

SAVE OUR SEASHORE

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March 30, 2011

To: NPS Washington Administrative Program Center, Att: Correspondence Control Unit (CCU)
1201 Eye Street NW, Washington, DC 20005 (doris_lowery@nps.gov)

Re: Complaint About Information Quality, Pursuant to Directors Order #11B

The Public Report on Allegations of Scientific Misconduct at Point Reyes National Seashore, California (the Report) www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=238859 contains factual inaccuracies and material omissions that compromise the integrity of the Report. As such the Report affects public support for PRNS and PRNS volunteers and erodes public confidence that the Report was free from undue political pressure and influence. Save Our Seashore (SOS) is filing this complaint because it represents the public interest in its support for Point Reyes National Seashore (PRNS) and the interests of its members who are NPS volunteers.

The Report states that the Office of the Solicitor (SOL) *“directed an attorney with substantial employment law experience to gather relevant information, make factual findings, and offer legal advice”* regarding the 11/22/10 allegation of scientific misconduct that *“targets six NPS employees”* and *“other Agency employees.”* We believe the Report addresses this mandate. We agree with its findings that exonerate the targeted NPS employees from charges of scientific misconduct and criminal violations, but also find that *“NPS, as an organization and through its employees made mistakes which may have contributed to an erosion of public confidence.”*

Unfortunately, the Report goes beyond its mandate, expertise and experience to present unfounded scientific conclusions that accuse a NPS volunteer of violating either indirectly or directly 18 U.S. C. § 1001, “Scientific Misconduct” as defined by federal policies, and an applicable interim NPS Code on Scientific and Scholarly conduct...all of which apply to NPS volunteers as well as employees.

These accusations against the NPS volunteer are either not supported by or are contradicted by the evidence in the research record and plain logic. Further eroding public confidence in the Report are statements concerning the scientific record of data gathered by the NPS volunteers and others that are factually incorrect. In summary, the Report draws unwarranted scientific conclusions that create a scientifically unfounded negative bias against NPS, its employees and its volunteers.

Yet in many places, this Report correctly notes the inconclusive nature of the evidence and the existence of scientific controversy. We request that this non-conclusive language regarding disputed data be used consistently through the Report and replace language that is directly or indirectly contradicted by the research record and logic. **When these errors in the Report are corrected, it will be clear that no basis remains for either the Report’s accusations against the volunteer or the Report’s negative scientific bias against NPS, its employees and its volunteers.**

The basis of this Complaint consists of the following from quotes from the Report (pages 28, 29 and 32) *“Scientific or research misconduct would arise in the following situation: intentional acts produced a research record that did not accurately represent information found in the photographic data...Confining attention solely to the differences between the research record and the photographic materials, an objective eye focuses solely on the adequacy of the research record for May 8, 2007 and March 14, 2008....The research report did not accurately represent available information ... visually observed by the same observer on May 8, 2007 and March 14, 2008....Suspicion now surrounds the volunteer...”*

Please respond within 5 business days to advise how this complaint (see Exhibit 1) will be addressed.



Gordon Bennett, President, SOS

Exhibit 1: Complaint About Information Quality in Allegations of Scientific Misconduct at PRNS

Complaint #1: Footnote 5 (page 5) states, *“On or about September 30, 2010, S1, S2, and S3 [NPS employees] did review the photographic images from May 8, 2007, and determined that the camera’s limited field of view prevented confirmation of the visual observation made by the volunteer witness. However, the digital photos indirectly contradicted the human observation by showing seemingly undisturbed harbor seals near the location of the alleged harassment.”*

Reading the imprecise use of words in this footnote, a reader could easily, but incorrectly, have concluded that these NPS employees drew the conclusion in the first sentence as well as the accusative conclusion of the second sentence. However, the relevant 9/30/10 email from NPS to the Marine Mammal Commission does not support this. Furthermore, the footnote draws conclusions not supported by the research record or logic.

SOS has solicited the opinions of its members with over two decades of seal monitoring experience. We conclude that the digital photographs do show disturbed seals and a boat wake at the time and at the location documented by the falsely-accused volunteer on the research record. Our conclusion is further supported by the professional opinion of Dr. Frances Gulland, Senior Scientist at the Marine Mammal Center, Sausalito, CA (see photos and commentary at www.savedrakesbay.org).

In contrast to this credible confirmation regarding the volunteer’s observed seal disturbance just inside the field of view of the camera, the Report’s conclusion of “indirect contradiction” is not supported by logic, since the volunteer not only identified the disturbances at other subsites far away from the camera’s targeted subsite, but also at a portion of the targeted subsite that was out of the field of view of the camera.

Even if DBOC denies responsibility for the disturbance, or other seal experts disagree that the photos unequivocally evidence a disturbance, the existence of legitimate scientific controversy and the admitted technological limitations of the camera does not afford this Report, which should apply its expertise within its employment law mandate, to render a scientific conclusion... particularly an unsupported and illogical scientific conclusion that falsely accuses a NPS volunteer.

Remedy #1: Thus we request that this section of the Report be corrected to state: *“However, the digital photos, according to experts in the field of marine mammal behavior ~~indirectly contradicted~~ confirmed the human observation by showing, ~~seemingly undisturbed harbor seals~~ at the time of and near the location of the alleged harassment. The informant’s opinion is that no disturbance occurred. This Report is not qualified to make a judgment about this controversy. Lastly, since the camera captured only the western portion of OB and since the observer recorded disturbances at UEN and UEF and at the east end of OB where seals were marked as present on his/her map, the photograph cannot logically resolve the disputed events at these locations.”*

Complaint #2 Footnote 10 (page 12) states, *“On or about September 30, 2010, S1, S2, and S3 [NPS employees] did review the photographic images from March 14, 2008 but did not review V1’s relevant research from that date. The NPS scientist noted that, consistent with the disturbance survey, the digital photos showed a DBOC boat present in upper Drakes Estero near the recorded time. Importantly, though, the camera’s limited field of view prevented confirmation of the visual observation made by the volunteer witness. Instead, the digital photos indirectly contradicted the human observation by showing seemingly undisturbed harbor seals near the location of the alleged harassment.”*

Hearing the imprecise use of words in this footnote, a reader could easily, but incorrectly, have concluded that these NPS employees drew the conclusions in the second and third sentences as well as the accusative conclusion of the fourth sentence. However, the relevant 9/30/10 email from NPS to the Marine Mammal Commission does not support this. Furthermore, the footnote draws conclusions not supported by the research record or logic.

The fourth sentence fails to point out that two NPS cameras were pointed at OB and UEF haulouts, both well away from (rather than “near”) the UEN haulout where the falsely-accused volunteer reported the harassment. Furthermore, their digital photographs fail to reveal any harbor seals, let alone “seemingly undisturbed” harbor seals. In short, the facts noted in that fourth sentence are simply wrong and thus provide no support whatsoever for this sentence’s scientific conclusion of an “indirect contradict[ion]” that falsely accuses a NPS volunteer. See also Complaint #8 for additional detail.

Remedy #2: Thus we request that this section of the Report be corrected to state: ~~*Importantly, though, However, because the camera’s limited field of view was focused on OB and contained only of a small portion UEF far from the area on UEF customarily used by a group of seals as a haulout, and because the volunteer eyewitnessed a disturbance at UEN, the photos cannot logically resolve the disputed event at UEN. , prevented confirmation of the visual observation made by the volunteer witness. Instead, the digital photos indirectly contradicted the human observation by showing seemingly undisturbed harbor seals near the location of the alleged harassment.*~~

Complaint #3 The Report page 3 states (emphasis ours), *“Although volunteer observers had seen and documented a motor boat disturbing harbor seals in upper Drakes Estero on May 6, 2006, DBOC denied, without rebuttal from NPS, ownership of the subject motor boat. Thus the evidence insufficiently identified that disturbance, in the 2006 pupping season, as one caused by DBOC mariculture operations.”*

However, the NPS record of mariculture related disturbances presented to the MMC still contains the May 6th 2006 disturbance. NPS did and continues to rebut the DBOC’s claim and support the observation of the volunteer, as evidenced by the March 9, 2010 communication from David Press, Ecologist / Data Manager, SFAN I&M Program, NPS to MMC staff:

“During our discussion of disputed data points during the MMC meeting at Point Reyes, concerns were raised that certain motor boat records may not have been related to mariculture and may have entered the Estero from Drakes Bay. I have reviewed the data and spoken with others about this issue and remain confident that the disturbance records we have used in our analyses have been correctly attributed to the oyster farm....Most of the motor boat disturbance records identify the oyster farm as the source, document mariculture activity (i.e. harvesting, moving oyster bags, etc), or at least indicate that the boat came from or returned to the oyster farm. None of the database records indicate that a motor boat passed through the mouth of the Estero during a survey. Because of the monitoring protocol’s inclusion of potential disturbances, I am confident that a motor boat coming into the Estero from Drakes Bay has never been observed by the monitoring program... “

SOS also notes that that DBOC has denied responsibility for each and every observed harbor seal disturbances that have been made public, alleging instead that each of the eyewitnesses had lied, as noted in footnote 4 (*“The trustworthiness of each human observation remains the subject of heated debate”*). Thus DBOC’s automatic denials should not by themselves disqualify the observation, but at best should define the observation as “contested.”

Remedy #3: Thus we request that this section of the Report be corrected to state *“Although volunteer observers had seen and documented a motor boat disturbing harbor seals in upper Drakes Estero on May 6, 2006, DBOC denied, without rebuttal from NPS, ownership of the subject motor boat and NPS has rebutted that denial. Thus the evidence insufficiently identified that disturbance, in the 2006 pupping season, as one caused by DBOC mariculture operations, the event remains contested, and sufficient evidence does not exist to resolve the May 6, 2006 disputed disturbance. This Report is not qualified to make a judgment about this controversy”*

Complaint #4 The Report page five notes, *“the informant...legitimately contested S1’s...questionable mathematical calculations.”*⁶ Footnote #6 then quotes S1 saying, *“Placement of bags on nursery areas has caused an 80-percent reduction”* and then the Report comments, *“significantly less than 80%”*

depending on subsite(s).” However, the 80% reduction, based on counts taken by NPS volunteers, including the falsely-accused volunteer, has been independently verified by mathematician Dr. Dominique Richard, who concluded (www.savedrakesbay.org/uploads/08-09-ARCHEOLOGY-OF-A-NUMBER.pdf):

“This analysis compared the April 23 figure of 19 to the 2004 peak of 108 on OB, which was then rounded down to an 80% reduction. Admittedly, the year of reference was not quoted, the seal haul out was not specified, and the percentage decline was rounded down most probably for simplicity. It must be noted, however, that if everyone were an experienced scientist or statistician cognizant of the duration of the seal data collections dates, then they surely should have interpreted the numbers provided in Dr. Allen’s testimony as conditional since they were derived near the middle of the pupping season. In fact, as we know now after the final data points were analyzed, there was a subsequent and unexpected up-tick in the maximum seal count at OB on Friday May 4th ...

“Unfortunately the claim for an 80% decline in seal population took a life of its own and became a sound bite “mantra” amplified through the media, which fueled a bitter divisiveness in the community.... At worse the Park’s statements pointing to an 80% decline only reflected “precautionary principle” concerns based on an on-going interim assessment. The final 2007 declines (compared to the 2004 peaks) of 64.31% on sandbar OB and 41.94% on sandbar UEF, two of the sandbars most preferred by pupping seals that also happened to be near areas that had been fallow of oyster operations for some years and had just in 2007 seen renewed oyster operations, confirm this precautionary concern. Furthermore the data shows the “deception” and “misconduct” accusation raised by Dr. Goodman over the 80% figure has no basis in fact, since the 80% figure clearly can be derived and justified based on assumptions reasonable at the time of Dr. Allen’s testimony.”

Remedy #4 Thus, we request that this section of the Report be corrected to state: “while this 80% reduction was not clearly described as an interim figure statistically valid at the time of S1’s testimony for one of the two preferred pupping sites closest to renewed oyster operations, the final reduction at that site was 64% and the final reduction at the other pupping site was 42%.”

Complaint #5 The Report page 8 states, *“The recent submission to Secretary Salazar alleges, in part, that failure to give informant the 2007 photos, which reveal no DBOC-caused disturbances of harbor seals in upper Drakes Estero, was intentional...”* Hearing the imprecise use of words in this sentence, a reader could easily, but incorrectly, have concluded that the Report had concluded, rather than the informant had asserted, that the 2007 photos had revealed no DBOC-caused disturbances. As noted in Complaint #1, there is credible analysis of photographic evidence that supports the observation by the falsely-accused volunteer of a DBOC-caused disturbance on May 8, 2007. And this photographic documentation exists despite being (as the Report correctly notes): *“blurry, with varying degrees of murk... [due to] camera positions, poor resolution, significant distances, the absence of sound, narrow fields of view, loss of 59 ¾ seconds out of every minute...and the presence of wind, fog, and nearby foliage.”* And, as www.nps.gov/pore/parkmgmt/loader.cfm?csModule=security/getfile&PageID=398425 shows, the camera in 2007 was not well positioned enough to view both the customary DBOC boat landing/work sites and also the OB haulout, rendering it virtually impossible to photographically connect seal behavior with DBOC activity.

Remedy #5: Thus, we request that this section of the Report be corrected to state, *“The recent submission to Secretary Salazar alleges, in part, that failure to give informant the 2007 photos, which the informant asserts reveal no DBOC-caused disturbances of harbor seals in upper Drakes Estero, was intentional...”*

Complaint #6 The Report’s footnote #7 (page 9) references, *“...digital photos, which DOI now knows indirectly, contradict NPS conclusions and comments relevant to the disturbance event observed on May*

8, 2007 and indirectly support the informant's position." As noted in Complaint #1, there is credible scientific evidence supported by expert testimony and photos of a disturbance on May 8, 2007 that is "most parsimoniously" attributed to the DBOC oyster boat. This credible evidence supports the falsely-accused volunteer and contradicts the assertion of the informant. Additionally, as in Complaint #1, the camera's field of view makes it logically impossible to draw the conclusion in footnote #7. We are not aware of DOI or NPS changing their position on the interpretation of May 8, 2007, since doing so would not be supported by the research record or logic.

Remedy #6: Thus, we request that this section of the Report be corrected to state, "...digital photos, which DOI now knows indirectly, contradict NPS conclusions and comments relevant to the disturbance event observed on May 8, 2007 and indirectly support the informant's position." , according to experts in the field of marine mammal behavior, confirmed the human observation by showing disturbed harbor seals at the time of and near the location of the alleged harassment. The informant's opinion is that no disturbance occurred. This Report is not qualified to make a judgment about this controversy. Lastly, since the camera captured only the western portion of OB and since the observer recorded disturbances at other locations (UEN and UEF and at the eastern end of OB), the photos cannot logically resolve the disputed events at these locations.

Complaint #7 The Report's (page 11) states (bulleting ours)"No evidence from V1 established that from March to May 2008 specifically including March 14, 2008,

1. DBOC mariculture operations had harassed any harbor seals in upper Drakes Estero,
2. had displaced the pinnipeds from any subsites in upper Drakes Estero, or
3. had contributed to any reduction in the Drakes Estero harbor seal population, which did not significantly decline in 2008.
4. However, V1 did describe, as "images ...of interest" and as potential DBOC disturbance documentation, digital photos taken by the PC85 camera on April 4 and May 15, 2008. A video taken by V1 on the latter date also supports a "potential" DBOC disturbance of harbor seals"

Yet all those statements are contradicted by the evidence in the research record and by logic:

1. Reading-Room-Other-Documents-Upper-Drakes-Estero-Oyster-Activity-Worksheet contains the summary of S. Codde's observations from March to May 2008, which under the Disturbance column, note eleven codes of "Y" (i.e. indicating eleven eyewitness observations of oyster boat harassment of harbor seals in upper Drakes Estero). This portion of the research record, ignored by the Report, is the most pertinent, because the NPS volunteer/employee surveys of 2007 (total of 6 eyewitnessed disturbances) and 2009 (total of 1 eyewitnessed disturbance) were split among eight sub sites, with the three sites nearest oyster activity being the three furthest away, but with the observer's location roughly midpoint between all eight. However in 2008 (total of 12 eyewitnessed disturbances), S. Codde's surveys were taken only of the three oyster related subsite and were positioned midpoint of these three. Thus the potential to accurately record oyster disturbances in 2008 was significantly enhanced both by proximity and by the ability to focus on three rather than eight subsites.

2. www.nps.gov/pore/readingroom/Videos/2008/tape_2/05_May/ (15MAY08a.mov) and www.nps.gov/pore/readingroom/Photos/2008/OB/05-15-08/ (Images 1599-1604) both show the harbor seals displaced (flushed) from subsite OB on May 15 by the oyster boat. The notes describe this flush as DBOC caused.

www.nps.gov/pore/readingroom/Photos/2008/OB/04-07-08/ (images 0568-05710) show a harbor seal displaced (flushed) from OB on April 3, 2008 by the oyster boat. This is described as a "possible" flush although the 2:07 photo shows the seal hauled out with the boat empty, the

2:08 photo shows the boat loaded and ready with the seal still hauled out, yet the 2:09 photo shows the boat speeding away with the seal gone.

Furthermore, the Report also fails to understand or acknowledge that every time V1's handwritten records state that a DBOC boat entered or was in the OB channel between March 1 and June 30, then this represents a violation of either or both of the 1992 Seal Protection Agreement or the Harbor Seal Protection Protocol in DBOC's current Special Use Permit. The research record contains at least 34 such references between 3/15/08 and 5/22/08, which represent a chronic displacement of DBOC activity into a protected seal area and a converse displacement of seals from the DBOC activity. The reason for the Harbor Seal Protection areas in the Protocol is not arbitrary – it is virtually impossible to “prove” a displacement of seals that are not there. Thus the Protocol specifies protection areas are to prevent seals both from being disturbed and also from being displaced by DBOC activities. That the Report makes no mention of the 34 harbors seal intrusions by DBOC boats into a designated as seal protection area in the DBOC SUP is a significant omission of evidence in the research record.

3. Similar to the Report's criticisms of S1's “clumsy” testimony in footnote 6, the Report provides no year as the basis for its 2008 comparison. Becker 2010 divides oyster production years into “high” and “low” and concludes that compared to the pre-DBOC year of 2004 (low oyster production), the 2008 year (high oyster production) resulted in a statistically significant seal population reductions (65 pups and 192 total seals since DBOC began operations). This strong statistical correlation also holds when the exact oyster poundage is used as the metric. www.nps.gov/pore/parkmgmt/loader.cfm?csModule=security/getfile&PageID=400381 states: *“Concurrent with higher oyster harvest and after removing effects of other covariates, the proportion of Point Reyes regional seals using Drakes Estero declined by -0.07 ± 0.02 for seal pups (-65 ± 18 total pups), and -0.05 ± 0.02 for total counts (-192 ± 58 total seals).”*
4. <http://www.nps.gov/pore/parkmgmt/loader.cfm?csModule=security/getfile&PageID=400390> contains the 6/6/08 email (page 233) from which the “images...of interest” quote is taken. However, nowhere in this email are the images described as “potential” DBOC disturbance documentation. Images from camera PC85 clearly show a disturbance as the oyster boat is departing on both 4/3/08 and 5/15/08. Seeing the imprecise use of quotations around the word “potential” in this sentence, a reader could easily, but incorrectly, have concluded that V1 had significantly hedged his/her eyewitness account of both the May 15, 2008 event and his/her review of the photo documentation of both the April 3rd (not 4th) and May 15 disturbance events. Not so.

Remedy #7: *Thus, we request that this section of the Report be corrected to state, “No evidence from V1 established that from March to May 2008 specifically including March 14, 2008, V1 witnessed 11 incidents of DBOC mariculture operations ~~had harassed~~ any harbor seals in upper Drakes Estero, ~~had~~ at least two of which directly displaced the pinnipeds from any subsites in upper Drakes Estero, ~~or had~~ contributed to any reduction in the Drakes Estero harbor seal populations, which did not significantly decline in 2008. However, V1 did describe as “images ...of interest” and as potential DBOC disturbance documentation, as documented by digital photos taken by the PC85 camera on April 4 3 and May 15, 2008. A video taken by V1 on the latter date also supports a “potential” DBOC disturbance of harbor seals. Furthermore, the log by V1 of 2008 photos indicates chronic entry by DBOC boats into a protected harbor seal area, which could result in a displacement of the seals. Lastly, the peer-reviewed Becker 2010 paper concludes that for high oyster production years like 2008, the proportion of Point Reyes regional seals using Drakes Estero declined by -0.07 ± 0.02 for seal pups (-65 ± 18 total pups), and -0.05 ± 0.02 for total counts (-192 ± 58 total seals).” This evidence of displacement does not rely on or use any of the volunteer disturbance data, each and every one of which has been contested by DBOC.*

Complaint #8 *The Report (page 12) states (bulleting ours), “Notably, the absence of any mariculture-caused disturbances observed or documented by V1 and the camera applies to March 14, 2008, the date on which a volunteer observer,*

- 1. standing a significant distance away from the camera locations on the opposite side of Drakes Estero,*
- 2. witnessed a DBOC boat disturb four seals from a group of nineteen in upper Drakes Estero.*
- 3. Without question, V1 was present at the camera locations on that date, at the exact time, and was closer to the disturbance site than the volunteer observer,*
- 4. but s/he neither saw nor documented or filmed any compatible anthropogenic disturbance.*
- 5. The PC85 camera, aimed at the area of alleged pinniped disturbance, confirmed the presence of a DBOC boat at the relevant time, but photos do not confirm any harassment of harbor seals on that date.*
- 6. With regard to the harbor seal disturbance on March 14, 2008, the only date during that pupping season when DBOC activities allegedly harassed pinnipeds,*
- 7. S1 relied heavily, but without clear explanation, on the volunteer observer’s report and completely dismissed, without timely analysis or review,*
- 8. the direct or indirect contradiction of that data as presented by the negative implications of V1’s observations, the photographic images, and the video clips.*

The evidence in the research and record and logic contradict the Report:

1. The falsely-accused volunteer observer’s location measured from the camera location is irrelevant. What is relevant is the falsely-accused volunteer observer’s location relative to the observed disturbance, which is closer than V1’s location. See map showing observer location at www.mmc.gov/drakes_estero/pdfs/becker_mms_2009.pdf (page 4) and map of camera (V1) location www.nps.gov/pore/parkmgmt/loader.cfm?csModule=security/getfile&PageID=400390 (page 113).
2. The Report fails to clarify and accurately state that the observed disturbance was reported at UEN, the southernmost of the three haulout sites in the upper Estero, while the camera was pointed at OB (see #5).
3. The observed disturbance at UEN (Upper Estero Near) is closer to the falsely-accused volunteer observer than to V1 (see above referenced maps).
4. V1’s location is roughly east of subsite OB and midway between UEF, the northernmost of the three haulout sites, and UEN, the southernmost haulout sites. From this midway location, it would not be physically possible for V1 to observe all three sites simultaneously, particularly when the site of interest is either the northernmost or the southernmost. See video 14MAY08b.mov at http://www.nps.gov/pore/readingroom/Videos/2008/tape_2/05_May/ where the camera is aimed north to UEF (zoomed at 3:21:12), then pans west to OB (zoomed at 3:21:40) and finally pans to south at UEN (zoomed at 3:22:01. Since the falsely-accused volunteer observed the March 14, 2008 disturbance at UEN, the southernmost site, it is reasonable to assume that V1 would have roughly a 1-in-3 chance of observing the same incident. Consequently, the strong implication in the Report of an apparent contradiction between the more distant observation of V1 and the closer observation of the falsely-accused volunteer is a speculation indirectly contradicted by evidence of their respective locations.
5. The Report fails to point out that the PC85 camera was aimed at the OB haulout (which also captured the northwest edge of the UEN sandbar unused by seal) rather than at the UEN

haulout (along the southeast edge of the UEN sandbar), which was the area of alleged pinniped disturbance. Thus the camera confirmed the presence of a DBOC boat and workers at the relevant time on March 14, 2008 on the UEN sandbar, but the impacted UEN haulout was far to the left of the field of view of the PC85 camera. Furthermore, contrary to the Report, PC85 shows no seals present at OB. Thus the photos of the PC85 camera can neither confirm nor deny the falsely-accused volunteer's report of harassment at the UEN haulout, where no camera was aimed.

6. As noted in Complaint #7, bullets 1) and 2), the research record contains eleven codes for V1 (S.Codde's) eyewitnessed disturbances for 2008 (not including 3/14/08), plus the camera images of 4/3/08. That the Report makes no mention of these eleven harbors seal disturbances is a significant omission of evidence in the research record.
7. Given the above, SOS believes there was a reasonable basis for S1 to have relied on the volunteer report, while also including V1's report as simply additive, rather than contradictory.
8. As noted above, the evidence demonstrates a reasonable physical explanation for the different 3/14/08 observations of V1 and the falsely-accused volunteer. Furthermore, the 3/14/08 photographic images of OB and UEF are not relevant to and do not contradict the falsely-accused volunteer's recording of a disturbance at UEN. Lastly, the Report's implied contradiction between the falsely-accused volunteer's 3/14/08 data and "the video clips" has no basis in fact since neither www.nps.gov/pore/readingroom/Videos/2008/tape_1/03_March/ nor the "S. Codde" summary of observations indicate that any videos were taken on 3/14/08.

In sum, the research record presents evidence and logic that contradicts the Report.

Remedy #8 Thus, we request that this section of the Report be deleted entirely and restated: *"We investigated the facts surrounding V1's failure to observe any seal disturbance on March 14, 2008, the volunteer's record of an alleged seal disturbance on March 14, 2008 and the cameras failure to photograph the alleged seal disturbance. We note the following: the volunteer observer was closer to the site of the alleged disturbance than V1, who was required to split observational time between three sites so widely separated that only one could have been kept in V1's site at any one time. The UEN site of the alleged disturbance was V1's southernmost, thus making observations that would have been contemporaneous with the volunteer least likely. Furthermore, the PC85 camera was aimed at OB, not UEN, the site of the alleged disturbance. The camera nevertheless did confirm the nearby presence of a DBOC boat at the time the volunteer reported a disturbance caused by a boat. In short, data such as V1's observations, the photographic images, and (nonexistent) video clips are inconclusive, inadequate, or irrelevant in efforts to either confirm or contradict the volunteer's disturbance observation on 3/14/08.*

Complaint #9 The Report (page 13) states *"S1 and S3 replied affirmatively and denied having any conscious thoughts that the withheld data directly or indirectly contradicted all harbor seal disturbance information, including the volunteer's observations of March 14, 2008...[and]...including data which could arguably be interpreted as showing that the DBOC mariculture operations do not disturb harbor seals or deter them from using traditional subsites."* But as the Report also notes (correctly) on page 28, *"In short, the limited information found in the inconclusive photographic research neither trumps nor disproves all the 2007 and 2008 DBOC-caused disturbances observed by volunteers and included in the research record."* Thus Report seemingly contradicts itself by at times acknowledging the inconclusive nature of the photographic record, yet other times using that photographic record to draw conclusions unsupported by the research record or by logic.

Remedy #9 Thus, we request that this section of the Report be corrected to state, *"S1 and S3 replied affirmatively and denied having any conscious thoughts that the withheld data directly or indirectly either contradicted or confirmed all harbor seal disturbance information, including the volunteer's*

observations of March 14, 2008...[and]...including largely inconclusive data which could arguably the informant asserts must be interpreted as showing that the DBOC mariculture operations do not disturb harbor seals or deter them from using traditional subsites and which others assert must be interpreted as showing that the DBOC mariculture operations do indeed disturb harbor seals and deter them from using traditional subsites. Thus, the inconclusive data cannot resolve this dispute and this Report is not qualified to make a judgment about this controversy."

Complaint #10 The Report (page 14) states, "S2's paper carefully evaluated harbor seal population counts and subsite attendance and analyzed mariculture –related disturbances in 1996, 2003, and 2006, none of which relate to DBOC operations, along with the three DBOC-caused disturbances witnessed by S1 on April 26, 2007.....for purposes of this public report, only the six disturbances in 2007 and the single disturbance in 2008 are relevant." DBOC began operations in 2005, thus the 2006 oyster disturbance is attributable to DBOC and is incorrectly attributed in the report. As noted in Complaint #3, the 2006 disturbance recorded by volunteers has been disclaimed by DBOC and rebutted by NPS and thus remains contested.

Remedy #10 Thus, we request that this section of the Report be corrected to state, "S2's paper carefully evaluated harbor seal population counts and subsite attendance and analyzed mariculture –related disturbances in 1996, and 2003, and 2006, none of which relate to DBOC operations, along with the May 6, 2006 disturbance witnessed by volunteers, the three DBOC-caused disturbances witnessed by S1 on April 26, 2007.....for purposes of this public report's comments on S2's 2009 paper, only the one disturbance in 2006, the six disturbances in 2007 and the single disturbance in 2008 are relevant.

Complaint #11 The Report (page 15) states, "...the camera placed on the east side of Drakes Estero in 2007 and 2008, the associated digital photos, or the data collected by V1 in 2008, none of which evidenced any pinniped disturbance(s) and all of which either directly or indirectly conflicted with harbor seals disturbances observed by volunteers..." As noted in Complaint #7, the data collected by V1 (S. Codde's summary) recorded eleven eyewitness disturbances in 2008, one of which (5/15/08) was recorded by both photos and video. In addition to the eleven V1 observations, the research record for 2008 includes photos of one disturbance (4/3/08) not eyewitnessed by any observer and one disturbance eyewitnessed by the accused volunteer (3/14/08) that was not recorded by photo.

Remedy #11 Thus, we request that this section of the Report be corrected to state, "...the camera placed on the east side of Drakes Estero in 2007 and 2008, the associated digital photos, or the data collected by V1 in 2008, ~~none of which evidenced any eleven~~ pinniped disturbance(s). ~~and all of which~~ The research record contains evidence, contested by the informant, of the photos confirming two of the observed disturbances (5/8/07 and 5/15/08), but the quality of the photos and placement of the cameras prevented the photos from either directly or indirectly conflicting-with or confirming the remaining harbor seals disturbances observed by volunteers. Thus, the inconclusive data cannot resolve this dispute and this Report is not qualified to make a judgment about this controversy."

Complaint #12 The Report (page 18) states: "in addition, the text of the finished product addressed the Sunday issue by not only arguing that DBOC boats do operate on Drakes Estero on that day of the week but also explained that 'NPS has time stamped images of a DBOC boat present on March 23, 2008, also a Sunday.' However, subsequent review of the murky images...evinced the inaccuracy of the quoted words and revealed the "DBOC boat" to be a log, a bird, or some object that "cannot be definitely identified as a DBOC motor boat." However the Report fails to point out that the 3/23/08 misidentification could possibly have been corrected had the photos been subject to extensive analysis to identify boats (because the resolution was generally too poor to identify seals, the photos were never subjected to this careful analysis). For example, SOS reviewed 2010 photos, which do show DBOC working on Sundays (see: www.nps.gov/pore/readingroom/Photos/2010/2010%20UEF/2.19_2.28/ images 6627-6640 and www.nps.gov/pore/readingroom/Photos/2010/2010%20UEF/3.19_3.30/ images 1695-1701,1813-1824.

These Sunday photos, presented to the Marine Mammal Commission and clearly within the research record, are noticeably absent from discussion within the Report.

Remedy #12 Thus, we request that this section of the Report be corrected to state *'in addition, the text of the finished product addressed the Sunday issue by not only arguing that DBOC boats do operate on Drakes Estero on that day of the week but also explained that 'NPS has time stamped images of a DBOC boat present on March 23, 2008, also a Sunday.'* However, subsequent review of the murky images...evinced the inaccuracy of the quoted words and revealed the "DBOC boat" to be a log, a bird, or some object that "cannot be definitely identified as a DBOC motor boat. Nonetheless, the research record contains other images of DBOC boats operating in the Estero on Sundays (e.g. 2/28/10 and 3/21/10) that support the NPS argument.

Complaint #13 The Report (page 19) states, *"Arriving at that conclusion, which the 2007 and 2008 photographic data might have strengthened in favor of DBOC operations, the Committee recognized the need for more research and implicitly questioned the scientific value of the [Becker] 2009 paper through which 'NPS selectively present[ed] harbor seal survey data in Drake Estero and over-interpret[ed] the disturbance data which are incomplete and non-representative of the full spectrum of disturbance activities in the estero.'"*

The Becker 2009 paper makes use of disturbance data collected by NPS volunteers, including data by the falsely-accused volunteer. But as noted in Complaint #9, the Report notes, *"the limited information found in the inconclusive photographic research neither trumps nor disproves all the 2007 and 2008 DBOC-caused disturbances observed by volunteers and included in the research record."* Thus these photos' impact on the Becker's 2009 paper could arguably favor either NPS or DBOC, yet is presented in the report with an unsupported bias favoring DBOC. Furthermore, the quote from the Committee's (www.mmc.gov/drakes_estero/pdfs/nas_shellfish_mariculutre.pdf) refers to the 2007 NPS "Clarification of Law and Policy," rather than the 2009 Becker paper and thus the Report incorrectly attributes the quote. Lastly, the Committee did not, as the Report states, question the "scientific value" of the Becker 2009 paper but rather the Committee stated, *"the Becker et al. (2009) paper has limited value for understanding the long-term trends in seal counts in Drakes Estero..."* The Becker 2009 paper was peer reviewed and published in the scientific journal "Marine Mammal Science" ...all of which is evidence of Becker 2009's "scientific value."

The Report presents only the one-sided scientific conclusion that volunteer disturbance data modified by the digital photos could have helped DBOC and if so, would have altered the conclusions of Becker 2009. Yet this biased conclusion, whether ultimately able to be conclusively proven correct or incorrect, utterly fails to acknowledge the Becker 2010 paper that NPS states *"addresses many of the questions and analysis recommendations that the National Academy Panel raised in its 2009 report."* The February 2010 version, presented to the Marine Mammal Commission at PRNS is in the research record at www.nps.gov/pore/parkmgmt/loader.cfm?csModule=security/getfile&PageID=400381 (page 7). Furthermore, it is our understanding that that this Becker paper (now "Becker 2011") will soon be published in a peer-reviewed journal.

Becker's 2010 paper notes (emphasis ours), *"Regional population size, short-term human disturbance rate, and other factors were not important in explaining overall seal use of Drakes Estero."* Thus, the conclusions of Becker 2010 do not rely on disturbance data...every one of the contested data events could be thrown out and the Becker 2010 conclusion would remain (emphasis ours), *"This study, while correlational, supports the prediction that chronic human disturbance (as measured by mariculture activities) coupled with natural processes, affects seal haul out patterns at both the colony and regional scales."* Without relying on disturbance data, Becker's 2010 paper found *"patterns ...consistent with the findings in the earlier Becker et al. (2009) paper."* In summary, the Report's apparent attempt to question the scientific validity Becker 2009 is not supported by the Committee's statements or the research record, and in a biased fashion, fails to discuss how Becker 2010 addressed many of the questions and analysis recommendations that the Committee raised in Becker 2009. If the Report is

going to assume the role of scientific arbiter, as it appears to have done, then its silence on the Becker 2010 paper is a significant omission.

Remedy #13 Thus, we request that this section of the Report be corrected to state, *“Arriving at that conclusion, which the inconclusive 2007 and 2008 photographic data might have strengthened in favor of DBOC operations or weakened in favor of the NPS interpretation, the Committee recognized the need for more research that was not dependent on volunteer disturbance surveys and implicitly questioned the scientific value of the [Becker] 2009 paper through which “NPS selectively present[ed] harbor seal survey data in Drake Estero and over interpret[ed] the disturbance data which are incomplete and non-representative of the full spectrum of disturbance activities in the estero.” Accordingly, NPS worked to produce Becker 2010, a peer-reviewed paper that addresses many of the questions and analysis recommendations that the Committee raised in its 2009 report. Becker 2010 arrives at similar conclusions as Becker 2009 (strong statistical correlation between increased oyster harvest and decreased seal populations) without relying on contested volunteer reports or inconclusive photos.”*

Complaint #14 The Report (page 21) states (bulleting ours), *“No evidence gathered by V2 established that from April to August 2009,*

- 1. DBOC mariculture operations had harassed any harbor seals in upper Drakes Estero,*
- 2. had displaced the pinnipeds from any subsites in upper Drakes Estero, or*
- 3. had contributed to any reduction in the Drakes Estero harbor seal population, which did not significantly decline in 2009”.*

The Report misunderstands the research record:

1. The Report fails to include the 6/3/09 observation of a harbor seal disturbance by NPS volunteers (that was not picked up by the cameras). The Report also gives excessive weight to V2 evidence (photo logs) that consists wholly of a review of grainy inconclusive photos (i.e., V2 made no direct observations). It should be noted that of the 14 eyewitnessed disturbance events in the research record during the May 2007-August 2009 period when the cameras were operational, there is credible evidence of only two events that were simultaneously photographed. This indicates that either the eyewitnesses lied about the great majority of their observations or that the photos were so grainy and the cameras so misdirected that they were unable to confirm the volunteer observations.

This Report acknowledges in multiple places the latter conclusion about “inconclusive” photos, yet here appears to rely on those same “inconclusive” photos to create the impression for a reader of an incorrect conclusion that “no camera evidence of disturbances” is equivalent to “no disturbances occurred.” As should be clear from the 2008 V1 disturbance records, when observations are taken from a site midpoint to and close to oyster operations, rather than from the “seal volunteer” site midpoint to all seal haulouts but much further from oyster operations, the ability to accurately record disturbances related to oyster activity appears to be enhanced (i.e. eleven 2008 disturbances recorded from the site close to oyster operations, but only one 2008 disturbance recorded from the distant site).

2. Furthermore, the Report seemingly fails to understand that virtually every time that V2’s log states that a DBOC boat approached UEN or OB between March 1 and June 30, then this represents a violation of the Harbor Seal Protection Protocol in DBOC’s current Special Use Permit. There are numerous such references...all of which represent a chronic displacement of DBOC activity into a protected seal area and a converse displacement of seals from the DBOC activity.
3. Similar to the Report’s criticisms of S1’s “clumsy” testimony in footnote 6, the Report provides no year as the basis for its 2009 comparison. Becker 2010 divides oyster production years into “high” and “low” and concludes that compared to the pre-DBOC year of 2004 (low oyster

production), the 2009 year (high oyster production) resulted in a statistically significant seal population reductions (65 pups and 192 total seals since DBOC began operations). This strong statistical correlation also holds when the exact oyster poundage is used as the metric. www.nps.gov/pore/parkmgmt/loader.cfm?csModule=security/getfile&PageID=400381 states “Concurrent with higher oyster harvest and after removing effects of other covariates, the proportion of Point Reyes regional seals using Drakes Estero declined by -0.07 ± 0.02 for seal pups (-65 ± 18 total pups), and -0.05 ± 0.02 for total counts (-192 ± 58 total seals).”

Remedy #14 Thus, we request that this section of the Report be corrected to state, “No evidence gathered by V2 established that from April to August 2009, DBOC mariculture operations had harassed any harbor seals in upper Drakes Estero, however the photos on which V2’s log was based are largely inconclusive and omit the 6/3/09 disturbance observed by NPS volunteers. Thus, the lack of photos of disturbances is not evidence sufficient to prove that the disturbances are not occurring. ~~or had displaced the pinnipeds from any subsites in upper Drakes Estero.~~ The log by V2 of 2009 photos also indicates chronic entry by DBOC boats into a protected harbor seal area, which has been established in order to protect seals from both displacement and disturbance. ~~or had contributed to any reduction in the Drakes Estero harbor seal population, which did not significantly decline in 2009.”~~ The Becker 2010 paper concludes that for high oyster production years like 2009, the proportion of Point Reyes regional seals using Drakes Estero declined by -0.07 ± 0.02 for seal pups (-65 ± 18 total pups), and -0.05 ± 0.02 for total counts (-192 ± 58 total seals).”

Complaint #15 The Report (page 23) states, “...digital photos, the data collected by V1 in 2008, or the data collected by V2 in 2009, none of which evidenced any pinniped disturbance(s) and all of which either directly or indirectly conflicted with harbor seal disturbances observed by volunteers from the southwest corner of Drakes Estero in April and May 2007 and March 2008.”

First, there is no logical way that V2’s review of 2009 photographic data could possibly conflict with observations by volunteers of incidents that occurred in 2007 and 2008. Second, there is no logical way digital photos, which began in May, 2007 could possibly conflict with observations by volunteers of incidents that occurred in April 2007. Third, per Complaint #1, there is credible 2007 photographic evidence that supports the falsely-accused volunteer’s May 8, 2007 report. Fourth, as noted in Complaint #5, there is evidence of at least thirteen DBOC-caused disturbances in 2008 (eleven eyewitnessed by S. Codde, one of which was one documented by both video and still photos, one additional incident was documented by camera only, and the final incident was documented by the falsely-accused volunteer).

Remedy #15 Thus, we request that this section of the Report be corrected to state, “...digital photos, the data collected by V1 in 2008, or the data collected by V2 in 2009, ~~none of which evidenced any pinniped disturbance(s) and all of which either directly or indirectly conflicted with harbor seal disturbances observed by volunteers from the southwest corner of Drakes Estero in April and May 2007 and March 2008.~~”

Complaint #16 The Report (page 28) states, “That argument presupposes that only the blurry photos and accompanying logs can “accurately represent[]” their contents, which evidence no instances of harbor seal disturbances caused by DBOC mariculture operations at upper Drakes Estero during the pupping seasons in 2007-2010....Even without the photos and the accompanying logs, the research record accurately represents their content (i.e. no DBOC-caused disturbances) for most of 2007 and 2008 and of all of 2009 and 2010.”

As noted in prior complaints, the research record includes a total of 20 eyewitness accounts of disturbances attributable to oyster activity, three of which were picked up by cameras, despite the majority of the photos being so inadequate (i.e. too grainy or aimed in the wrong direction) that they were unable to show any seals at all.

Remedy #16 Thus, we request that this section of the Report be corrected to state, *“That argument presupposes that only the blurry photos and accompanying logs can “accurately represent[]” their contents, which the informant asserts evidence no instances of harbor seal disturbances caused by DBOC mariculture operations at upper Drakes Estero during the pupping seasons in 2007-2010, yet others assert there is credible evidence of DBOC-caused disturbances. This Report is not qualified to make a judgment about this controversyEven without the photos and the accompanying logs, the research record accurately represents (irrespective of any controversy) their content: (i.e. no DBOC-caused disturbances) for most of 2007 and 2008 and of all of 2009 and 2010.*

2007: A total of six disturbances: all eyewitnessed and all from seal counting surveys (no disturbance surveys undertaken). One of the eyewitnessed disturbances was simultaneously captured by photos;

2008: A total of thirteen disturbances: twelve eyewitnessed disturbances (one of which from a counting survey and eleven of which from disturbance surveys). One of the eyewitnessed disturbances was simultaneously captured by photos. One 2008 disturbance event was captured only by photos. In addition, there are at least 34 photographic records of DBOC boats inside a seal protection area, thus displacing seals.

2009: A total of one disturbance eyewitnessed from a counting survey (no disturbance surveys undertaken). In addition, there are numerous photographic records of DBOC boats inside a seal protection area, thus displacing seals.

2010: No disturbances recorded from counting surveys (no disturbance surveys undertaken), but numerous photographic records of DBOC boats inside a seal protection area, thus displacing seals.

Complaint #17 The Report (page 28) states, *“With the exception of disturbance surveys generated by S1 on April 26 2007, and by volunteers on April 29, 2007, May 8, 2007, and March 14, 2008, the research record contains no data which demonstrates that DBOC mariculture operations harassed any marine mammals in the relevant location at the relevant time. Because the Silent Image camera first snapped digital photos on May 5, 2007, the research record lacks an accurate representation of the photographic images for only the latter two dates.”* Yet as noted above, the research record is substantially different. As noted several times previously (see complaint #1), it is not logical or accurate for the Report to conclude that the photographic images for May 8, 2007 and March 14, 2008 directly or indirectly refute the volunteer observations on those days. These sentences of Report are simply wrong and should be deleted.

Remedy #17 Thus, we request that this section of the Report be deleted in its entirety.

Complaint #18 The Report (page 28) states *“Such analysis specifically rejects the informant’s claim that all DBOC-caused disturbance observations, even the harassment of harbor seals witnessed before installation of the camera in 2007, are discredited by the overwhelming and negative implications of the digital photos and handwritten logs, which show no marine mammals being disturbed by DBOC mariculture operations. In short, the limited information found on the inconclusive photographic research neither trumps nor disproves all 2007 and 2008 DBOC-caused disturbances observed by volunteers and included in the research record. Confining attention solely to the differences between the research record and the photographic material, an objective eye focuses solely on the adequacy of the research record for May 8, 2007 sand March 14, 2008.”*

As stated multiple times in this complaint, it is not logical or accurate for the Report to conclude that the photographic images for May 8, 2007 and March 14, 2008 directly or indirectly refute the volunteer observations on those days.

Remedy #18 Thus, we request that this section of the Report be corrected to state, *“Such analysis specifically rejects the informant’s claim that all DBOC-caused disturbance observations, even the harassment of harbor seals witnessed before installation of the camera in 2007, are discredited by the overwhelming and negative implications of the digital photos and handwritten logs, which the informant*

asserts show no marine mammals being disturbed by DBOC mariculture operations. Yet others assert there is credible evidence of DBOC-caused disturbances. In most cases, the photos are able to confirm or refute disturbance observations, and where there appears to be relevant photographic evidence, it is disputed. This Report is not qualified to make a judgment about this controversy. In short, the limited information found on the inconclusive photographic research neither trumps nor disproves all 2007 and 2008 DBOC-caused disturbances observed by volunteers and included in the research record. Confining attention solely to the differences between the research record and the photographic material, an objective eye focuses solely on the adequacy of the research record for May 8, 2007 and March 14, 2008.

Complaint #19 The Report (page 29) states, “It follows that scientific or research misconduct would arise in the following situation: intentional acts produced a research record that did not accurately represent information found in the photographic data on May 8, 2007, and March 14, 2008.” As noted previously, the photographic data is largely inconclusive. But the usefulness of some photos that could be used to build a case to confirm or refute an eyewitness account is dependent on the photos being of exactly the same spot at exactly the same time with sufficient resolution and clarity. However, that combination of confirming factors almost never occurred.

Remedy #19 Thus, we request that this section of the Report be corrected to state, “It follows that scientific or research misconduct would arise in the following situation: intentional acts produced a research record that did not accurately represent information found in the photographic data on May 8, 2007, and March 14, 2008 when the photos are of exactly the same spot at exactly the same time and have sufficient resolution and clarity. That combination of confirming factors almost never occurred.”

Complaint #20 The Report (page 29) states, “S1 and SE2 had no reason to reference the camera or possible photographic contradiction of that (May 8, 2007) visual observation, or the accuracy of the photographic content represented in the research record. Although suspicion now surrounds the volunteer’s visual observation of a harbor seal disturbance allegedly caused by DBOC mariculture operations in upper Drakes Estero on May 8, 2007, concerns about the accuracy and weight of that observation remained wholly unknown to S1 and SE2 on that date.”

As stated multiple times in this complaint, it is not logical or accurate for the Report to conclude that the photographic images for May 8, 2007 create suspicion about the volunteer’s observation.

Remedy #20 Thus, we request that this section of the Report be corrected to state, “S1 and SE2 had no reason to reference the camera or possible photographic contradiction of that (May 8, 2007) visual observation, or the accuracy of the photographic content represented in the research record. Although suspicion now surrounds the volunteer’s visual observation of a harbor seal disturbance allegedly caused by DBOC mariculture operations in upper Drakes Estero on May 8, 2007, concerns about the accuracy and weight of that observation which remained wholly unknown to S1 and SE2 on that date.”

Complaint #21 The Report (page 30) states, “...numerous, largely inconclusive digital photos from a remote wildlife camera showing nothing more than benign DBOC mariculture operations round harbor seals at upper Drakes Estero...”

As noted previously, the photographic data is largely inconclusive. The usefulness of some photos that could be used to build a case regarding DBOC mariculture operation impact on harbor seals is dependent on the photos being of exactly the same spot at exactly the same time with sufficient resolution and clarity. However, that combination of confirming factors almost never occurred.

The Report correctly points out limitations of the PRNS camera evidence:

“blurry, with varying degrees of murk... [due to] camera positions, poor resolution, significant distances, the absence of sound, narrow fields of view, loss of 59 ¾ seconds out of every minute...and the presence of wind, fog, and nearby foliage.” Thus the existence of large numbers of photographs so indistinct that they barely if at all show subjects the size of boats (let alone seals), does not represent a preponderance of evidence showing “no disturbances by DBOC.”

In addition to the Report’s correctly identified limitations on the photographic evidence, the NRC Committee and others also identified additional limitations, based on camera technology and harbor seal biology, which included:

- Photos can’t measure harbor seal disturbance that can occur from motorboat noise, both above and below water;
- Photos can’t measure physiological disturbance effects, such as increased blood pressure or increased “fight-or-flight” enzymes, that can result from nearby human activities that do not result in an overt observable response in the seal;
- Photos can’t measure the severity or duration of disturbance whose effects may continue after the seal is out of the camera view.
- These specific PRNS cameras do not capture all of the seal haul-out areas where disturbances have been documented;
- The PRNS cameras are aimed at on-land haulouts and cannot measure disturbance of in-water seal activities such as forging and mating
- Photos can’t measure displacement and site-abandonment due to bags placed on sandbars, in both authorized and unauthorized areas (for example, DBOC was fined \$62K in December 2009 for placing clam bags in a harbor seal protection area for at least 3 months, yet this violation does not count as a “disturbance” in the research record).
- Photos cannot measure the extent to which seals become accustomed to regular human presence and to save vital caloric energy, simply avoid areas where the seal anticipates disturbance (e.g. the chronic invasion by DBOC boats of the seal protection area at the west end of the OB channel). While the photos are largely inconclusive about seal disturbance, they are nevertheless adequate to identify the physical location of DBOC boats in this channel.
- Photos, especially intermittent ones, cannot clearly identify individual seals, thus rendering the critical monitoring of individual behavior and response largely impossible.

In summary, photographs (as volunteer field surveys for many of the same reasons) very likely underestimate the number, severity and durations of disturbance that actually occur. Nevertheless, the inability of the current research record to prove beyond reasonable doubt a “cause and effect” relationship between DBOC activities and harbor seals impacts (rather than the Becker 2010 conclusion of a strong statistical correlation) should not be interpreted as preventing NPS from precautionary action. As Dr. Peter Gleick, a member of the National Academy, correctly noted in a recent letter to Science magazine (VOL 328 7 MAY 2010) co-signed by many other NAS members: *“There is always some uncertainty associated with scientific conclusions; science never absolutely proves anything. When someone says that society should wait until scientists are absolutely certain before taking any action, it is the same as saying society should never take action.”*

Remedy #21 Thus, we request that this section of the Report be corrected to state, *“...numerous, largely inconclusive digital photos from a remote wildlife camera ~~showing which was aimed at only one of three seal haulouts and which produced blurry images with barely enough resolution to identify seals.~~ While many of the images show ~~nothing more than benign~~ DBOC mariculture operations round harbor seals at upper Drakes Estero, some images and eyewitness reports from NPS volunteers and staff show by the time of the July 2007 meeting an uptick (none in 2005, one in 2006, six in 2007) in DBOC-caused disturbances as DBOC operations expanded toward seal haulout sites in 2007. The informant denies*

these events as DBOC-caused disturbances. This Report is not qualified to make a judgment about this controversy”

Complaint #22 The Report (page 31) states, “Information contained in the research record reveals that volunteers and NPS employees conducted a total of 56 surveys in 2007, and a total of 40 surveys in 2008. During the 56 surveys conducted in 2007, witnesses observed only six harbor seal disturbance caused by DBOC mariculture operations on April 26, 2007 (three disturbances); April 29, 2007, (two disturbances); and May 8, 2007 (one disturbance). During the 40 surveys conducted in 2008, only one volunteer witnessed a DBOC-caused disturbance March 14, 2008.

As previously noted, the Report omits from the research record V1’s eleven disturbance observations in 2008 and the chronic violations of a seal protection area per V1’s logs of 2008 photos.

Remedy #22 Thus, we request that this section of the Report be corrected to state, “Information contained in the research record reveals that volunteers and NPS employees conducted a total of 56 surveys in 2007, and a total of 40 surveys plus in 2008. During the 56 surveys conducted in 2007, witnesses observed ~~only~~ six harbor seal disturbance caused by DBOC mariculture operations on April 26, 2007 (three disturbances); April 29, 2007, (two disturbances); and May 8, 2007 (one disturbance). During the 40 surveys conducted in 2008, ~~only one volunteer witnessed a DBOC-caused disturbance March 14, 2008~~ twelve eyewitness disturbances were recorded along with one disturbance recorded by photos only and number violations of a seal protection area by DBOC boats were recorded by photos.

Complaint #23 The Report (page 31) states, “the relevant and materiality of V1’s research and the grainy, inconclusive, and seemingly unhelpful (to NPS) photographic images.”

As noted in Complaint #7, bullets 1) and 2), the research record contains eleven codes for V1 (S.Codde’s) eyewitnessed disturbances for 2008 (not including 3/14/08), plus the camera images of 4/3/08.

Remedy #23 Thus, we request that this section of the Report be corrected to state, “the relevant and materiality of V1’s research and the grainy, inconclusive, and ~~seemingly unhelpful (to NPS)~~ photographic images, which the informant asserts show no DBOC-case disturbances, yet others assert show credible evidence of DBOC-caused disturbances. This Report is not qualified to make a judgment about this controversy.”

Complaint #24 The Report (page 32) states, “...employees showed no appreciation for the fact that the research record did not accurately represent available information which indirectly exonerated DBOC mariculture operations as the cause of harbor seal disturbances visually observed by the same volunteer on May 8, 2007 and March 14, 2008. Indeed, the NPS employees should have, but did not attach evidential value to research which failed to confirm, directly and specifically, observations made by a volunteer on those two dates. The subject photographic research, though poor in quality and low in value, undeniably bolstered DBOC arguments that no mariculture operations harassed any harbor seals in upper Drakes Estero either in May 2007, or in March 2008.”

Previous listed complaints address how the Report’s conclusions of ‘indirect or direct exoneration of DBOC mariculture operations as the cause of harbor seal disturbance’ are not supported by the evidence in the research record, analysis by marine mammal experts, and/or logic based on camera position and disturbance location. Additionally, of the fourteen eyewitnessed disturbance events in the research record during the May 2007-August 2009 period when the cameras were operational, there are only two events simultaneously recorded.

Thus, there are only two logical possibilities: either the eyewitnesses were lying about all but two of their observations...or the quality of the photos was so poor and the position of the cameras so ill-suited that the lack of confirming photos cannot be the prime determinant of the veracity of the observation.

In the first case, all twelve of the un-photographed observations (including the 3/14/08 observation by the falsely-accused volunteer) should be equally under “suspicion.” In the second case, none of the twelve un-photographed observations should be under suspicion. Logic favors the second case, but in no case should the falsely accused volunteer be singled out.

Remedy #24 Thus, we request that this section of the Report be corrected to state, “... employees showed no appreciation for the fact that the research record did not accurately represent available information which indirectly exonerated DBOC mariculture operations as the cause of harbor seal disturbances visually observed by the same volunteer on May 8, 2007 and March 14, 2008. Indeed, the NPS employees should have, but did not attach evidential value to research which failed to confirm or deny, directly and specifically, observations made by a volunteers on those two dates. The subject photographic research, though poor in quality and low in value, undeniably could have, with better design, either bolstered DBOC arguments that no mariculture operations harassed any harbor seals in upper Drakes Estero or bolstered observations by NPS volunteers and staff that showed an uptick in disturbances alleged as caused by DBOC. either in May 2007, or in March 2008. The informant asserts the photos show no DBOC-caused disturbances, yet others assert the photos show credible evidence of DBOC-caused disturbances. This Report is not qualified to make a judgment about this controversy.”

Complaint #25 The Report (page 32) states. “someone in their chain of command...should have...demanded disclosure of all research which a reasonable objective scientist could interpret as data suggesting that DBOC mariculture operations did not disturb harbor seals at upper Drakes Estero on May 8, 2007 or March 14, 2008.”

But elsewhere, the Report correctly points out limitations of the PRNS camera evidence: “blurry, with varying degrees of murk... [due to] camera positions, poor resolution, significant distances, the absence of sound, narrow fields of view, loss of 59 ¾ seconds out of every minute...and the presence of wind, fog, and nearby foliage.” Furthermore, as noted in Complaint #1, there is credible analysis of photographic evidence supported by expert testimony that a disturbance on May 8, 2007 did occur that is “most parsimoniously” attributed to the DBOC oyster boat. Furthermore as noted in Complaint #2, the camera’s limited field of view was focused on OB and contained only a small portion UEF far from the area on UEF customarily used by a group of seals as a haulout. Because the volunteer eyewitnessed a disturbance at UEN on 3/14/2008, the photos cannot logically resolve the disputed event. Thus the available evidence contradicts the Report’s assertion that “a reasonable objective scientist could interpret as data suggesting that DBOC mariculture operations did not disturb harbor seals at upper Drakes Estero on May 8, 2007 or March 14, 2008.”

Remedy #25 Thus, we request that this section of the Report be corrected to state, “someone in their chain of command...should have... discovered the Interim Guidance document sent specifically only to members of the NPS Leadership Council, then distributed the Interim Guidance document to relevant PRNS employees and volunteers and explained that it now mandated that data even from research that appeared to be useless should nevertheless be processed thoroughly and expeditiously and that the definition of “draft” data formerly exempt from FOIA request had now been changed to mandate that even “draft” data be released and thus demanded disclosure of all research which a reasonable objective scientist could interpret as data suggesting that DBOC mariculture operations did not disturb harbor seals at upper Drakes Estero on May 8, 2007 or March 14, 2008.” could have, with better design and/or equipment, either bolstered DBOC arguments that no mariculture operations harassed any harbor seals in upper Drakes Estero or bolstered observations by NPS volunteers and staff that showed an uptick in disturbances caused by DBOC.

SUMMARY

As the above Complaints make clear, the Report goes beyond its mandate, expertise and experience to present unfounded, inaccurate, illogical, and contradicting scientific conclusions that erode public confidence in the Report's information quality and also result in an accusation that one specific NPS volunteer either directly or indirectly violated: 18 U.S. C. § 1001, "Scientific Misconduct" as defined by federal policies; and an applicable interim NPS Code on Scientific and Scholarly conduct.

These accusations against the NPS volunteer, which relate to her/his records of observations on May 8, 2007 and March 14, 2008, are in the first instance contradicted by the evidence and logic and in the second instance are not supported by the preponderance of evidence and logic. Further undermining the accusations are statements in the Report concerning the scientific record of data gathered by NPS volunteers, including the falsely-accused volunteer, that are factually incorrect.

Save Our Seashore, requests that the many factual scientific errors and unsubstantiated scientific conclusions in the Report be corrected. We also request removal of the specific accusations against the one NPS volunteer, and by logical extension against each of the many NPS volunteers and staff who may have eyewitnessed harbor seal disturbances but did not have their observations confirmed by largely inconclusive photos from remote and often misdirected cameras.

SOS also wants to make clear that we do not believe in the absolute infallibility of NPS volunteers and staff. As Dr. Peter Gleick notes in his aforementioned letter in Science magazine: *"Like all human beings, scientists make mistakes, but the scientific process is designed to find and correct them.... Many recent assaults on...science and, more disturbingly, on...scientists...are typically driven by special interests or dogma, not by an honest effort to provide an alternative theory that credibly satisfies the evidence."* Inconclusive evidence and errors, particularly when charged to institutions rather than individuals, do not justify finding of violations of law, policy or NPS Code.

This Report arrived at scientific conclusions that were unfounded, inaccurate, illogical, and contradicting. Yet those unfounded scientific conclusions nevertheless resulted in potentially criminal accusations against an innocent NPS volunteer and by extension cast a pall over all NPS scientists and staff. Because this Report contains information and conclusions that are simply wrong or unfounded, these NPS individuals are now be subject to public vitriol and political pressure, including recent calls to be removed from their positions....all of this because they may have expressed a scientific opinion that may have been in error, or a scientific opinion that may have been controversial or a scientific opinion perceived to be against the economic well-being of Drakes Bay Oyster Company, the special interest seeking to maintain private use of the public resource at PRNS.

Secretary Salazar stated on September 10, 2010, *"The American people must have confidence that the Departmental the Interior is basing its decisions on the best available science and that the scientific process is free of misconduct or improper influence."* Ironically, the Report in researching its well substantiated "employment" conclusion that NPS made *"mistakes that may have led to an erosion of public confidence"* also made mistakes of its own in reaching unfounded "scientific conclusions" that in our opinion may similarly have led to an erosion of public confidence in Secretary Salazar's directive that DOI scientific process are free of "improper influence." Thus, we agree with Dr. Gleick, when he writes in his Science letter, *"We also call for an end to McCarthy-like threats of criminal prosecution...[and] the harassment of scientists by politicians..."*

When these errors in this Report are corrected, it will be clear that no basis remains for either the Report's accusations against the volunteer or the Report's negative scientific bias against NPS, its employees and its volunteers.

Respectfully submitted on behalf of Save Our Seashore by

 Gordon Bennett, SOS President