

October 25, 2008

To: Dr. Susan Roberts, Director, Dr. Pete Peterson, Chair, and members, Ocean Studies Board panel to investigate NPS science concerning Drakes Estero, National Research Council, National Academy of Sciences

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

RE: **Regional Director Jon Jarvis' letter of September 24, 2008 claiming NPS cited subsite OB and not sandbar A**

On September 24, 2008, National Park Service Regional Director Jon Jarvis wrote:

"Enclosed is a brief clarification in response to Dr. Corey Goodman's statements that the NPS was referring to harbor seal count data from subsite A during 2005 - 2007 in Drakes Estero. The clarification explains (1) how the NPS derived the 80% decline figure, (2) that the data were indeed from subsite OB, (3) that the data refer to percent changes from 2004 - 2007, and (4) that the NPS never used data from subsite A."

The four statements (1-4 above) by Regional Director Jon Jarvis in his September 24, 2008 letter to you are false.

His misrepresentations are intended to obfuscate, mislead, and misrepresent the NPS science to your National Research Council panel. His misrepresentations are an attempt to cover-up NPS wrongdoing in May 2007. Jarvis deployed a tactic that is intended to confuse and deceive you, your panel, and the public.

Jarvis' letter is a sad reflection on the way in which NPS officials have misused and misrepresented their own NPS science at Drakes Estero over the past two years. Regional Director Jarvis and Superintendent Neubacher, in their serial misrepresentations of NPS science, violated a long list of public laws, trammled federal, Department of the Interior, and NPS policies and regulations, and failed in their obligation to conduct science at the highest scholarly level as expressly required by NPS policy.

The scientific representations in question all occurred during May 2007, and were intended to influence a hearing of the Marin County Board of Supervisors called by Supervisor Kinsey to ask Senator Feinstein to get involved in this controversy. At the hearing, Superintendent Neubacher explicitly asked them not to seek Feinstein's help. But the Supervisors voted unanimously to approve Kinsey's letter to Senator Feinstein requesting her assistance regarding the NPS claims against DBOC.

In May 2007, NPS officials misrepresented data in their attempt to paint a picture of DBOC causing serious environmental harm to Drakes Estero. They claimed that DBOC was causing serious harm to harbor seals. In September 2008, NPS staff, under the direction of Jarvis and Neubacher, and subsequently Jarvis himself, misrepresented the same data to cover-up previous errors, omissions, and misrepresentations. These NPS misrepresentations did not come from one or two rogue scientists, or some casual mistakes in interpretation. The buck stops at the top. Jarvis and Neubacher are responsible. It was their decisions and actions that drove the misuse of science.

In late April 2007, NPS officials provided these false claims against DBOC to Gordon Bennett (representing the Sierra Club) who made public misrepresentations on behalf of a broader set of organizations of the alleged harm caused by DBOC to the harbor seals in Drakes Estero. In May 2007, NPS Superintendent Don Neubacher and Staff Scientist Dr. Sarah Allen made these same false claims against DBOC in their testimony to the Marin County Board of Supervisors and in their NPs Drakes Estero Report concerning the alleged impact of DBOC on the harbor seals in Drakes Estero (herein called the "May 2007 harbor seal claims"). Bennett and the NPS made the same claims.

However, NPS never anticipated that a scientist and elected member of the National Academy of Sciences would come forth, be in the audience listening to their testimony, would read their reports and articles, and would ask the simple question: can I see the data? Your panel was convened because I vigilantly asked them to show me the data. This is about NPS claims and cover-ups that are not supported by their own NPS data.

Jarvis and his colleagues retracted their May 2007 harbor seal claims in July 2007 and September 2007, but did so in a highly deceptive manner to hide their actions from the public (see sections on July 27, 2007 version of Drakes Estero Report and September 18, 2007 NPS "clarification" document in the chronology at end).

On July 21, 2007, Senator Feinstein held a meeting at Olema in which she insisted that Neubacher remove the Drakes Estero Report from the NPS web site and issue public retractions of some of its more egregious claims. On July 23, Neubacher removed the Report from the web site. On July 25, Neubacher posted a retraction on the PRNS web site of two of the NPS claims: the oyster feces and fish community claims. Neubacher said nothing about the harbor seal claims.

On July 27, 2007, two days after the two retractions were posted, and six days after the Olema meeting, Neubacher deleted three specific claims from a new NPS Drakes Estero Report: the two claims he had retracted two days earlier (concerning oyster feces and fish communities), and the harbor seal 80% decline claim. This new July 27 version was labeled "*not for distribution or public review*", not provided to Senator Feinstein, the Marin County Board of Supervisors, or the public. None of us knew about this secret version of the Report with the retraction of the harbor seal claims until 15 months later when the July 27, 2007

version of the Report was made publicly available on the NRC panel's list of documents posted on the web. For a more detailed comparison of the July 27, 2007 version of the Drakes Estero Report vs. the May 11, 2007 version of the Report, please see the attached powerpoint slides.

At the close of your NRC panel meeting on September 4, 2008, NPS requested additional time to rebut my morning presentation. Dr. Ben Becker spoke a second time at the direction of Jarvis and Neubacher. When Becker took the podium, he re-instated their May 2007 harbor seal claims, something NPS had not publicly done since retracting those claims in July and September 2007. Moreover, he gave the first of three different explanations of what NPS had meant to say and write in May 2007. On September 9, Neubacher gave a 2nd explanation in writing to the local newspapers. Now on September 24, Jarvis has given you a 3rd and equally implausible explanation.

They think that you will not pay attention, that you will get lost in the details, that you don't want to criticize fellow scientists (even though the buck stops with the Regional Director and Superintendent, not their staff scientists), and thus that they can say and do as they wish. But they forget that you are scientists and not politicians, that data and facts do matter, that words have meaning, and that timelines and chronologies reveal patterns and intent.

As Jarvis and his NPS colleagues have attempted to change the meaning of words and the timeline of events, the five critical statements in dispute are:

1. *"Two years ago"* is not three years ago (i.e., 2004 is not 2005 compared to 2007);
2. an *"80% decline"* is not 55% (as in NPS Becker's explanation of what NPS Allen meant to say);
3. *"around 35"* seals at the unnamed subsite on May 5, 2007 includes 33 but does not include 82 (comparing Allen's testimony about May 5, 2007 vs. the number of seals at sandbar A vs. subsite OB recorded on that day, respectively);
4. *"this year"*, *"right now"*, and *"in 2007"* does not describe a change that took place between 2004 and 2005 (at subsite OB) but rather does describe a change that took place between 2006 and 2007 (at sandbar A); and
5. May 4th falls between May 3rd and May 5th (Jarvis gets confused about the calendar when he told the panel at one point that Allen stopped looking at the harbor seal data on May 3rd, but he later told the panel that Allen was on the estero on May 5th to get harbor seal data for her May 8th testimony, knowing full well that they were in the middle of the peak pupping season; Jarvis apparently forgot that May 4th, the date with the annual maximum number of seals at subsite OB, falls right between May 3rd and May 5th, and besides, Jarvis contradicted NPS Becker who explicitly told your panel that Allen used the May 4th data in her analysis).

NPS Regional Director Jon Jarvis' and Superintendent Neubacher's explanations for why they claim Allen and Neubacher cited subsite OB and not sandbar A in their May 2007 testimony and reports are patently untenable. I encourage you to respond vigorously to defend the sanctity of science and the integrity of data.

At their May 8, 2007 hearing, the Marin County Board of Supervisors unanimously approved the submission of a letter to Senator Feinstein requesting her assistance regarding the NPS claims against DBOC. On July 21, 2007, in response to the Marin County Supervisors, Senator Feinstein convened a meeting at Olema to discuss the allegations of scientific misconduct by the National Park Service (NPS) in their claims that Drakes Bay Oyster Company (DBOC) had caused grave harm to the harbor seals in Drakes Estero in 2007. At the conclusion of the meeting, Senator Feinstein and NPS Director Bomar asked that Jon Jarvis (NPS), Tom Moore (California Department of Fish & Game), & me to work together to establish an independent science review, and that three questions be asked.

Feinstein's three questions were:

1. *What is the body of scientific studies on the impact of the oyster farm and surrounding ranches on Drakes Estero, and what have they shown?*
2. *Did the NPS draw the correct conclusions from these scientific studies, and did they present them correctly to the public?*
3. *Have these conclusions about the science impacted NPS decision-making?*

When the Senator asked "*did the NPS draw the correct conclusions*", she was referring to Neubacher's and Allen's testimony and written reports in May 2007. Did they tell the truth, or did they misrepresent the science? Although the NPS initially deleted those questions from your charge, with further input from the Senator, her three questions were ultimately included, albeit diluted by the expanded scope of your charge.

Here are the May 2007 statements for which Feinstein asked "*did the NPS draw the correct conclusions*". The chronology at the end provides a more complete history of the events leading up to and following these statements.

May 1, 2007

The first claim that DBOC had caused serious harm to the harbor seals did not come directly from the NPS, but rather it came from a consortium of local groups led by Gordon Bennett (Sierra Club) who had been given the unpublished data by NPS, according to his subsequent statements (see below). Bennett, the Environmental Action Committee (EAC), and the National Parks and Conservation Association (NPCA) published an article in the Coastal Post newspaper. According the EAC Executive Director Fred Smith, Bennett was the lead author and source of the harbor seal claims in this article. Bennett stated:

"In the past, as many as 300-500 seal pups were born annually in the Estero, 100-200 of which use the middle sandbars. Now that oyster operations have expanded and

oyster bags are placed in seal nursery areas, baby seal numbers on the middle sandbars have been reduced to about fifty in 2006 and less than 10 pups so far in 2007."

Two months later, Bennett repeated the same claims nearly verbatim in an article he published under single authorship in the July 2007 issue of the Sierra Club Yodeler. Where did Bennett get these numbers? Bennett got these numbers from NPS Scientist Sarah Allen. How is this known? In the Department of Interior Inspector General's report of July 21, 2008, Bennett is quoted as saying that he got these unpublished numbers from Sarah Allen.

Bennett, Allen, and Neubacher made similar claims and provided similar numbers in their articles, testimony, and reports in early May 2007. They cited the same unnamed subsite of the eight harbor seal haul-out subsites in Drakes Estero. Their claims were compared in some detail in my summary presentation and the document I provided to your panel on September 4, 2008. Bennett's numbers precisely described sandbar A and not subsite OB. Bennett's numbers were very similar to Allen's and Neubacher's numbers. The data are clear: Bennett, Allen, and Neubacher had all cited sandbar A and not subsite OB.

Bennett referred to the "middle sandbars" in his statement. On slide #4 in Becker's powerpoint presentation to your NRC panel on Sept 4, 2008, Becker graphically defined subsites UEF, OB, & UEN as the "upper" subsites, subsites DBS, DEM, & L as the "lower" subsites, and subsites A & A1 as the "middle" subsites. In his verbal presentation, he called sandbars A and A1 the middle sandbars. In Jarvis' September 24, 2008 document submitted to your NRC panel, he too defines sandbar A as the middle sandbars. Jarvis wrote to you:

*"This subsite is OB, one of the three in the upper estero ..."
"Subsite A, in contrast, is located in the middle of the estero ..."*

Bennett cited the middle sandbars. His numbers were from middle sandbar A. The word "middle" is unambiguous, and Bennett was clear in his use of it.

Why is it important that Bennett, Allen, and Neubacher cited middle sandbar A and blamed the seal decline at this site on oyster operations? This is key because sandbar A is in the wilderness area, is nowhere near the oyster operation, and the disturbances at sandbar A come largely from Park visitors and predators. None of the disturbances at sandbar A came from DBOC.

May 8, 2007

NPS Superintendent Don Neubacher appeared at the May 8th hearing of the Marin County Board of supervisors 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."

The NRC panel should be aware that the Marine Mammal Commission never put this on their calendar and never considered the issue because Neubacher and Allen never provided them with any data or formal complaint as promised. The DOI Inspector General wrote on page 2 of his report on July 21, 2008:

"Further, he [Neubacher] exaggerated the Marine Mammal Commission's role in responding to DBOC's impact on the harbor seal population in Drakes Estero when he spoke before the Marin County Board of Supervisors (MCBS)."

May 8 and 11, 2007

At the May 8th 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 after the May 8th hearing, on May 11th. The Report echoed NPS 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 May 8th and May 11th 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 Jarvis' September 24, 2008 letter to your panel.

First, none of the May 2007 statements named the subsite. Only Bennett's May 1, 2007 Coastal Post article (and his subsequent July 2007 Sierra Club Yodeler article) gave any identification when he called it the "*middle sandbars*". Subsites UEF, OB, and UEN (on sandbar islands shared with the oyster operation) are called the "*upper*" subsites. Sandbar A and A1 are called the "*middle*" subsites, as described to you by Becker in his presentation on September 4, 2008, and by Jarvis in his letter to you on September 24, 2008. Sandbar A is a middle sandbar. Subsite OB is not. Bennett was citing sandbar A, as were Allen and Neubacher. The numbers unambiguously confirm this.

The first time that NPS identified the previously unnamed subsite was in front of your NRC panel on September 4, 2008, 16 months after their initial public claim, when they asserted that they had cited subsite OB in May 2007. They concocted quite an elaborate story to support this claim. In fact, they changed their story in September three times. Becker told you one thing on September 4. Neubacher said something different on September 9. Jarvis told you something still different on September 24. Sixteen months after their initial statements in May 2007, they don't seem to be able to get their story straight.

Second, Allen and Neubacher both claimed in May 2007 an 80% decline in harbor seals at an unnamed subsite in 2007 compared to 2005. In Becker's presentation to you on September 4, he gave one explanation using specific dates and numbers and asserted that Allen meant to say 55%. In Jarvis' letter to you on September 24, he gave a different explanation using different dates and numbers and re-asserted that Allen meant what she said: an 80% decline.

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*". The harbor seals at sandbar A had dramatically declined from 2006 to 2007, but the harbor seals at subsite OB had not. NPS refers to sandbar A as the "*main haul-out*" subsite in Drakes Estero. By 2007, there were very few seals, and even fewer pups, on sandbar A. What had been the main haul-out site for years had transformed to have the fewest seals in 2007. This was at least potentially "*... a serious problem right now.*"

In contrast, Jarvis now wants you to believe that Neubacher was citing subsite OB in May 2007, but subsite OB had not changed from 2005 to 2007. The decline at subsite OB took place between 2004 and 2005, when the number of seals declined from their eleven-year high of 2004 to return to their eleven-year mean in 2005. Evidently this decline back to the mean at subsite OB was of no significance, since NPS made no mention of it in their annual harbor seal reports for the next several years. Nothing dramatic took place at subsite OB in 2007. There was no reason to conclude "*a serious problem right now*" at subsite OB. There was no problem at subsite OB. Yet, this change at subsite OB between

2004 and 2005 became central to Ben Becker's paper in press in Marine Mammal Science as he and his colleagues compared 2002-2004 vs. 2005-2007 at subsite OB and concluded a major decline, and falsely concluded that it correlated with changes in the oyster operation.

Why would Neubacher and Allen have told the Marin County Board of Supervisors that this was of national significance and needed to be taken to the Marine Mammal Commission? There was no national emergency at subsite OB. There was, in contrast, a reason for concern at sandbar A, the historic main haul-out site. NPS was citing sandbar A, not subsite OB.

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. In his September 24, 2008 letter to you, Jarvis gave you an inexplicable explanation for why "*two years ago*" was referring to 2004, not 2005.

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. On May 5, 2007, the NPS harbor seal survey forms record a maximum of 33 seals at sandbar A and 82 seals at subsite OB. The statement "*around 35*" includes 33, but does not include 82. Allen was citing sandbar A, not subsite OB. Again, Jarvis gave you another inexplicable explanation for why Allen said "*around 35*" but was citing subsite OB which had 82 seals. Of course, she was actually citing sandbar A.

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 as defined by the NPS management protocols developed in part by Dr. Allen. 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.

Seventh, there is complete consistency between Bennett's May 1 article in the Coastal Post, Neubacher's and Allen's May 8 testimony to the Marin County Board of Supervisors, and Neubacher's May 8 and May 11 versions of the NPS Drakes Estero Report. In his September 24, 2008 letter to you, Jarvis attempts to raise doubts as to the meaning of their words and intent, and suggests ambiguity in what was said and written in May 2007. But there was no ambiguity: NPS said it clearly, and said and wrote it over and over again. They were comparing a recent change at an unnamed subsite, comparing that change to two years ago, and claimed that the decline was due to the oyster operation. They couldn't have been more clear. However, the unnamed subsite they cited was unambiguously sandbar A, and DBOC had nothing to do with the recent decline at the main haul-out site.

Regional Director Jon Jarvis letter and document submitted to your NRC panel on September 24, 2008

In his letter to Dr. Susan Roberts on Sept 24, 2008, Regional Director Jarvis wrote:

“The clarification explains (1) how the NPS derived the 80% decline figure, (2) that the data were indeed from subsite OB, (3) that the data refer to percent changes from 2004 – 2007, and (4) that the NPS never used data from subsite A.”

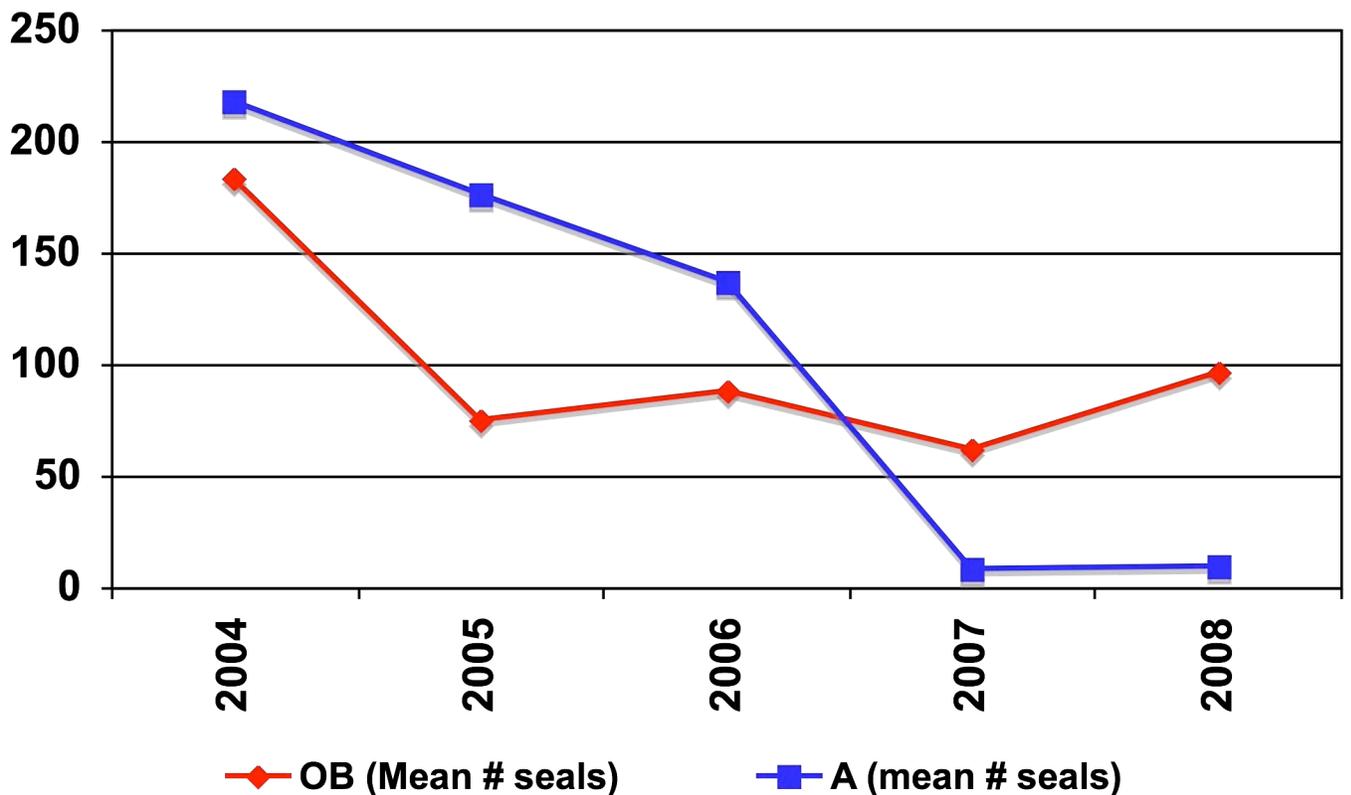
All four of Jarvis’ statements are false:

- (1) the NPS derived the 80% decline by comparing 2005 vs 2007,
- (2) the data were indeed from sandbar A,
- (3) the data refer to percent changes from 2005-2007 (“two years ago”), and
- (4) the NPS did in fact use data from sandbar A.

Let’s assume for a moment that Jarvis is correct, and that Bennett, Allen, and Neubacher all cited subsite OB in May 2007 as Jarvis now insists. Why would they do so? What had happened at OB in 2007 to warrant the statements they made? As shown in the figure on the following page, the mean number of seals at subsite OB dropped from its eleven-year high in 2004 back down to its eleven-year mean in 2005, and then remained relatively constant from 2005 to present. There was no urgent change at subsite OB in 2007, no new impact of DBOC, no sudden loss of harbor seal pups. It is inconceivable that they were citing OB.

Why compare 2004 to 2007 when the change at OB took place from 2004 to 2005? If this change was important, why not mention it to DBOC or CDFG in 2005 or 2006? Why not mention it in the 2006 PRNS Harbor Seal Report? Why not discuss it in the just published 2007 PRNS Harbor Seal Report? Why suddenly claim that the change occurred in 2007? Why is this such a major issue in 2008 when NPS never mentioned it in 2005, 2006, or 2007? Simply said, there is no identifying or triggering event in the NPS harbor seal database or annual Reports published based on that database to warrant their statements if in fact their explanation is correct and they were citing subsite OB.

On the other hand, sandbar A precisely fits all of the numbers and facts cited by NPS and Bennett when they compared 2005 to 2007. Sandbar A fits the number (around 35) that Allen gave for May 5th in her May 8th testimony. It is parsimonious with everything NPS testified and wrote, with one exception: the oyster operations gets nowhere near sandbar A. Sandbar A indeed experienced a dramatic drop from 2005 – 2007. According to the NPS harbor seal database, the disturbances came from Park visitors and predators, not DBOC. According to several participants, Sarah Allen affirmed this fact on the September 5, 2008 boat trip on the estero organized by your NRC panel.



The graph above shows the mean number of seals during peak pupping season (as defined by Becker et al. from April 15 – May 15) at subsite OB (red) and sandbar A (blue) from 2004 to 2008 based on NPS harbor seal database. The graph shows the decline in the mean number of seals at subsite OB between 2004 and 2005, and the decline in the mean number of seals at sandbar A between 2006 and 2007. When Neubacher and Allen testified on May 8, 2007 about a “... serious problem right now” and talked about recent changes in the oyster operation in 2007 leading to the seal decline, they were citing sandbar A. Jarvis’ explanation that they cited subsite OB is inconsistent with the NPS data as plotted on this graph.

Let’s take a look at some of the statements made by Jarvis in his September 24, 2008 letter to you. Each of the statements in quotes below comes from the Jarvis document.

“NPS was using a baseline year of 2004 when referring to “two years ago.””

False. Two years ago means two years ago. The NPS testimony and reports are clear. Compared to 2007, two years ago was 2005, not 2004.

“Furthermore, at the time of testimony and reports, NPS had complete (full pupping season) data only up through 2006, thus, two years prior was indeed 2004.”

False. This is a convoluted argument. Neubacher and Allen cited 2007 numbers in their testimony and reports, and compared the 2007 numbers to two years ago. Jarvis’ assertion is in conflict with NPS testimony.

“The NPS stated that a subsite within Drakes Estero where seals haul out and not the entire Drakes Estero colony was impacted by oyster activity in 2007.”

Misleading. The NPS testimony on May 8, 2007 to the Marin County Board of Supervisors was vague and created the impression that they were talking about the entire Estero. They were misleading the community to believe that there was a serious problem with the estero when there was not. The NPS has never clarified any of their May 8, 2007 statements to the Marin County Supervisors.

The problem for NPS is that they cited numbers from sandbar A, a middle sandbar and major haul-out site, and didn't expect that anyone would ask to see the data. If they had cited subsite OB and not sandbar A, then why did they refuse to answer my question of which subsite in my May 13, 2007 FOIA request? What not tell the public what subsite they cited? Why refuse to tell the community what subsite they cited for 16 months? And now, why make up such a preposterous explanation to claim they cited subsite OB when they clearly cited sandbar A?

“This subsite is OB, one of the three in the upper estero ...”

“Subsite A, in contrast, is located in the middle of the estero ...”

Agreed. On one point we are in agreement: sandbar A is a middle sandbar. Bennett, in his published articles on May 1, 2007 and July 2007, cited the “middle sandbars” and thus cited sandbar A. And Allen and Neubacher did the same. All the data came from middle sandbar A. Becker (on September 4, 2008 in his presentation to your panel) and Jarvis (in his September 24, 2008 letter to you) finally confirmed what I said for over one year now. Sandbar A is called a middle sandbar. NPS cited middle sandbar A, the main haul-out.

“The 80% decline stated by NPS in testimony, therefore, refers to the declines seen at OB between the observed pupping peak of 2004 and that of formal observations through the peak as of May 3, 2007.”

False. Jarvis gave a strained explanation for why Neubacher and Allen stopped looking at the data after May 3rd. Jarvis tells us correctly in his letter that the maximum number of seals for a given pupping season is often not reached until later in May. May 3 is right in the middle of the weeks in which peak numbers are typically reached. Jarvis confirms this when he wrote:

“Previous peak dates for the OB subsite for years 1997 – 2006 were: 4/26, 5/10, 5/4, 4/18, 4/29, 4/30, 5/3, 5/1, 5/3, and 5/6, respectively.”

Thus, why did NPS stop with May 3? Why didn't NPS look at May 4? They testified on May 8. They published a new version of the Drakes Estero Report on May 11. Didn't they wonder about the data from May 4-8 or May 4-11?

Weren't they curious? Of course they were. Sarah Allen hiked out (over a 30

minute hike) on Saturday May 5, the Saturday before the Tuesday May 8th hearing, to count the seals for herself "... to confirm that the seal counts were still low while she prepared testimony" for May 8th, as described by Jarvis in his letter. She collected her own data for May 5, but she never looked at the May 4th data? The NPS analysis of their own data stopped abruptly on Thursday May 3rd, even though they knew they were right in the middle of the peak pupping season?

If this story is correct, then Jarvis is essentially saying that the PRNS Superintendent and staff scientists didn't intentionally misrepresent their data, but rather that they were incompetent. He is saying that they gave public testimony without checking the numbers, and never corrected their errors. This explanation is preposterous. Neubacher was so interested in the number of seals that he had Kristen Truchinski, Harbor Seal Coordinator, email him the weekly numbers, as she did on May 1, as instructed to do so by Sarah Allen. Truchinski wrote that Allen had directed her to keep Neubacher updated on Estero harbor seal counts. And the numbers appeared to be entered in the database in a timely fashion. On May 1, Truchinski provided all of the data for the previous week (April 22-29). The database management protocols state that data should be entered in a timely fashion. Did the system break down after May 3?

"The NPS statement in testimony "down to around 35 this past Saturday" was based on an informal observation by Dr. Allen on Saturday, May 5, 2007 to confirm that the seal counts were still low while she prepared testimony. The information observation was made from Estero Trail (not the standard observation site for seal surveys), focused only on the sand bars in the upper estero, and therefore, was not considered a survey."

Irrelevant. It doesn't matter whether Allen's counts were considered a formal survey or not. It doesn't matter if it was informal. She is the harbor seal expert with 25 years of experience. She went out there with the intention of counting the seals during low tide to see if the number of seals was still small. She went out to the estero to get seal numbers for her testimony. She testified to what she observed. She claimed that she hiked out to where she could count the number of seals at low tide. That is over a 30-minute hike. Are we to believe that Allen's counting abilities with binoculars are so poor, or the observer for that day so poor, that the observer counted 80 and 82 seals respectively at two different time points during low tide at subsite OB, but Allen only counted around 35? Yet, the observer counted 33 seals at sandbar A. And if Allen doubted her own numbers, why didn't she look at the database or contact the observer? The observed counted 82 seals at OB on May 5, just as the observed counted 157 seals at OB on May 4. This is an implausible explanation.

"The Park assumed that the peak pup count for the season had been reached on April 23, 2007 based on the subsequent low numbers later that week. However, the actual peak count for the season occurred on May 4, after very low numbers had been observed for several preceding days. This count occurred later than

expected and did not fit the typical bell-shaped curve, and the data were not received before preparation of the testimony on May 8. With a volunteer monitoring program, data sheets are not necessarily received or entered into the database on the day of the survey."

Not credible. Why would the NPS scientists assume that the peak count had been reached by April 23, 2007? That would have been the second earliest date for the peak number at OB in the 11 years since 1997. A casual inspection of the NPS harbor seal database from previous years to see that counts go up and down at all eight subsites. Just because the counts went down for a few days after April 23 did not mean that the peak had been reached. Sarah Allen has been observing and counting these harbor seals for over 25 years. She knows that the numbers go up and down, and that the peak is often not reached until the first two weeks of May. Her own NPS data shows that. This notion of claiming that they could fit a typical bell-shaped curve is a misleading attempt by Jarvis to confuse the reader. Why all this fussing with a bell-shaped curve to convince themselves that the peak season was over? Figure 1 in the Jarvis document shows the numbers at subsite OB for each observation date during the 2007 pupping season. The numbers prior to May 4 simply do not fit a statistical bell shape curve, nor is there any reason in the literature to suggest that they should stop looking at their own database simply because of relatively low counts on three dates (4/25, 4/29, and 4/30) after a higher count on a previous date (4/23). There are plenty of examples of such fluctuations from day-to-day at the eight subsites in the NPS harbor seal database over the past decade. Wouldn't it have been easier to simply look at the data from May 4, 5, & 6 from the database on their computers?

On Tuesday May 1, all of the data was already in the database for the previous week. Jarvis is now claiming that on Tuesday May 8, the data for Friday May 4, Saturday May 5, and Sunday May 6 was not in the database, and that neither Allen nor Neubacher could contact the volunteers to find out their numbers. My answer is simple: let's see some documentation on the date of entry into the database. Allen was interested enough to hike out to the estero on May 5 to count the number of seals for herself, but she wasn't interested enough to find out the actual numbers for May 4, 5, and 6. This is not a credible explanation.

This explanation from Jarvis is completely inconsistent with what Dr. Ben Becker told you panel on September 4, 2008. Jarvis asked for extra time in the afternoon for Becker to rebut my arguments. He told you that Allen compared the high from 2004 to the high from 2007 (three years ago instead of two years ago). He said that the high from 2007 was 157 which is the number of seals from subsite OB on May 4. He also quoted 82 and 99, the number of seals at OB on May 5 and May 6.

After the meeting was over, Becker and I participated in an informal meeting with NPS Deputy Chief Scientist Dr. John Dennis and Holly Bundock as the request of a local newspaper reporter. Also present was the Editor of a different local newspaper. Becker told me, in front of the two NPS officials,

that he got these numbers for the seals on May 4, 5, and 6 from Allen. He showed me his notebook where he wrote down the numbers that Allen gave him. He confirmed that she compared the maximum from 2004 (357 seals) vs. the maximum from 2007 (157 seals on May 4) and found a 55% decline. I showed Becker the precise quotes from Allen at the May 8, 2007 hearing, and from Neubacher's Drakes Estero Report. He agreed that these quotes were inconsistent with the explanation he had just given, in that they referred to data from 2007 compared to "two years ago" which was 2005. He agreed that their quotes were consistent with sandbar A. He asked me: "Why would they do this?"

In other words, on September 4, 2008, the NPS story, from Allen to Becker, was that Allen compared three years ago, not two years ago, and was talking of a decline of 55%, not 80%, when she compared the high from subsite OB in 2004 of 359 seals to the high from 2007 of 157 seals on May 4.

Then, in his letter to you on September 24, 2008, Jarvis told you a different story. He said that Allen actually stopped looking at the data on May 3, and thus conveniently did not look at May 4, even though she went out to count the seals on May 5 (and got the number distinctly wrong – around 35 instead of 82). Jarvis told you that she actually derived 80%, not 55% as Becker reported to you. And of course both stories – from Becker and from Jarvis – require that you accept their concocted explanation for how "two years ago" became three years ago.

Summary

The core explanation advanced by Jarvis is that in the spring of 2007, Superintendent Neubacher and his staff scientists at PRNS were incompetent, stopped paying attention to the numbers in their database after May 3, and communicated ineffectively with elected officials and the public. If true, as the Regional Director, Jarvis did nothing to correct the problem. For 16 months, he refused to even answer the simple question "what subsite?" He never corrected the record. He never corrected their statements with the Marin County Board of Supervisors, other elected officials, and public.

Thus, in claiming that his Superintendent and scientists did not intentionally misrepresent their own NPS science to elected officials and the public, Jarvis defends the NPS by saying that his officials and staff are poor scientists and poor communicators. He would rather you conclude that his Superintendent and scientists are incompetent than admit that he and his Superintendent misrepresented the data.

As an elected member of the National Academy of Sciences, I find the NPS explanations insulting to the NPS scientists, insulting to this panel, and insulting to the community. I am saddened by my government's misuse of science. I am saddened by their blatant and intentional misuse of science. And I am upset that

they are using taxpayer dollars to direct officials and staff to come up with these sorts of concocted explanations and dubious analysis.

In response to a request from NPS Scientist Sarah Allen in July 2007 to help edit her "response to Goodman" report (later called the September 18, 2007 "clarification" document), NPS Visiting Chief Scientist Gary Davis suggested in writing on July 12, 2007 that Allen include:

"Science is a guiding principle of the National Park Service."

That sentence – and its lofty goal – became the first sentence of Allen's conclusions in one draft of the NPS document, but ultimately it got deleted from the final document, just as it got ignored by NPS decision-makers considering Drakes Estero. Honest science has not been the guiding principle at the NPS, but rather it was replaced by Regional Director Jarvis' and Superintendent Neubacher's pre-determined agenda to claim that DBOC was causing serious harm to the environment of Drakes Estero, including in particular the harbor seals.

In the summer of 2006, the NPS formally updated and adopted their "Management Policies, 2006, National Park Service". Their second general principle addresses "Scientific, Technical and Scholarly Analysis" and states:

"Decision-makers and planners will use the best available scientific and technical information and scholarly analysis to identify appropriate management actions for protection and use of park resources."

In the introduction, the document states:

"This volume is the basic Service-wide policy document of the National Park Service. Adherence to policy is mandatory unless specifically waved or modified by the Secretary, the Assistant Secretary, or the Director."

Superintendent Neubacher failed to follow that principle. Decision-makers did not use the best available scientific information, but rather misused science.

Your panel was convened at the request of Senator Feinstein to investigate the allegations of scientific misconduct by NPS concerning DBOC and Drakes Estero. Neubacher and his staff misrepresented the science. They did so repeatedly. Their serial misrepresentations were intentional. NPS misrepresentations included falsification, fabrication, and selective omission. Jarvis has continued this pattern of serial misrepresentations in an attempt to cover-up the original scientific misconduct. All of this happened because a pre-determined agenda rather than good science became Jarvis' and Neubacher's guiding principle. Jarvis and Neubacher violated the NPS Service-wide policy.

A brief chronology

April 5, 2007

Superintendent Don Neubacher met with Marin County Supervisor Steve Kinsey. Kinsey told Kevin Lunny (owner, DBOC) on Apr 11 that Neubacher made "*strong environmental accusations*" against DBOC including claiming that he had data of harm to harbor seals by DBOC. Kinsey told Lunny that Neubacher claimed that DBOC "*committed environmental felonies*".

As of April 5, 2007, Lunny had owned DBOC for 2 1/2 years. The NPS harbor seal database (obtained on August 13, 2007) recorded over 2000 seal FW's (flushed into water, the most serious disturbance) during the seal pupping seasons from 2005 until April 5, 2007, but not one of them had been caused by DBOC. As of April 5, 2007, when Neubacher made his strong claim to Supervisor Kinsey, there were no NPS data to support Neubacher's claim of harm to harbor seals by DBOC.

April 11, 2007

Kinsey informed Kevin & Nancy Lunny and Feinstein's office of Neubacher's accusations & threats to bring criminal & civil cases against DBOC (see above).

April 24, 2007

NPS Scientist Dr. Sarah Allen emailed Joe Cardaro of NOAA. Writing in response to his request for data showing harm to harbor seals by DBOC, Allen admitted that she and NPS had "*no direct observations*" of DBOC causing seal disturbances. She was right – the NPS database had record of no FW's by DBOC as of April 24, 2007.

April 26, 2007

Allen published a first-authored article in the Pt. Reyes Light newspaper claiming that DBOC had recently put oyster bags in pupping areas and as a result seal numbers had dropped dramatically. The NPS database reveals that as of April 24, 2007, when he would have submitted the final version of her article for publication, Allen he had no such data of cause & effect. Her email to Cardaro on the 24th confirms the same: "*no direct observations*".

On the same day as Allen published her article in the local newspaper, she also authored her "Trip Report" describing the first FW's caused by DBOC in the 2 ½ year history of ownership of DBOC by Lunny. Her alleged observations occurred in the late afternoon. A "Trip Report" was not normal protocol. Her observations were not entered onto normal forms. Her data was not entered (as protocol specifies) in the QA/QC NPS database as provided to me nearly three months later on Aug 13, 2007. DBOC records show that the boat engine was broken that day and being repaired, and that the oyster workers had already clocked out and gone home when some of the disturbances were alleged to have occurred. The events could not have taken place as described. Neither Allen nor Neubacher mentioned the April 26 Trip Report at the May 8 hearing. This trip report is suspicious. After a formal complaint about the April 26 Trip Report

was filed by Lunny on Sept 27, 2007, the NPS nevertheless entered the April 26 Trip Report into revised NPS database given to Goodman on January 16, 2008, further violating their data management protocols. These data were used in Becker's paper in press in Marine Mammal Science journal.

April 29, 2007

This is the date of the first entry in the Aug 13, 2007 version of the NPS database of five FW's caused by DBOC during the 2 1/2 year ownership by Lunny of DBOC. On the same day, 55 FW's were caused by Park visitors. But this disturbance record is also suspicious. April 29, 2007 was a Sunday. Oyster harvesters rarely work on Sundays. DBOC records show that only one employee was working that day, and she was selling oysters at the onshore commercial sales counter. No one was out on the estero. Even if it had been a true record of a disturbance, which I doubt, then as of April 29, 2007, DBOC would have caused 1/500th of the FW's of harbor seals in Drakes Estero recorded in the NPS harbor seal database from 2005 to 2007. But DBOC records show no one working on the estero on that Sunday.

May 1, 2007

Gordon Bennett (Sierra Club) & the Environmental Action Committee (EAC) published an article in the Coastal Post newspaper. Bennett stated:

"In the past, as many as 300-500 seal pups were born annually in the Estero, 100-200 of which use the middle sandbars. Now that oyster operations have expanded and oyster bags are placed in seal nursery areas, baby seal numbers on the middle sandbars have been reduced to about fifty in 2006 and less than 10 pups so far in 2007."

Two months later, Bennett repeated the same claims in an article he published in the July 2007 issue of the Sierra Club Yodeler. Where did Bennett get these numbers? From NPS Scientist Sarah Allen. How do I know that? Because in the Department of Interior Inspector General's report of July 21, 2008, Bennett is quoted as saying that he got these unpublished numbers from Sarah Allen.

As I previously described in my presentation to you, and in the hand out I provided you on September 4, 2008, Bennett, Allen, and Neubacher made similar claims and gave similar numbers in their articles, testimony, and reports in early May 2007. They were citing the same subsite (of the 8 harbor seal haul-out subsites in Drakes Estero). Bennett's numbers precisely described sandbar A and not subsite OB. Bennett's numbers were very similar to Allen's and Neubacher's numbers. Bennett got his numbers from NPS. Bennett referred to the "middle sandbars". In slide #4 in Becker's presentation to the NRC panel on Sept 4, 2008, he graphically defined subsites UEF, OB, & UEN as the "upper" subsites, subsites DBS, DEM, & L as the "lower" subsites, and subsites A & A1 as the "middle" subsites. In his verbal presentation, he called sandbars A and A1 the middle sandbars. In Jarvis' September 24, 2008 document submitted to your NRC panel, he too defines sandbar A as the middle sandbars. Jarvis wrote to you:

"This subsite is OB, one of the three in the upper estero ..."
"Subsite A, in contrast, is located in the middle of the estero ..."

Bennett cited the middle sandbars. His numbers were precisely middle sandbar A.

Why is it important that Bennett was citing sandbar A? Because sandbar A is in the wilderness area, is nowhere near the oyster operation, and the disturbances at sandbar A come largely from Park visitors. None come from DBOC.

Also on May 1, 2007, NPS Kristen Truchinski, Harbor Seal Coordinator, emailed Superintendent Neubacher, saying Allen had asked her to keep Neubacher updated on Estero harbor seals. Truchinski provided data for previous week (April 22-29). The NPS database contained records for 4 days that week (4/22, 4/23, 4/25, 4/29) and she updated Neubacher. The maximum counts for seals and pups were relatively normal. She mentioned the 4/29 data on seals flushed by an oyster boat (see above). She mentioned numerous clammers and hikers flushing seals. But she made no mention of Allen's 4/26 Trip Report or Allen's 4/26 data which were absent from the NPS database. This email shows how intensely Neubacher and Allen were keeping up with the harbor seal data on a weekly basis.

May 8, 2007

Superintendent Neubacher & Dr. Allen testified to the Marin County Board of Supervisors. Neubacher also submitted to the Supervisors the May 8th version of the NPS Drakes Estero Report (*Drakes Estero: A Sheltered Wilderness Estuary*). Neubacher testified:

"... the harbor seal pupping area in Drakes Estero is seriously threatened now. ... 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."

"... Marine Mammal Commission -- wrote us a letter this morning, they're going to take it up. This is a national issue."

Allen testified:

"The harm is resulting in abandonment of one area where more than 250 seals, including 100 pups 2 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. I was out there on Saturday. This issue has been ... recognized by the Marine Mammal Commission ... it has national significance."

As I previously described in my presentation to you, and in the hand out I provided you on September 4, 2008, Bennett, Allen, and Neubacher made similar claims and gave similar numbers in their articles, testimony, and reports in early May 2007. The data are unambiguous: they were all citing sandbar A. Only sandbar A had an 80% decline from 2005 to 2007, only sandbar A had around 25

seals on Saturday May 5, and only sandbar A had the numbers of seals they describe for 2005 and 2007.

The morning of May 8, 2007 is also the date of the only other record in the NPS harbor seal database of disturbances to seals caused by DBOC. This record is also suspicious. At precisely 8:45 am, a single boat is described as havbingt simultaneously disturbed seals, and caused FW's, on three different islands (UEF, OB, and UEN) were are only one mile apart. This seems physically impossible. This disturbance entry into the NPS database is also suspicious.

May 11, 2007

Three days after the Marin County Board of Supervisors hearing, at which time Neubacher gave the Supervisors a new May 8th version of the Drakes Estero Report, Neubacher posted on the NPS/PRNS web site yet another revised May 11th version of the NPS Drakes Estero Report. This version had a new harbor seal conclusion.

Both the May 8th and May 11th versions have the following statement:

"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."

Only the May 11th version has the following conclusion:

"In 2007, oyster bags and disturbance have reduced one sub colony by 80%."

Thus, NPS concluded that DBOC caused an 80% decline of seals in 2007 at one subsite compared to "*two years ago*". The numbers and years precisely describe sandbar A. This is unambiguous. Sandbar A is in the wilderness area and far away from the oyster operation. DBOC caused no disturbances at sandbar A.

May 2007

Allen published the May 2007 NPS Harbor Seal Monitoring Report with no mention of the oyster farm causing disturbances;. This May 2007 harbor seal report was very similar to the NPS 2006 Report, and vastly different from Allen's and Neubacher'[s May 8th testimony and Neubacher's May 8th and 11th versions of the NPS Drakes Estero Report.

May 13, 2007

I sent a FOIA request to Superintendent Neubacher. Question #1 in my FOIA request referenced Dr. Allen's May 8 testimony to the Marin Supervisors hearing in which she said that oyster operations had caused an 80% decline in seals at one subsite. I asked:

"(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?"

June 13, 2007

Regional Director Jon Jarvis denied my FOIA request asking which subsite had the 80% reduction as claimed in Allen's May 8 testimony. He wrote:

"With respect to your May 13 request item (1), an individual may only obtain access to records written or transcribed to perpetuate knowledge or events. Therefore, the FOIA neither requires an agency to answer questions disguised as a FOIA request nor create documents or opinions in response to any individual's request for information."

July 21, 2007

Senator Dianne Feinstein convened a meeting at Olema to discuss the allegations of scientific misconduct by the National Park Service (NPS) in their claims that Drakes Bay Oyster Company (DBOC) had caused grave harm to the harbor seals in Drakes Estero in 2007. In attendance, amongst others, were NPS Director Mary Bomar, Regional Director Jarvis, Superintendent Neubacher, Kevin Lunny, Supervisor Kinsey, myself, and others. Senator Feinstein asked that NPS Jarvis, California Department of Fish & Game Tom Moore, & I establish an independent science review, and three questions be asked. Feinstein's three questions were:

1. *What is the body of scientific studies on the impact of the oyster farm and surrounding ranches on Drakes Estero, and what have they shown?*
2. *Did the NPS draw the correct conclusions from these scientific studies, and did they present them correctly to the public?*
3. *Have these conclusions about the science impacted NPS decision-making?*

When the Senator asked "*did the NPS draw the correct conclusions*", she was referring to Neubacher's and Allen's testimony and the two versions of the Drakes Estero Report from May 2007. Did they tell the truth, or did they misrepresent the science? Although the NPS initially went to the NRC to establish the panel without me or Moore, and deleted Feinstein's questions from your charge, with further input from the Senator, her three questions were ultimately included, albeit diluted by the expanded scope of your charge.

The Senator also insisted that NPS provide me with a copy of the NPS harbor seal database within two weeks (they had previously denied me access to the database as requested by FOIA). She also insisted that they remove the Drakes Estero Report from the PRNS/NPS web site, and that they post retractions and corrections of it.

July 23, 2007

As requested by the Senator on July 21, Superintendent Neubacher took the NPS Drakes Estero Report off of the PRNS/NPS web site on Monday July 23, 2007.

July 25, 2007

As requested by the Senator on July 21, Superintendent Neubacher posted two corrections to the NPS Drakes Estero Report on the PRNS/NPS web site on Wednesday July 23. The Senator asked Neubacher to consult with me about the

corrections, which he did not. He only retracted the two claims that featured prominently in my May 29, 2007 report to the Marin County Board of Supervisors. Neubacher retracted the claim that oyster feces are the primary source of sediment as shown by a USGS researcher (false), and that the oyster operation in led to a different fish community in Schooner Bay (false). I did not yet have the NPS harbor seal database, and thus had not yet analyzed their false harbor seal claims. As a result, Neubacher did not retract the harbor seal claims.

July 27, 2007

Unknown to us until submitted to your NRC panel, a new version of the Drakes Estero Report was prepared and dated Friday July 27, 2007, less than one week after Feinstein's Olema meeting. It is labeled: "DRAFT – NOT FOR DISTRIBUTION OR PUBLIC REVIEW". Nevertheless, it is now public because it was provided to your panel. I have included with this document the four powerpoint slides I presented to you and provided in my hand out on September 4, 2008. I was being rushed to finish up at that point in my presentation, so I encourage you to take a fresh and careful look at these pages. In this July 27, 2007 version, Neubacher deleted three claims from the list of conclusions of "oyster farming impacts on the ecological communities of Drakes Estero". Neubacher deleted the oyster feces conclusion, the fish community conclusion, and the harbor seal 80% decline conclusion. Here are the three deleted conclusions from May 11th to July 27th.

"A USGS researcher stated that a source for sediment fill in the estero was from oyster feces and from structures trapping sediment." (deleted)

"Schooner Bay, where there are many oyster racks, supported a different fish community than Estero de Limantour where no mariculture occurs." " (deleted)

"In 2007, oyster bags and disturbance have reduced one sub colony by 80%." " (deleted)

Moreover, in an earlier section of the text, in the July 27th version, Neubacher deleted:

"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." " (deleted)

Thus, knowing that these claims were false (i.e., were describing sandbar A which had no oyster operation), knowing that I was interested in pursuing the veracity of these claims (I had already asked for the identity of the subsite cited by FOIA request and been denied by Jarvis), and knowing that they were about to give me a copy of the NPS harbor seal database (as insisted upon by Senator Feinstein), the NPS deleted the harbor seal claim from the non-public draft version of the NPS Drakes Estero Report. In other words, on July 27, 2007, they retracted their May 2007 harbor seal claims, but they never told the public or its elected officials. This was a secret retraction.

September 18, 2007

The NPS also retracted the May 2007 harbor seal claims in their September 18 "clarification" document entitled: *NPS Clarification of Law, Policy, and Science on Drakes Estero*. The unsigned "clarification" 18-page document was released to the public on September 18, 2007 by Jarvis and Neubacher. The "clarification" document never mentions the May 2007 harbor seal claims. It never claims an 80% decline in harbor seals at one subsite in 2007 due to DBOC. Rather, it states:

"More focused analyses are required to determine if oyster operations are affecting seal distribution and productivity within Drakes Estero. The overall Drakes Estero and regional population declined in 2007, but not necessarily in response to the oyster farming operation."

Thus, the May 2007 harbor seal claims that were of national significance disappeared both from the July 27, 2007 Drakes Estero Report and from the September 18, 2007 "clarification" document and were replaced by a statement saying that "... the overall Drakes Estero and regional population declined in 2007, but not necessarily in response to the oyster farming operation." That was a dramatic retraction.

December 18, 2007

I submitted a 77-page document to the NRC, and sent copies to Bomar, Jarvis, Neubacher, and Allen, describing the case for scientific misconduct by the NPS. In that report is a detailed analysis of why their May 2007 harbor seal claims cited sandbar A, and why this had nothing to do with DBOC. The NPS was given plenty of opportunity to respond and rebut my analysis. I asked NPS Director Bomar to open an ethics investigation of these false claims. NPS never responded. From December 18, 2007, until your panel meeting on September 4, 2008, the NPS never responded to my conclusion that Allen and Neubacher (and Bennett) had cited sandbar A with their numbers in May 2007. Only silence.

July 31, 2008

On June 13, 2007, in response to my FOIA request for the NPS harbor seal data, Regional Director Jarvis had denied my request, and said that the data would be available after the NPS released their annual report in December of 2007, consistent with previous years. Jarvis wrote on June 13, 2007, that the 2007 report "... will be prepared as a final annual report by December 2007." The annual NPS 2007 PRNS Harbor Seal Report never appeared in December 2007. By the end of July 2008, I still could not find it. I submitted a FOIA request to Jarvis on July 31, 2008, and amongst other requests for data and documents, I asked for a copy of the 2007 Harbor Seal Report.

August 25, 2008

NPS Holly Bundock, the FOIA Officer who reports to Jarvis, responded to my FOIA request. She wrote:

"In reference to item 6, the 2007 Harbor Seal Report is undergoing peer review and is, as a result, withheld under exemption 5."

I refer you to Kevin Lunny's letter to your NRC panel dated October 20, 2008 in which he reveals that the 2007 Harbor Seal Report had been posted on the web and is dated June 2008. It was no longer undergoing peer review in July and August of 2008. It was intentionally withheld from me. In fact, it was intentionally withheld from your panel. Not only did they not provide you with a copy of their 2007 report, but someone in the NPS entered a manual instruction on the web site that prohibited the 2007 PRNS Harbor Seal Monitoring Report from being located and retrieved by Google, Yahoo, or any other common search engine. It was intentionally hidden. Why? Most likely because it contradicts the May 2007 NPS harbor seal claims, and the 2008 Becker et al. paper in press in Marine Mammal Science journal.

September 4, 2008 (see my letter to your panel dated September 22, 2008)

During the afternoon five-minute presentation by NPS scientist Dr. Ben Becker to your panel on September 4, 2008, Becker attempted to rebut my morning presentation. He said my presentation was inaccurate and went on to provide an explanation of the NPS data supporting the May 2007 harbor seal claims.

This was a historic moment. First, this was the first time since May 2007 that the NPS had publicly restated their May 2007 harbor seal claims. They had retracted these claims from their July 27, 2007 version of the NPS Drakes Estero Report, and had retracted these claims from their September 18, 2007 "clarification" document. Thus, in front of your NRC panel, NPS Becker remade the May 2007 harbor seal claims that NPS had retracted in July and September 2007.

Second, it was the first time since May 2007 that the NPS had identified which subsite they had cited in May 2007 when they claimed that DBOC had caused an 80% decline in harbor seals in 2007 compared to 2005. Remember that they had denied my FOIA request for this information in June 2007. Becker stated that I was wrong in concluding that they had cited sandbar A, and instead gave a presentation showing how Dr. Sarah Allen had cited subsite OB.

Becker told your NRC panel 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 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. Please see my letter to you of September 22, 2008, for details about that meeting with Becker after your meeting was adjourned on September 4, 2008. Becker opened his notebook and showed me the number given to him by Dr. Allen for how she calculated the 80% decline at subsite OB, namely, the May 4, 2007 maximum of 157 seals at subsite OB. He also had the numbers for September 5 and 6 as given to him by Allen, namely, 82 and 99. Becker neglected to tell your panel that the decline at subsite OB occurred between 2004 and 2005, not between 2005 and 2007, and that the number of seals between 2005 and 2007 were within the eleven-year mean.

September 9, 2008 (see my letter to your panel dated September 22, 2008)

Superintendent Don Neubacher released an unsigned, printed statement to the press on Tuesday September 9, 2008 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.

September 24, 2008

Jarvis submits his letter and document to your NRC panel, and wrote:

"Enclosed is a brief clarification in response to Dr. Corey Goodman's statements that the NPS was referring to harbor seal count data from subsite A during 2005 - 2007 in Drakes Estero. The clarification explains (1) how the NPS derived the 80% decline figure, (2) that the data were indeed from subsite OB, (3) that the data refer to percent changes from 2004 - 2007, and (4) that the NPS never used data from subsite A."

"NPS was using a baseline year of 2004 when referring to "two years ago.""

"... at the time of testimony and reports, NPS had complete (full pupping season) data only up through 2006, thus, two years prior was indeed 2004."

"This subsite is OB, one of the three in the upper estero ..."

"Subsite A, in contrast, is located in the middle of the estero ..."

"The 80% decline stated by NPS in testimony, therefore, refers to the declines seen at OB between the observed pupping peak of 2004 and that of formal

observations through the peak as of May 3, 2007.”
“The NPS statement in testimony “down to around 35 this past Saturday” was based on an informal observation by Dr. Allen on Saturday, May 5, 2007 to confirm that the seal counts were still low while she prepared testimony. The information observation was made from Estero Trail (not the standard observation site for seal surveys), focused only on the sand bars in the upper estero, and therefore, was not considered a survey.”