May 8, 2007.

The NPS did not specify the subsite when they claimed an "80% reduction" in harbor seals compared to "two years ago" caused by DBOC on May 8, 2007. The number of seals observed on Saturday May 5th ("around 35") corresponded to sandbar A (which had a maximum of 33 seals). The NPS harbor seal database reveals that this decline unambiguously occurred at sandbar A which is in the wilderness area and outside the oyster lease. The decline had nothing to do with DBOC. NPS correctly described the NPS data on the decline at sandbar A, but they misrepresented their data in claiming that this decline was caused by DBOC.

2. The NPS misrepresented their own NPS data in their Drakes Estero Report on May 8, 2007 and May 11, 2007.

NPS made the same claim of "80% decline" compared to "two years ago" as caused by DBOC. The numbers corresponded to sandbar A. DBOC had nothing to do with decline. According to the NPS harbor seal database, the disturbances at sandbar A were from Park visitors and predators.

3. The NPS misrepresented what they had said and written in May 2007 in their presentation to the NRC Ocean Studies Board panel on September 4, 2008.

The NPS claimed that NPS was referring to subsite OB in May 2007 when all the numbers and dates were consistent with sandbar A. The NPS claimed that they meant three years ago when they said "two years ago". The NPS claimed that they meant an ~ 55% decline when they cited an "80% decline". The NPS did not comment on the fact that they had testified to "around 35" seals at the unnamed subsite on May 5th, when sandbar A had 33 seals and subsite OB had 82. The OB explanation was inconsistent with NPS claims in May 2007. Moreover, there was no major decline in seals at subsite OB in 2007; the decline occurred between 2004

and 2005. This decline was not noted in NPS published harbor seal reports in 2006 and May 2007. What was new in 2007 was the decline at sandbar A, not the decline at subsite OB which took place from 2004-2005.

4. The NPS contradicted what they told the NRC panel on September 4, 2008, and further misrepresented what they had said and written in May 2007 in Neubacher's NPS document to the press and public on September 9, 2008.

On September 4, 2008, the NPS claimed that in May 2007 they had compared the maximum number of seals from 2004 (357 seals) vs. 2007 (157 seals on May 4th) to calculate a ~55% decline. On September 9, 2008, the NPS claimed that they made their comparison from 2004 to 2007 data up to May 3rd but excluded the May 4th data to calculate a ~80% decline for their May 8th testimony and Drakes Estero Report. Excluding the May 4th data allowed them to artificially present numbers at OB from 2004 to 2007 to show an 80% decline. They continued to ignore the fact that on May 8, 2007, NPS testified that they had observed "around 35" seals at the subsite on May 5th, an observation consistent with sandbar A and not OB.

Introduction

Scientific integrity by our government officials is an issue of growing concern to American scientists. The National Academy of Sciences recently helped develop a list of the 14 top science questions facing America, and asked them of both presidential candidates (see ScienceDebate2008.com). Concerning scientific integrity, in question #12, the candidates were asked:

"How will you balance scientific information with politics and personal beliefs in your decision-making?"

McCain: "Denial of the facts will not solve any of these problems. ... I believe policy should be based upon sound science. ... Integrity is critical in scientific research."

Obama: "I will restore the basic principle that government decisions should be based on the best-available, scientifically-valid evidence and not on the ideological predispositions of agency officials or political appointees."

Your NRC Drakes Estero panel was formed in response to serious questions concerning the scientific integrity at Point Reyes National Seashore (PRNS), a unit of the National Park Service (NPS). The issue of predispositions of agency officials arose in May of 2007 when NPS officials made a series of scientific misrepresentations to the public and elected officials. The issue of scientific integrity by government officials was and continues to be the reason I am involved in this issue. As a result of these serious questions, Senator Dianne Feinstein requested that the NPS ask the NRC to investigate the NPS Drakes Estero Report and public testimony in May of 2007. The mission of your panel was later expanded to address broader mariculture best practices in Drakes

Estero and elsewhere.

It was disappointing to see your September 4, 2008 panel meeting become an inadvertent forum for further scientific misrepresentations by the NPS as a way of explaining their May 2007 misrepresentations. As a result, the National Park Service continued its saga of serial misrepresentations of NPS data concerning the impact of Drakes Bay Oyster Company (DBOC) on the harbor seals in Drakes Estero. The Park Service presentations in both the morning and late afternoon became the second public meeting in sixteen months (May 2007 and September 2008) in which the NPS misrepresented their own data. Moreover, NPS misrepresentations of NPS data also now extend to a paper in press in the journal of the Society for Marine Mammalogy -- Marine Mammal Science.

In this letter I will address the NPS afternoon rebuttal of my analysis, and the subsequent NPS document given to the press and public five days later (see enclosure). In a companion letter, I will address the NPS morning presentation and the Becker, Press, and Allen paper (in press in Marine Mammal Science journal). Both topics are closely linked.

Your panel was established to review a series of NPS claims made in May of 2007 – both in writing and in public testimony – of environmental harm to Drakes Estero. The most prominent and most provocative of these claims was that in 2007, DBOC had caused serious harm to the harbor seals in Drakes Estero. This harm to harbor seals was considered so serious by NPS that they informed Supervisor Kinsey, the President of the Marin County Board of Supervisors, that legal action was pending, and one month later NPS contacted the Marine Mammal Commission.

The first of two major scientific misrepresentations occurred in May 2007 in testimony by Superintendent Don Neubacher and Dr. Sarah Allen in front of the Marin County Board of Supervisors. The same misrepresentations were included in Neubacher's NPS Report, "*Drakes Estero, A Sheltered Wilderness Estuary*" (the "Drakes Estero Report") submitted to the Board of Supervisors on May 8th and then significantly revised and uploaded to the PRNS web site three days later, on May 11, 2007. Those misrepresentations from May 2007 are detailed in my September 4th statement before your panel and in the lengthy hand-out I gave to your panel. In brief, Allen and Neubacher claimed that oyster activities had caused an 80% decline in harbor seals at one subsite over a two-year period (2005-2007).

The second episode involved the afternoon five minute presentation by NPS scientist Dr. Ben Becker on September 4, 2008 before your panel. In the late afternoon, at the conclusion of the day-long meeting, NPS requested an opportunity for Dr. Becker to rebut my morning presentation. He said my presentation was inaccurate and then went on to provide an explanation of the NPS data supporting the claim by NPS that oyster activities had caused a 55% to 77% decline in the harbor seals at one subsite over a three-year period (2004-2007). Becker used harbor seal numbers given to him by Dr. Allen in an attempt to refute my analysis and to explain her May 8, 2007 testimony. Becker told your

panel:

“She [Dr. Allen] did not refer to subsite A. I don’t believe any Park Service documents ever have. And then looked at the peak counts in 2007, the peak counts when she was going in, were 157 and 82 and 99. So she saw a decline. If I were Sarah I would have gone in and said, we see a decline of about 55 to 77%, but that’s where her number comes from. OK. I imagine she was running a back of the envelope calculation. So that’s where the OB 80% decline comes from, it’s actually, when I looked at the numbers, it’s actually slightly smaller than 80%.”

Becker essentially said that the Allen testimony 16 months prior was misunderstood and that my criticism was unfounded. Becker was right that neither Dr. Allen nor any NPS document had ever explicitly said that the 80% decline occurred at sandbar A. Based on my analysis of the NPS database, sandbar A was clearly the subsite they had cited. The problem is that NPS had not named the subsite, and for 16 months refused to do so, even when formally queried by a FOIA request. It was only at your panel meeting that Becker on behalf of NPS identified the unnamed subsite as OB. The problem was that the data in the NPS harbor seal database do not support that conclusion. Becker was wrong about OB and shortly after the NAS meeting he came to recognize it.

After the panel meeting completed its work for the day, many participants gathered in the hotel lobby for informal discussions. At the request of Andrea Blum of the West Marin Citizen newspaper (and joined by Tess Elliott of the Point Reyes Light newspaper), Ben Becker and I met and reviewed the NPS claims vs. the NPS database. We were joined by Dr. John Dennis, NPS Deputy Chief Scientist, and Holly Bundock, NPS Deputy Regional Director.

Becker and I, with others observing, reviewed data from the NPS harbor seal database and compared that data to Allen’s and Neubacher’s written and verbal claims from May 8 and 11, 2007. Becker admitted that the May 2007 NPS claims best fit the data from sandbar A, not sandbar OB, leading him to ask me what was Neubacher’s and Allen’s intent?, and why would they have done this?

This was the first time that anyone from the National Park Service sat down and reviewed the data with me. The conclusion was clear: the Park Service claims in May of 2007 were not supported by their own data, and the claims were inconsistent with what Becker had presented an hour earlier to your panel.

Five days later, Becker’s professional candor was overturned when PRNS issued a contradictory public statement. Neubacher’s office distributed to the press a one-page document (which I will refer to as “Neubacher’s September 9 document”) providing yet another new explanation as to how Dr. Allen and Superintendent Neubacher derived their 80% claim in May of 2007. The new explanation contradicted Becker’s September 4, 2008 presentation to your NRC panel. Becker told your panel on September 4, 2008 that Dr. Allen explained her 80% claim using one set of data relying on a maximum count from May 4, 2007,

and then five days later, Neubacher explained to the press that Dr. Allen explained her 80% claim using a different set of data that ended on May 3, 2007 and thus excluding the May 4th data that Becker described to your panel. The NPS story switched over five days to better match their claimed “80% decline”.

Becker’s September 4 statement to your panel and Neubacher’s September 9 document are both inconsistent with the NPS harbor seal database and NPS May 2007 claims, and are even inconsistent with one another. Understanding this pattern of serial misrepresentations require reading the various NPS statements and comparing their words to their data. In the report that follows, I will carefully compare their changing claims and explanations to their own NPS data.

In both episodes – May 2007 and September 2008 – Don Neubacher and his NPS scientists misrepresented their own NPS data both verbally and in writing. What emerges is a pattern of serial scientific misrepresentations by NPS officials to the public, press, elected officials, and in the most recent case, to your distinguished panel of scientists. This raises troubling questions about scientific integrity at the National Park Service.

Understanding how the NPS committed scientific misconduct in front of your NRC panel on September 4, 2008, and five days later on September 9, 2008 to the public and press, requires starting with an overview of what the NPS officials said and wrote 16 months earlier in May of 2007.

NPS Harbor Seal Claims on May 8 and May 11, 2007

On May 8, 2007, the Marin County Board of Supervisors held an important hearing concerning DBOC and Drakes Estero. Supervisor Steve Kinsey, who organized the hearing, wanted his fellow supervisors to unanimously endorse a letter to Senator Feinstein asking for her help in resolving the issue.

NPS Superintendent Don Neubacher appeared at the hearing and testified:

“... the harbor seal pupping area in Drakes Estero is seriously threatened now [from the oyster farm]. Dr. Allen is going to discuss this, but we have some major problems because you can see from your handout that oyster bags have been recently put in pupping areas, you’ll get statistics, but it’s amazing how many pups we have probably lost this year. We have a serious problem right now.”

“ I mean it’s that complex, because now you’re talking about the Marine Mammal Commission -- wrote us a letter this morning, they’re going to take it up. This is a national issue. They’re going to take it up on a national level. Now here’s another reason why the permit is not available at this time.”

NPS Scientist Dr. Sarah Allen appeared next at the hearing and testified:

"The harm [from the oyster farm] is resulting in abandonment of one area where more than 250 seals, including 100 pups two years ago occurred in that spot. This year chronic disturbance and placement of bags on the nursery area has caused an 80% reduction in the seals dropping to around 35 this last Saturday. [last Saturday was May 5, 2007] I was out there on Saturday. This issue has been raised, has been received and recognized by the Marine Mammal Commission and we've received a fax today from the executive director of the Marine Mammal Commission because they've just heard about this which I will provide to you. And they're going to bring it up in their next commission meeting because it has national significance."

At that hearing, NPS Superintendent Neubacher gave the Marin County Supervisors the May 8th version of his Drakes Estero Report (*Drakes Estero: A Sheltered Wilderness Estuary*). [Note: Over the past three years, at least five different versions of the Drakes Estero Report have been publicly distributed.] NPS posted on the its web site a revised version of the Drakes Estero Report three days later, on May 11th. The Report echoed the testimony when it stated:

"One area where 250 seals nursed more than 100 pups two years ago, have around 50 total seals including around 25 pups in 2007, an 80% decline." (both versions)

"In 2007, oyster bags and disturbance have reduced one sub colony by 80%." (May 11th version only)

There are important details in the statements in Neubacher's and Allen's May 8 testimony, and in Neubacher's May 8 & 11 versions of the Drakes Estero Report, that are vital when analyzing the September 2008 claims presented to your panel.

First, neither of the May 2007 statements named the subsite. The first time that NPS named the subsite was in front of your NRC panel on September 4, 2008 when they falsely claimed that they were citing subsite OB.

Second, Allen and Neubacher both claimed an 80% decline in harbor seals at an unnamed subsite in 2007.

Third, Neubacher used words such as "*recently*", "*this year*", "*right now*", and "*In 2007*", which conveyed a sense of urgency, and made the point that the oyster operation had changed in 2007 and had caused "*a serious problem right now*".

Fourth, NPS Allen (May 8) and Neubacher (May 8 & 11) referred to this 80% decline in 2007 compared to "*two years ago*". Two years ago was 2005. They were comparing 2005 to 2007 in both their testimony and Drakes Estero Report.

Fifth, NPS Allen (May 8) stated that she saw "*around 35*" seals at this subsite on Saturday May 5, just three days before the hearing. Allen testified that she was

at the estero on May 5, and conveyed her urgency of the situation as she described the May 5th data.

Sixth, the NPS testimony on May 8, 2007, although it used the words “one area”, nevertheless was ambiguous, failed to define the “area”, and failed to mention that the overall Drakes Estero population was normal in 2007. The NPS officials created the impression on the audience, including the Marin County Board of Supervisors, that they were referring to an 80% decline across the entire Drakes Estero population.

Thus, the key claims by NPS in May 2007 were an:

“80% reduction” in seals due to DBOC at unnamed subsite

“two years ago” dropping to

“around 35” seals at the unnamed subsite on May 5th.

NPS Harbor Seal Claims on September 4 and 9, 2008

At the NRC Ocean Studies Board panel on Thursday September 4, 2008, I presented my analysis showing that the subsite cited by Allen and Neubacher in May of 2007 was consistent with sandbar A. From 2005 to 2007, the number of seals at sandbar A had gone down by over 80%, but this had nothing to do with the oyster farm.

This claim that NPS cited sandbar A is fundamental because:

1. Sandbar A is in the wilderness area, outside the oyster lease, and disturbances at sandbar A come from Park visitors and predators, not from DBOC. No oyster operations occur on sandbar A.
2. All of the numbers NPS cited from 2005 to 2007, including Allen’s observation of around 35 seals on Saturday May 5, 2007, are completely consistent with sandbar A and inconsistent with any one of the other 7 subsites (there are 8 subsites in total in Drakes Estero). That data analysis is contained in the hand-out that I gave the Ocean Studies Board panel on September 4.

I also reported that I had repeatedly asked the NPS for their harbor seal data, including which subsite they had cited. They refused to provide me with the information. In a FOIA request on May 13, 2007 I wrote:

“(1) ... Would you please clarify her [Sarah Allen’s] testimony of what measurement was reduced by 80%?, what site?, compared to what?, and what is the evidence that this reduction is a result of the oyster operation? How does Dr. Allen calculate an 80% reduction?”

The NPS denied that request on June 13, 2007. Between May 8, 2007, and the September 4, 2008 NRC panel meeting, the NPS refused to reveal the basis of their accusation and the data to support it. They refused to identify the subsite.

NPS denied access to critical information needed to support or refute their public accusation. Access to the NPS harbor seal database (1997 to 2007) was provided only after Senator Feinstein insisted on July 21, 2007 that they provide it.

Once I received the NPS harbor seal database on August 13, 2007, I analyzed the data from 2005 to 2007, concluded that they had cited sandbar A, and made my conclusion public, thus challenging the NPS to respond. I published an article in the Pt. Reyes Light newspaper on Sept 20, 2007, and submitted a report to the NRC (and sent the report with a cover letter to NPS Director Bomar, and copied it to Regional Director Jarvis, Superintendent Neubacher, and Scientist Allen) on Dec 18, 2007. The NPS never responded. They never publicly disclosed which subsite. It also appears as if they never told the Department of Interior Inspector General what subsite (as described in the IG Report of July 21, 2008).

The first time the NPS identified the subsite was on September 4, 2008 when Dr. Becker told your NRC panel that they had cited subsite OB. However, the NPS gave one explanation for the subsite OB conclusion to your NRC panel on September 4, 2008 and a different explanation to the press on September 9, 2008.

Interestingly, in the many dozens of documents provided to the NRC panel by the NPS was a previously unavailable version of the Drakes Estero Report marked "*draft - not for distribution or public review*" and dated "*July 27, 2007*".

Senator Feinstein convened a meeting at Olema on July 21, 2007 attended by Bomar, Jarvis, Neubacher, Lunny, myself, and numerous others. At that meeting, Feinstein directed NPS to remove the Drakes Estero Report from the PRNS web site and to issue public corrections to it. On July 23, 2007, the Drakes Estero Report was moved from the PRNS web site. On July 25, 2007, two corrections were posted on the PRNS web site concerning the misrepresentations of oyster feces in the sediments and of changes in fish communities. On July 27, 2007, the NPS prepared a new version of the Drakes Estero Report (5th known version) that only came to light in the documents submitted to your NRC panel. This 5th version to my knowledge is not even referenced in the July 21, 2008 DOI IG report.

In the July 27 2007 version of the Drakes Estero Report, Neubacher specifically removed three conclusions. The first two were the conclusions that were formally retracted two days earlier on the PRNS web site concerning oyster feces and fish communities. The third conclusion included the two statements about the impact of DBOC on the harbor seals quoted above (see page 6) from the May 8 & 11 versions of the Drakes Estero Report that contained the "*80% decline*" claim as caused by DBOC. Both of the harbor seal statements including the seal numbers and the "*two years ago*" comparison were selectively removed.

Thus, on July 27, 2007, and undisclosed to Senator Feinstein, the Marin Supervisors, and the public, Neubacher retracted his claim of an 80% decline in seals due to DBOC. No one outside NPS knew about this retraction from July 2007 until early September 2008. We only learned of this retraction because NPS

submitted this version to the NRC panel one year later. To this date, our community and elected officials still do not know that Neubacher deleted these claims from this version of the Drakes Estero Report dated six days after Olema. Moreover, on September 4, 2008 in front of your NRC panel, and five days later in a PRNS document to the press and public, NPS reinstated these claims.

Dr. Ben Becker's September 4, 2008 explanation of the 80% decline

Towards the end of the NRC panel meeting, the NPS asked for five minutes of time for NPS scientist Dr. Benjamin (Ben) Becker to present a rebuttal to my claim that the 80% decline occurred at sandbar A. Below is a transcription from a tape recording of Becker's 5-minute presentation:

"The first one is subsite A where we see a lot of tension. I just want to go back and derive where that number has been bandied about. The supervisors meeting was back in May 8th I believe is the correct date in 2007, and Sarah Allen went into that meeting with the high count from 2004, which was 359 animals at subsite OB. She did not refer to subsite A. I don't believe any Park Service documents ever have. And then she looked at the peak counts in 2007, the peak counts when she was going in, were 157 and 82 and 99. So she saw a decline. If I were Sarah I would have gone in and said, we see a decline of about 55 to 77%, but that's where her number comes from. OK. I imagine she was running a back of the envelope calculation. So that's where the OB 80% decline comes from, it's actually, when I looked at the numbers, it's actually slightly smaller than 80%.

... And I think I know that Dr Goodman didn't get to really present his data, but I think that the committee got the time to look at it in a version of it from 6 or 8 months ago. But it's very important to understand that he's primarily looked at 2005 to 2007 for effects. And if you look at our data and dataset you'll see that the effects started in 2004. It's kind of like looking at an experiment after the treatment has already begun. And I don't want to characterize the whole dataset that way, because it runs through the whole time period that the oysters, oyster harvest, and harbor seal counts in the estero, etcetera. But we definitely want to make that point."

In 2004, 359 was indeed the high count for seals at OB. In 2007, 157 was indeed the high count for seals at OB (from May 4, 2007). The numbers 157, 82, and 99 seals come, respectively, from Friday May 4, Saturday May 5, and Sunday May 6, just a few days before the May 8th hearing. Becker knew that he should compare a maximum number to a maximum number, and thus the correct comparison of 2004 to 2007 was 359 to 157 which defined a 56% decline at OB from 2004 to 2007.

In summary, Becker told the NRC panel that Dr. Allen referred to 2004 or three years ago, even though in her testimony she stated *"two years ago"*. Moreover, Becker told the panel that she meant an ~ 55% reduction in seals at this subsite, even though in her testimony she cited an *"80% reduction"*.

There were six major problems with Becker's explanation.

First, if Allen realized that she had misspoken about the year and percent decline, then why had she and NPS been silent for 16 months, and why hadn't Becker -- on behalf of Allen and NPS -- admitted that Allen had made a mistake and corrected her year and percentage?

Second, if Allen misspoke, then Neubacher also miswrote, because in both the May 8th version of the Drakes Estero Report and in the May 11th version three days later, Neubacher wrote the same comparison of *"two years ago"* and an *"80% decline"*.

Third, on May 8, 2007, Allen stated that *"This year [DBOC] has caused an 80% reduction in the seals dropping to around 35 this last Saturday."* The May 5, 2007 harbor seal survey forms filled out by observers show a maximum of 82 seals at OB and 33 seals at sandbar A. 33 is *"around 35"*; 82 is not.

Fourth, although the maximum number of seals at subsite OB declined by 56% from 2004 to 2007 (from 359 to 157, and the mean number of seals declined by 66% from 183 to 62), most of that decline occurred between 2004 and 2005 (from a mean of 183 to a mean of 75); there was nothing dramatic about the 2007 number vs. 2006 and 2005 (mean of 62, 88, and 75 respectively). The changes from 2005 to 2007 at subsite OB paralleled what occurred with the Drakes Estero harbor seal population and with seal populations along the northern California coast (see analysis below). The decline at OB from 2004 to 2005 was old news.

Fifth, since the large decline in seals at subsite OB occurred between 2004 and 2005, and not between 2005 and 2007, the NPS has had multiple opportunities to point this out to the public but has never done so. Comments about subsite OB are absent from their published annual harbor seal report in 2006 and from their harbor seal monitoring report in May of 2007 (enclosed, see in particular the graph on page 2 of seal data from 1991 to 2006, and the accompanying text discussing that the 2006 numbers were *"still within the normal range of variation for the past 10 years."*)

Sixth, the NPS has never shown cause and effect. There is no evidence showing that any decline in seals at any subsite is due to DBOC. As Dr. Becker said in response to a question from NRC panel member Dr. Francis O'Beirn at the Sept 4, 2008 meeting: *"I did not mean to imply that there is any relationship to the total population size in the estero declining in relation to mariculture... there is no implication at this point as to the number declining in 2003 to 2007 related to mariculture."*

In May of 2007, Allen and Neubacher stated that the *"80% decline"* in 2007 was compared to *"two years ago"*. Allen stated that there were *"around 35"* seals at the

unnamed subsite on Saturday May 5. As presented in my hand-out to the NRC panel, all of those descriptions perfectly fit sandbar A, and none of them fit OB.

Becker-Goodman meeting on Thursday September 4, 2008

After the Ocean Studies Board panel concluded it's meeting, Ben Becker and I got together at the request of Andrea Blum (the environment reporter for the West Marin Citizen newspaper). We were joined by Tess Elliott (Managing Editor, Pt. Reyes Light newspaper), Holly Bundock (NPS West Regional FOIA Officer), and Dr. John Dennis (NPS Deputy Chief Scientist from Washington).

As in his earlier five minute presentation, Becker began by claiming that Allen had cited OB and not sandbar A. He opened a folder and showed me a piece of paper upon which he had hand written a set of numbers and dates that Allen had given him to show how she had derived the 80% decline in May 2007. Becker said that Allen had given him these numbers over the past day or two – these were the numbers, he told me and the others listening, that Allen told him she had used to derive her testimony for the May 8th hearing. The numbers for OB were: 2004, high 359, and for the recent dates in 2007 prior to the May 8th hearing which represented, according to Becker, the peak of 2007:

5/4/07 = 157

5/5/07 = 82

5/6/07 = 99

Becker said there was a 55% decline from a peak high of 359 in 2004 to 157 in 2007 (actually 56%). I opened up the hand-out I had given to the NRC panel and turned to page 49 which plotted the OB data for 2005 and 2007, and showed Becker that I had plotted the exact same numbers for Apr 30, May 4, May 5, and May 6. Becker agreed that we were using the same NPS data; my dataset was his NPS dataset.

Becker said Allen had compared 2004 to 2007, and that she had meant a 55% decline when she reported an 80% decline. I showed Becker both Allen's May 8, 2007 testimony in which she compared 2007 to "*two years ago*" and Neubacher's Drakes Estero Report from May 8 and May 11, 2007, in which he too wrote "*two years ago*". Becker seemed surprised. Both NPS statements said "*two years ago*". They both said "80%". I took him thru the numbers at sandbar A, and how all of the numbers at sandbar fit what Allen and Neubacher said and wrote for 2005 vs. 2007, but not OB.

I also opened my hand-out to page 10 and showed him Allen's testimony concerning having been out observing the seals on Saturday May 5, and having observed around 35 seals at the unnamed subsite. I reminded him that he had written in his notebook that there were 82 seals at OB on May 5. I showed him that the maximum observed at sandbar A on May 5 was 33 (based on seal survey forms). 33 is around 35, whereas 82 is nearly 2 ½ times 35, I commented. Clearly, Allen's May 5th number was consistent with sandbar A and not OB.

After a few minutes, Becker agreed that all of the claims from early May were only consistent with sandbar A. He then asked:

*"What was their [Allen's and Neubacher's] intent?
Why would they do this?"*

This was a historic meeting and moment – it was the first time that anyone from the NPS had ever met with me to go over the data (I have offered on many occasions). Up until Blum's historic meeting after the NRC panel, NPS had refused any and all meetings, debates, or discussions focused on the science. And once I got Becker to look at the claims vs. the data, he agreed that the claims were only consistent with sandbar A.

Andrea Blum interviewed me on Saturday September 6, 2008 after the Thursday panel meeting. She told me that she had interviewed both Becker and Allen since Thursday, and that Becker backed off of his post-panel September 4 agreement that the claims best fit the data at sandbar A. Moreover, Becker once again claimed that Allen intended to say 2004 vs. 2007. Without me around to point out the claims vs. the data, NPS was back to telling the press that they had not misrepresented their own data. Blum also interviewed Allen, who insisted that I never requested the identity of the subsite by FOIA (I've given you that specific quote from question #1 in my FOIA request; see page 7 above, and page 37 of the hand-out I gave you).

To accept Allen's story as told to Becker, you would have to agree that Dr. Allen in her testimony (using notes at an official public hearing) said the wrong year (she said "two years ago" but meant to say three years ago), the wrong number of seals for the previous Saturday (she said "around 35" but meant to say around 80), and the wrong percentage change (she said "80%" but meant to say 56% compared to the 2004 maximum number). However, all of the numbers she did say were identical to what Neubacher published three days later in the May 11 Drakes Estero Report (when he clearly compared 2005 to 2007), and all are only consistent with sandbar A.

If they meant to cite a different year and different numbers from island OB, they should have formally retracted their claim a year ago. NPS has never publicly and with clarity retracted their May 2007 claims. As shown below, while they can construct an explanation based on subsite OB from 2004 to 2007, the decline at OB occurred from 2004 to 2005; nothing dramatic happened at OB in 2007.

NPS Superintendent Neubacher's September 9, 2008 Document

The two local West Marin weekly newspapers, the Pt. Reyes Light and the West Marin Citizen, are published on Thursdays. Articles are usually closed on Tuesday night, but late-breaking articles often close on Wednesdays. Superintendent Don Neubacher released an unsigned, printed statement to the press on Tuesday from "National Park Service – September 9, 2008" concerning

“NPS background on derivation of 80% decline of harbor seals at subsite OB in Drakes Estero”. In Neubacher’s statement to the press, he wrote:

“NPS relied on the best available information at the time to provide the statements of an 80% decline at subsite OB from 2004-2007. Some factors may have contributed to these statements’ later misinterpretation.”

“NPS selected 2004 as a baseline year because it was prior to the period when oyster harvest began to increase. The NPS stated that a Drakes Estero subsite where seals haul out was impacted by oyster activity in 2007. This subsite is OB, one of three in the upper estero. The oyster company had placed many bags on this sandbar where the seals haul out to give birth, nurse and rest. The estimated decline was based on a comparison of the maximum counts of seals at subsite OB in 2004 and 2007. Based on preliminary review of the data up through May 3, 2007, which coincides with usual peak of pupping season counts, the maximum count at subsite OB in 2004 was 251 adults and 108 pups compared to 65 adults and 19 pups in 2007, a decline of 74% for adults, 82% for pups, and 77% overall.”

“While subsite A data do show dramatic declines from 2005 – 2007, subsite data at OB as of May 3, 2007, were the subject of NPS statements on May 8 and 11, 2007.”

“In a more recent and detailed analysis that will be published shortly in a peer reviewed scientific journal, a comparison of mean counts at subsite OB during 2002-2004 (prior to increasing oyster harvest activities) with 2005-2007 (during increasing oyster harvest activities) indicates a 57% decline in use by adults and a 54% decline by pups at the subsite.”

“The NPS was referring to subsite OB the entire time, and never made reference to subsite A.”

If you read Neubacher’s statement carefully, you will discover that he changed the explanation to the press on Tuesday September 9 compared to Becker’s explanation to the NRC panel the previous Thursday September 4. On Thursday, Becker told us that Allen had given him the numbers from May 4, May 5, and May 6 of 2007, and said she compared the decline from the peak of 2004 (359) to the peak of 2007 on May 4th (157). Becker described this as an ~ 55% decline. After the meeting, Becker showed me his hand-written notes based on his conversation with Dr. Allen in which he wrote down these May 4-6 numbers.

Five days later, Neubacher claimed something very different in writing to the press. He claimed that they only compared the peak from 2004 to the peak at subsite OB as of May 3, 2007, an arbitrary date right in the middle of the pupping season, and conveniently one day before the season high. Neubacher wrote that

these harbor seal data up until May 3rd formed the basis of both Neubacher's and Allen's testimony to the Marin County Board of Supervisors on May 8th, even though Allen testified that day about the data from May 5th. Neubacher claimed on September 9, 2008 to the press that NPS only looked up data until May 3, 2007 to derive the claims in their May 8 testimony and May 8 and May 11 Drakes Estero Report. Neubacher claimed they never reviewed the May 4th data.

This is in contrast to Becker's statement in which he quoted Allen as specifically comparing the peak from 2004 to the peak of 2007 from May 4, 2007. Moreover, Becker showed me the May 4, May 5, and May 6 hand-written numbers in his notebook and said Dr. Allen had given them to him as the explanation for her testimony. Finally, in her testimony, Allen had specifically quoted May 5, 2007. It would seem odd that Allen would testify about May 5, and would be so precise, but would not have looked at the May 4 data for either her testimony, or for the various versions of the Drakes Estero Report that she helped to revise.

To accept Neubacher's explanation, you would first have to believe that 16 months after Allen and Neubacher claimed in early May 2007 an 80% decline compared to two years ago due to DBOC, and after 12 months of articles and reports from me comparing the data from 2005 to 2007 and concluding that they were citing sandbar A, that she told Becker around September 4, 2008 that she had compared the 2004 high of 359 at OB to the 2007 high of 157 on May 4th, while less than one week later she told Neubacher that she had compared the 2004 high of 359 at OB to the 2007 high as of May 3rd and that for the following weeks and months she never again looked at the NPS database for the updated 2007 maximum numbers. NPS would have you believe that for Allen's May 8th testimony, Neubacher's May 8th version of the Drakes Estero Report, and Neubacher's May 11th version of the Drakes Estero Report, neither Allen, nor Neubacher, nor anyone else looked at the data beyond May 3rd. When did they notice the May 4th peak number at OB? Why didn't they correct their claims?

Neubacher was interested enough in the harbor seals in Drakes Estero in April and May of 2007 to ask Allen to get Kristen Truchinski to update him weekly on the number of seals (see page 83 in my hand-out to the panel), yet with the peak pupping season not yet over, Allen and Neubacher told the press on September 9, 2008 that they never again looked at the peak numbers for subsite OB after May 3rd even though on May 8th and May 11th they testified and wrote about the numbers, made strong claims about harm from DBOC, and said it was of "national significance".

In his September 9, 2008 document, Neubacher wrote:

"The estimated decline was based on a comparison of the maximum counts of seals at subsite OB in 2004 and 2007. Based on preliminary review of the data up through May 3, 2007, which coincides with usual peak of pupping season counts, the maximum count at subsite OB in 2004 was 251 adults and 108 pups compared to 65 adults and 19 pups in 2007, a decline of 74% for adults, 82% for pups, and 77% overall."

This statement is misleading, and misrepresents the “usual peak of pupping season counts”. It would have you believe that by May 3rd, the peak had typically been reached such that a “preliminary review of the data up through May 3” was sufficient and no further review was necessary to be able to give official testimony on May 8 and to provide two different versions of an official NPS report on May 8 and May 11. However, the peak pupping season was not over, but rather they were right in the middle of it and could draw no conclusions.

In contrast to Neubacher’s statement, here are the dates of the maximum counts during the peak pupping season at the 4 relevant subsites (UEF, OB, UEN, and A) from the NPS harbor seal database for 2004, 2005, 2006, and 2007:

Apr 9, 19, 24, 25, 28, 30, 30, May 1, 2, 4, 6, 6, 8, 10, 12, and 20.

Over the previous 4 years, there were 9 peak values prior to May 3rd, and 7 peak values after May 3rd. May 3rd was right in the middle of the distribution of peak values, and in 2007, OB had its peak count the very next day on May 4th. Subsite OB had its peak number of seals from 2004 to 2007 respectively on May 1, 2004, April 9, 2005, May 6, 2006, and May 4, 2007. How could they stop looking at the data after May 3rd? The peak at OB on the previous year was May 6th. Their explanation seems constructed to exclude the May 4th data and thus artificially reconstruct a claim of 80% decline at OB between 2004 and 2007.

Neubacher’s Sept 9, 2008 document is inconsistent with what Becker told your NRC panel on Sept 4, 2008. Moreover, if Neubacher was correct on Sept 9, 2008, then you’d have to conclude that based on incomplete data before the peak pupping season was over, that he and Allen alerted the Marine Mammal Commission and made provocative claims to the public and elected officials. And they made claims concerning peak maximum seal data without ever again checking the data since May 3rd (and in particular noting the May 4th data), and without correcting their mistake to the Marine Mammal Commission and Marine Supervisors. And of course, one would have to conclude that Allen forgot that she had not looked at the May 4th data when she gave Becker the numbers for his Sept 4, 2008 presentation, but later “remembered” for Neubacher’s document the next week. Neubacher’s document does not acknowledge the difference from Becker’s explanation the previous week to the NRC panel.

Neubacher wrote on September 9, 2008:

“The NPS was referring to subsite OB the entire time, and never made reference to subsite A.”

This is difficult to accept, since NPS referred to “two years ago”, “80% decline”, and “around 35 seals” at the unnamed subsite on Saturday May 5th. All of the NPS numbers describe sandbar A and not OB, and it was sandbar A, and not subsite OB, that had a serious decline between 2005 and 2007. In his September 9, 2008 document, Neubacher never provided the quotes from the NPS claims in May of 2007, and thus did not deal with the quotes of “two years ago” and “around 35 seals”. Rather, he only dealt with the “80% decline” by manipulating the

numbers, claiming they cited 2004 and not 2005, and claiming that they only counted data up until May 3rd at subsite OB.

Was there a serious decline in harbor seals at subsite OB in 2007?

Clearly sandbar A had an 80% decline in harbor seals from 2005 to 2007. But did subsite OB have an equally serious decline from 2004 to 2007? Had something happened in 2007 to cause a major decline at subsite OB? The answer is no.

The mean number of seals at subsite OB (from April 15 to May 15, the same time peak pupping season period used by Dr. Becker to calculate the mean number of seals for his talk to your panel and for his paper in press) from 1997 to 2007 was 75 seals. In 2005, OB had a mean of 75 seals. In 2006, OB had a mean of 88 seals. In 2007, OB had a mean of 62 seals. The mean of all three years was 75 seals. Below are the mean data from subsite OB from 1997 to 2007.

Year	Mean number of seals at OB (Apr 15 to May 15)
1997	64
1998	15
1999	19
2000	21
2001	36
2002	149
2003	113
2004	183
2005	75
2006	88
2007	62

2004 was a particularly high year for harbor seals at subsite OB with a mean of 183, which is evidently why NPS made their selective comparison of 2004 with 2007 (and exclude the high data for 2007) as the basis for their explanation of how they claimed a 80% decline in May 2007. The drop of mean number of seals at OB from 2005 to 2007 was 17%; the drop in all of Drakes Estero from 2005 to 2007 was 11%. Given the variation from subsite to subsite with the Drakes Estero population, this drop at subsite OB from 2005 to 2007 was within the normal range of variation for the past 11 years, and thus did not rise to the threshold of being worthy of notifying the Marine Mammal Commission and describing it to the Marin County Board of Supervisors as of “*national significance*”.

In my companion letter analyzing the Becker et al. paper, more data analysis are presented comparing OB and the Drakes Estero population and the combined Pt. Reyes National Seashore populations to oyster production from 2004 to 2007. Rather, the NPS numbers and words in May 2007 to describe the 80% decline were consistent only with sandbar A (see my hand-out to the NRC panel).

In summary, the NPS explanation to your NRC panel on Sept 4, 2008 of how they derived their 80% decline in May 2007 was not correct. It was inconsistent with their May 2007 NPS claims. Moreover, the NPS statement to the press on Sept 9, 2008 contradicted their September 4, 2008 presentation to your NRC panel, and also was not correct. Both were misrepresentations.

This false claim of harm to harbor seals is at the heart of the NPS claims against DBOC. In May 2007 and again in Sept 2008, the NPS made serial misrepresentations of their own data concerning the impact of DBOC on harbor seals. In contrast, between those dates and shortly after Feinstein's Olema meeting on July 21, 2007, NPS deleted the claim of an 80% decline in harbor seals from their July 27, 2007 version of the Drakes Estero Report.

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