

April 3, 2006

*Via Email and U.S. Mail*

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Chair Jeffrey Young  
California Regional Water Quality  
Control Board, Central Coast Region  
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Re: Re-issuance of the 301(h) Waiver, Draft NPDES/WDR, and Proposed Settlement Agreement for the Morro Bay-Cayucos Sewage Treatment Plant

Dear Chair Young, Members of the Board, and Director Strauss,

The Natural Resources Defense Council ("NRDC") hereby submits comments on the March 3, 2006 "Response" submitted by Marine Research Specialists ("MRS" or "Attachment A") on behalf of the City of Morro Bay ("Sewage Plant" or "Plant"). In this letter, we first reassert our strong objections to the administrative process before the Central Coast Regional Water Quality Control Board ("Regional Board" or "Board")—including, but not limited to, the manner in which Board and Board staff administered the public review and participation process with respect to Attachment A. Then, we address, to the extent we have been able to in the limited, piece-meal time allotted to NRDC to reply, the main sections of Attachment A: Lack of a Balanced Indigenous Population of Sea Otters and *Toxoplasma Gondii*; Monitoring for *T. Gondii* and Pathogens; Waters of Estero Bay Mix With Waters of Morro Bay Estuary; the Plant's Discharge and Water Quality Impacts; and the Plant's Conclusory, Unsupported, and Inaccurate Statements, and Rhetorical Attack on NRDC and its Experts.

Objection to Administrative Process

In submitting this reply to Attachment A, NRDC reasserts—and in no way whatsoever waives—any of our strong objections to the administrative process before the Regional Board. The following represents a summary of NRDC's continuing objections to the Board's administrative process, which reviews and supplements, and does not replace, the objections NRDC previously made.<sup>1</sup> The Board's administrative process with respect to the Plant's 301(h) waiver and related matters has been riddled

<sup>1</sup> See Letter from NRDC to Jeffrey Young (Feb. 22, 2006); Petition from NRDC to State Board (Feb. 27, 2006); Letter from NRDC to Michael Lauffer (Mar. 10, 2006); and Letter from NRDC to Roger Briggs and Lori Okun (Mar. 17, 2006).

with illegal and arbitrary and capricious actions that have resulted in serious prejudice to NRDC and the public at large. These arbitrary and capricious actions, which constitute an abuse of discretion, include *inter alia*: 1) prejudgment of the matters in dispute; 2) violations of fair hearing requirements; 3) bias; and 4) impermissible post-hoc rationalizations.

*Prejudgment.* Throughout the administrative process, Board staff has prejudged its recommendations and decisions in favor of the Plant, often before even receiving evidence into the record. In many instances, Board staff failed to provide objective advice and technical review to the Board. For example, from the outset of the process and a month before any comments were due, the primary Regional Board staffer in this matter intercepted an email amongst environmental groups and intervened in the discussion.<sup>2</sup> In a bizarre procedural maneuver, the staffer selectively emailed the groups and preemptively urged them to support the Plant's proposal. Such an action telegraphed that the Board will not be conducting an objective and even-handed evaluation of comments once it receives them and functioned to impermissibly chill and quell public participation from any opposition.

Further evidence of Board staff's prejudgment is the issuance of the Staff Report prior to submittal of all public comments—specifically comments by NRDC. Although staff knew NRDC had until March 13 to submit comments, staff nevertheless issued the Staff Report prior to March 13—before NRDC submitted its reply, but right after the Plant submitted its response.<sup>3</sup> As such, there is no way staff could have conducted an objective evaluation of the full record and considered all public comments in reaching its decision and recommendation to the Board.<sup>4</sup> These two examples are indicative of the overall approach Board staff, and to a certain extent the Board, has taken in prejudging its decision.

*Fair Hearing.* Fair hearings and even-handed public procedures are indispensable to the work of the water boards. However, in this matter, the Regional Board and staff have failed to provide a fair hearing, including fair procedures. This failure is demonstrated by the Regional Board's action of re-opening the written comment period for the sole purpose of allowing the permit applicant, the Plant, to respond to public comments without providing an adequate or equal reply opportunity to the public, as discussed in our petition to the State Board.<sup>5</sup> The fact the Board is now

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<sup>2</sup> Email from Matt Thompson to Anjali Jaiswal (Dec. 29, 2005), attached hereto for submittal into the record.

<sup>3</sup> See Staff Report (Mar. 3, 2006).

<sup>4</sup> The Staff Report not only failed to consider NRDC's comments, it also did not consider material comments submitted by The Otter Project (Mar. 20, 2006), attached hereto for submittal into the record.

<sup>5</sup> NRDC incorporates its petition by reference, which more fully cites the relevant authorities. As further explained in NRDC's subsequent letter to the State Board dated March 10, 2006, we reassert the objections raised in the petition, as the gravamen of the petition remains unchanged.

allowing NRDC until April 3, 2006 to submit comments does not cure the prejudice that has resulted from the Board's unfair procedures for several reasons. First, in addition to the four Joint Hearing Notices moving the comment and hearing dates, the Regional Board has used a "moving target" deadline approach toward NRDC's reply deadline. Initially, the Board provided NRDC no opportunity to reply to the Plant's response. Then, the Board gave NRDC three business days to reply. Because the Plant's response was not timely received, the Board extended the reply time to a total of five business days, during which NRDC staff was working on another Region 3 matter. Finally, only after the Plant requested a continuance of the hearing date, the Board on March 22 informally set the current April 3 deadline, which coincides with NRDC's efforts to resolve this dispute with the Plant as well as other matters in Region 3. Thus, this "piece-meal" comment period meant that NRDC was effectively denied the same 30-day response period that was granted to the Plant.<sup>6</sup> As such, this "moving target" deadline has not allowed NRDC to obtain technical review or expert review of the ream of information submitted by Plant. Moreover, NRDC has sent out several Public Records Act ("PRA") requests in an effort to obtain information in response to new information provided by the Plant. We have not received a full response to all the PRA requests, and thus are prevented from providing a complete reply.

In this connection, NRDC sent a PRA request to the Regional Board seeking documents regarding the Board staff's analysis of the balanced indigenous population requirement for a waiver. In response to the PRA, Mr. Briggs stated, "we are withholding some records that are attorney-client privileged communications, attorney work product, and deliberative process privileged records."<sup>7</sup> Mr. Briggs also states that a privilege log is not required. However, as discussed in our April 3, 2006 letter following up on the PRA request, we asked about the number of responsive documents the Regional Board found, requested that the Regional Board state its basis for asserting that a privilege log is not required, and asked the Board to reconsider providing redacted documents and/or a privilege log. However, given the Board's "moving-target" approach, we have been unable to obtain a full response, and thus cannot provide a comply reply on this critical issue.

More examples of the Board's unfair procedural posture are evident in the Notice of Hearing Procedures dated March 10, 2006. As discussed in our March 17, 2006 letter to the Regional Board, the Board's approach to giving more "weight" to oral testimony over written comments favors those who can attend the hearing and unfairly penalizes and prejudices those who cannot. This abuse of discretion is compounded by

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<sup>6</sup> See, e.g., *Ultramar, Inc. v. SCAQMD*, 17 Cal. App. 4th 689, 701 (1993) (when agency released further information for review 3 weeks into the public comment period, without extending the comment period, court held that agency action constituted prejudicial abuse of discretion because public was given only one week to comment on the additional information, thus denying full 30-day review as required by law).

<sup>7</sup> Letter from Roger Briggs to Anjali Jaiswal (Mar. 23, 2006), attached hereto for submittal into the record.

the fact that none of the four hearing notices mentioned alerting the public of the need to appear. NRDC has stated its objection to these unfair procedures but has yet to receive a response from Board staff.

Another key example of unfair hearing procedures is Board staff's failure to provide an equal opportunity for public participation with respect to proper notification of its myriad of notices—formal and informal alike. The notices have not been properly or promptly posted on the Board's website or in emails to all interested persons. For instance, the Board notified just a handful of people that it was re-opening the comment period solely for the Plant to submit a response, and then, only gave NRDC a token opportunity to respond, thus ignoring the many other interested persons in this matter.<sup>8</sup> Likewise, Board staff only orally notified some of the public and parties that the matter was taken off the March 24 agenda. In fact, even on March 23 members of the public thought the hearing was still scheduled to take place the next day.<sup>9</sup> Such sloppy notice procedures impermissibly function to leave the public in the dark as to when and what agency action will occur. Moreover, staff has not issued a notice as to the new hearing location but has orally indicated that the hearing will be in Watsonville, over the stated objections of many groups who wish to have the matter heard locally.<sup>10</sup> As such, we restate our request to have the matter heard locally in San Luis Obispo. As stated in our petition to the State Board, the effect of the Board's unfair hearing procedures grants rights and privileges to the Plant—the permit applicant—that have not been afforded to the public and were in essence denied when requested. As such, this process has seriously undermined the fundamental objectives of broad public participation that structured comment periods are specifically designed to further.<sup>11</sup>

While the Board's actions serve to chill public participation, they are more egregious with respect to NRDC, which has been designated a party to the proceedings.<sup>12</sup> Towards this point, the Regional Board recognized NRDC's interest and involvement in this matter by setting forth hearing procedures which afford NRDC rights and opportunities consistent with designated party status.<sup>13</sup> For instance, the Notice of Hearing Procedures provides that copies of any submissions in response to the

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<sup>8</sup> See Email from Matt Thompson to Bruce Keogh (Feb. 17, 2006), attached hereto for submittal into the record; *see also, e.g.*, Letter from Steve Shimek of The Otter Project to Jeffrey Young (Mar. 20, 2006).

<sup>9</sup> *See, e.g.*, Email from Joey Racano (Mar. 23, 2006), attached hereto for submittal into the record.

<sup>10</sup> *See, e.g.*, Letters from Surfrider Foundation, Sierra Club, and EcoSlo (Jan. 4, 2006) (requesting hearing in San Luis Obispo).

<sup>11</sup> *See, e.g., Environmental Protection Information Center, Inc. v. Johnson*, 170 Cal. App. 3d 604, 622-623 (1985) (finding that agency's failure to adhere to letter of procedural requirements in environmental regulation undermined the policy in favor of full public participation in administrative environmental decision-making context).

<sup>12</sup> *See* Email from Lori Okun to David Beckman et al. (Mar. 21, 2006), attached hereto for submittal into the record.

<sup>13</sup> *See* Cal. Gov't Code § 11513; 23 C.C.R. § 648.1.

Notice must be emailed to David Beckman of NRDC; that NRDC may call and examine witnesses; that NRDC may question the Sewage Plant's and the Water Board's staffs; and that NRDC will be allowed more time than is given to other interested persons to present its comments at the hearing.<sup>14</sup> As such, the Board has recognized that NRDC essentially stands on equal footing, from a procedural standpoint, with the Plant and therefore should have been treated equally. However, for all the above reasons, the Board's actions have not treated NRDC equally and thus, constitute a prejudicial abuse of discretion.<sup>15</sup>

*Bias.* Section 11425.10(a)(4) of the Government Code requires that in adjudicative proceedings, the adjudicative function "be separated from the . . . advocacy function[] within the agency." This requirement applies not only to the presiding officer of the hearing, but to any person having the power to hear or decide matters in the proceedings.<sup>16</sup> Here, that separation has been altogether ignored as Board staff has both participated in the crafting of and advocated for the proposed action, while at the same time making important procedural decisions throughout these proceedings. Three principal examples highlight this bias. The first is the December 29, 2005 email by the primary staffer in this matter, as discussed above, urging select environmental groups to support the Plant's position—even though the Board had not received any comments or evidence from the public on the matter. This email demonstrates that from the outset Board staff tipped the scale in favor of the Plant.

The second example of bias is a set of emails from the primary staffer to the chief consultant for the Plant. In the email, the primary staffer asks the consultant for assistance on the technical presentation for the hearing:

I'm preparing my presentation for the March 24 hearing, and there are a couple things that I could really use. Would you mind sending me electronic versions of the following [three items] at your convenience? . . . I realize that this is big one [item] but I want to chart this data to counter NRDC's day-old-bread arguments and Dr. Gold's arguments.<sup>17</sup>

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<sup>14</sup> *See id.*

<sup>15</sup> By extending the written comment deadline for the Sewage Plant and responding to NRDC's objection by offering to accept a written response from NRDC—but not the public—into the record, the Board "overlooks the gravity" of its action. *See Ultramar, Inc. v. SCAQMD*, 17 Cal. App. 4th 689, 701 (1993) (finding that the late addition of significant information to the administrative record, without a corresponding extension of the public comment deadline, constituted a prejudicial abuse of discretion).

<sup>16</sup> Gov't Code §§ 11425.30(c), 11425.40(c). *See, e.g., Nightlife Partners v. Beverly Hills*, 108 Cal. App. 4th 81, 92, 94, 96 (2003) (finding bias and violation of due process rights, and ordering new hearing where city attorney took active and significant part in petitioner's application renewal process and also advised presiding officer as to evidentiary and legal issues at hearing).

<sup>17</sup> Email from Matt Thompson to Douglas Coats (Mar. 9, 2006), attached hereto for submittal into the record.

In response, the consultant provides a 10-paragraph technical review and analysis of the evidence for the staffer's presentation to the Board.<sup>18</sup> This email exchange patently shows bias on the part of Board staff, even to the extent of colluding with the Plant to mount a "counter" against NRDC's arguments.

A third example of bias is the Board Chair Jeffrey Young's demand on March 21, 2006 that the NRDC justify why it submitted two new studies that are clearly relevant to adverse water quality impacts from less-than-secondary treated sewage.<sup>19</sup> Yet, the Board never required the Plant to justify the myriad of new issues it raised in its response to NRDC's comments, including information regarding wastewater treatment plants in New York and San Diego that were clearly not analogous to the situation in Morro Bay. Because of this manifest bias, the Board's adjudication of this matter is fatally flawed, shows lack of independent review, and constitutes a clear abuse of discretion.

*Impermissible Post Hoc Rationalization.* Board staff has yet to fully respond to NRDC's many objections to these prejudicial procedures. Instead, Board staff has engaged in impermissible *post hoc* rationalizations for its actions. As discussed in our March 17, 2006 letter, statements like the ones in the Board's Notice of Hearing Procedures, which attempt to justify (after the fact) its highly prejudicial decision to accept the Plant's written comments 30 days after the deadline had passed by purporting to consider prejudice, constitute unlawful *post hoc* rationalizations.<sup>20</sup> Such *post hoc* rationalizations fail to cure the Board and staff's arbitrary and capricious actions throughout these proceedings.

Again, without waiving NRDC's objections to the Board's administrative procedure, NRDC below submits its substantive comments to the Plant's response by Marine Research Specialists. Due to the "chopped-up" response time given to NRDC, NRDC had no opportunity to obtain meaningful expert review of the highly technical comments by the Plant's own scientific experts. As such, NRDC reserves its right to supplement the following comments with relevant expert comments.

*Lack of Balanced Indigenous Population of Sea Otters, and Toxoplasma Gondii*

To obtain a 301(h) waiver, the Plant has the burden of proving that a balanced indigenous population exists in the area immediately beyond the zone of initial dilution

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<sup>18</sup> See Email from Douglas Coats to Matt Thompson (Mar. 12, 2006), attached hereto for submittal into the record.

<sup>19</sup> See Email from Lori Okun to David Beckman et al. (Mar. 21, 2006), attached hereto for submittal into the record.

<sup>20</sup> See *Burlington Truck Lines v. United States*, 371 U.S. 156, 168-69 (1962) (refusing to accept counsel's attempted *post hoc* rationalizations for agency decision where "commission did not so find").

of the discharge; and in all other areas beyond the zone of initial dilution where marine life is actually or potentially affected by the discharge.<sup>21</sup> A balanced indigenous population consists of an ecological community which exhibits characteristics similar to those of nearby, healthy communities existing in comparable but unpolluted conditions.<sup>22</sup> NRDC has pointed to ample evidence that a healthy balanced population of marine life does not exist in the waters actually or potentially affected by the Plant's discharge, but this evidence was not considered by the Plant. Rather, in Attachment A, the Plant engages in a misguided and futile four-fold attack on this evidence.

1. Plant claims: "A healthy balanced indigenous population flourishes around the discharge."

*Otter Population Trends.* The Plant claims that a healthy balanced indigenous population flourishes around the discharge. MRS, at 20. To support this statement, the Plant asserts that the population of the southern sea otter is in a positive growth trend and is on a road to recovery. MRS, at 20. Evidence from the very sources that the Plant relies on contradicts this claim:

- The Revised Recovery Plan states, "Given that the population is currently not increasing, and that the reasons for the lack of increase have so far neither been clearly identified nor remedied, it is not yet possible to predict a likely time to recovery." <sup>23</sup>
- The Plant relies heavily on data from The Otter Project (*see, e.g.*, MRS, at 20-24), yet omits crucial language from The Otter Project's website:<sup>24</sup>
  - "The spring 2005 survey found 2735 sea otters, down 3.2-percent from the 2004 survey."
  - "Although we are uncertain about the population trend, we find the stranding numbers most compelling and indicative of a problem. Because of the lack of statistical rigor in the annual surveys, we tend to discount small year to year changes. The Otter Project would support - with volunteers and with financial contributions - any effort to increase the reliability of the survey or statistical analysis."

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<sup>21</sup> 40 C.F.R. § 125.62(c)(2).

<sup>22</sup> 40 C.F.R. § 125.58(f).

<sup>23</sup> U.S. Fish and Wildlife Service, *Final Revised Recovery Plan for the Southern Sea Otter* (Enhydra lutris nereis) (2003), at x.

<sup>24</sup> All following statements are available at <http://www.otterproject.org/site/pp.asp?c=8pIKIYMIG&b=256015>.

- “[T]he largest and most unusual cause of death is ‘disease.’ About 50% of all mortality is due to a variety of diseases. Otters are being inflicted with diseases from land, being washed into the ocean from *sewage* and non-point sources.” (emphasis added).
- “We must stop polluted sewage and runoff from reaching the ocean. We must become less tolerant of municipal sewage spills and should require cities to maintain and update their sewer and sewage treatment systems. Some cities (San Diego and Morro Bay) still dump nearly raw sewage (primary treatment only) directly into the ocean. Waivers allowing this practice should be denied in the public interest.”

Thus, the very source that the Plant relies on explicitly condemns 301(h) waivers—including Morro Bay’s waiver—as promoting the practice of dumping primary-treated sewage, leading to otter disease. It is astounding that the Plant could point to the website in support of granting it a 301(h) waiver. Indeed, The Otter Project has submitted a letter clarifying that it does not agree with the Plant’s position and requesting that the Plant provide a written and verbal correction.<sup>25</sup>

*Carrying Capacity.* In further support of its allegation that a healthy balanced indigenous population “flourishes” around the discharge, the Plant states that the “otter population within Estero Bay is potentially near carrying capacity, and is therefore, not imbalanced.” MRS, at 21. Interestingly, the Plant only claims the population is “*potentially* near carrying capacity,” basically rendering the claim meaningless. Indeed, the Plant’s argument is a misguided academic exercise backed not by substantial evidence but by a theoretical article that is not intended to support the claims being made by the Plant:<sup>26</sup>

- The primary objective of the Laidre article was not focused on otter recovery, rather, the objective of the article was “to use a GIS [Geographic Information System] to obtain a new estimate of K [carrying capacity] for the southern sea otter throughout its potential range in California and to evaluate the overall usefulness of a GIS package in estimating habitat area.”<sup>27</sup> Thus, the objective of the article was geared toward evaluating the GIS in a statewide context, not toward determining the carrying capacity of the otter in Morro Bay.

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<sup>25</sup> Letter from Steve Shimek of The Otter Project, to Jeffrey Young (Mar. 20, 2006), at 1-2.

<sup>26</sup> Laidre, K. et al., *An Estimation of Carrying Capacity for Sea Otters Along the California Coast*, *Marine Mammal Science* 17(2).

<sup>27</sup> *Id.* at 296.



Moreover, the article itself recognizes that carrying capacity is difficult to estimate:

- “Clearly, environmental variability and subsequent population responses do not allow for exact measures of equilibrium densities or precise point estimates of K [carrying capacity]. The concept of a population moving toward a stable state eventually reaching K is confounded by ecological and behavioral processes which are not easily predicted using a standard population growth model.”<sup>28</sup>
  - These conclusions are echoed in the Recovery Plan for Washington State, which notes that, “For all marine mammals, carrying capacity is difficult to estimate as it requires information that is typically unavailable.”<sup>29</sup>

The Plant nevertheless cites extensively to the article in support of its argument that the otters are near their carrying capacity. The Plant makes a series of assumptions based on the article, which *itself* makes a series of assumptions to come to its conclusion. Given that the article makes a series of arbitrary assumptions, the Plant’s conclusion in turn is arbitrary.

- “One *assumption* that densities of sea otters are similar in areas with similar habitat types may not be true in all cases.”<sup>30</sup> For example, the Elkhorn Slough estuary can support higher densities of otters than other sandy-bottomed habitats (Cayucos-Hazard Canyon is considered a sandy habitat).<sup>31</sup>
  - “Furthermore, all habitats with similar substrate may not support the same density of sea otters . . . . This may result in density estimate variability between sites with the same habitat.”<sup>32</sup>
- “We *assumed* that the habitat quality used to estimate equilibrium density was representative of the California coast.”<sup>33</sup>
- “This study *assumed* that densities were the maximal level that could be obtained. It is possible that the observed densities in the equilibrium regions actually were still increasing . . . *which would increase our estimated value for K* [carrying capacity].”<sup>34</sup>

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<sup>28</sup> *Id.* at 307.

<sup>29</sup> State of Washington, Sea Otter Recovery Plan (Dec. 2004), at 26.

<sup>30</sup> Laidre, at 306 (emphasis added).

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* at 306-07.

<sup>33</sup> *Id.* at 307 (emphasis added).

<sup>34</sup> *Id.* (emphasis added).

*Otter Strandings.* Third, the Plant challenges evidence relating to the record strandings of otters in and around Morro Bay.

- The Plant downplays the record stranding numbers in 2004 by claiming they involve a single, highly unusual stranding event in April 2004. However, the Plant ignores the fact that the 62 dead otters found in April 2004 was “roughly three times the 10-year average, and far more than the 48 dead or stranded otters found in April 2003, a previous record high.”<sup>35</sup>
- Indeed, The Otter Project states: “We are finding a higher and higher percentage of the population (as measured by spring count) dead on the beach. Although the spring count was high, the number of dead sea otters found in 2003 and 2004 was very high.”<sup>36</sup>

2. Plant claims: “The Plant’s wastewater cannot plausibly be a source of *T. gondii*.”

*Leading Scientific Articles.* The Plant argues that its wastewater cannot “plausibly” be a source of *Toxoplasma gondii* (“*T. gondii*”) oocysts. MRS, at 19. The Plant’s own speculation about whether it is “plausible,” is not the legal standard. Rather, the Plant bears the burden of demonstrating that its discharge does not actually or potentially affect marine life currently and in the future. The Plant fails to meet this burden; its tactic is to cherry-pick statements from scientific articles, while ignoring evidence from those same articles that NRDC put forth in its report.<sup>37</sup> For example:

- The Plant cites an article by Dr. Melissa Miller<sup>38</sup> (MRS, at 19): “Seropositivity to *T. gondii* was not significantly associated with human population density ( $P=0.293$ ), or proximity to sewage outfalls ( $P=0.955$ ) but was highly correlated with freshwater flow ( $P<0.001$ ).” The Plant omits the following from the same article:  
“Unrecognized factors appear to be contributing to the increased risk for *T. gondii* exposure in otters sampled from the Morro Bay/Cayucas [sic] region. Interestingly, this is the only region within southern sea otter range where primary treated municipal sewage is permitted to

35 See <http://www.dfg.ca.gov/news/news04/04048.html> (emphasis added).

36 See <http://www.otterproject.org/site/pp.asp?c=8pIKIYMIG&b=256015> (emphasis in original).

37 In contrast, NRDC presents the issue in a more even-handed way, citing to portions of the article that discuss run-off as another potential source of *T. gondii*.

38 Miller, M.A. et al., *Coastal Freshwater Runoff Is a Risk Factor for Toxoplasma gondii Infection of Southern Sea Otters* (*Enhydra lutris nereis*), 32 International Journal for Parasitology 997 (2002).

be discharged into the nearshore marine environment. Any causal relationship remains to be established. The present study design did not allow for an in-depth evaluation of the potential effects of sewage, since nearly all otters in the study were sampled at sites >5 km away from municipal sewage outfall locations. *To exclude sewage as a risk factor for T. gondii exposure, targeted sampling of otters should be completed in known sewage-impacted areas, as well as sites distant from any recognized sewage input.*" 39

The article essentially refutes the Plant's claim and states that wastewater from the Plant is potentially a source of *T. gondii*.

- The Plant next claims that Dr. Patricia Conrad concurs with the Miller study by stating that the most likely source of infection to otters is *T. gondii* transported via freshwater runoff. MRS, at 19. In fact, Dr. Conrad explicitly states: "For *T. gondii*, wild and domestic felids are the only known definitive hosts capable of shedding environmentally resistant oocysts that potentially can be transported into fresh and marine waters via *sewage systems* or stormwater drainage and freshwater runoff."40
- The Plant claims that the mussels in one mussel study conducted in 2003-2004 showed no presence of *T. gondii*. MRS, at 19. The Plant leaves out the recent, very important caveat by Dr. Conrad, the study's first author: "Given the limitation of our currently available test procedure, it is important to recognize that this assay may not detect low levels of *Toxoplasma* in shellfish, as might occur offshore in the open ocean. Thus the initial results from testing of mussels deployed at the sewage outfall buoy must be interpreted in light of these test limitations (e.g. it is possible that low concentrations of *Toxoplasma* could have been present in the shellfish deployed on the buoy, but were not detected at these low levels, **resulting in false-negative test results**)."41 Again, this explicitly refutes the Plant's conclusions and shows that, at the least, the Plant is a *potential* source of *T. gondii*.

*Faulty Assumptions about T. gondii.* The Plant next argues that its wastewater cannot be a source of *T. gondii* because *T. gondii* cannot possibly get into the Plant to begin with. MRS, at 19. As stated above, the top scientists in this field have written

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39 *Id.* at 1005 (emphasis added).

40 Conrad et al., *Transmission of Toxoplasma: Clues from the study of sea otters as sentinels of Toxoplasma gondii flow into the marine environment*, 35 International Journal for Parasitology 1155, at 1156 (2005) (emphasis added).

41 Letter from Dr. Patricia Conrad to Bruce Keogh (Dec. 13, 2004) (emphasis added).

that *T. gondii* may plausibly come from sewage wastewater, and the Plant cites to no scientific evidence to refute this. Rather, that Plant engages in a series of faulty assumptions regarding the pathway of *T. gondii* with little or no evidence to support them.

- The Plant states that cats shed *T. gondii* organisms for “only” two to three weeks.
  - The Plant conveniently leaves out a statement from the same website that during these 2-3 weeks, “literally millions (perhaps billions) of oocysts can be produced.”<sup>42</sup>
- The Plant claims that oocysts “only remain infective for two to three days.”
  - This is a blatant misquote. The source actually says, “The oocyst is passed in the cat’s feces, and *after* two to three days outside the cat the oocyst *becomes* infective.”<sup>43</sup>
  - In fact, oocysts can survive for up to a year or more:
    - “Oocysts are very stable and can survive up to 1 year in water or moist soil.”<sup>44</sup>
    - “Once sporulated, oocysts are infectious to cats, people and other intermediate hosts and can survive in the soil or water for prolonged periods (up to 18 months) even in extreme weather conditions.”<sup>45</sup>
    - Oocysts “are very resistant to adverse environmental conditions, and oocysts in garden sand, sand boxes, etc., can remain infective for months (perhaps years in warmer climates).”<sup>46</sup>
- The Plant mentions that a survey of cats at a humane shelter demonstrated that 50% of cats were infected with toxoplasmosis, but of these, only 1% were actually passing oocysts. MRS, at 19.
  - The Plant takes this statement out of context to try and minimize the prevalence of *T. gondii* oocysts. The article is merely explaining that cats typically produce oocysts for 2-3 weeks, thus it is common to find cats infected with toxoplasmosis that are not actually shedding oocysts. In fact, if 50% of cats were infected

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42 See [http://www.biosci.ohio-state.edu/~parasite/more\\_toxoplasma.html](http://www.biosci.ohio-state.edu/~parasite/more_toxoplasma.html); see also Cornell University College of Veterinary Medicine, *Toxoplasmosis in Cats* (the oocysts are “excreted in great numbers in the feces for two to three weeks”), at <http://www.vet.cornell.edu/fhc/resources/brochure/toxo.html>.

43 See [http://www.biosci.ohio-state.edu/~parasite/more\\_toxoplasma.html](http://www.biosci.ohio-state.edu/~parasite/more_toxoplasma.html) (emphasis added).

44 Public Health Agency of Canada, Material Safety Data Sheet: Infectious Substances, at <http://www.phac-aspc.gc.ca/msds-ftss/msds153e.html>.

45 Feline Advisory Bureau, *Cats and Toxoplasmosis: What are the Risks?*, at <http://www.fabcats.org/toxo.html>.

46 [http://www.biosci.ohio-state.edu/~parasite/more\\_toxoplasma.html](http://www.biosci.ohio-state.edu/~parasite/more_toxoplasma.html).

with the parasite, then each cat would have produced millions of oocysts during the 2-3 week period of shedding oocysts.<sup>47</sup>

- Finally, the Plant concludes that the pathway of *T. gondii* into the ocean by way of disposal of used cat litter into the Plant is “extremely unlikely given that the introduction of cat feces contaminated with *T. gondii* oocysts into the collection system would be extraordinarily rare and highly intermittent.” MRS, at 19. In fact, the evidence about the prevalence of flushable cat litter demonstrates that such a pathway is very likely:
  - Cat litter manufacturers tout flushable litter as “far more environmentally friendly.”<sup>48</sup>
  - In the United States the size of the owned-cat population has grown over 80% in the past decade. An estimated 32% of households in the U.S. own cats, and estimates of the owned-cat population are greater than 78 million.<sup>49</sup>
  - *T. gondii* can infect virtually all warm-blooded animals and is a very hardy parasite, resisting natural decay and conventional disinfection.<sup>50</sup>
  - Further, “oocysts can be carried long distances in wind and water.”<sup>51</sup>

3. Plant claims: “Otters cannot possibly come into contact with *T. gondii*.”

Unable to meet its burden to prove that a balanced indigenous population of sea otters exists near the zone of discharge, the Plant argues that there is low likelihood of sea otters in Estero and Morro Bays randomly coming in contact with effluent from the Plant. The Plant makes a conclusory statement without considering actual facts:

- “Oocysts can be carried long distances in wind and water,”<sup>52</sup> and are highly resistant to being killed. Therefore, an otter does not “randomly” have to come in direct contact with the effluent plume when it is initially discharged.

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47 [http://www.biosci.ohio-state.edu/~parasite/more\\_toxoplasma.html](http://www.biosci.ohio-state.edu/~parasite/more_toxoplasma.html); see also Cornell University College of Veterinary Medicine, *Toxoplasmosis in Cats*, at <http://www.vet.cornell.edu/fhc/resources/brochure/toxo.html>.

48 See [http://www.odorlockers.com/answers/pet\\_supplies\\_ans\\_faq.html](http://www.odorlockers.com/answers/pet_supplies_ans_faq.html); see also [http://www.shopnatural.com/Merchant2/merchant.mvc?Screen=PROD&Product\\_Code=8596](http://www.shopnatural.com/Merchant2/merchant.mvc?Screen=PROD&Product_Code=8596) (“all natural formula is perfectly flushable and safe for the environment”). Also, there are at least 10 brands of litter that are flushable now (e.g., Arm & Hammer Easy Flush, Clump ‘N Flush, Better Way Flushable Cat Litter, Cat’s Pride Scoop ‘N Flush, Premium Choice Flushable Scoopable Cat Litter).

49 See [http://www.petfoodinstitute.org/reference\\_pet\\_data.cfm](http://www.petfoodinstitute.org/reference_pet_data.cfm).

50 Everson, W.V. et al., *Isolation of Purified Oocyst Walls and Sporocysts from Toxoplasma gondii*. J. Of Eukaryotic Microbiol. 49:4, pp. 344-49, at 344 (2002).

51 American Veterinary Medical Association, *What you should know about toxoplasmosis* (Oct. 2003), at [http://www.avma.org/communications/brochures/toxoplasmosis/toxoplasmosis\\_brochure.asp](http://www.avma.org/communications/brochures/toxoplasmosis/toxoplasmosis_brochure.asp).

52 *Id.*

As the effluent diffuses, oocysts are likely to travel and spread outward away from the outfall in different directions.

- Also, the Plant itself states that in July 2005, an otter was “observed transiting the area 20 m north of the diffuser structure.”<sup>53</sup> The context was the Plant’s contention that the otter’s presence “attests to [the] area’s designation as a habitat that supports . . . ‘animal species that are established under state or federal law as rare, threatened, or endangered.’” The Plant cannot have it both ways, using the existence of otters near the outfall to support the argument that a balanced indigenous population exists, and at the same time arguing that otters do not come near the effluent plume.

#### 4. Plant downplays importance of *T. gondii*

The bottom line is that the Plant admits, “[w]ithout doubt, infectious diseases, including *T. gondii*, are currently contributing to mortality in sea otters.” MRS, at 26. That the Plant tries to deflect attention from this crucial admittal by pointing to other causes of sea otter mortality, such as *S. neurona* and *acanthocephalan*, does not take away from the harm of *T. gondii*. The Plant also does not refute the key statistics about the effect of *T. gondii* on otters, including that 16.2% of otters in a survey from 1998-2001 died due to *T. gondii*, and that otters with *T. gondii* encephalitis were 3.7 times more likely to die of shark attack, and 2.9 times more likely to suffer from cardiac disease.<sup>54</sup>

#### Monitoring for *T. Gondii* and Pathogens

NRDC’s primary criticism of the Plant’s monitoring program is its lack of monitoring for *T. gondii*. Thus, even though the Plant claims that, for example, its monitoring program is “among the most expensive and comprehensive” for any discharger of its size in California, (MRS, at 15) it does not dispute that it lacks a crucial component of *T. gondii* and other such pathogen monitoring.

Moreover, the Plant claims that it cannot undertake *T. gondii* water testing because such tests are not available.<sup>55</sup> However:

- A 1998 article states, “A method [for *T. gondii* water testing] was developed that is similar to the method used for collection and processing of water samples for *Cryptosporidium* sp., a protozoan related to *T. gondii*.”<sup>56</sup>

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<sup>53</sup> 2005 Annual Report, at 3-26.

<sup>54</sup> NRDC, *Time is of the Essence*, at 29-30 fn. 154.

<sup>55</sup> 2005 Annual Report, at 2-40.

<sup>56</sup> Renton et al., *Detection of Toxoplasma gondii Oocysts in Drinking Water*, Appl Environ Microbiol. 1998 June 64(6): 2278-2280, at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=106314>.

- A 2003 article evaluates two methods of detecting *T. gondii* oocysts in water samples.<sup>57</sup>

Finally, the 2005 Annual Report claims in a conclusory fashion that even if a test for *T. gondii* could be conducted, “the incidence of disposal of contaminated cat feces into the collection system would be extremely rare and highly intermittent.”<sup>58</sup> In alleged support of this statement the Plant cites to the 2004 Conrad mussel study which found no evidence of *T. gondii*. The Plant ignores, however, Dr. Conrad’s own caveat about the mussel study’s limitations and false-negative test results. As such, the Plant simply cannot continue to rely on the mussel study as sole support for its absolute refusal to conduct more *T. gondii* testing.

Waters of Estero Bay Mix With Morro Bay Estuary

*Plant Admits Waters Mix.* The Plant admits its effluent enters the Estuary. In carefully stating that “[t]here is no evidence that wastewater constituents enter the Morro Bay Estuary in any ecologically meaningful amount,” the Plant admits that “wastewater constituents *enter* the Morro Bay Estuary.” MRS, at 6. In fact, the Plant stops short of ever claiming that its wastewater constituents do not actually enter the Estuary.<sup>59</sup> This new admission bars the issuance of the 301(h) waiver:

- First, under 40 C.F.R. § 125.59(b)(4), “No section 301(h) modified permit shall be issued: Where the discharge of any pollutant *enters* into saline estuarine waters which at the time of the application do not support a balanced indigenous population of shellfish, fish, and wildlife.”<sup>60</sup> Because this prohibition is absolute and no causal relationship is required, the Plant’s unsupported belief that its effluent is not an “ecologically meaningful amount” does not circumvent the prohibition.<sup>61</sup>
- Second, both federal and state antidegradation policies afford the highest level of protection for the Morro Bay Estuary and bar any activity that would

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<sup>57</sup> Kourenti et al., *Development and Application of Different Methods for the Detection of Toxoplasma gondii in Water*, Applied and Environmental Microbiology, January 2003, p. 102-106, Vol. 69, No. 1, abstract at <http://aem.asm.org/cgi/content/abstract/69/1/102>.

<sup>58</sup> 2005 Annual Report, at 2-41.

<sup>59</sup> Rather, the Plant tellingly conditions its language. See MRS, at 6-7 (wastewater does not enter the estuary “in any ecologically meaningful amount;” “it is highly unlikely that MBCSD effluent enters the Morro Bay Estuary . . . in any meaningful concentrations;” “it is highly implausible that perceptible concentrations of wastewater would . . . enter the Estuary;” “measured concentrations . . . could not be of any conceivable environmental influence”).

<sup>60</sup> 40 C.F.R. § 125.59(b)(4) (emphasis added); EPA, *Amended Section 301(h) Technical Support Document*, at Statutory Criteria and Regulatory Requirements section (1991, last updated 2004) (“EPA Guidance”); EPA Guidance, at III.D.5.

<sup>61</sup> See 40 C.F.R. § 125.59(b)(4).

compromise water quality in any way, mandating that “water quality shall be maintained and protected.”<sup>62</sup> Despite the Plant’s unsupported belief that its pollutant contribution is not “meaningful,” the Plant admits its effluent enters the Estuary. This additional amount of pollution triggers the antidegradation policy prohibition, thus barring the 301(h) waiver.

*Mixing Study.* Because the Plant admits its effluent enters the Morro Bay Estuary, its attempt to discredit the evidence NRDC relies upon is moot. Importantly, the Plant never questions the fundamental bottom line of the study—that effluent from the Sewage Plant regularly enters and mixes with fresh water in the Morro Bay Estuary: “The primary mechanism is exchange with the Pacific Ocean (Estero Bay) through the open boundary at the entrance to Morro Bay. [Estuary] water exits [into] Estero Bay during ebb tide and ocean water enters [the Morro Bay Estuary] during flood tide.”<sup>63</sup> In any event, the Plant’s protests regarding the mixing study are non-starters:

- The Plant complains that NRDC bases its arguments on a “single dye-tracking study conducted on one day in 1985.” MRS, at 6. In support of this contention, MRS cites to a 1986 FDA Ocean Outfall Study. NRDC, however, relied mostly on a study by Renee Anthony et al., which in turn relied on its own testing as well as data from the FDA and DOHS.<sup>64</sup> The Anthony study was conducted in 3 phases over 28 days,<sup>65</sup> sampled during three different tidal environments,<sup>66</sup> and under different current conditions.<sup>67</sup>
- The Plant complains that subsequent reevaluation of the FDA study demonstrates flaws due to background fluorescence associated with patchy, naturally occurring phytoplankton. MRS, at 6. The Anthony study does in fact question the FDA’s data analysis with respect to its dye test.<sup>68</sup>
- The Plant mistakenly claims that at the time of the survey, other sources of non-point contamination heavily confounded the interpretation of spatial trends, except for close to the outfall: “At the time of the study, the influence of these other contamination sources, such as Morro Creek, was not widely recognized.” MRS, at 7-8. This is simply not true. The Anthony study does in fact recognize other sources of pollution. The study was specifically

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<sup>62</sup> 40 C.F.R. § 131.12.

<sup>63</sup> See Renee Anthony et al., *Morro Bay Bacterial Study 1986-1987*, at 98, 125, 128 (citing U.S. F.D.A. Ocean Outfall Study, Morro Bay, California (1986)).

<sup>64</sup> See *id.*

<sup>65</sup> *Id.* at 7, 28.

<sup>66</sup> *Id.* at 19.

<sup>67</sup> *Id.* at 23.

<sup>68</sup> *Id.* at 128, 130.



designed to identify or eliminate a variety of sources both inside and outside Morro Bay.<sup>69</sup> Among the other suspected sources at the time were recreational boats, live-aboard boats and pump-out stations, lift stations, storm drains, birds and mammals, the PG&E facility, creeks, septic disposal systems, the California Men's Colony, dairies, and agricultural runoff.<sup>70</sup>

The Plant then takes another tack by arguing that other sources have been identified as sources of pollution in the Estuary. For example, the Plant states that, "Recent microbial source tracking studies using genetic fingerprinting have identified the principal origins of bacterial contamination within the Estuary as emanating from the discharge of Los Osos and Chorro Creeks."<sup>71</sup> MRS, at 8.

- The study, however, was conducted to identify the species source of *E. coli* (i.e., bovine, human, bird) in the Bay; "the study does not account for the geographical location of the *E. coli* source, only the species of animal that the *E. coli* came from."<sup>72</sup>
- In any event, the study in fact found that 17% of the *E. coli* came from human sources.<sup>73</sup>
- Finally, the study certainly does not rule out the Plant as a source of *E. coli*; indeed, it never even discusses the Plant.

#### Plant's Discharge and Water Quality Impacts

*Wastewater Flow to the Plant.* The Plant downplays increases in flow to the Plant, but its own 2005 Annual Report demonstrates that flow is increasing at amounts much higher than previously estimated. In 2003, it was estimated that the Plant's influent would increase from 1.14 mgd to 1.2 mgd by 2009, and by 2014 influent would reach 1.23 mgd.<sup>74</sup> However, the Plant currently exceeds these estimates on a regular basis. In fact, in 2005 the Plant's average daily influent was 1.25 mgd,<sup>75</sup> reaching estimates higher than for 2014—nearly 10 years earlier than estimated. This was not due to a few isolated events, such as holidays or days of heavy rainfall, as contended by the Plant:

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<sup>69</sup> *Id.* at 7, 17, 39.

<sup>70</sup> *Id.* at 13, 17, 26, 34, 37-38, 60, 71, 79, 81.

<sup>71</sup> Kitts, C et al., *Identifying the Sources of Escherichia coli Contamination to the Shellfish Growing Areas of the Morro Bay Estuary*, Final Report 3/29/2002, at <http://www.swrcb.ca.gov/rwqcb3/MorroBayDNA/Reports/MBDNAFinalReport.pdf>.

<sup>72</sup> *Id.* at 8.

<sup>73</sup> *Id.* at 35.

<sup>74</sup> 2003 App., at II-12-13, and EPA Tentative Decision, at 8. In fact, Attachment A states that these previous estimates represented "upper-bound estimates." MRS, at 18.

<sup>75</sup> 2005 Annual Report, at 2-21.

- Only four months had average flows of less than 1.2 mgd;<sup>76</sup>
- Flow was higher not only during holidays and heavy rainfall events, but also regularly on weekends;<sup>77</sup>
- Long-term flow rates over the summer reached 1.34 mgd in August.<sup>78</sup>

The increase in flow means that more primary-treated wastewater enters Estero Bay, contradicting the Plant's claim that, "Blending of primary- and secondary-treated wastewater is only required during periods of particularly high flow, such as during rainstorms and some holidays." MRS, at 17.

- In fact, "Currently, approximately 1 MGD of the 1.14 MGD flow is processed through secondary treatment. This is close to the capacity of secondary treatment components and fractional increases in future flow will receive only primary treatment. At current capacity, the 0.14 MGD of primary flow that is diverted around the secondary process contributes approximately half of the BOD emission and 36% of the solids load in the blended effluent stream. At the end of the upcoming permit term in 2009, the 0.2 MGD of flow diverted around secondary will contribute approximately 60% of the BOD<sub>5</sub> and 45% of the TSS loading in the blended effluent."<sup>79</sup>
- In its 2005 Annual Report, the Plant admits that the average daily flow had already reached 1.25 MGD,<sup>80</sup> even though the Plant had not expected its flow to reach 1.25 MGD until 2014.<sup>81</sup> This means that, on average, approximately .25 MGD is only receiving primary treatment—a nearly 80% increase in primary flow from the average .14 MGD in 2003. These unexpected increases in primary-treated flows suggest an even more rapid increase of flows that only receive primary treatment—resulting in greater amounts of BOD and TSS as well as other pathogens.

*Water Quality.* The Plant claims its effluent cannot "conceivably" be considered to contribute to degradation of water quality because its effluent is thoroughly disinfected. MRS, at 8.

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<sup>76</sup> *Id.*

<sup>77</sup> *Id.* at 2-27.

<sup>78</sup> *Id.*

<sup>79</sup> Supplement to Renewal Application 2003, at II-14; 2003 Permit Application, at 4 ("Up to 1.0 million gallons per day (MGD) is then diverted through secondary treatment facilities. . .").

<sup>80</sup> 2005 Annual Report, at 2-21.

<sup>81</sup> EPA Tentative Decision, at 8.

- However, viruses such as hepatitis A are “especially resistant to chlorine disinfection.”<sup>82</sup>

The Plant asserts that bacteriological quality of end of treatment process is “almost” always lower than shellfish harvesting and water contact standards. MRS, at 7.

- MRS implicitly admits that sometimes the water quality does not meet shellfish harvesting and water contact standards.
- Further, this does not take into account leaks from the Plant’s collection system.

The Plant claims that, “Thirty mussels were retrieved from each deployment and tests were negative for a wide suite of bacterial pathogens.” MRS, at 12.

- The draft study titled “*Salmonella spp., Vibrio spp., Clostridium perfringens, and Plesiomonas shigelloides in marine and freshwater invertebrates from coastal California ecosystems,*” offers contrary evidence: “Detecting any of the targeted bacterial species in a mussel batch was . . . **39 times greater** if the mussel batch was collected from a site considered higher risk for human sewage exposure compared to sites considered lower risk for human sewage or livestock waste exposure.”<sup>83</sup>

The Plant also fails to address Dr. Gold’s point that “the data provided did not include enterococcus, EPA’s preferred fecal indicator.”<sup>84</sup> Indeed, under AB 411 and the Ocean Plan, enterococcus monitoring has been required for beaches and receiving waters for over five years.<sup>85</sup> Enterococcus has been shown to most closely correlate with human health effects, and has the greatest survival rate. Thus, it is possible to have only violations of enterococcus standards that will not be reflected in fecal coliform monitoring. Similarly, the presence or absence of staphylococci will not be reflected by the fecal coliform indicator either.<sup>86</sup>

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<sup>82</sup> Kator, H., *Concerns and Risk Factors Associated with Discharges of Secondary Treated Sewage Into Very Shallow Coastal Waters* (2003), at 4, submitted into record as attachment to Letter from NRDC to Alexis Strauss and Jeffrey Young (Mar. 13, 2006).

<sup>83</sup> W.A. Miller et al., “*Salmonella spp., Vibrio spp., Clostridium perfringens, and Plesiomonas shigelloides in marine and freshwater invertebrates from coastal California ecosystems,*” *Microbial Ecology*, at 11 (emphasis added), submitted into record as attachment to Letter from NRDC to Alexis Strauss and Jeffrey Young (Mar. 13, 2006).

<sup>84</sup> See Letter from Mark Gold to Alexis Strauss and Jeffrey Young (Jan. 30, 2006), at 3.

<sup>85</sup> *Id.*

<sup>86</sup> Kator, H., *Concerns and Risk Factors Associated with Discharges of Secondary Treated Sewage Into Very Shallow Coastal Waters* (2003), at 2.

*Plume Tracking Studies.* In addition to not providing data on enterococcus, the Plant does not provide true plume-tracking studies. The Plant's CTD monitoring is not a true plume study. It does not measure the fate and transport of the plume over time.<sup>87</sup> Accordingly, Plant does not give enough information to assure that the plume allows for attainment and maintenance of water quality for recreational activities, such as kayaking, surfing, and swimming.

The Plant claims that plume tracking studies are unnecessary because "the discharge's depth and offshore distance provides substantial additional protection." MRS, at 10. Plume tracking studies are in fact especially important here, where the outfall is only ½ mile from shore, and in about 50 feet of water. Indeed, one article states that, "It is not unreasonable to assume that under certain conditions shallow water discharges . . . would move in the direction of bathing areas."<sup>88</sup> Similarly, in its assessment of potential human health risks arising from exposure to sewage, the World Health Organization indicates that very low health risks can be obtained if sewer outfalls are extended beyond the shallow, inshore "recreational" zone – where people swim, surf or dive – to a minimum of a mile offshore, and/or a minimum depth of 60 feet of water."<sup>89</sup> For example, other California plants do have outfalls deeper and further into the ocean than the Plant:

- Santa Cruz is over a mile offshore.<sup>90</sup>
- Watsonville is 64 feet deep and 7,350 feet from the shore.<sup>91</sup>
- Orange County has a 4-mile long outfall.<sup>92</sup>

In any event, the Plant simply avoids dealing with the key point that a shallow outfall means a higher risk of health impacts to humans and marine life.

*Plant's Conclusory, Unsupported, and Inaccurate Statements, and Rhetorical Attack on NRDC and its Experts, Calls into Question Credibility of Attachment A*

The Plant's attacks on NRDC and its experts, along with the variety of unsupported, conclusory statements in Attachment A, lead to the conclusion that Attachment A is more of a "hit" piece than a careful, even-handed examination of the evidence. For example:

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<sup>87</sup> See, e.g., *id.* at 3 (describing dye or isotopic methods which trace discharge plumes for modeling purposes).

<sup>88</sup> *Id.*

<sup>89</sup> See [http://www.healthocean.org/CA\\_Discharge\\_Inventory.pdf](http://www.healthocean.org/CA_Discharge_Inventory.pdf).

<sup>90</sup> See <http://www.ci.santa-cruz.ca.us/pw/ep/wwtfout.pdf>.

<sup>91</sup> See <http://www.sfei.org/camp/servlet/DisplayProgram?which=General&pid=NCCA0048216>.

<sup>92</sup> See [http://www.surfrider.org/a-z/sewage\\_treatment.htm](http://www.surfrider.org/a-z/sewage_treatment.htm).

*Inaccurate Statements*

- The Plant claims that, since 1977, the California sea otter population has more than doubled in size. MRS, at 27. The Plant fails to provide a citation for this claim, and indeed it is not true. In 1976 the southern sea otter population was 1,789, and in 1979 it was 1,443.93. Between 2003 and 2005, the population has ranged from 2,500 to 2,800.94. Even assuming the population had dropped to 1,600 by 1977, double would be 3,200, far over the real population today.
- The Plant falsely accuses NRDC of “quote mining.” MRS, at 11. However, the part of the sentence that the Plant claims NRDC omitted does not qualify the quote, and the Plant gives the false impression that it does. The full quote is: “In establishing safe depths and distance from shore, consideration must be given to local ocean conditions and the amount of sewage discharged, but proper proactive reform can be initiated immediately, to require wastewater dischargers to extend their sewer outfalls to a minimum of a mile offshore, and/or a minimum depth of 60 feet.” Regardless of whether “consideration must be given to local ocean conditions and distance from shore,” WHO *still* recommends a “minimum of a mile offshore and/or a minimum depth of 60 feet.”
- The Plant states, “It is greatly misleading for NRDC to imply that there has been no review of the MBCSD discharge since the permit application in 2003.” MRS, at 5. The NRDC neither stated nor implied that there had been no review of the discharge since 2003. NRDC’s report clearly explains that the draft permit and EPA tentative decision problematically relied largely or solely on documents from 2003 and prior,<sup>95</sup> and it is misleading for MRS to suggest otherwise.
- The Plant states, “There are many causes of mortality in southern sea otters and *T. gondii* is not . . . ‘the single most important known cause,’ as erroneously implied by NRDC statements.” MRS, at 25-26. MRS fails to cite to the portion in NRDC’s comment letter that purportedly makes such a claim. In fact, NRDC’s comment letter states, “While sea otter mortality has a variety of causes, ‘the single most important known cause of mortality’ among southern sea otters is *infectious disease caused by land based sources of pollution.*”<sup>96</sup>
- The Plant claims that oocysts “only remain infective for two to three days.” MRS, at 19. This is a blatant misquote. The source actually says, “The

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93 U.S. Fish & Wildlife Service, *Final Revised Recovery Plan for the Southern Sea Otter (Enhydra lutris nereis)* (2003), at 4 (hereinafter *Revised Recovery Plan*).

94 The Otter Project, Spring and Fall Census Reports.

95 NRDC, *Time is of the Essence*, at 20-22.

96 NRDC, *Time is of the Essence*, at 29 (citing *Revised Recovery Plan* at vii) (emphasis added)

oocyst is passed in the cat's feces, and *after* two to three days outside the cat the oocyst *becomes* infective."<sup>97</sup>

- The Plant claims that, "The MBCSD discharge does not tangibly combine with the discharges from 'at least five other NPDES-permitted sources,' as stated by NRDC. The five sources by NRDC are too far from the MBCSD discharge to commingle in any material manner." MRS, at 8. The Plant completely twists our words. The quote is as follows: "Here, neither the Plant nor EPA nor the Regional Board's documents adequately demonstrates that the Plant's discharge "in combination with pollutants from" the variety of sources in the area, including surface runoff, storm water runoff, and at least five other NPDES-permitted sources<sup>98</sup>— does not interfere with attainment of water quality standards."

#### *Conclusory, Unsupported Statements*

- The Plant claims, "There is no scientific basis for the CEA statement that 'providing less than secondary treatment results in adverse water-quality impacts when compared with full secondary treatment.'" MRS, at 12. In fact, NRDC cites to ample scientific evidence for this statement, as does the CEA report.<sup>99</sup>
- The Plant claims, "Discharge has and will continue to comply with the requirements of a 301(h)-modified permit." MRS, at 13. Again, the Plant cites nothing to support this conclusory statement, and in fact admits that there have been exceptions to the permit limits.
- The Plant claims that the fact that otters occasionally travel substantial distances makes them poor sentinels for evaluating impacts from point-source pollution. MRS, at 25. The Plant basically makes this up; incredibly, the Plant ignores well-established scientists that hold that otters are good sentinels.<sup>100</sup>
- The Plant relies on personal phone calls and on documents that were not provided to NRDC or the Regional Board, making it very difficult for NRDC to verify the accuracy of statements such as:
  - The Plant claims that a US Fish and Wildlife Service consultation is not required ("formal interagency consultations with USFWS are not

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<sup>97</sup> *Id.* (emphasis added).

<sup>98</sup> The other NPDES sources include the Chevron Estero Marine Terminal, the Cayucos Water Plant (via Old Creek), the Morro Bay Desalination Plant, the Morro Bay Power Plant, and the California Men's Colony Wastewater Treatment Plant (via Chorro Creek). See CCMP, at 2-20.

<sup>99</sup> See NRDC, *Time is of the Essence*, at 45; Letter from Bruce Bell to NRDC (Feb. 1, 2006), at 2-4; Kator, at 3-4.

<sup>100</sup> See NRDC, *Time is of the Essence*, at 9, 22, 33, 36, 51; see also Letter from Steve Shimek of The Otter Project to Jeffrey Young (Mar. 20, 2006), at 3 ("The volume of literature citing sea otters as sentinels is ever increasing.").

required under Section 7(a)(2) for all actions”), relying solely on a personal communication between C. Kofron at the USFWS and Bruce Keogh. This is merely hearsay with little legal information to support the statement.

- In fact, as discussed in NRDC’s report, *Time is of the Essence*, Section 7(a)(2) of the Endangered Species Act states, “Each Federal agency *shall*, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical.” 16 U.S.C. § 1536(a)(2).<sup>101</sup>
- The Plant relies on nine articles which are neither in the record nor were submitted to NRDC. These are cited to in footnotes 11, 18, 19, 22, 46, 67, 111, and 113.

*Attack on NRDC, Dr. Bruce Bell, and Dr. Mark Gold*

The Plant engages in an uncalled-for rhetorical attack on NRDC, claiming that NRDC comments consist largely of “unsupported speculation” with “no substantive scientific merit” (p.1); “misleading statements” (p. 6); “bizarre characterization” (p. 5); that “seeks to deliberately mislead the reader” (p. 26); “grossly distort” (p. 10) or “grossly mischaracterizes” the facts (p. 14); “purposefully omits” evidence (p. 20); and show “incredible statistical naiveté” (p. 16).

The Plant also attacks the experts relied upon by NRDC as not having “specific experience in the evaluation of marine impacts, and this lack of experience is reflected in their inapposite comments.” MRS, at 2. As the resumes of Dr. Bruce Bell and Dr. Mark Gold demonstrate, they are nationally recognized experts in their fields. Dr. Bruce Bell is president of Carpenter Environmental Associates, and has over 35 years of experience in environmental engineering, including extensive experience in the design, construction, and evaluation of publicly owned treatment works and its impacts on receiving waters.<sup>102</sup> Dr. Bell has served on technical review or advisory panels for POTWs ranging from 500,000 gpd to 300 mgd, and has testified as an expert in environmental engineering in federal court.<sup>103</sup> Dr. Gold has over 15 years in the field of beach water quality monitoring and the impacts on human health and the

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<sup>101</sup> See NRDC, *Time is of the Essence*, at 53.

<sup>102</sup> See Bell Letter, at 1-2.

<sup>103</sup> *Id.* at 2.

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environment, and is executive director of Heal the Bay and a visiting professor at UCLA. 104

Moreover, NRDC's legal comments were often misconstrued by MRS, an engineering firm. For example, the Plant claims that "data does not go 'stale' as though it were day-old bread." MRS, at 5. This misunderstands NRDC's point. There has been new information that has arisen since 2003 that EPA and RWQCB staff seem to willfully ignore. Similarly, the Plant claims that its permit application was both timely and complete. MRS, at 6. The Plant again simply misunderstands what constitutes a "complete" application under federal and state law.

Our preference remains to be able to strongly support all aspects of the proposed decision that will be before your agencies. Towards that end, we invite you to contact us if you have any questions or wish to discuss this matter, at 310-434-2300.

Sincerely,



David S. Beckman  
Anjali I. Jaiswal  
Michelle S. Mehta  
Natural Resources Defense Council

cc: Roger Briggs, Central Coast RWQCB  
Lori Okun, SWRCB  
Matt Thompson, Central Coast RWQCB  
Gary Sheth, U.S. EPA



## Jaiswal, Anjali

---

**From:** Matt Thompson [Mthompson@waterboards.ca.gov]  
**Sent:** Thursday, December 29, 2005 12:46 PM  
**To:** GRHensley@aol.com; hillaryh@bigplanet.com; marco@coastlawgroup.com; hillary@healtheocean.org; Jaiswal, Anjali; exec@otterproject.org; policy@seaotters.org; santa.lucia.chapter@sierraclub.org; priya.healththeocean@verizon.net  
**Cc:** cmc@cruzio.com; Beckman, David; David Paradies  
**Subject:** Morro Bay/Cayucos WWTP Upgrade

Dear fellow environmental advocates,

Anjali Jaiswal of NRDC recently asked you support her in opposing the Settlement Agreement for upgrade of the Morro Bay/Cayucos Wastewater Treatment Plant (WWTP). As a negotiator of this agreement and author of the consequent NPDES permit, I respectfully ask you to research this matter before you decide to do so. The Settlement Agreement, draft NPDES permit, and U.S. EPA's tentative decision document are all available at:

<http://www.waterboards.ca.gov/centralcoast/Permits/Index.htm>

If you read these documents, especially the Fact Sheet portion of the draft NPDES permit, I believe you may find that the 9.5 year timeline to upgrade the WWTP is reasonable and appropriate.

Two years ago, the City of Morro Bay and Cayucos Sanitary District had no intention to upgrade their WWTP and get out of their Clean Water Act Section 301(h) Waiver. Wastewater flow is well below the capacity of the WWTP, therefore discharge quality is at or very near full secondary treatment standards. The WWTP's comprehensive and intensive monitoring program found no evidence of impacts to the ocean. When we learned that *Toxoplasma gondii* (a pathogen shed by felines) is contributing to sea otter mortality in the Central Coast, Morro Bay/Cayucos teamed up with UC Davis to monitor their discharge for presence of *Toxoplasma*, and found none.

Due to momentum generated by Heal the Ocean's work on Goleta Sanitary District's 301(h) Waiver, and two years of pestering by myself and NRDC, Morro Bay and Cayucos opened up to the idea of upgrading and to eventually getting out of their 301(h) Waiver. Their decision was not based on any impacts to water quality or concerns about future population growth (which is flat in those communities). Their decision to upgrade was based on a desire to maintain a reliable WWTP, and the desire to eventually develop recycled water.

Morro Bay/Cayucos initially proposed a 15-year upgrade timeline that was based on the end of the useful life of the existing WWTP. After considerable pressure from many of you, the Morro Bay City Council and Cayucos Sanitary District directed their consultant to come back with a time schedule that is as fast as possible, considering the time required to plan, obtain financing, go through environmental review and permitting, design, and construct such a project. NRDC and others considered that meeting a victory.

The consultant came back with a 9.5 year timeline. Yes, it initially sounds long. But if you look deeper, it is reasonable. First, Morro Bay and Cayucos do not have a project, or even a Facilities Plan. Morro Bay wants recycled water, Cayucos doesn't. Do they go to full secondary treatment, partial tertiary, or full tertiary treatment? These are things that Morro Bay and Cayucos must work out through development of a Facilities Plan. As a regulator and close observer of several major wastewater treatment plant upgrades in the Central Coast Region, I assure you that the time Morro Bay and Cayucos have allotted to obtain financing, go through CEQA, obtain permits, design, and construct such a project is reasonable. If you don't believe me, look at how long it is taking Los Osos.

It is important to remember that the 9.5-year timeline in the Settlement Agreement is the maximum time allowed to upgrade, and that any delay results in stipulated penalties. There is plenty of incentive for MB/C to complete the upgrade in less than 9.5 years.

In 2002, Goleta Sanitary District entered into a settlement agreement with a 10-year timeline, which provided for two more 301(h) Waiver permits. Heal the Ocean celebrated the settlement agreement as a victory. Now we have a discharger with no documented water

quality problems agreeing to upgrade in less than 10 years, with a settlement agreement that provides for only one more 301(h) Waiver permit. Not only that, we have the very real possibility of that discharger going to tertiary treatment and eventually eliminating much of its discharge to the ocean. And all of this without litigation. Shouldn't the environmental organizations be celebrating this as a victory? We have already won. Why keep fighting?

Heal the Ocean has decided to support the Morro Bay/Cayucos Settlement Agreement and the 9.5 year timeline. At this point, only NRDC and an individual activist with questionable credibility have publicly opposed the 9.5 year timeline. So we have a possible scenario where the environmental organizations disagree in front of the Regional Water Quality Control Board, and NRDC is associated with that activist. Not a good way to maintain rapport.

It would be better for water quality to support the Settlement Agreement and let Morro Bay and Cayucos get going on the upgrade. Let them get started on the Facilities Plan. If you want to improve water quality, focus your efforts on convincing Morro Bay and Cayucos to go to full tertiary during development of the Facilities Plan. Opposing the Settlement Agreement will only delay this.

Thank you for your time and willingness to become informed on this very important matter. If you'd like to discuss or review the complete record, please call me or stop by anytime.

Matt Thompson, Water Resource Control Engineer, P.E.  
Enforcement Unit

Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401

V (805) 549-3159  
F (805) 788-3572



The Otter Project

[www.otterproject.org](http://www.otterproject.org)

March 20, 2006

Mr. Jeffrey Young  
Regional Water Quality Control Board  
895 Aerovista Way, Suite 101  
San Luis Obispo, CA 93401-7906

Re: Morro Bay Cayucos Wastewater Treatment Plant

Dear Chair Young, Board Members, and Staff:

The Otter Project is in support of improving the Morro Bay Cayucos Sanitary District (MBCSD) wastewater treatment plant. For many years the District has operated on waivers from the Clean Water Act. While other coastal communities of similar size and tax-base have embraced the responsibilities of meeting basic national standards, MBCSD has continued to avoid these responsibilities for nearly 20 years.

We applaud MBCSD's decision to upgrade their plant and operations and conform to the decades old Clean Water Act. We are concerned however that the protracted timeline is yet another effort to avoid taking full responsibility and coming into compliance as soon as is possible.

The Otter Project is troubled by MBCSD's criticism of the details of NRDC and the greater environmental community's position, while ignoring the greater issue: MBCSD's responsibility to comply with clean water standards. What ever happened to any discussion of exceeding standards as an act of responsible stewardship?

The Otter Project does not want to be dragged into a debate on *toxoplasmosis*, where it might originate from, and/or whether it might be a primary cause of elevated sea otter mortality. Instead, we want to stress that we all, as individuals, communities, and utilities have a responsibility to not pollute; coastal communities have increased obligations.

However, MBCSD's response to the Regional Water Quality Control Board was riddled with errors and faulty assumptions. In addition, the response listed The Otter Project as a primary source for much of its information - sloppiness that we cannot ignore or leave uncorrected in the record.

The Otter Project's website offers a great deal of information including USGS survey and stranding reports, and pdfs of scientific literature. Listing of The Otter Project first in the citation implies The Otter Project is the primary source, this is not

The Otter Project, Inc.  
A Nonprofit Organization  
309B Stewart Court  
Marina, CA 93933  
Tel/Fax 831-883-4159

the case. We request that MBCSD provide a written and verbal correction; we will post this correction on our website and we request MBCSD post it on theirs. By repeatedly listing The Otter Project as a primary source to support its' position, the MBCSD implies (perhaps without intent) The Otter Project agrees with that position - this is not the case.

We would also like to take this opportunity to very briefly clarify some of the statements made in MBCSD's response to the RWQCB.

7b - The southern sea otter is in a state of decline. The California sea otter population has been decimated in comparison to its estimated abundance of approximately 16,000 animals in the 17 and 1800's. While it is difficult to count any population, standardized counts indicate that the overall population has very slowly grown over the past 75 years. The California otter population growth rate is depressed in comparison to other sea otter populations. Most scientists believe the southern sea otter population has slightly increased or remains stable after a modest decline in the mid to late 1990's. In addition, the number of reproductive females has become static or is in decline, leaving great concern over the viability of the population. Today, there are approximately 2800 southern sea otters. It is most accurate to say that the southern sea otter population is slowly growing in fits and starts. The population remains "threatened" under the Endangered Species Act and "depleted" under the Marine Mammal Protection Act. Long term prospects for the population are guarded, at best.

7c - The otter population is potentially near carrying capacity, and is therefore not imbalanced. Sea otter populations are much too patchy to look at any single area and say it is or is not near carrying capacity. Due to its relatively calm water, Estero Bay may simply be a good place to rest and perhaps otters congregate there. The abundance of quality rocky habitat to the north at Point Estero and to the south at Point Buchon makes the simple computation of a sandy habitat carrying capacity meaningless. Further, the number of sea otters found emaciated is very low, perhaps contradicting the notion that the population is at carrying capacity.

7d - Higher stranding numbers in the Estero Bay area are expected, and they do not contradict the presence of an otter BIP. The response seems to suggest that otter carcasses may be drifting into Estero Bay from afar. While it is true that otter carcasses can drift, the proportion of fresh dead animals indicates they are from the local population.

While otter carcasses may be more visible along the sandy beaches of Monterey and Estero Bays, that fact has not changed; increases in strandings most likely reflect increases in death.

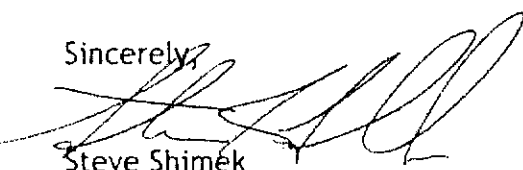
7e - The elevated stranding numbers noted by NRDC for 2003 and 2004 do not demonstrate that a BIP is not present in the area surrounding the outfall. The response apparently builds upon the poorly based concepts mentioned above. We believe sea otter mortality is unusually high in Estero Bay.

7f - The home ranges of sea otters vary; otters residing in and near Estero Bay do not necessarily stay within the area year-round as stated by NRDC. The crux of the MBCSD's response is "the fact otters occasionally travel substantial distances makes them poor sentinels for evaluating impacts from point source pollution." The volume of literature citing sea otters as sentinels is ever increasing. While some sex/age classes of sea otters (young adult males) do travel long distances, older adult males and females have relatively small ranges that can persist over many years. The statement that animals in the center of the range move more than animals at the periphery is simply not correct, the opposite is true. Generally, the ends of the range are dominated by young males, moving long distances between abundant food resources and groups of females (who tend to live towards the center of the range).

7g - There are many causes of mortality in southern sea otters and *T. gondii* is not "...the single most important known cause", as erroneously implied by NRDC statements. MBCSD mischaracterizes NRDC's statement. MBCSD even accepts NRDC's statement that 16.2% of otters died due to *T. gondii* in Estero Bay. Putting aside the importance *T. gondii* as a cause of otter mortality, it is true that there are many causes of sea otter mortality. Likely, high sea otter mortality from disease is a combination of increased exposure and susceptibility to disease. An immune compromised California sea otter population is swimming in a thickening soup of disease.

This brings us full circle to our original point. We can attack, pick-apart, and debate any statement about why sea otters are dying of disease along our coast - and periodically in especially high numbers in Estero Bay. But we cannot ignore our stewardship responsibilities: It is simply irresponsible to avoid compliance with federal and community standards for improving water treatment and protecting water quality. We trust sea otter - and human - health will be best safeguarded by embracing our responsibilities rather than avoiding them.

Sincerely,



Steve Shimék  
Executive Director  
The Otter Project  
exec@otterproject.org



# California Regional Water Resources Control Board

## Central Coast Region



Alan C. Lloyd, Ph.D.  
Agency Secretary

Internet Address: <http://www.waterboards.ca.gov/centralcoast>  
895 Aerovista Place – Suite 101, San Luis Obispo, CA 93401-7906  
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger  
Governor

March 23, 2006

Anjali Jaiswal  
Natural Resources Defense Council  
1314 Second Street  
Santa Monica, CA 90401

Dear Ms. Jaiswal:

This letter responds to your Public Records Act (PRA) request dated March 13, 2006 seeking documents regarding Central Coast Regional Water Quality Control Board (Central Coast Water Board or Water Board) staff analysis of balanced indigenous population (BIP) issues related to the Morro Bay/Cayucos Wastewater Treatment Plant, from February 3, 2006 to March 13, 2006.

We have located responsive documents. All of them are exempt except (i) the staff report and response to comments prepared for the Board's agenda, which you have already received, and (ii) the attached e-two mails between Dr. Coats and Matt Thompson, and Harvey Packard, Roger Briggs and Matt Thompson. These emails also contain non-responsive information that I did not redact.

Pursuant to Government Code Sections 6254(k) and 6255, we are withholding some records that are attorney-client privileged communications, attorney work product, and deliberative process privileged records. They consist of e-mails between Water Board staff and Lori Okun, her comments/questions on drafts of the staff report and responses to comments for the March 24 hearing and her notes.

We are also withholding draft staff work product. Changes between those drafts and the final documents reflect Ms. Okun's legal opinion and are exempt under the attorney-client privilege and work product doctrine. Draft staff work product and notes (approximately one page) are also exempt under the deliberative process privilege, and under Sections 6254(a) and 6255.

The privilege log you requested is not required. (*Haynie v. Superior Court* (2001) 26 Cal.4<sup>th</sup> 1061.)

The persons making the decision on exempt documents are Lori T. Okun, Senior Staff Counsel and Roger W. Briggs, Executive Officer.

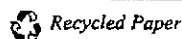
Sincerely,

Roger W. Briggs  
Executive Officer

Attachments (2)

H:/ALLMYDOCS/RogerChron/2006/ResponseLtrtoNRDCdtd3-23-06/ch

California Environmental Protection Agency



**Mehta, Michelle**

---

**From:** Jaiswal, Anjali  
**Sent:** Friday, February 17, 2006 4:02 PM  
**To:** Beckman, David; Mehta, Michelle; Alsentzer, Dorothee  
**Subject:** FW: Approval of Submittal of Response to NRDC Comments

FYI.

-----Original Message-----

**From:** Matt Thompson [mailto:Mthompson@waterboards.ca.gov]  
**Sent:** Friday, February 17, 2006 3:06 PM  
**To:** mbwwtp@yahoo.com  
**Cc:** LSheehan@cacoastkeeper.org; bonniecisd@charter.net; pheatherington@charter.net; sierra8@charter.net; jcurland@defenders.org; sheth.gary@epa.gov; Barroll.Hugh@epamail.epa.gov; Hashimoto.Janet@epamail.epa.gov; strauss.alexis@epamail.epa.gov; Doug.Coats@mrsenv.com; Jaiswal, Anjali; Harvey Packard; Lori Okun; Roger Briggs  
**Subject:** Approval of Submittal of Response to NRDC Comments

February 17, 2006

Bruce Keogh  
City of Morro Wastewater Division Manager

Dear Mr. Keogh,

This message is to confirm that the Chairman of the Central Coast Water Board has approved your request to submit a response to the Natural Resource Defense Council's comments on the draft NPDES permit and Settlement Agreement for the Morro Bay/Cayucos WWTP. Your response must be submitted by March 3, 2006. All deadlines in the Notice of Proposed Action remain the same.

--Matt Thompson

Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401

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**Mehta, Michelle**

**From:** Joey Racano [joeylittleshell@yahoo.com]  
**Sent:** Thursday, March 23, 2006 7:48 AM  
**To:** joeylittleshell@yahoo.com  
**Cc:** Jaiswal, Anjali; JonV3@aol.com; sierra8@charter.net; mike@ecoslo.org; mkfleming@earthlink.net; jgeever@surfrider.org; kpederson@surfrider.org; winholtz@slonet.org; Beckman, David; Martinez, Adriano; dgildor@nrdc.org; ronmcperson@earthlink.net; lisschicker@charter.net; dubbietub@aol.com; doug@seal-beach.org; earthcorps@earthlink.net; mshunter@charter.net; haydocki@aol.com; Wetland Village; prisley@cwo.com; teresa@ecoslo.org; clesinski@mbnep.org; rwilson@surfrider.org; dcozad@sawpa.org; Assemblymember.Blakeslee@assembly.ca.gov; smonowitz@coastal.ca.gov; windmilljt@sbcglobal.net; fdssalamida@hotmail.com; LSheehan@cacoastkeeper.org; snewkirk@oceanconservancy.org; timeichenberg@yahoo.com; Candee, Hal; Mehta, Michelle; Wing, Kate; Nelson, Barry; srfgrl180@sbcglobal.net; sicbak@earthlink.net; grassrootsurfrider@hotmail.com; jonotennis@hotmail.com  
**Subject:** Ocean Outfall Group on Morro Bay Upgrade Timeline

Dear Friends of the Ocean,

This Friday, March 24th, 2006, the Regional Water Board of the Central Coast will meet at their offices in San Luis Obispo to consider whether or not to grant the Morro Bay/Cayucos Wastewater Treatment Plant a 9.5 year timeline within which to make a long overdue upgrade to 'full secondary' treatment of sewage before it is dumped in the ocean.

It is the opinion of the Ocean Outfall Group (501c3 pending) that this timeline is unacceptable for the following reasons:

1. Too Long-

Full secondary was the minimum sewage treatment required by the Clean Water Act 33 years ago. If the RWQCB allows Morro Bay-Cayucos 9.5 years to upgrade its ocean discharge to full secondary standards, by the time this level of treatment is attained, it would be 42 1/2 years late!

2. A Higher Standard-

If Morro Bay-Cayucos Wastewater Treatment Plant is given 9.5 years to reach full secondary treatment, by that time, full tertiary may then be the new standard. For this reason, the current upgrade should be to full tertiary.

3. Orange County-

In Orange County, California, a similar timeline is being adhered to by the Orange County Sanitation District to make an upgrade that is 120 times larger!

4. Otter Mortality-

Southern Sea Otters within 75 KM of Morro Bay are 9 times more likely to be infected with Toxo Plasma Gondii which causes Toxoplasmosis, a disease that attacks young male Otters in the prime of life. Recent studies linking Otter mortality with cat feces is ongoing, and, while the evidence is



compelling, it is not conclusive. It is the opinion of the environmental community of the state of California that healthy Southern Sea Otters remain resistant to the Oosysts carried in cat feces, only succumbing after their immune systems have been battered by the extra fecal debris allowed in the Morro Bay-Cayucos ocean outfall discharge allowed by the 301(h) waiver.

#### 5. Dangerous Short-Cuts-

The Morro Bay-Cayucos Wastewater Treatment Plant engages in the very dangerous practice of disinfecting less than fully-secondarily-treated sewage. Because of the low-level treatment, the chlorine disinfectant only serves to coat the large fecal molecules, leaving live pathogens alive inside- a process called 'ENCAPSULATION'.

Adding insult to injury, the chlorine then reacts with the excess organic matter in the discharge, causing chemical reactions that create organochlorines, or chlorinated hydrocarbons- among the most dangerous chemicals known to man. These organochlorines are ENDOCRINE DISRUPTERS, which wreak havoc with the reproductive systems of animals.

Studies show that male surfers under the age of 20 who are exposed on a daily basis can expect a 35% decrease in their chances of siring male offspring. Other recent studies have found fish with both male and female traits near the outfalls in Los Angeles and Orange County.

Disinfection of less than fully-secondarily-treated sewage should stop immediately.

#### 6. Financial Shenanigans-

Under a 'Joint Powers' agreement, Morro Bay and Cayucos share a wastewater treatment facility- but not money. The Cayucos Sanitary District, under President Robert Enns -whose wife Lynn Enns Chairs the San Luis Obispo Health Commission- has been taking money earmarked specifically for sewage treatment and stashing it instead with a 'Wealth Management Company', Karen Shanley and Associates in San Luis Obispo. This is a violation of the 'Arbitrage Rule', which forbids Joint Powers Agencies from acting as financial institutions. These illegal 'reserves' now total 4.8 million dollars, and should be used toward a speedy plant upgrade.

#### 7. Consistent Policy-

Finally, the Regional Water Quality Control Board must establish a consistent policy of enforcement. Why would the water board give the nearby community of Los Osos only 4.5 years to build -from scratch- the largest wastewater treatment plant per capita in the U.S., while giving Morro Bay-Cayucos 9.5 years to do a comparatively minor upgrade? By any standard, the 9.5-year timeline is too long.

We urge the Central Coast Regional Water Quality Control Board to shorten the 9.5-year timeline for the Morro Bay-Cayucos Wastewater Treatment Plant upgrade, and make that upgrade not to mere secondary, but to full tertiary treatment.

Joey Racano  
 Ocean Outfall Group  
 Morro Bay, California  
[www.stophthewaiver.com](http://www.stophthewaiver.com)

<!--[if !supportLineBreakNewLine]-->

<!--[endif]-->

"Polite conservationists leave no mark save the scars upon the Earth that could have been prevented had they stood their ground."

-David Ross Brower

join slo C.A.U.S.E.

County Activists United to Save the Estuary

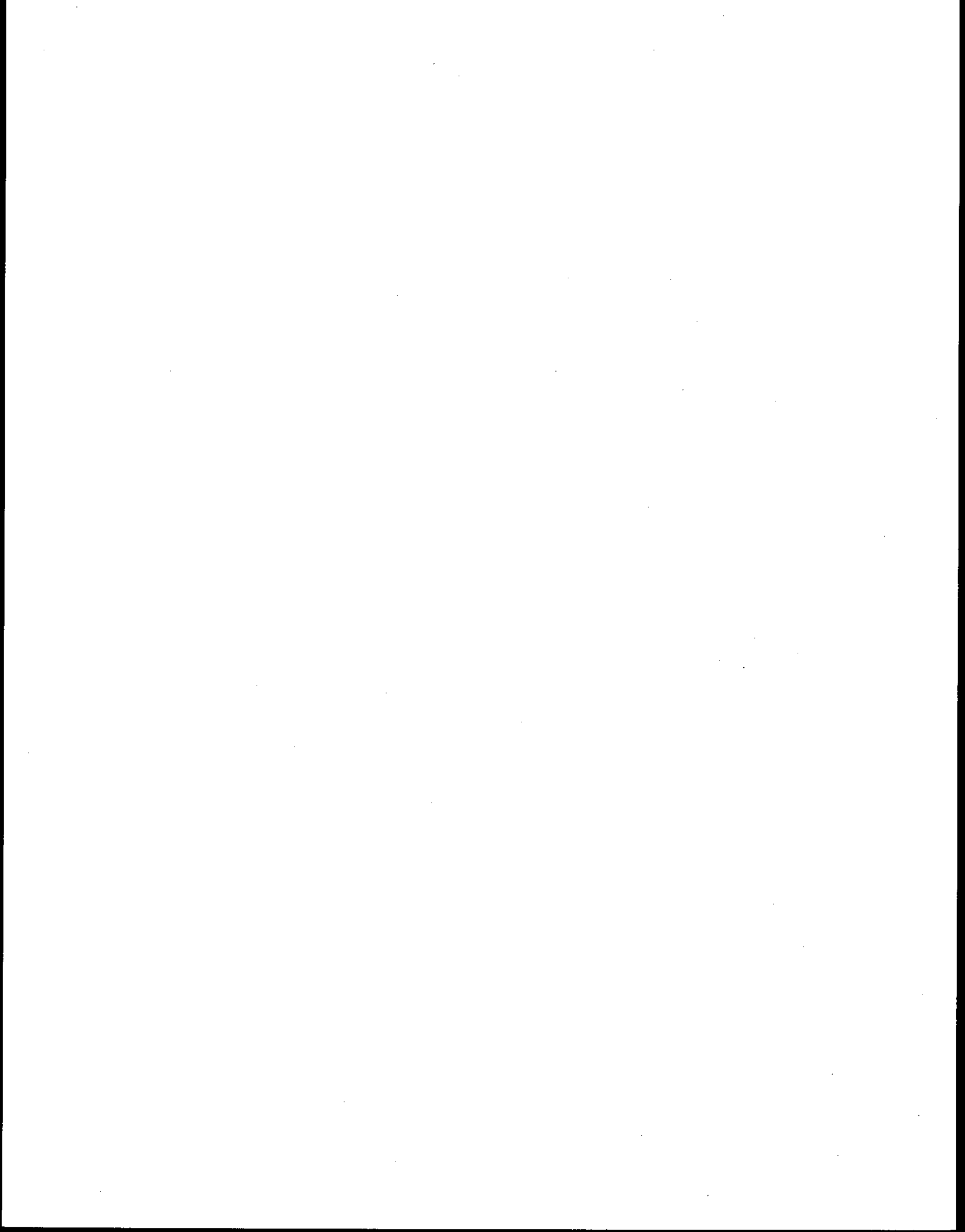
send an e-mail to:

slocause-subscribe@yahoogleroups.com

Order my book 'An Activists Almanac'- it's a 'how to' book to save the world, forward by Capt. Paul Watson. Email me for details. -joey

---

New Yahoo! Messenger with Voice. Call regular phones from your PC and save big.



**Jaiswal, Anjali**

**From:** Lori Okun [LOkun@waterboards.ca.gov]  
**Sent:** Tuesday, March 21, 2006 11:20 AM  
**To:** tcarmel@carnaclew.com; RSchultz@morro-bay.ca.us; Jaiswal, Anjali; Beckman, David  
**Cc:** Roger Briggs  
**Subject:** Morro Bay/Cayucos Hearing

The Chair has granted NRDC's request for designated party status. The Chair has reviewed the two reports NRDC submitted on March 13, 2006 (Kator letter and Miller draft article). It is unclear what "new facts and information" in the Dischargers' March 3, 2006 submittal these reports are intended to respond to, or what they are being submitted to demonstrate. The Chair is contemplating striking these documents from the record for this reason, and has requested NRDC to explain how these documents are responsive to the March 3 submittal and how NRDC would be prejudiced by not including them in the record. Please submit a response as early as possible. The Dischargers may respond as well. The Chair will rule at or before the hearing.

Matt Thompson - RE: Figures and Data

Page 2

measured during the dry season (April-Sept) were isolated instances not reflective of the running 30-day log mean. In fact, during the dry season at the regular monitoring stations, there was only one period (April 1996) when the limit was officially exceeded by the 30-day running mean at a number of Stations (A1, D, and F). However, this exceedance of the standard occurred because the 30-day "averages" were based on only one day of relatively high measurements collected around the time of a late-season rainstorm.

d) The 30-day running log mean of total coliform density in the effluent never exceeded 50 MPN/100 ml between 1995 and 2005 (I didn't have 1993 and 1994 readily available)...Consequently, effluent easily met the water contact standard BEFORE DISCHARGE, not even accounting for an additional 100-fold dilution.

Best regards,

Douglas Coats, Ph.D.  
Marine Research  
Doug.Coats@mrsenv.com  
3140 Telegraph Rd., Ste A  
Ventura, CA 93003-3238  
805.644.1180 Direct  
805.289.3935 Fax  
805.289.3920 Main

—Original Message—

From: Matt Thompson [mailto:Mthompson@waterboards.ca.gov]  
Sent: Thursday, March 09, 2006 12:24 PM  
To: Doug.Coats@mrsenv.com  
Cc: mbwwtp@yahoo.com  
Subject: Figures and Data

Hi Doug,

I'm preparing my presentation for the March 24 hearing, and there are a couple things that I could really use. Would you mind sending me electronic versions of the following at your convenience?

- 1) The latest figure depicting the results of your latest tow survey (the one that shows salinity in relation to the ZID in plan view).
- 2) Figure 2 (p.21) in your response to NRDC comments, showing the trends of spring counts and 3-year running average counts of sea otters.
- 3) Spreadsheet of all surf-zone monitoring results from 1993(?) to present. I realize this is a big one, but I want to chart this data to counter NRDC's day-old-bread arguments and Dr. Gold's arguments.

Thanks for your help Doug.

-Matt Thompson

Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401

V (805) 549-3159  
F (805) 788-3572

CC: "Bruce Keogh" <mbwwtp@yahoo.com>

From: "Dr. Douglas A. Coats" <Doug.Coats@mrsenv.com>  
 To: <Mthompson@waterboards.ca.gov>  
 Date: 3/12/2006 10:12:48 AM  
 Subject: RE: Figures and Data

Matt,

I've attached some files in response to your request. I wanted to add the following comments.

1) I have attached the map prepared for the last survey for which maps were prepared, and the one from the JPA meeting. I was considering modifying one of them for presentation to the Regional Board as well. Two changes I thought of performing was to translate salinity contours into a more easily understood dilution contours. Also, I considered changing metric distances to feet.

2) The otter-count plot (Attached) came from the USGS at two sites:  
<http://www.werc.usgs.gov/otters/ca-surveydata.html>  
<http://www.werc.usgs.gov/otters/ca-survey3yr.html>  
 We morphed the plots together in our response to comments (attached) but you may want to acknowledge the USGS effort. It would lend credibility to the plots because they are the designated otter census-taking agency.

3) The coliform data are attached in an Excel file. Non-detects (less than 2 MPN/100 ml) are indicated with a "-2". Densities exceeding 1600 are indicated with "1601." Let me know if you have questions about any particular surfzone value. It usually can be related to rainfall events, high wave events, Morro Creek outflow, or the presence of organic debris on the shoreline. A frequency-of-occurrence analysis I ran on the data over the weekend shows the following:

a) Between 1993 and 2005, there were 480 surfzone samples collected at each of the regular monitoring stations. Each sample was analyzed for both total and fecal density. Morro Creek was sampled 234 times (when flowing). There were 3600 surfzone samples collected altogether.

b) The cumulative frequency plot (attached) shows that:  
 i) 97.2% or more of the fecal densities at the regular stations were below the 200 MPN/100 ml water-contact limit.

ii) Only 20% of the fecal densities in Morro Creek were below the limit.

iii) The cumulative frequencies at the regularly sampled stations were very similar (i.e., no evidence of an increase in the frequency of elevated densities with outfall proximity - Station C is directly onshore of the diffuser)

iv) In fact, the only two stations that show a slight increase in the frequency of higher fecal densities were the reference stations (A1 and F), which were at 97.2% while the other stations had 98.5% of the observations below the water contact limit.

c) The frequency plot is not an assessment of compliance with the 200 MPN/100 ml water-contact limit because that limit only applies to the log-mean over a 30-day period, and most of the elevated fecal densities

Date	3/20	# of pages	12
From	M. Thompson		
Co.	RMQCB 3		
Phone #	(805) 549-3159		
Fax #			
Post-It Fax Note	7E71		
To	Lori Okun		
Co/Dept.	OCC		
Phone #			
Fax #	(916) 341-5199		

Matt Thompson - RE: Figures and Data

Page 2

measured during the dry season (April-Sept) were isolated instances not reflective of the running 30-day log mean. In fact, during the dry season at the regular monitoring stations, there was only one period (April 1996) when the limit was officially exceeded by the 30-day running mean at a number of Stations (A1, D, and F). However, this exceedance of the standard occurred because the 30-day "averages" were based on only one day of relatively high measurements collected around the time of a late-season rainstorm.

d) The 30-day running log mean of total coliform density in the effluent never exceeded 50 MPN/100 ml between 1995 and 2005 (I didn't have 1993 and 1994 readily available)...Consequently, effluent easily met the water contact standard BEFORE DISCHARGE, not even accounting for an additional 100-fold dilution.

Best regards,

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—Original Message—

From: Matt Thompson [mailto:Mthompson@waterboards.ca.gov]  
Sent: Thursday, March 09, 2006 12:24 PM  
To: Doug.Coats@mrsenv.com  
Cc: mbwwwtp@yahoo.com  
Subject: Figures and Data

Hi Doug,

I'm preparing my presentation for the March 24 hearing, and there are a couple things that I could really use. Would you mind sending me electronic versions of the following at your convenience?

- 1) The latest figure depicting the results of your latest tow survey (the one that shows salinity in relation to the ZID in plan view).
- 2) Figure 2 (p.21) in your response to NRDC comments, showing the trends of spring counts and 3-year running average counts of sea otters.
- 3) Spreadsheet of all surf-zone monitoring results from 1993(?) to present. I realize this is a big one, but I want to chart this data to counter NRDC's day-old-bread arguments and Dr. Gold's arguments.

Thanks for your help Doug.

-Matt Thompson

Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401



att Thompson - RE: Figures and Data

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V (805) 549-3159  
F (805) 788-3572

CC: "Bruce Keogh" <mbwwtp@yahoo.com>

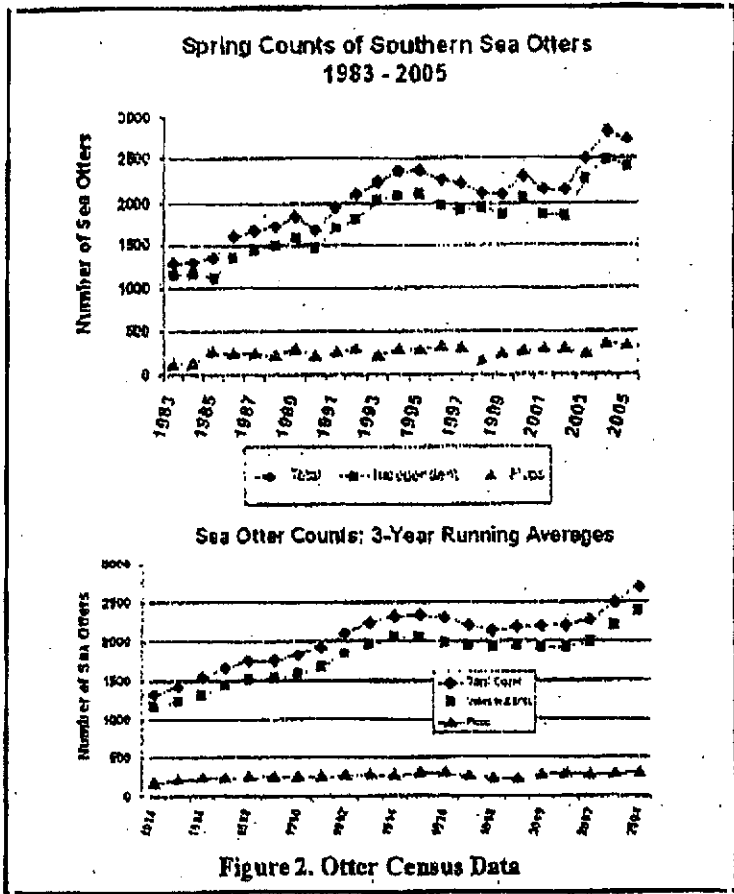


Figure 2. Otter Census Data