

Corey S. Goodman, Ph.D.  
The Barinaga Ranch  
Marshall, CA  
(415) 663-8870 (Marshall)  
(650) 922-1431 (mobile)  
(650) 266-1476 (work)  
goodman@renovis.com

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Supervisor Steve Kinsey, President  
Marin County Board of Supervisors  
Marin Civic Center  
San Rafael, CA

Dear Supervisor Kinsey:

On May 8, 2007, the Marin County Board of Supervisors held a hearing on the issue of oyster farming and Drake's Estero. At the hearing, I made a short verbal presentation and submitted a more detailed written report to the Board. My analysis was based on my experience as a scientist, biology professor, and member of the National Academy of Sciences. Since that meeting, I learned of an official Point Reyes National Seashore (PRNS) report on Drake's Estero posted on the Park Service web site, and noticed its many changing versions. I have now carefully reviewed several version of that report, including the most recent version dated May 11. In the report, the PRNS Superintendent and his staff continue to misrepresent the scientific data from Drake's Estero, raising additional concerns about the integrity of their scientific conclusions.

This letter, and the attached report, supplements my May 8, 2007 testimony. The PRNS web site ([www.nps.gov/pore](http://www.nps.gov/pore)), in the section "Coming Soon! A Restored Wilderness Estuary," posts a report entitled Drakes Estero, a Sheltered Wilderness Estuary which concludes:

*Specifically in Drakes Estero, ecological function has been degraded and altered over the past several decades due to activities associated with oyster farming and ranching. [Pg. 10]*

The PRNS does not have the evidence to support that claim. In fact, their data suggest just the opposite: namely, that the oyster farm and ranches have not harmed the Estero.

In the new analysis, I do not attempt to address either the full PRNS report or the many scientific claims asserted about the impact of oyster farming on Drakes Estero. Rather a single claim is investigated in detail – that oyster feces are the primary source of sediment in the Estero, and that this sediment is harming the eelgrass and smothering important native species. By focusing on this one major claim in detail, a pattern of misrepresentation and misquotation of science is revealed.

From my analysis, a disturbing series of conclusions emerge: PRNS misrepresented and misquoted studies that they themselves commissioned. In addition, their report misleads readers by citing studies from other coasts and other continents as if these studies are from Drake's Estero. Their document suggests that the USGS collected certain data in Drake's Estero, which it did not. And what's more, they omit key data and conclusions from PRNS-

commissioned studies that support the opposite conclusion of what the PRNS claims. The unsubstantiated claims made by the PRNS are an egregious example of the misuse of science by a federal agency.

One might wonder whether this one example of a false claim is a sole indiscretion, or whether it truly represents a broader pattern in the misuse of science by the PRNS. To show the generality of this misuse of science, I more briefly examine a second claim in the PRNS report on their web site – that the oyster racks have altered the overall fish communities in the Estero, including harming the eelgrass and the fish that depend upon the eelgrass. The same pattern of misrepresentation and misquotation is shown for this claim as well, revealing a general pattern.

Most of the data that have been collected and published to date concerning Drake's Estero have been commissioned, reviewed, and in some cases co-authored by the PRNS, apparently all without appropriate outside peer-review. Nevertheless, an analysis of these data and reports reveal that there is no compelling scientific reason to remove the oyster farm from Drake's Estero. There is also no scientific reason to eliminate the ranches surrounding the Estero. My initial report to you on May 8 supported that conclusion. This second report that I submit to you today further strengthens that conclusion: the available data show that the oyster farm and surrounding ranches are not negatively impacting the ecology of Drake's Estero.

You and the Marin Board have sought to clarify the various science-based issues concerning Drake's Estero. The Board's May 8 letter to Senator Feinstein recognized that a number of scientists and other experts disagree with claims made by the PRNS staff. Further, in the same letter, the Board stated:

*We believe that an early step in the process could be a public presentation of the diverse views of marine scientists, and we are prepared to host such an event.*

Before such a meeting is convened, it is essential that the Park Service provide full access to the data on which their conclusions are based so that meaningful and fully-informed discussion can occur among all parties. My original report and appended new report and analysis are necessarily incomplete because I do not have their unpublished data. Immediately after the hearing, I contacted PRNS staff and requested scientific data relating to issues about which they testified before your Board. When it was not forthcoming, two Freedom of Information Act requests, one on May 12 and the other on May 13, were submitted to the Superintendent, requesting the customary reply within 10 days. Today, 17 and 16 days respectively after these FOIA requests were submitted, they remain unanswered by PRNS staff. If the data clearly support the PRNS claims, then I would have expected them to quickly and openly provide the requested data for analysis.

I appreciate the opportunity to present this scientific analysis. I request that my letter and report be circulated to the other members of the Board. Please do not hesitate to contact me if you have any questions, or would like further clarification.

Sincerely yours,

Corey S. Goodman, Ph.D.

cc: Superintendent Don Neubacher, Pt. Reyes National Seashore  
Kevin Lunny, owner, Drake's Bay Oyster Company