

Time is of the Essence:
The Legal and Technical
Reasons Why EPA and the
Regional Board Must
Deny the 301(h) Waiver
and Require Upgrade of
the Morro Bay-Cayucos
Sewage Plant “As Fast As
Possible”



Project Director
David Beckman

Authors & Contributors

Anjali Jaiswal
Michelle Mehta
Dorothee Alsentzer



Summary	1
Part 1	4
Background	4
Part 2	13
Standard of Review and Legal Standards	13
A. Standard of Review.....	13
B. Legal Standard for Settlement Agreement/Consent Decree	15
1. Evaluating Consistency with the Relevant Statutes.....	16
(a) Laws Applicable to the Timeline in the Settlement Agreement ...	16
(b) Objectives of Relevant Statues	17
2. Evaluating the Fairness of a Proposed Settlement Agreement	18
C. Legal Standards With Respect to the Enforceability of an Agreement	19
Part 3	20
Why Re-Issuance of Another 301(h) Waiver is Illegal	20
Part 3A	20
The Sewage Plant’s 301(h) Waiver Application and Supporting Materials Are Stale and Incomplete	20
Part 3B	23
The Sewage Plant Cannot Satisfy the Balanced Indigenous Population Requirement	23
A. The Sewage Plant Cannot Assure that a Balanced Indigenous Population of Marine Life Exists in Estero Bay and Morro Bay.	23
1. EPA and the Regional Board Staff Failed to Consider Relevant Information and Improperly Concluded that the Plant Demonstrated that A Balanced Indigenous Population of Marine Life Exists.	23
(a) Consideration of “Threatened” Species	25
(b) Consideration of the California Sea Otter Population Decline	26
(i) Causes of Otter Strandings and Deaths.....	29
(ii) Estero Bay as Hot Spot for <i>T. Gondii</i> Infected Otters	30
(c) Consideration of the Overall Unhealthy Ecosystem.....	33
2. The Sewage Plant Cannot Show that Its Discharge Does Not Potentially Affect Marine Life.....	34
B. The Sewage Plant Cannot Meet the “Stressed Waters” Exception.....	37

C.	The 301(h) Waiver Is Prohibited Under 40 C.F.R. § 125.59(b)(4) Because the Discharge of Pollutants “Enters Into Saline Estuarine Waters.”	38
Part 3C	.....	39
The Sewage Plant Cannot Demonstrate Compliance With Water Quality Standards.	.....	39
A.	The Water Quality Standards Analysis Suffers from General Deficiencies.....	39
B.	The Plant Cannot Show Compliance with Water Quality Standards to Protect Recreational Use.	41
C.	The Sewage Plant Cannot Demonstrate It Will Comply With Specific Water Quality Standards.....	42
1.	Violations of Total Suspended Solids Effluent Limitations	42
2.	Violations of Total Coliform and Other Pathogens	43
3.	Future Violations Resulting From the Plant’s Outdated Design	44
4.	Increased Ineffectiveness in Pathogen Removal.....	45
5.	Plant Cannot Show Compliance With Chlorine Residual, Dioxin, or Trace Metals Effluent Limitations.....	46
D.	The Draft Permit Does Not Include the Required Water Quality Standard for <i>T. Gondii</i>	48
Part 3D	.....	48
The Draft Permit’s Monitoring Requirements Are Inadequate.	.....	48
Part 3E	.....	50
The Sewage Plant Cannot Show that Re-issuance of Another 301(h) Waiver Will Not Violate Anti-Degradation Policies.	.....	50
A.	The Plant’s Application as well as EPA and Regional Board Documents Do Not Properly Evaluate Estero Bay As A “Tier 3 Water”.....	51
B.	The Issuance of Another Waiver Violates the Anti-Degradation Policy.....	52
Part 3F	.....	53
The Sewage Plant Has Not Demonstrated Full Compliance with the Endangered Species Act and the Marine Mammal Protection Act.	.....	53
A.	Violations of the Endangered Species Act.....	53
1.	EPA and the Board May Not Approve the Proposed Waiver Until EPA Completes Formal Consultations with the U.S. Fish & Wildlife Service.....	53
2.	The Sewage Plant’s Discharges into Morro Bay Violate Section Nine of ESA in the Absence of an Incidental Take Permit	55

B.	Violations of the Marine Mammal Protection Act.	55
Part 4	.....	57
Why the 9.5 Year Upgrade Timeline is Illegal.	.....	57
A.	The Conversion Schedule Must Complete Upgrade As Fast As Possible.....	57
B.	The Sewage Plant Understood That the Upgrade Must Be Completed As Fast As Possible.	59
C.	Evidence in Record Does Not Support the Contention That the 9.5 Year Timeline Achieves Compliance As Fast As Possible.	59
1.	Statements in Record Reflect Admission by JPA, Regional Board Staff and Carollo that the Upgrade Can Be Completed in Less Than 9.5 Years	60
2.	The Time Schedule Pads the Time Needed in the Planning Process.....	61
(a)	Planning Should Be Shortened and Run in Parallel Stages	61
(b)	Time Allotted for Coordination and Planning Delays Is Unreasonably Long	61
3.	Other Rationales For 9.5 Year Timeline Are Unsubstantiated	63
D.	Delaying Upgrade is Not Cost Effective.	64
Part 5	.....	66
Why the Proposed Settlement Agreement Is Seriously Flawed.	.....	66
A.	The Record Shows Settlement Was Not “Negotiated At Arms-Length”.	66
B.	The Out-of-Court Settlement Agreement Poses Serious Enforcement Difficulties.	68

Summary

In the past decade, waivers from basic federal treatment requirements under section 301(h) of the Clean Water Act have become increasingly rare in the United States, and with good reason. The discharge of partially treated waste degrades receiving waters, and poses serious risks to public health and the marine ecosystem. For that reason, sewage treatment plants are not entitled to maintain Clean Water Act section 301(h) waivers from secondary treatment standards merely for their administrative convenience. But at root, if EPA and the Regional Water Quality Control Board issue another waiver to the Morro Bay-Cayucos Sewage Treatment Plant (the “Sewage Plant” or “Plant”), bureaucratic convenience will be the true basis for such an action. Convenience for a discharger of partially treated sewage will come at the cost of the undeniable water quality improvements that secondary treatment provides, improvements that will both diminish risks to the ecosystem and marine life, including the threatened California sea otter, and to public health. Because an upgrade—including one that would include tertiary treatment—can be accomplished feasibly twice as fast as proposed, and because the Plant is not entitled to a waiver from secondary standards, the only appropriate and lawful action is to deny the waiver and order an upgrade “as fast as possible,” the operative standard established under law.

There are numerous reasons why this is true.

First, a balanced, indigenous population of marine life does not exist in and around the zone of initial dilution. The presence of a healthy ecosystem is an indispensable prerequisite for issuance of a waiver—even if a waiver applicant proves it has no role in causing identified problems. But, here, the agencies’ rote analysis of the evidence ignores a disease epicenter affecting a “sentinel” species—the California sea otter—nearly on top of the Sewage Plant’s discharge pipe. This disease epicenter is the proverbial “elephant in the room” that the agencies inexplicably fail to properly consider in concluding that the Plant has met its heavy burden of proof here. EPA’s analysis, and the accompanying assessment by the Regional Board, neither overcomes the mountain of data showing that pathogens have severely degraded the relevant ocean environment nor even persuasively rules out the role of the Plant in causing or contributing to the obvious problem. In fact, the one study relied on by the agencies simply does not rule out the possibility that pathogens—shielded from destruction by the relative inefficiency of the Plant’s operation—are causing or contributing to otter morbidity and mortality.

Second, the Sewage Plant has not met its burden to show that it can comply with its existing permit and meet applicable water quality standards consistently. Based on a selective analysis, the Plant asks EPA and the Regional Board to ignore the accumulation of toxic metals around its discharge pipe, acute toxicity caused by chlorine, and the presence of dioxin in plant effluent, as well as other unambiguous violations of applicable standards. Dr. Bruce Bell, one of the leading experts on the operation and upgrade of sewage treatment facilities in the United States, exposes and debunks any contention that the Plant can satisfy section 301(h) requirements in this respect.

Third, recent water quality data, combined with an absence of evidence that the Sewage Plant has employed indispensable and standard tracking and monitoring protocols, preclude the Plant from meeting its burden to show that the discharge supports recreational uses in Estero and

Morro Bays. By contrast, a leading expert on pathogenic contamination of recreational ocean waters, Dr. Mark Gold, demonstrates that the Plant's application creates more questions than it answers—while failing to account for recent data that undercuts the fundamental conclusion that the Plant is not degrading beach water quality.

Fourth, and more generally, the Sewage Plant's failure to present a "complete" application with current data and information precludes issuance of another waiver. EPA and the Regional Board have before them an application submitted in 2003 and which, in many instances, relies on even older information. As a result, EPA's and the Regional Board's analyses, findings, and determinations are based on incomplete and stale information. Moreover, the Plant and the agencies have not complied with various consultation requirements that are legally required and substantively germane to the issues. By contrast, throughout our analysis, NRDC identifies and submits current and material information that has been omitted in the record.

Fifth, contrary to the implicit assumption of the agencies, the Plant is highly likely to process additional volumes of effluent in the next five years, a fact which will exacerbate each of the substantive problems that currently plague its operation—including the rate of effective disinfection and water quality standards compliance. The agencies have improperly failed to consider these issues and improperly have concluded that the anti-degradation requirements of the Clean Water Act are met in this instance. This is a glaring failure in light of the fact that waters of national significance are nearby, which deserve the highest level of protection from degradation. It is also a glaring failure in light of the Plant's record of collection system and other spills, which show that even now untreated effluent is reaching local waters due to the outdated nature of the Plant.

Sixth, the upgrade proposed by the Sewage Plant and the Regional Board to improve Plant performance will occur as much as five years later than it feasibly can be accomplished. By contrast, state law requires that remedial actions like that proposed here take place "as fast as possible." This clear mandate has been ignored so far, paving the way for a 9.5 year upgrade schedule that will assure that water quality degradation continues to occur for nearly a full decade.

Seventh, the Draft Permit the agencies propose in the meantime not only waives secondary treatment standards, it also fails to include effluent limits and monitoring for pollutants which have a reasonable potential to cause or contribute to violations of water quality standards. Chief among them is the particular pathogen scientifically linked to otter mortality and morbidity. Given the stakes for an iconic threatened species, one that scientists call a "sentinel" for coastal water quality conditions generally, this omission is indefensible.

Finally, because of all of these issues and additional ones contained in the draft settlement agreement, the settlement document itself fails to meet the standard courts use to determine whether the government is acting consistent with its discretion and in the best interest of the public. While there can be no doubt the upgrade in general furthers that interest, the document fails to require the work on an expedited basis, as is required. Moreover, it otherwise creates the conditions for much longer delays beyond 9.5 years by providing insignificant

finer—some smaller than a parking ticket—for many violations of its terms as well as broad, unusual interpretations of standard terms. Collectively, these factors indicate that the agreement may not truly reflect “an arm’s length negotiation,” which is what courts look for in assessing agreements like the one at issue here.

NRDC wishes it were in a position to fully support the Draft Permit and the upgrade agreement. Since 2003, NRDC has been working to forge a collaborative and cooperative resolution to one of the three remaining 301(h) waivers in California, and the only one so closely associated with a known disease epicenter. Towards this end, NRDC has met with local residents, conservation groups, Regional Board staff, Plant staff, and Joint Powers Agency (“JPA”) Board members. This process, which was greatly aided by the perspectives of the Regional Board, and many of its staff, resulted in a JPA Board commitment to upgrade the Plant. However, while positive steps have been taken, given the risks and the evidence, additional commitments are both appropriate and necessary. Section 301(h) waivers are not intended to provide cover for bureaucratic wrangling, nor may they be issued to make meeting bedrock Clean Water Act rules convenient. Since this is the evident function of the proposal to grant the waiver here, EPA and the Regional Board should deny the waiver and require that the Plant upgrade so as to improve water quality “as fast as possible.”

Part 1

Background

Estero Bay covers nearly four miles of coastline along the central coast of California in San Luis Obispo County. It is surrounded by three cities: Morro Bay at the center, Cayucos in the north, and Los Osos in the south.¹ Estero Bay extends from Point Estero to Point Buchon and provides an expanse of undeveloped coastal views.² The nationally-designated³ Morro Bay Estuary lies at the heart of Estero Bay.⁴



Morro Bay Rock, used with permission from Wikipedia.org.

The Morro Bay National Estuary “supports the most significant wetland system on California’s central coast.”⁵ The Estuary is a 2,300 acre semi-enclosed body of water where fresh water flowing from the land mixes with salt water from Estero Bay near Morro Rock.⁶ Ocean water—which includes effluent from the Morro Bay-Cayucos Wastewater Treatment Plant—also enters the Morro Bay Estuary and mixes with fresh water.⁷ As a result of the mixing, the Estuary waters “support[] a unique ecosystem containing numerous plants and animals that are not found in either totally freshwater systems or the ocean.”⁸ As such, pollutant

¹ See Morro Bay Online, <http://www.morrobay.com> (last visited Jan. 24, 2006).

² See Morro Bay National Estuary Program, *Comprehensive Conservation and Management Plan* (July 2000), at 2-2 (hereinafter “CCMP”).

³ The Morro Bay Estuary was accepted into the National Estuary Program under section 320 of the Clean Water Act in October 1995. See CCMP, at ES-4; 33 U.S.C. § 1330.

⁴ See CCMP, at 1-1, 2-3 (quoting Father Crespi, Portola Expedition, 1769: “. . . to the south an estuary of immense size enters this valley, so large that it looked like a harbor to us; its mouth opens to the southwest and we noticed that it is covered with reefs which cause a furious surf. At a short distance from it, we saw a great rock in the form of a morro, which at high tide is isolated and separated from the coast by little less than a gunshot.”).

⁵ CCMP, at 1-1, 2-1; see also Morro Bay National Estuary Program, *Estuary Tidings: A Report on the Health of the Morro Bay Estuary* (2005), at Introduction (hereinafter *Estuary Tidings*).

⁶ See CCMP, at 2-1, 2-7; see also *Estuary Tidings*, at Introduction.

⁷ A 1986 plume dye test showed that effluent from the Plant’s outfall reached and entered the entrance to Morro Bay in 12 hours during southerly current conditions. 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)).

⁸ CCMP, at 2-1.

loadings may have a dramatic impact on the Estuary's balance. The Estuary is home to a variety of species of plants and animals, including many that are rare and threatened, such as the California sea otter, tidewater goby and steelhead trout.⁹ Other endangered, threatened, and special species in the Morro Bay Estuary and Estero Bay area waters include birds, such as the American peregrine falcon, brown pelicans, black rails, California clapper rails, Least bell's vireos, Swainson's hawks, and Western snowy plovers.

Like the Morro Bay Estuary, the surrounding Estero Bay waters support a variety of habitat types, including marine, coastal foredune, coastal and riparian scrub, and grassland, collectively providing habitat for an abundance of plant and animal wildlife.

Accompanying this range of wildlife is a variety of beneficial uses.¹⁰ In fact, the Central Coast Regional Water Quality Control Board's Basin Plan lists Estero Bay for 9 of the 10 existing beneficial uses for coastal waters. These uses support both ecologically important systems and robust economic activities.¹¹ One of the significant beneficial uses of the waters is "Rare, Threatened, or Endangered Species (RARE): Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered."¹²



Flying Terns in Morro Bay

Recreational and Economic Benefits

These varied beneficial uses allow visitors and residents to enjoy recreational activities, like boating, bird watching, sea kayaking, snorkeling, and swimming. As the State Resources Agency observed, "California's ocean-dependent tourism and recreation industries have developed as a result of the State's reputation for striking coastal features, clean ocean waters, spectacular views, diversity of marine species, and numerous ocean-based recreational opportunities."¹³ The Estero Bay region enjoys significant economic benefits from the unique ecosystems of local waters. Coastal recreation is the fastest-growing, most robust aspect of

⁹ Because the species requires healthy creek, bay, and ocean conditions to survive, steelhead is a good indicator of the general health of the coastal ecosystem. See *Estuary Tidings*, at 16.

¹⁰ See CCMP, at 1-1.

¹¹ Central Coast RWQCB Basin Plan, at Table 2-2.

¹² *Id.*

¹³ Resources Agency of California, *California's Ocean Resources: An Agenda for the Future*, at Part II, Ch. 5, Sec. "Tourism and Recreation" (1997), http://resources.ca.gov/ocean/97Agenda/html_index.html.

tourism in the region, and is inexorably linked to the quality of the natural environment.¹⁴ Coastal land, beaches, and watersheds, each provide a link between the tourism industry and coastal recreational industries such as swimming, surfing, boating and fishing.¹⁵

The level of participation in water and nature-related recreational activities on the coast directly affects other industries and sectors of the economy.¹⁶ For instance, increased demand for coastal recreation will result in increased demand for the hotel, restaurant, and service industry.¹⁷ The City of Morro Bay alone attracts an average of 4,000 tourists daily—nearly half its residential population—totaling 1.5 million people per year.¹⁸ As a result, the economy is dominated by tourism and visitor-serving businesses, which generate over a third of all jobs in the City and one-third of the general fund revenues for the City.¹⁹ In San Luis Obispo County generally, tourism generates close to \$900 million in revenue each year and employs over 11,000 residents. Recent studies show that a majority of polled San Luis Obispo County residents indicated their willingness to pay more for greater protection of the area’s unique and valuable coastal resources, recognizing that greater protection benefits both the environment and the economy.



Red Kayaks and Morro Rock, Credits: Dave Kastner / SLO County Visitors & Conference Bureau

The Morro Bay-Cayucos Sewage Plant

In July 2003, the Morro Bay-Cayucos Wastewater Treatment Plant (“Sewage Plant” or “Plant”) submitted its renewal application for its NPDES permit and a waiver from secondary treatment under section 301(h) of the Clean Water Act. The Plant was first constructed in 1954, expanded in 1964,²⁰ and has operated under a 301(h) waiver since March 1985.²¹ Currently, the

¹⁴ National Ocean Economics Program, *California’s Ocean Economy* (July 2005), at 105-106.

¹⁵ *Id.* at 106.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *See* CCMP, at 2-20; *see also* U.S. Census Bureau, Census 2000 statistics for Morro Bay, California.

¹⁹ *Id.*

²⁰ City of Morro Bay and Cayucos Sanitary District, Supplement to the 2003 Renewal Application for Ocean Discharge Under NPDES Program No. CA0047881 (2003), at I-1 (hereinafter “Application”).

²¹ Application, at II-1.

Plant's effluent is discharged approximately 880 meters (2,900 feet, 0.55 mile) offshore, at a depth of approximately 50 feet (less than 20 meters) just northwest of Morro Rock.²² According to the 2003 application, the Plant serves a combined population of Morro Bay and Cayucos of approximately 13,800.²³ The Plant has indicated a 3.8 percent population increase from the 2000 population of 2,293.²⁴

The most recent upgrades to the Plant occurred over twenty years ago in 1983 and 1985, increasing the Sewage Plant's capacity to 2.06 million gallons per day ("MGD") of discharge for dry-weather flows and 6.6 MGD for peak flows.²⁵ Based on its 2003 application, the Plant's average annual discharge was 1.14 MGD.²⁶ The effluent discharged receives basic primary treatment, consisting of screening, grit removal, and primary sedimentation.²⁷ A portion of this effluent also receives secondary treatment as required by the California Ocean Plan, which provides that 75 percent of solids must be removed from blended effluent.²⁸ Secondary treatment processes include biofiltering, solids-contact, and secondary clarification.²⁹ Blended effluent is chlorinated for disinfection.³⁰ The Sewage Plant's blended process capacity is up to 1.0 MGD.

Estero Bay is a Hot Spot for California Sea Otter Mortality

The Sewage Plant discharges directly into the home of the California sea otter. The southern sea otter, or California sea otter (*Enhydra lutris nereis*), is a threatened marine mammal species whose population is in decline. Its range is limited to approximately 300 miles of the California coast, ranging from Half Moon Bay in the north to Point Conception and San Nicolas Island.³¹ As a consequence, the Regional Board has jurisdiction over nearly all of the ocean waters in which the otter lives. Estero Bay, which falls within this range, is home to a well-documented subpopulation of sea otters, most of which stay within the area year-round.³²

²² Application, at II-5.

²³ Application, at II-1.

²⁴ U.S. Census Bureau, Census 2000 statistics for Morro Bay and Cayucos, California.

²⁵ Application, at I-2.

²⁶ Application, at II-1.

²⁷ *Id.*

²⁸ State Water Resources Control Board, *California Ocean Plan* (2001), at 11 (hereinafter *Ocean Plan*).

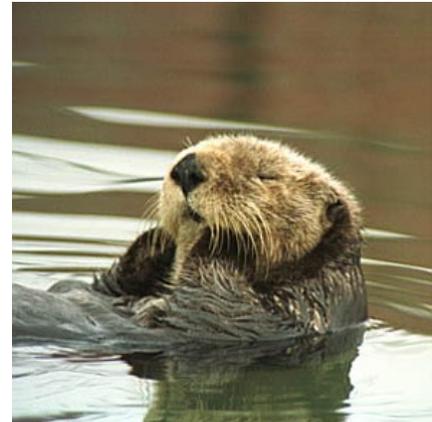
²⁹ Application, at II-1.

³⁰ *Id.*

³¹ U.S. Fish & Wildlife Service, *Final Revised Recovery Plan for the Southern Sea Otter (Enhydra lutris nereis)* (2003), at viii (hereinafter *Revised Recovery Plan*).

³² Marianne L. Riedman & James A. Estes, *The Sea Otter (Enhydra lutris): Behavior, Ecology, and Natural History*, U.S. Fish & Wildlife Services Biological Report 90(14) (1990) at 54-56, 77-83 (hereinafter *The Sea Otter*).

Sea otters forage for food on rocky substrate, soft bottom communities, and within the understory and canopy of kelp forests.³³ California sea otters have a diverse diet, which varies with habitat type, individual, and time of year, and includes abalones, red sea urchins, kelp crabs, clams, turban snails, mussels, octopus, barnacles, scallops, fat innkeeper worms, sea stars, and chitons. Bivalve mollusks are particularly heavily consumed in soft-sediment habitat types. For example, Pismo clams make up a large portion of the diet of sea otters that forage at Atascadero State Beach, near Morro Bay.³⁴ Sea otters play an important role in maintaining a healthy marine ecosystem, particularly kelp beds, by controlling the populations of herbivores, such as sea urchins, which graze on these plant communities.³⁵ Healthy kelp forests, in turn, play a crucial role in near-shore marine ecosystems, providing important juvenile habitat for fish species and altering water flow.³⁶



California Sea Otter

Historically, California sea otters could once be found from as far north as Oregon to Punta Abreojos, in Baja California.³⁷ At their height, an estimated 16,000 – 20,000 southern sea otters occupied this range. The California sea otter was listed as a threatened under the federal Endangered Species Act (“ESA”) in 1977. Following the reduction and eventual elimination of commercial harvesting, sea otter populations began to rebound. California sea otters recolonized Cayucos Point and Morro Bay between 1972 and 1975.³⁸

Recently, however, the sea otter has suffered a steady and grave decline. Between 1995 and 1999, the California sea otter’s population declined at a rate of approximately 5 percent per year.³⁹ The current estimate of 2700 otters statewide reflects a population that has not grown significantly since 1994. Instead, mortality has increased, culminating in a record high mortality of 262 otters, or 10 percent of the population, in 2003. In fact, the highest stranding rate for the past two consecutive years is in Estero Bay.⁴⁰ According to the U.S. Fish & Wildlife Service, “[t]he depressed population growth rate for the southern sea otter population is largely due to elevated mortality, as opposed to reproductive depression or emigration.”⁴¹ Direct causes of

³³ *The Sea Otter*, at 31.

³⁴ *Id.* at 41, 43.

³⁵ *Id.* at 28-29.

³⁶ *Id.* at 30.

³⁷ *Id.* at 10, 12.

³⁸ *Id.* at Table 8 and Figure 33.

³⁹ *Id.* at 28-29.

⁴⁰ The Otter Project, Stranding Summary for 2002, <http://www.otterproject.org> (follow “Research,” then “Stranding Reports”) (citing USGS Biological Resources Division).

⁴¹ *Revised Recovery Plan*, at viii.

mortality, and any causes that contribute to mortality, pose a serious threat to the recovery of the sea otter.⁴²

Recent scientific studies have focused on the two critical roles that sea otters play in their ecosystem. First, “the unique biology of sea otters makes them an excellent *sentinel* species, one that can tell us a lot about pollution problems and ecological change,” early on.⁴³ Thus, “as a sentinel species, sea otter health has implications for human health, sustainability of some recreational shell fisheries, and overall health of the near shore marine ecosystem.⁴⁴ Second, the otter is *keystone* species that controls “the destruction of kelp forests by grazing urchins” and thus, helps maintain a diversity of forest inhabitants and ecosystem services, including protection of the coastline from erosion.”⁴⁵

While California sea otter mortality has a variety of causes, including shark attacks, shootings, entanglement in fishing gear, and starvation, “the single most important known cause of mortality” among southern sea otters is infectious disease,⁴⁶ particularly encephalitis caused by the parasite *Toxoplasma gondii* (or “*T. gondii*”). Encephalitis affects the brains of infected animals, causing a variety of physical symptoms and such as fine muscle tremors, recurrent seizures, dull mentation, and decreased or abnormal motor function. A 2003 study identified *T. gondii* encephalitis as a “primary cause of death” in 16.2 percent of otters surveyed.⁴⁷ The same study showed that encephalitis is a major contributing factor in the death of sea otters from both shark attack and cardiac disease: sea 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. Finally, *T. gondii* encephalitis may have other population-level effects on sea otters, as infection is associated with serious birth defects and high levels of miscarriages in both terrestrial animals and humans.⁴⁸

⁴² See James A. Estes et al., *Causes of Mortality in California Sea Otters During Periods of Population Growth and Decline*, 19 *Marine Mammal Science* 198, 215 (Jan. 2003) (noting that “[l]ong-term declines in pup-to-adult and adult mass-to-length ratios indicate that conditions for sea otters in California are deteriorating,” *id.* at 214).

⁴³ David Jessup, *Southern sea otter—Sentinel of the sea*, *Outdoor California* (Sep.-Oct. 2003), at 9 (emphasis added); P.A. 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, 1158 (2005) (“As nearshore predators close to the top of the food chain, otters serve as sentinels and early indicators of environmental change.”).

⁴⁴ Jessup, *supra* note 43, at 10.

⁴⁵ Conrad, *supra* note 43, at 1158.

⁴⁶ *Revised Recovery Plan*, at viii.

⁴⁷ C. Kreuder et al., *Patterns of Mortality in Southern Sea Otters (Enhydra Lutris Nereis) from 1998-2001*, 39(3) *Journal of Wildlife Diseases* 495, 499 (2003).

⁴⁸ Kreuder, *supra* note 47, at 504.

The discharge of waste into ocean waters is highly correlated with the occurrence of this pathogen.⁴⁹ *T. gondii* is spread through the consumption of infected animals or through the consumption of “oocysts” in the feces of infected animals. While a large variety of species—including humans—are capable of being infected with *T. gondii*, “the only animal known to shed oocysts in their feces are felids, most importantly domestic cats.”⁵⁰ Although terrestrial in origin, there is “compelling evidence” of marine dispersal of *T. gondii*, not only from the widespread infection of sea otters, but also from infections found in other marine mammals, including cetaceans and pinnipeds.⁵¹ Scientists generally agree that “[t]he most plausible explanation for the high number of southern sea otters infected by *T. gondii* off the coast of California is exposure to oocysts that are shed by felids and reach the ocean through streams, urban runoff and/or sewage effluent.”⁵² Studies have shown a statistically significant correlation between sites of maximal freshwater flow along the California coast and *T. gondii* infection rates among California sea otters.⁵³ Indeed, “[o]tters sampled at these maximal flow sites were nearly three times more likely to be seropositive to *T. gondii* than those sampled at low flow sites.”

While the direct pathway for *T. gondii* infections in marine mammals is not fully understood, the contamination of filter-feeding prey species such as shellfish is one likely explanation. Atlantic shellfish are known to concentrate protozoans such as *Cryptosporidium parvum* and *Giardia doudevalis* after the discharge of runoff or sewage effluent, and controlled laboratory studies have shown that California mussels (*M. galloprovincialis*) can remove and concentrate *T. gondii* from oocyst-contaminated water and cause *T. gondii* infection in mice.⁵⁴ Filter feeding mollusks, including mussels, are a major prey species of sea otters generally, and Pismo clams are known to be a key part of the diet of otters at Atascadero State Beach, near the discharge point.⁵⁵

Significant evidence makes it impossible to rule out the Sewage Plant as a source of *T. gondii* infection among California sea otters. It is widely accepted that Estero Bay is a hot spot for *T. gondii* infection of sea otters. Eighty-seven percent of sea otters tested in the Cayucos-

⁴⁹ Effluent from the Sewage Plant’s outfall disperses upon discharge as the plume travels with the current, spreading into Estero Bay and even reaching and entering Morro Bay. See Anthony *supra* note 7, at 98, 125, 128.

⁵⁰ M.A. Miller 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, 997-98 (2002).

⁵¹ *Id.* at 998.

⁵² Kristen D. Arkush et al., *Molecular and bioassay-based detection of Toxoplasma gondii oocyst uptake by mussels (Mytilus galloprovincialis)*, 33 International Journal of Parasitology 1087, 1088 (2003).

⁵³ Miller (2002), *supra* note 50, at 1002, 1004.

⁵⁴ Arkush, *supra* note 52, at 1094.

⁵⁵ *The Sea Otter*, at 41, 43-44.

Morro Bay area were seropositive for *T. gondii*.⁵⁶ California sea otters living in the area of Morro Bay “are nine times more likely to have toxoplasmosis than sea otters elsewhere in their range.”⁵⁷ Morro Bay sea otters were also more likely to be infected with a rare strain of *T. gondii*,⁵⁸ a further indication of unique factors affecting this group of otters.

Runoff alone does not explain the extraordinarily high infection rates of California sea otters in Morro Bay. In fact, even *after* accounting for runoff and other factors, “otters sampled in this location were nine times more likely to be seropositive for *T. gondii*.”⁵⁹ The only other obvious source of marine dispersal of *T. gondii* into Morro Bay is, of course, the Sewage Plant. In their discussion of the factors that may be contributing to Morro Bay’s outbreak, the mussel study’s authors note with interest that Morro Bay is the only region within the range of the southern sea otter where primary treated municipal sewage is discharged into the nearshore marine environment.⁶⁰ Reviewing this study, one prominent biologist with the California Department of Fish and Game lists “the discharge of primary treated sewage” as the second among four factors that may account for the Morro Bay toxoplasmosis hotspot.⁶¹

While the leading study of the issue does not show a statistically significant association between sewage outfalls and *T. gondii* infection rates generally, the study’s authors acknowledge that the “study design did not allow for an in-depth evaluation of the potential effect of sewage” and that further work is needed before one can “exclude sewage as a risk factor for *T. gondii* exposure.”⁶² As the study author, Dr. Patricia Conrad, explained:

⁵⁶ Miller (2002), *supra* note 50, at 1001.

⁵⁷ David A. Jessup, *Good Medicine for Conservation Biology: Comments, Corrections, and Connections*, 17(3) *Conservation Biology* 921, 922 (June 2003).

⁵⁸ See M.A. Miller et al., *An unusual genotype of Toxoplasma gondii is common in California sea otters (Enhydra lutris nereis) and is a cause of mortality*, 34 *International Journal of Parasitology* 275 (2004).

⁵⁹ Miller (2002), *supra* note 50, at 1005.

⁶⁰ *Id.*

⁶¹ Jessup, *supra* note 57, at 922.

⁶² Miller (2002), *supra* note 50, at 1005. While the study linking *T. gondii* infection to runoff found no link to sewage outfalls generally, the study points out that “[t]his may be because the major municipal sewage outfalls are located far offshore (e.g., 0.5-5 km) and nearly all (96%) otters were sampled at locations >5 km from the nearest major municipal sewage outfall. Thus, exposure of sea otters to sewage plumes derived from major municipal sources was considered to be low in the present study.” *Id.* at 1004. In addition, the study makes no effort to distinguish, in its analysis of sewage outfalls, between sewage discharges of different treatment levels. Its findings therefore “undercount” the harmful effects that Morro Bay’s primary-treated waste discharge is likely having.

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).

In other words, the tests may have shown “false negatives” because the test’s detection capabilities are limited and the study is incomplete. In this connection, the Sewage Plant’s record shows numerous spills of untreated discharge into Morro Bay and the Pacific Ocean from its collection systems in recent years—an obvious source of pathogens.⁶³ This information underscores the degree to which a single study using mussels on the outfall pipe cannot rule out the Sewage Plant as a source of *T. gondii* infection among sea otters in the area.

In summary, the available evidence related to the epicenter of *Toxoplasma gondii*-related disease in sea otters in the Morro Bay area includes the following:

- Morro Bay has one of the highest rates of *T. gondii* infection in the species’ known distribution;⁶⁴
- Morro Bay is the only region in the species’ range where primary-treated effluent is discharged into the nearshore marine environment;⁶⁵
- Discharge of primary treated sewage is the second most likely factor accounting for the Morro Bay *T. gondii* hot spot;⁶⁶
- The results of the mussel study conducted by the Plant is, at bottom, inconclusive as to the presence of *T. gondii* in the Sewage Plant’s effluent;⁶⁷ and
- Untreated sewage from the Plant’s collection systems periodically spills into Morro Bay and the ocean.⁶⁸

This evidence clearly shows that the sea otter population in the Morro Bay area is threatened by *T. gondii* infection and that the Sewage Plant cannot be ruled out as a contributing source of *T. gondii* in the marine environment.

⁶³ See Draft NPDES Permit, WDR Order No. R3-2006-0019, at F-20 (hereinafter “Draft Permit”).

⁶⁴ See Miller (2002), *supra* note 50, at 1001.

⁶⁵ *Id.* at 1005.

⁶⁶ Jessup, *supra* note 57, at 922.

⁶⁷ Letter from Dr. Patricia Conrad, DVM, PhD, U.C. Davis Wildlife Health Center, to Bruce Keogh, Waste Water Division Manager, City of Morro Bay (Dec. 13, 2004).

⁶⁸ See Draft Permit, at F-20.

Part 2

Standard of Review and Legal Standards

A. Standard of Review

In deciding the actions before it—whether to grant another 301(h) waiver and whether to enter into the proposed settlement agreement—one of the chief obligations of the Regional Board and EPA is to make clear how the agencies arrived at their conclusion by presenting in a written determination a thorough analysis of the evidence and the applicable legal factors or standards.⁶⁹ Decisions must “connect the dots” and explain the rationale used by the agency in reaching conclusions.

To receive a 301(h) waiver, an applicant bears the burden of proof to show that it can meet the “environmentally stringent criteria” under the Clean Water Act.⁷⁰ EPA, with the concurrence of the state, may grant a waiver “if the applicant demonstrates” that it meets the stringent criteria and has met its burden of proof. In conjunction with nine criteria enumerated under section 301(h), the applicant must demonstrate that it complies with Clean Water Act standards for total suspended solids (“TSS”), biochemical oxygen demand (“BOD”), and pH as well as all state water quality standards.⁷¹ The stringent nature of these requirements means the applicant carries a heavy burden.

The nine criteria under section 301(h) require that the applicant show the following:⁷²

- (1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 1314(a)(6) of this title;
- (2) the discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, and allows recreational activities, in and on the water;

⁶⁹ See, e.g., *Topanga Ass’n for a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506, 515 (1974).

⁷⁰ *In re Mayaguez Regional Sewage Treatment Plant Puerto Rico Aqueduct and Sewer Authority*, 4 E.A.D. 772 (1993).

⁷¹ The state agency authorized to give certification of a 301(h) waiver must certify that the “discharge will comply with applicable provisions of State law including water quality standards,” and such certification must be supported by “a discussion of the basis for the conclusion reached.” 40 C.F.R. § 125.61(b)(2).

⁷² 33 U.S.C. § 1311(h).

- (3) the applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;
- (4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- (5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
- (6) in the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;
- (7) to the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;
- (8) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;
- (9) the applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 1314(a)(1) of this title after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged.

Additionally, the Clean Water Act requires that discharge under a 301(h) waiver not conflict with other applicable federal laws.⁷³ The federal implementing regulations specifically identify the Coastal Zone Management Act, the Endangered Species Act, and the Marine Protection, Research, and Sanctuaries Act.⁷⁴ Thus, part of an applicant's burden is to show that its discharge under a 301(h) waiver would not conflict with the objectives, requirements, and prohibition of these laws.

The state water quality requirements with which the applicant must show compliance are the requirements in the California Water Code, the California Ocean Plan,

⁷³ 40 C.F.R. § 159(b)(3).

⁷⁴ 40 C.F.R. § 159(b)(3).

and the Basin Plan.⁷⁵ These requirements center on the protection and restoration of beneficial uses,⁷⁶ and include limitations on bacteria and other pollutants that are harmful to human health and the coastal marine environment.⁷⁷ Violation of *any* of the conditions of an NPDES permit constitutes noncompliance in violation of the Clean Water Act and State Water Code, and is grounds for termination of an existing permit or denial of an application for re-issuance.⁷⁸ As such, permit violations show that an applicant cannot meet the burden of proof to demonstrate that it meets the environmentally stringent criteria as required for a section 301(h) waiver.⁷⁹

B. Legal Standard for Settlement Agreement/Consent Decree

Settlement agreements and consent decrees must be “fundamentally fair, adequate, reasonable,” and consistent with relevant statutes.⁸⁰ The substance of a consent decree must conform to applicable laws, and “represent[] a reasonable factual and legal determination.”⁸¹ Thus, two standards apply. First, the agreement must conform to applicable laws. Second, the agreements must be fair.⁸²

⁷⁵ See State Water Board WDR Order No. 98-15, at 3.

⁷⁶ Beneficial uses in the vicinity of the Sewage Plant’s discharge include water contact recreation; non-contact water recreation; industrial water supply; navigation; marine habitat; shellfish harvesting; commercial and sport fishing; rare, threatened, and endangered species; and wildlife habitat. See WDR Order No. 98-15, at 2; see also Cal. Water Code § 13142.5 (“Wastewater discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters.”).

⁷⁷ See WDR Order No. 98-15, at 2-9.

⁷⁸ 40 C.F.R. § 122.64; see WDR Order No. 98-15, at 3 (¶¶15, 17), 12 (¶14); Draft Permit, at D-1 (citing 40 C.F.R. § 122.41 (a)).

⁷⁹ Because permit terms are set according to state and federal water quality requirements, permit violations are evidence that a discharger has not met the requirement under the federal regulations that it demonstrate compliance with state water quality requirements. 40 C.F.R. § 125.61.

⁸⁰ See *United States v. Oregon*, 913 F.2d 576, 580-581 (9th Cir. 1990).

⁸¹ *Id.* (internal quotation omitted).

⁸² To demonstrate that an agreement entered into meets these requirements, an agency must provide a detailed analysis of the evidence in its findings. See, e.g., *Topanga*, 11 Cal. 3d at 515 (agency must set forth findings based on solid evidence and present clear, thorough analysis “to bridge the analytic gap between the raw evidence and the ultimate decision or order.”).

1. *Evaluating Consistency with the Relevant Statutes.*

(a) *Laws Applicable to the Timeline in the Settlement Agreement*

The settlement agreement must conform to applicable laws—including those applicable to the proposed timeline. Both federal and state laws require that processes such as sewage plant upgrades occur “as soon as possible”: California Water Code § 13385(j)(3); 23 California Code of Regulations § 2243; and 40 C.F.R. § 122.47. Under state law, Water Code section 13385(j)(3)(C) states:

The regional board establishes a time schedule for bringing the waste discharge into compliance with the effluent limitation that is *as short as possible*, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation. (emphasis added).⁸³

The Legislature indicated what is considered the outer limit of “as short as possible” in the same section: “the time schedule may not exceed five years in length.” *Id.* Similarly, the California Code of Regulations provides: “A time schedule should always be included in a cease and desist order unless there is a lack of information upon which to base a schedule in which case the discharger should be instructed to comply forthwith. ‘Forthwith’ means as soon as is reasonably possible.” 23 C.F.R. § 2243(a).

Under federal law, “Any schedules of compliance under this section shall require compliance *as soon as possible*, but not later than the applicable statutory deadline under the CWA.” 40 C.F.R. § 122.47 (emphasis added); *see also City of Moscow*, 2001 WL 988721 (EPA questioned whether a compliance schedule that extended beyond the length of the permit was proper under 40 C.F.R. § 122.47). In addition, EPA guidance articulates the goal that publicly owned treatment plants (“POTWs”) achieve secondary treatment “*as soon as possible*,” and no later than July 1, 1988, except under “extraordinary circumstances.”⁸⁴

⁸³ We recognize that section 13385 is generally invoked when a discharger is ordered to come into compliance with law, and that the Plant believes its upgrade is voluntary. Given the ample evidence that an application for a 301(h) waiver should be rejected, *see* Part 3, an upgrade is in fact in order here. Even if the Plant were in compliance, the totality of relevant statutory and regulatory guidance still supports the requirement that the upgrade still needs to be completed “as soon as possible.”

⁸⁴ EPA, *Notice of National Municipal Policy on Publicly-Owned Treatment Works* (1984), 49 FR 3832 (emphasis added); *see also City of San Bernardino and City of Colton*, Cal. St. Wat. Res. Bd. (1986), 1986 WL 25521 (Regional Board was legally required to issue NPDES permit that required compliance within five years even though cities complained they could not meet deadlines in the time schedule order.).

(b) *Objectives of Relevant Statutes*

A settlement agreement or consent decree must conform in substance and form to the underlying statutes.⁸⁵ Here, the relevant statutes include the federal Clean Water Act,⁸⁶ the California Water Code (Porter-Cologne Act),⁸⁷ and the California Ocean Plan,⁸⁸ as well as the federal and state regulations that implement these laws. The objectives of these statutes function as the overarching direction for the Board’s evaluation of the proposed agreement, for instance:

- In section 101 of the Clean Water Act, Congress declared that “it is the national goal that the discharge of pollutants into the navigable waters be *eliminated* by 1985; ¶ [and that] water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.”⁸⁹
- In enacting the Porter-Cologne Act, California’s Legislature declared that “the quality of the waters of the state shall be protected for use and enjoyment by the people of the state. . . . The Legislature further finds and declares that the health, safety, and welfare of the people of the state requires that there be a statewide program for the control of the quality of all waters of the state; that *the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state*[.]”⁹⁰
- Furthermore, with respect to water quality in the coastal marine environment, section 13142.5 of the Porter-Cologne Act states, in part: “Wastewater discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters. Highest priority shall be given to improving or eliminating discharges that adversely affect any of the following: ¶ (1) Wetlands, estuaries and other biologically-sensitive areas. ¶ (2) Areas important for water contact sports.”
- The California Ocean Plan requires a “guarantee that the current standards are adequate and are not allowing degradation to marine species or posing a threat to public health.”⁹¹

As such, a settlement agreement must be consistent with these objectives from applicable statutes. These same standards are further relevant in determining the reasonableness of agency

⁸⁵ See, e.g. *U.S. v. Oregon*, 913 F.2d at 580-581; see also *U.S. v. Telluride*, 849 F. Supp. 1400, 1402-1403, 1406 (D. Colo. 1994).

⁸⁶ 33 U.S.C. §§ 1251 *et seq.*

⁸⁷ Cal. Water Code, Division 7 §§ 13000 *et seq.*

⁸⁸ State Water Resources Control Board, *California Ocean Plan* (2001) (hereinafter *Ocean Plan*).

⁸⁹ 33 U.S.C. § 1251(a) (emphasis added).

⁹⁰ Cal. Water Code § 13000 (emphasis added).

⁹¹ *California Ocean Plan*, at 1.

actions within the zone of agency discretion and in resolving any close questions. For example, if it is assumed for the sake of argument that there was a close question regarding whether the applicant here has met its burden, or whether the settlement agreement was adequate, such close questions must be resolved in favor of the overarching statutory mandates that apply to the matter, each of which favors actions which lessen coastal pollution.

2. *Evaluating the Fairness of a Proposed Settlement Agreement*

An important aspect in evaluating the propriety of consent decrees and settlement agreements is the requirement that the negotiations in which such agreements are developed be procedurally and substantively fair.⁹² The negotiated agreement must be “the product of good-faith, arms-length negotiations.”⁹³ If it appears that an agency has “relied heavily” on the accused polluter in crafting the settlement, courts will carefully scrutinize the proposed agreement.⁹⁴ The administrative record must “demonstrate[] that there was substantial give-and-take during the . . . negotiations;”⁹⁵ it must be clear that “the negotiation process was fair and full of adversarial vigor.”⁹⁶ Mere *pro forma* participation by the regulatory agency in the crafting of an agreement concerning matters of public interest falls short of the intense involvement in protracted arms’ length negotiations an agency must engage in for a court to find that the resulting agreement is procedurally fair.⁹⁷

A related issue in this evaluation is the substantive fairness of the agreement. To evaluate the substantive fairness of the proposed settlement agreement, the Board should consider the agreement’s substantive implications in comparison to the “best-case scenario,” which represents the benchmark of substantive fairness.⁹⁸ In making this kind of evaluation, courts consider the impacts to the environment under the negotiated agreement versus the impacts in a best-case scenario.⁹⁹

⁹² See *U.S. v. Chevron U.S.A., Inc.*, 380 F. Supp. 2d 1104, 1111 (N.D. Cal. 2005).

⁹³ *U.S. v. Oregon*, 913 F.2d at 581.

⁹⁴ *Telluride*, 849 F. Supp. at 1403-1404 (affording agency decision less deference and rejecting proposed agreement where agency relied heavily on representations made by the regulated entity in formulating remediation and mitigation plan) (internal quotations omitted).

⁹⁵ *Chevron*, 380 F. Supp. 2d at 1112.

⁹⁶ *Telluride*, 849 F. Supp. at 1402.

⁹⁷ See e.g. *Telluride*, 849 F. Supp. at 1404 (finding proposed agreement procedurally unfair where “the EPA simply reacted to the proposals offered by [the company’s] expert; it did not pull the laboring oar”); *U.S. v. Allied-Signal Corp.*, 736 F. Supp. 1553, 1558 (N.D. Cal. 1990).

⁹⁸ *Chevron*, 380 F. Supp. 2d at 1113-1114 (citing *U.S. v. Montrose Chem. Corp. of Cal.*, 50 F.3d 741, 746 (9th Cir. 1995) (finding that district court abused its discretion in entering a consent decree in a CERLA action without having an estimate of the full environmental damage)).

⁹⁹ See *Chevron*, 380 F. Supp. 2d at 1114; *Montrose Chemical*, 50 F.3d at 746-748.

C. Legal Standards With Respect to the Enforceability of an Agreement

Enforceability is the primary characteristic that distinguishes court-entered settlement agreements and consent decrees from out-of-court settlement agreements. Court-entered settlement agreements and consent decrees are legally backed by the power of the court that orders it and fully enforceable through contempt proceedings.¹⁰⁰ In contrast, purely out-of-court agreements must be enforced in new litigation for breach of contract.¹⁰¹

As recognized by the Supreme Court, it is for this reason that consent decrees are well-suited tools for memorializing agreements in public law matters, while out-of-court settlement agreements are not.¹⁰² This is particularly true in cases involving matters of public law enforcement because “public law settlements are often complicated documents designed to be carried out over a period of years . . . [consequently] any purely out-of-court settlement would suffer the decisive handicap of not being subject to continuing oversight and interpretation by the court.”¹⁰³

¹⁰⁰ See e.g., *B.H. v. McDonald*, 49 F.3d 294, 300 (7th Cir. 1995) (noting that a party must file suit to enforce a settlement, but courts have the power to modify and enforce the terms of consent decrees and to penalize the noncomplier through contempt proceedings).

¹⁰¹ See e.g., *Gardiner v. A.H. Robins Co., Inc.*, 747 F.2d 1180, 1188-1190 (8th Cir. 1984) (where parties to litigation voluntarily dismissed the case by stipulation, the settlement agreement reached between the parties was consequently an out-of-court settlement and could only be enforced through an action by one of the parties upon breach of the agreement by the other party).

¹⁰² See *Local No. 93, Int’l Ass’n of Firefighters, v. City of Cleveland*, 478 U.S. 501, 524 n.13 (1986) (noting that the different enforcement schemes implicated by consent decrees and settlement agreements are important grounds upon which parties decide by what method to settle disputes) (quoting M. Schwarzschild, *Public Law by Private Bargain: Title VII Consent Decrees and the Fairness of Negotiated Institutional Reform*, 1984 Duke L.J. 887, 899 (1984)).

¹⁰³ *Id.* (quoting Schwarzschild, at 899).

Part 3

Why Re-Issuance of Another 301(h) Waiver is Illegal.

The Sewage Plant has not and cannot satisfy the heavy burden required for another 301(h) waiver. As recognized by all stakeholders and parties, the Sewage Plant, as the applicant, faces a heavy burden of proof.¹⁰⁴ In evaluating whether the Sewage Plant has met this burden, EPA and the Regional Board staff have failed to consider material information and evidence. An important, overarching barrier is that the application materials before the Board and EPA are stale and incomplete. In addition, the record shows that EPA and the Regional Board staff have failed to fully analyze the issue of whether a “balanced indigenous population” of marine life exists in Estero Bay and Morro Bay—as well as whether the Plant can discharge into “stressed waters.” EPA and the Regional Board staff also failed to fully analyze whether the Plant’s modified discharge can comply with water quality standards, meets anti-degradation requirements, and complies with requirements under the Endangered Species Act and Marine Mammal Protection Act. Proper analysis of all these factors and the evidence shows that the Plant cannot meet its burden proof required for the 301(h) waiver. As such, the weight of the evidence shifts against the issuance of another waiver.¹⁰⁵

Part 3A

The Sewage Plant’s 301(h) Waiver Application and Supporting Materials Are Stale and Incomplete.

Integral to its burden, the Sewage Plant must provide a “completed” application with relevant and current data supporting its application.¹⁰⁶ “Relevant data” means, among other things, current “publications and technical reports produced by other agencies, institutions, and companies working in nearby areas of the receiving waters.”¹⁰⁷ EPA Guidance explains the value of such data: “Data from such surveys could be used to better define environmental factors.”¹⁰⁸ Importantly, “failure to supply necessary information could result in permit denial,

¹⁰⁴ 33 U.S.C. § 1311(h) (“applicant demonstrates”); *See In re Mayaguez Regional Sewage Treatment Plant Puerto Rico Aqueduct and Sewer Authority*, 4 E.A.D. 772 (1993); *Topanga Ass’n for a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506, 515 (Cal. 1974).

¹⁰⁵ *See Topanga*, 11 Cal. 3d at 515 (agency must set forth findings based on solid evidence and present clear, thorough analysis “to bridge the analytic gap” between evidence and the ultimate decision or order that is supported by the weight of the evidence).

¹⁰⁶ 40 C.F.R. § 125.59(c); EPA, *Amended Section 301(h) Technical Support Document*, at Demonstrations of Compliance, Required Data (1991, last updated 2004) (hereinafter “EPA Guidance”), <http://www.epa.gov/owow/oceans/regulatory/sec301tech/2.html>.

¹⁰⁷ EPA Guidance, at Demonstrations of Compliance, Required Data.

¹⁰⁸ *Id.*

based on the grounds that a *complete* application was not submitted.”¹⁰⁹ In fact, the State Board has remanded a regional board action granting a 301(h) waiver, because the Regional Board did not consider all relevant information in analyzing the “balanced indigenous population” requirement.¹¹⁰

One key aspect of a complete record is temporal—i.e. the application must include new and current data. EPA Guidance directs:

Because each application for permit reissuance is considered to be an application for a new NPDES permit, applicants are required to provide *new* determinations of compliance with all applicable local, state, and federal laws and regulations.¹¹¹

Thus, for instance, water monitoring data must be new and current. Likewise, new determinations by other agencies such as U.S. Fish & Wildlife Service and the National Marine Fisheries Service must be included.¹¹² The basis for this temporal obligation is reflected in the five-year permit cycle itself. *See* 40 C.F.R. § 122.21(d). The maximum permit term of five years inherently recognizes that conditions change and that new information becomes available, thus warranting a reassessment and reapplication for all permits. *See id.*

This temporal obligation also extends to EPA and the Regional Board in their evaluations of the 301(h) application. 40 C.F.R. § 122.21(e). Because as the permitting agencies, EPA and the Regional Board are required to make findings, these findings must be based on complete data that is current. Otherwise, the integrity of the findings is greatly diminished or eliminated. This temporal obligation exists not only under the Clean Water Act, but also under the Endangered Species Act, which is applicable to 301(h) waivers. Under the Endangered Species Act, EPA is required to undertake new consultations for each application for renewal that may affect a threatened species, such as the sea otter, as well as reinitiate consultations where new information reveals effects of the action that were not previously considered or the identified action is subsequently modified in a manner that may cause an effect not previously considered. 50 C.F.R. § 402.16. Hence, the temporal obligation—new and current data—is essential to a “complete” application.

Here, the Sewage Plant’s application was submitted in 2003—nearly three years ago—and the tentative decision documents rely largely on this old information. This is not adequate for three reasons. First, measured against a permit cycle that is only five years long, the data on which the tentative decision is based is stale in light of the relevant regulatory timeframe. 40 C.F.R. § 122.21(d). In this connection, since the submittal of the Sewage Plant’s application, significant scientific evidence has emerged on the harmful effects of land-based biological

¹⁰⁹ *Id.* (emphasis added).

¹¹⁰ *In re* Rimmon C. Fay, State Board Order No. WQ 86-17, 1986 WL 25526, at *9 (Nov. 20, 1986).

¹¹¹ EPA Guidance, at II.B (emphasis added).

¹¹² *Id.*

pathogens and their impacts on the threatened California sea otter, as discussed in detail in Part 3B. In fact, a 2005 study states, “There has been a focused effort over the past 5 years to study the impact of *T. gondii* infection on the southern sea otter (*Enhydra lutris nereis*) population in coastal California”¹¹³ These studies discuss among other things the disease epicenter in Morro Bay and Estero Bay waters, the land-sea connection of infection rates of pathogens such as *T. gondii* and *Sarocystis neurona*, as well how the sea otter functions as a sentinel representative of the overall health of an ecosystem. This is the exact type of information the EPA Guidance and the State Board dictate must be considered because “data from such surveys could be used to better define environmental factors,” in other words, factors that could be overlooked or underrepresented in the application materials.¹¹⁴ However, much of this material information is not part of the Plant’s application nor is referenced by EPA or the Regional Board. Moreover, as discussed in Part 3C, the staleness of the record impedes full analysis of compliance with water quality standards by EPA and the Regional Board staff.

Second, because data and information since 2003 are not part of the Plant’s application, EPA’s Tentative Decision and Draft Permit have not fully analyzed the application in light of current data and evidence with respect to all aspects of the 301(h) waiver. Importantly, the Regional Board and EPA have an obligation to make findings to support their decision. However, the integrity of these findings is compromised given that they are based on information that is nearly three years old when it was submitted, let alone when it was actually assessed.

Third, the stale and incomplete nature of the record deprives other agencies, such as the U.S. Fish & Wildlife Service and the National Marine Fisheries Service, from providing expert evaluations on the permit application. According to EPA’s Tentative Decision, the last time that the U.S. Fish & Wildlife Service provided an evaluation of the Plant’s operations was in 1998 during the previous 301(h) application—nearly eight years ago.¹¹⁵ An evaluation from the U.S. Fish & Wildlife Service, especially in this case, is not a mere “formality” that can be neglected. Rather, an expert evaluation from the U.S. Fish & Wildlife Service is critical to assessing the Plant’s operation in light of the recent scientific evidence discussing sea otter infections, disease epicenters, and indications of high bacterial pathogens. Therefore, given that this key information is missing, and hence was not analyzed nor considered, the entire application process, including the EPA Tentative Decision and the Draft Permit—are infected by this failure. As such, the 301(h) waiver cannot issue.

¹¹³ P.A. 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, 1156 (2005).

¹¹⁴ See EPA Guidance, at Demonstrations of Compliance; *In re* Rimmon C. Fay, 1986 WL 25526, at *9.

¹¹⁵ EPA Tentative Decision, at 30.

Part 3B

The Sewage Plant Cannot Satisfy the Balanced Indigenous Population Requirement.

A. The Sewage Plant Cannot Assure that a Balanced Indigenous Population of Marine Life Exists in Estero Bay and Morro Bay.

1. *EPA and the Regional Board Staff Failed to Consider Relevant Information and Improperly Concluded that the Plant Demonstrated that A Balanced Indigenous Population of Marine Life Exists.*

To obtain a Clean Water Act 301(h) waiver, the Sewage Plant must assure “protection and propagation of a balanced indigenous population” of marine life.¹¹⁶ In its Tentative Decision, “EPA concludes that a balanced indigenous population is being maintained in the vicinity of the outfall. . . .”¹¹⁷ EPA bases this conclusion on narrow considerations of benthic communities and limited monitoring results from 2003.¹¹⁸ Because of its falsely perceived regulatory “straightjacket,” EPA as well as Regional Board staff and the Sewage Plant ignore the “elephant in the room” with respect to its analysis of the balanced indigenous population requirement. In particular, the analysis fails to consider material evidence that Morro Bay and Estero Bay waters are a hotspot for deaths of the threatened sea otter resulting from land-based sources pollution and that the struggling otter population represents an overall degraded ecosystem.¹¹⁹

Federal and state law consider the balanced indigenous population requirement as “an integral part” of a plant’s 301(h) application and one that cannot be given cursory attention.¹²⁰ Federal regulations have interpreted the balanced indigenous population requirement to mean:

¹¹⁶ 33 U.S.C. § 1311(h)(2). EPA defines the term “balanced indigenous population” to mean an “ecological community which: (1) Exhibits characteristics similar to those of nearby, healthy communities existing under comparable but unpolluted environmental conditions; or (2) May reasonably be expected to become re-established in the polluted water body segment from adjacent waters if sources of pollution were removed.” 40 C.F.R. § 125.58(f).

¹¹⁷ EPA Tentative Decision, at 23.

¹¹⁸ *Id.* at 23-24.

¹¹⁹ Conrad, *supra* note 113, at 1161. The Regional Board staff, EPA, and the Sewage Plant give a perfunctory mention of the otter decline in the context of separate sections in their documents discussing other 301(h) requirements. See Draft Permit, at F-19; EPA Tentative Decision, at 29; and Application, at II-32. None of these documents show consideration of whether a balanced indigenous population of marine life exists in Morro Bay in general or with respect to the California sea otter. See *id.*

¹²⁰ EPA Guidance, at II.C; *In re Rimmon C. Fay* 1986 WL 25526, at *9 (“We are not convinced that protection of marine communities has been demonstrated.”).

A balanced indigenous population of shellfish, fish, and wildlife *must exist*:

- (i) Immediately beyond the zone of initial dilution of the applicant's modified discharge; and
- (ii) In all other areas beyond the zone of initial dilution where marine life is actually or potentially affected by the applicant's modified discharge.

40 C.F.R. § 125.62(c)(2) (emphasis added). Likewise, EPA Guidance poses a straightforward question: "Does (will) a balanced indigenous population of shellfish, fish, and wildlife exist?"¹²¹ Hence, the inquiry as to whether the Plant has satisfied its burden does not focus on a causal link between the discharge and a balanced indigenous population of marine life.

EPA has directed that the balanced indigenous population requirement is "a factual issue" which must be decided separately for each application.¹²² To satisfy the balanced indigenous population requirement, the Sewage Plant must "describe and compare biological communities."¹²³ Effective demonstrations include a comparison of biological conditions.¹²⁴ Where a comparative community or population is not readily available, the applicant can meet its burden by conducting a biological survey and examining among other things, species "abundance;" "growth and reproduction of populations," "disease frequency," and "presence or absence of certain indicator species."¹²⁵

In this connection, EPA Guidance explicitly discusses the importance of "threatened" species and "communities with aesthetic, recreational, and commercial importance" as two of the four main criteria for the analysis of the balanced indigenous population requirement.¹²⁶ While evaluation of benthic communities is relevant, EPA Guidance cautions, "It should not be assumed, however, that these are the only biological communities [benthic] that should be studied in all cases. Particular attention should be given to *threatened* and endangered species."¹²⁷ The Environmental Appeals Board has similarly determined that both "individual

¹²¹ EPA Guidance, at III.D.1; *see also* EPA Guidance, at II.C ("[T]he determination of adverse biological effects involves assessing whether a balanced indigenous population (BIP) of shellfish, fish, and wildlife exists in the vicinity of the discharge and other areas potentially affected by the discharge.").

¹²² *In re* Rimmon C. Fay, 1986 WL 25526, at *4.

¹²³ *See* EPA Guidance, at III.D.1.

¹²⁴ EPA Guidance, at III.D.

¹²⁵ EPA Guidance, at II.C.

¹²⁶ EPA Guidance, at III.D. EPA Guidance explains that the term population does not mean a "reproductive unit of a single species, but rather all biological communities existing in the receiving water body." EPA Guidance, at II.C.

¹²⁷ EPA Guidance, at III.D (emphasis added).

[species] and community considerations are relevant.”¹²⁸ Thus, impacts on a single species are sufficient to show that a balanced indigenous population is not present.

The State Board similarly considers “single” species in evaluating the balanced indigenous population requirement. In a precedential decision, the State Board set aside a Regional Board’s issuance of a 301(h) waiver because the applicant did not meet its burden of proof with respect to the balanced indigenous population requirement and the regional board’s findings did not specifically address factual issues “clearly raised by the comments presented in the proceedings before the Regional Board.”¹²⁹ The State Board admonished, “we remand to the Regional Board, which should consider any additional evidence it may be offered.”¹³⁰ The State Board reasoned although infauna benthic communities had been evaluated, other species had not been considered, such as phytoplankton.¹³¹ The State Board concluded, “*We not prepared to assume that because one community apparently has not been affected, protection of the other communities has been demonstrated.*”¹³² More recently, in the 2004 Water Quality Control Policy, the State Board requires in evaluating “degradation of biological population and communities” the consideration of “diminished numbers of species or individuals of *single species.*”¹³³

In light of these standards, the permit application as well as the agencies’ draft decision documents and the Draft Permit fail to conduct a full analysis of the balanced indigenous population requirement as mandated by law. The fatal flaws appear rooted in at least three material factors: (1) consideration of the sea otter as a “threatened” species;” (2) consideration of the sea otter population decline as a result of land based infections; (3) consideration of the overall unhealthy ecosystem. Proper consideration of these factors precludes EPA’s and the Regional Board’s findings with respect to the balanced indigenous population requirement.

(a) *Consideration of “Threatened” Species*

First, the Sewage Plant’s application, the EPA Tentative Decision, and the Draft Permit do not “concentrate” on “threatened species” in their analysis of the balanced indigenous population requirement. In particular, they do not discuss the direct implications of the sea otter as a federally listed “threatened” species.¹³⁴ The California sea otter has been listed as a

¹²⁸ *In re Public Service Company of Indiana, Inc.*, 1 E.A.D. 590 (1979) (discussing balanced indigenous population in the context of a thermal waiver).

¹²⁹ *In re Rimmon C. Fay*, 1986 WL 25526, at *4 (citing *Topanga Association for a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506 (Cal. 1974)).

¹³⁰ *In re Rimmon C. Fay*, 1986 WL 25526, at *4.

¹³¹ *Id.* at *5-6.

¹³² *Id.* at *6 (emphasis added).

¹³³ State Water Quality Control Board, *Water Quality Control Policy For Developing California’s Clean Water Act Section 303(d) List* (2004), at 7 (emphasis added).

¹³⁴ See EPA Guidance, at III.D (application shall “concentrate” on “communities of threatened and endangered species”); *In re Public Service Company of Indiana*, 1 E.A.D. 590 (stating in the

“threatened species” under the Endangered Species Act since 1977.¹³⁵ The otter was listed because it is likely to become endangered (i.e. extinct) “within the foreseeable future throughout all or a significant portion of its range.”¹³⁶ As such, the “threatened” listing of the otter is dispositive of the balanced indigenous population requirement because this listing determination is made by an agency (U.S. Fish and Wildlife Service) with the highest degree of expertise. In other words, the otters’ threatened listing functions as *per se* evidence that a balanced indigenous population of marine life is not present.

Towards this end, the range of the sea otter is limited to approximately 300 miles of the California coast, ranging from Half Moon Bay in the north to Point Conception and San Nicolas Island—with Estero Bay at the center.¹³⁷ Estero Bay, including Morro Bay, is home to a well-documented subpopulation of sea otters, whose population is struggling to recover.¹³⁸ Thus, even though it is well accepted that the otter population is likely to become “extinct” in the “foreseeable future” in the vicinity of the outfall—Estero Bay—as well as throughout its limited 300-mile range, the Sewage Plant maintains that a balanced indigenous population of marine life exists.¹³⁹ The record, however, belies this conclusion and shows that the Sewage Plant, EPA, and Regional Board staff did not “concentrate” on this material evidence in its analysis of the balanced indigenous population requirement. Moreover, the application documents fail to adequately consider other species listed under the Endangered Species Act, such as steelhead trout, tidewater goby, and a host of plant and bird species.¹⁴⁰ As such, proper consideration of this evidence—threatened species—alone shifts the weight of the evidence to show that the Sewage Plant has not demonstrated that a balanced indigenous population of marine life exists.¹⁴¹

(b) *Consideration of the California Sea Otter Population Decline*

Second, putting aside the legal status of the otter as a “threatened” species (and the facts that support that classification), the Sewage Plant application fails to consider a host of evidence showing that sea otter population has suffered a steady and grave decline along the Central

context of a thermal waiver that the “total picture will reflect consideration of both” aquatic ecosystem and individual species).

¹³⁵ See 50 C.F.R. § 424.02.

¹³⁶ 50 C.F.R. § 424.02(m); see generally 50 C.F.R. Part 17.

¹³⁷ U.S. Fish and Wildlife Service, *Final Revised Recovery Plan for the Southern Sea Otter (Enhydra lutris nereis)* (2003), at viii (hereinafter *Revised Recovery Plan*).

¹³⁸ Marianne L. Riedman & James A. Estes, *The Sea Otter (Enhydra lutris): Behavior, Ecology, and Natural History*, U.S. Fish & Wildlife Service Biological Report 90(14) (1990), at 54-56, 77-83 (hereinafter *The Sea Otter*).

¹³⁹ EPA Tentative Decision, at 23.

¹⁴⁰ EPA National Estuary Program, list of endangered and threatened species in Morro Bay, <http://www.epa.gov/owow/estuaries/programs/morro.htm>.

¹⁴¹ See *Topanga Ass’n for a Scenic Community*, 11 Cal. 3d at 515.

Coast—including Morro Bay and Estero Bay Region. In particular, the Plant application as well as EPA and Regional Board documents do not consider as part of the balanced indigenous population requirement the myriad of scientific articles, letters, and reports on the sea otter population decline, as listed in Table 2.¹⁴² The 301(h) federal regulations and EPA Guidance specifically examine species “abundance”; “growth and reproduction of populations” and “disease frequency.”¹⁴³ The “total picture” reflects consideration of specific species because the magnitude of “observed changes are most observable in terms of effects on individual species” and overall aquatic life parameters—the only ones examined here—“have the potential for masking important species changes.”¹⁴⁴ Moreover, as stated by the State Water Board, just because “one community apparently has not been affected, protection of the other communities has been demonstrated.”¹⁴⁵ Equally important, the balanced indigenous population requirement also examines “communities of aesthetic, recreational, or commercial importance.”¹⁴⁶

In this connection, the Sewage Plant’s application does not present a comparison of biological conditions nor a biological survey of the sea otter population.¹⁴⁷ It does not discuss the importance of the sea otter as an “icon” for the Central Coast and an attraction for locals and tourists.¹⁴⁸ Thus, the discussion does not adequately consider the otter’s “aesthetic, recreational, and commercial importance” to the region, as required by EPA Guidance.¹⁴⁹ Likewise, the Sewage Plant does not discuss the struggling recovery of the otter and that its population that has not grown significantly since 1994.

Location	2004 Strandings
North of Point Ano Nuevo	14
Ano Nuevo – Capitola	17
Capitola – Moss Landing	36
Moss Landing – Wharf #2	35
Wharf #2 – Cypress Point	14
Cypress Point – Rocky Point	15
Rocky Point – Salmon Creek	6
Salmon Creek – Cambria	21
Cambria – Cayucos	7
Cayucos – Hazard Canyon	77
Hazard Canyon – Pismo Pier	10
Pismo Pier – Pt Sal	25
Point Sal – Pt Conception	2
Southeast of Pt Conception	2
Total	281

¹⁴² Although the Draft Permit and application discuss an article by Dr. Melissa Miller, it ignores dozens of other articles and reports listed in Table 2 (page 28).

¹⁴³ EPA Guidance, at II.C.

¹⁴⁴ *In re* Public Service Company of Indiana, 1 E.A.D. 590.

¹⁴⁵ *In re* Rimmon C. Fay, 1986 WL 25526, at *6.

¹⁴⁶ EPA Guidance, at III.D.

¹⁴⁷ See EPA Guidance, at III.D.

¹⁴⁸ Conrad, *supra* note 113, at 1157.

¹⁴⁹ EPA Guidance, at III.D.

Table 2: Recent Studies Related to Sea Otter Mortality

2005

Conrad, P., 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 (2005).

Miller, W., et al., *Clams (Corbicula fluminea) as bioindicators of fecal contamination with Cryptosporidium and Giardia spp. in freshwater ecosystems in California*, 35 International Journal for Parasitology 673 (2005).

Miller, W., et al. *Evaluation of methods for improved detection of Cryptosporidium spp. in mussels (Mytilus californianus)*. Journal of Microbiological Methods (2005).

Miller, W., et al., *New genotypes and factors associated with Cryptosporidium detection in mussels (Mytilus spp.) along the California coast*, 35 International Journal for Parasitology 1103 (2005).

Schwartz, J., et al., *The development of methods for immunophenotypic and lymphocyte function analyzes for assessment of Southern sea otter (Enhydra lutris nereis) health*, 104 Veterinary Immunology and Immunopathology 1 (2005).

2004

Kannan, K., et al., *Profiles of polychlorinated biphenyl congeners, organochlorine pesticides, and butyltins in southern sea otters and their prey*, 23(1) Environmental Toxicology and Chemistry 49 (2004).

Conrad, P., et al., *An unusual genotype of Toxoplasma gondii is common in California sea otters (Enhydra lutris nereis) and is a cause of mortality*, 34 International Journal for Parasitology 275 (2004).

Gerber, L., et al., *Mortality sensitivity in life-stage simulation analysis: a case study of southern sea otters*, 14(5) Ecological Applications 1554 (2004).

Estes, J., et al., *Complex trophic interactions in kelp forest ecosystems*, 74 Bulletin of Marine Sciences 621 (2004)

Estes, J., Summary of USGS Sea Otter Studies at the Western Ecological Research Center (2004).

Fayer, R., et al., *Zoonotic protozoa: from land to sea*, 20 Trends In Parasitology 531 (2004).

2003

Dubey, et al., *Toxoplasma gondii, Neospora caninum, Sarcocystis-like infections in marine mammals*, 116 Veterinary Parasitology 275 (2003).

Estes, J.A., et al., *Causes of mortality in California sea otters during periods of population growth and decline*, 19(1) Marine Mammal Science 198 (2003).

Hanni, K., et al., *Clinical pathological values and assessment of pathogen exposure in southern and Alaskan sea otters*, 39(4) Journal of Wildlife Diseases 837 (2003).

Jessup, D., et al., *Good Medicine for Conservation Biology: Comments, Corrections, and Connections*, 17 Conservation Biology 921 (June 2003).

Jessup, D., *Southern sea otter – Sentinel of the sea*, 64(05) Outdoor California 4 (2003).

Kreuder, C. et al., *Patterns of mortality in southern sea otters (Enhydra lutris nereis) from 1998-2001*, 39(3) Journal of Wildlife Diseases 495 (2003).

2002

Miller, M., et al., *Evaluation of an Indirect Fluorescent Antibody Test (IFAB) for Demonstration of Antibodies to Toxoplasma gondii in the Sea Otter (Enhydra lutris)*, 88(3) Journal of Parasitology 594 (2002).

The Plant ignores the slew of articles showing the difficulties in otter recovery and record high mortality of 262 otters (10 percent of the population in 2003).¹⁵⁰ In fact, Estero Bay and Morro Bay had the highest number of otter strandings of all stranding locations in California for the past two consecutive years.¹⁵¹ Critically, the Sewage Plant short shrifts discussion of the proximity of its outfall location to the identified hotspot for sea otter deaths caused by the land based pathogen *Toxoplasma gondii* (or “*T. gondii*”).

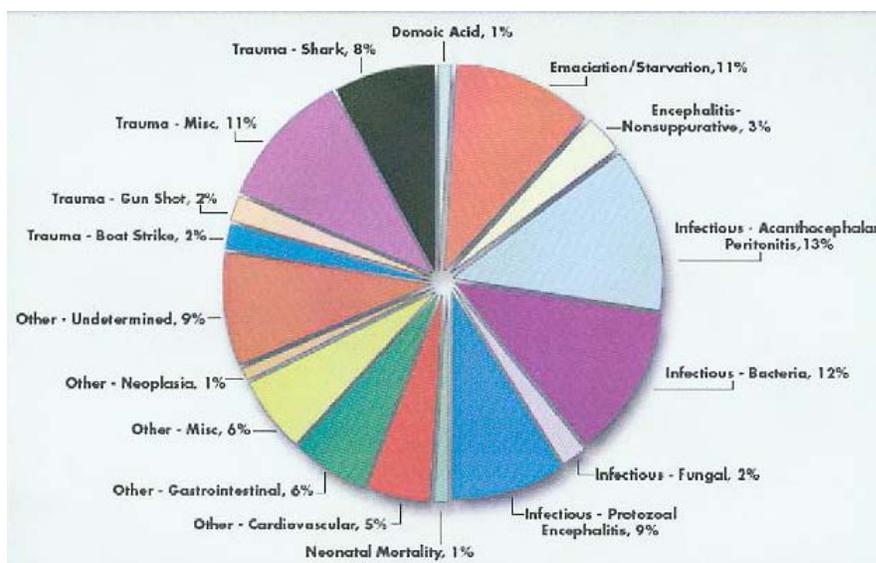
(i) Causes of Otter Strandings and Deaths

The Sewage Plant, as well as EPA and the Regional Board documents, do not consider the causes of otter deaths and stranding in the vicinity of its discharge. 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.¹⁵² According to the leading scientific research team, disease resulting largely from human activity causes nearly 50 percent of sea otter deaths.¹⁵³

A 2003 study identified *T. gondii* encephalitis as a “primary cause of death” in 16.2 percent of otters surveyed.¹⁵⁴ The discharge of waste into

Between 1992 and 2002, researchers at the National Wildlife Health Center, UC Davis and the California Department of Fish and Game necropsied 467 California sea otters. The piechart proportions are approximate and may change as further tests are completed. Some causes of death may be linked, such as death due to shark bite and pre-existing brain disease caused by parasites.

Diseases cause about 49 percent of sea otter deaths.



¹⁵⁰ According to the U.S. Fish & Wildlife Service, “[t]he depressed population growth rate for the southern sea otter population is largely due to elevated mortality, as opposed to reproductive depression or emigration.” *Revised Recovery Plan*, at viii.

¹⁵¹ The Otter Project, Stranding Summary (63 for 2003 and 77 for 2004). See also James A. Estes et al., *Causes of Mortality in California Sea Otters During Periods of Population Growth and Decline*, 19 *Marine Mammal Science* 198, 215 (Jan. 2003) (noting that “[l]ong-term declines in pup-to-adult and adult mass-to-length ratios indicate that conditions for sea otters in California are deteriorating,” *id.* at 214).

¹⁵² *Revised Recovery Plan*, at viii.

¹⁵³ UC Davis, School of Veterinary Medicine, Wildlife Health Center, Sea Otter Research, <http://www.vetmed.ucdavis.edu/whc/seaotters/seaotters/seaotters.html#>.

¹⁵⁴ C. Kreuder et al., *Patterns of Mortality in Southern Sea Otters (Enhydra lutris nereis) from 1998-2001*, 39(3) *Journal of Wildlife Diseases* 495, 499 (2003). This study also shows that

ocean waters is highly correlated with the occurrence of this pathogen. *T. gondii* is spread through the consumption of infected animals or through the consumption of “oocysts” in the feces of infected animals. While a large variety of species (including humans) are capable of being infected with *T. gondii*, “the only animal known to shed oocysts in their feces are felids, most importantly domestic cats.”¹⁵⁵ Although terrestrial in origin, there is “compelling evidence” of marine dispersal of *T. gondii*, not only from the wide-spread infection of sea otters, but also from infections found in other marine mammals, including cetaceans and pinnipeds.¹⁵⁶ Scientists generally agree that “[t]he most plausible explanation for the high number of southern sea otters infected by *T. gondii* off the coast of California is exposure to oocysts that are shed by felids and reach the ocean through streams, urban runoff and/or sewage effluent.”¹⁵⁷ Studies have shown a statistically significant correlation between sites of maximal freshwater flow along the California coast and *T. gondii* infection rates among California sea otters.¹⁵⁸ Indeed, “[o]tters sampled at these maximal flow sites were nearly three times more likely to be seropositive to *T. gondii* than those sampled at low flow sites.”¹⁵⁹ This association “provides compelling evidence implicating land-based surface runoff as a source of *T. gondii* infection for sea otters.”¹⁶⁰

(ii) *Estero Bay as Hot Spot for T. Gondii Infected Otters*

Critically, scientists have identified Morro Bay and Estero Bay waters as a hot spot for *T. gondii* infection of sea otters. Eighty-seven percent of sea otters tested in the Cayucos/Morro Bay area were seropositive for *T. gondii*.¹⁶¹ California sea otters living in the area of Morro Bay “are nine times more likely to have toxoplasmosis than sea otters elsewhere in their range,” including areas of urban development where urban runoff is also a factor.¹⁶² Morro Bay sea

encephalitis is a major contributing factor in the death of sea otters from both shark attack and cardiac disease: sea 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. Finally, *T. gondii* encephalitis may have other population-level effects on sea otters, as infection is associated with serious birth defects and high levels of miscarriages in both terrestrial animals and humans.

¹⁵⁵ M.A. Miller 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, 997-98 (2002).

¹⁵⁶ *Id.* at 998.

¹⁵⁷ Kristen D. Arkush et al., *Molecular and bioassay-based detection of Toxoplasma gondii oocyst uptake by mussels (Mytilus galloprovincialis)*, 33 International Journal of Parasitology 1087, 1088 (2003).

¹⁵⁸ Miller (2002), *supra* note 155, at 1002, 1004.

¹⁵⁹ *Id.* at 1004.

¹⁶⁰ *Id.* at 1005.

¹⁶¹ *Id.* at 1001.

¹⁶² David A. Jessup, *Good Medicine for Conservation Biology: Comments, Corrections, and Connections*, 17(3) Conservation Biology 921, 922 (June 2003).

otters were also more likely to be infected with a rare strain of *T. gondii*,¹⁶³ a further indication of unique factors affecting this group of otters.

The Director of the University of California, Davis' Wildlife Health Center explains these concerns with respect to the Morro Bay and Estero Bay region:

Sea otters “consume large numbers of benthic invertebrates, which may bioaccumulate pathogens and contaminants.” Scientists have observed “a special cluster of mortality due to *Toxoplasma gondii* encephalitis in Estero Bay. This clustering suggests that there may be local factors enhancing *T. gondii* exposure or increasing sea otter susceptibility in this particular area.

“Local populations of sea otters will likely continue to face significant recovery challenges in a near-shore system that may be substantially altered in terms of water quality and pathogen abundance. . . .”¹⁶⁴

Dr. Mazet's letter summarizing concerns with bacterial pathogens and the recovery of the California sea otter casts serious doubt on conclusions of a balanced indigenous population of marine life in the vicinity of the outfall.¹⁶⁵ In fact, based on the above evidence, all indications from “species abundance” to “growth and reproduction of populations” to “disease frequency and epicenters” for the California sea otter direct a conclusion contrary to those made in the Sewage Plant application, EPA Tentative Decision, and Draft Permit—that is that balanced indigenous population does



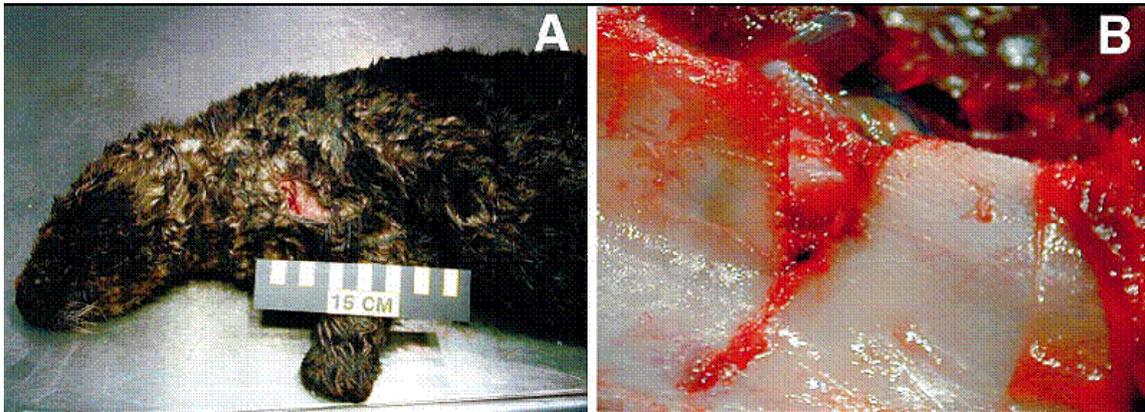
P. Conrad *et al.*, *Transmission of Toxoplasma: Clues from the study of sea otters as sentinels of Toxoplasma gondii flow into the marine environment*, *International Journal for Parasitology* 35 (2005) 1155-1168.

¹⁶³ See M.A. Miller *et al.*, *An unusual genotype of Toxoplasma gondii is common in California sea otters (Enhydra lutris nereis) and is a cause of mortality*, 34 *International Journal of Parasitology* 275 (2004).

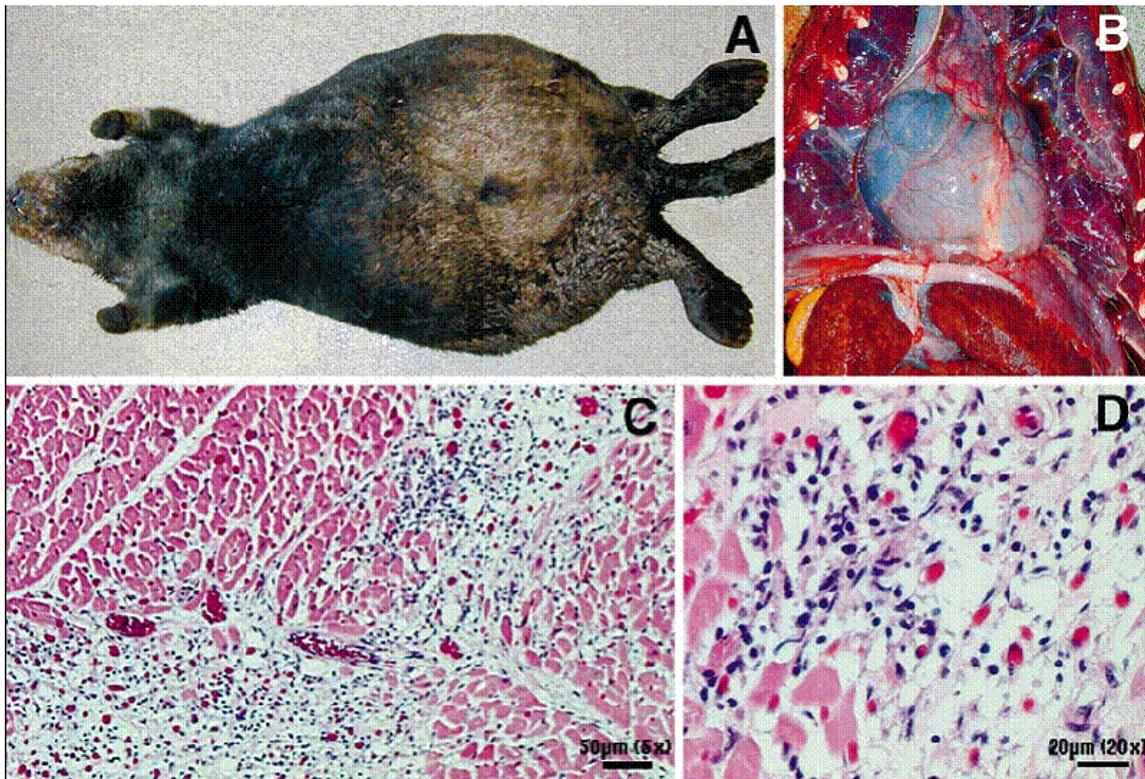
¹⁶⁴ Letter from Jonna Mazet, DVM, MPVM, PhD, Wildlife Health Center, U.C. Davis, to Kate Wing, Natural Resources Defense Council (April 16, 2004), at 2.

¹⁶⁵ Moreover, under the Marine Mammal Protection Act designates the otter as “depleted” or low in numbers. See 16 U.S.C. § 1362. This is further indication that the otter population is not “balanced.”

These photographs and images are from the leading scientific team's research on sea otter mortality. In the article, *Patterns of Mortality In Southern Sea Otters (Enhydra Lutris Nereis) From 1998–2001*, Kreuder, C., et. al. (2003), the team states: "Cardiac disease is a newly recognized cause of mortality in sea otters and *T. gondii* encephalitis was significantly associated with this condition. Otters with fatal shark bites were over three times more likely to have preexisting *T. gondii* encephalitis suggesting that shark attack, which is a long-recognized source of mortality in otters, may be coupled with a recently recognized disease in otters. Spatial clusters of cause-specific mortality were detected for *T. gondii* encephalitis (in Estero Bay)".



A. Southern sea otter with a shoulder laceration caused by shark attack. B. Higher magnification view of the scapula from the same sea otter shown in Figure A showing a transverse cut of the scapular spine.



A. Southern sea otter with congestive heart failure secondary to cardiac disease. Note gross abdominal distension caused by hepatomegaly and peritoneal effusion. B. Gross photographs of the chest and abdomen from the otter in Fig. A, showing the enlarged and rounded heart. Also visible are the markedly enlarged liver, characterized by prominent rounding of the hepatic lobes, and diffuse pulmonary edema. C. HE-stained ventricular myocardium from a sea otter showing multifocal to coalescing areas of fibrosis and inflammation with accompanying myofiber loss. D. Higher magnification photomicrograph of the same site in Fig. 5C showing the predominantly lymphocytic inflammatory infiltrate.

not exist.¹⁶⁶ In light of this evidence, the weight of the evidence shows that the Sewage Plant cannot meet its burden to demonstrate that a balanced indigenous population of marine life exists.

(c) *Consideration of the Overall Unhealthy Ecosystem*

The impacts to the otter are sufficient to establish the lack of a balanced indigenous population of marine life. This conclusion is enhanced by the vital role of the otter as *sentinel* and *keystone* species representative of the overall ecosystem. In addition to considering the “abundance,” “growth and reproduction of populations” and “disease frequency” with respect to a single species, like the otter, EPA Guidance directs consideration of overall “disease frequency” and “abundance of pollution-sensitive species.”¹⁶⁷ The overwhelming scientific evidence shows that the sea otter is vital to its overall ecosystem in two ways.

First, the otter is a *keystone* species that controls “the destruction of kelp forests by grazing urchins” and thus, helps “maintain a diversity of forest inhabitants and ecosystem services, including protection of the coastline from erosion.”¹⁶⁸ Second, “the unique biology of sea otters makes them an excellent *sentinel* species, one that can tell us a lot about pollution problems and ecological change,” early on.¹⁶⁹ Moreover, “as a sentinel species, sea otter health has implications for human health, sustainability of some recreational shell fisheries, and overall health of the near shore marine ecosystem.”¹⁷⁰

Marine scientists agree that a healthy marine ecosystem consisting of both land and marine interaction do not have “frequent die-offs, particularly those involving ‘indicator’ or ‘keystone’ species” and “do not have high frequency of new or emerging diseases/intoxications with negative implications for human and wildlife health.”¹⁷¹ As summarized by leading scientists:

Overall, what we see in the southern sea otters suggests their near shore California marine ecosystem may be “sick.”¹⁷²

[Sea otters] are likely to be excellent sentinels of local marine ecosystem health because they are heavily exposed to human activity in coastal

¹⁶⁶ EPA Guidance, at II.C.

¹⁶⁷ *Id.*

¹⁶⁸ Conrad, *supra* note 113, at 1158.

¹⁶⁹ David Jessup, *Southern sea otter—Sentinel of the sea*, Outdoor California (Sep.-Oct. 2003), at 9 (emphasis added); Conrad, *supra* note 113, at 1158 (“As nearshore predators close to the top of the food chain, otters serve as sentinels and early indicators of environmental change.”).

¹⁷⁰ Jessup, *supra* note 169, at 10.

¹⁷¹ *Id.*

¹⁷² *Id.*

California. . . . The findings [of our research] suggests that disease plays an important role in patters of mortality in this population.¹⁷³

Likewise, the Regional Board itself has recognized this vital role of the otter in its ecosystem:

Sea otters are a prime indicator species of the health of our nearshore waters because of their heavy consumption of shellfish and general vulnerability to water borne pollutants. Their recently increasing mortality is cause for concern for the Central Coast Regional Water Quality Control Board.

Pathogens in nearshore waters is a topic of particular concern for us, and for local agencies and the public. . . . Protection of endangered species similarly ranked very highly. We are concerned about the potential impacts of land-based diseases on the nearshore environment, particularly related to shellfish consumption and marine mammal health.¹⁷⁴

Based on these documents, we know that the sea otter is listed as a federally threatened species and that Morro Bay and Estero Bay waters have the highest otter strandings for the past two consecutive years.¹⁷⁵ We know that the otter population has been in decline, or at best, has not significantly increased, in the past five years, and is suffering severe recovery problems due to high “disease frequency.”¹⁷⁶ We know that Morro Bay and Estero Bay waters are an epicenter to *T. gondii* infections—an emerging disease—for otters, with implications for human health¹⁷⁷ and wildlife health. Despite this evidence supporting that the otter decline represents an unhealthy ecosystem, the Sewage Plant not only fails to address this evidence, but also concludes that its offshore waters assure a “protection and propagation of a balanced indigenous population” of marine life. However, were this evidence considered properly the weight of the evidence would shift to show that the Sewage Plant has not met its burden.

2. *The Sewage Plant Cannot Show that Its Discharge Does Not Potentially Affect Marine Life.*

Even if a causal relationship were required between a discharge and impacts on a balanced indigenous population of marine life before waiver denial were required—a standard notably not set by regulations—the Sewage Plant cannot demonstrate that its discharge does not actually or—potentially—affect marine life both currently and in the future.

¹⁷³ Letter from Jonna Mazet DVM, MPVM, PhD, U.C. Davis to Kate Wing, NRDC (April 16, 2004), at 1.

¹⁷⁴ Letter from Roger Briggs, Central Coast RWQCB, to Dr. Melissa Miller, U.C. Davis (Mar. 26, 2003).

¹⁷⁵ The Otter Project, Stranding Summary.

¹⁷⁶ See EPA Guidance, at II.C.

¹⁷⁷ See Conrad, *supra* note 113, at 1156.

In attempts to meet this heavy burden, the Sewage Plant relies on a single study done at the Plant outfall at various times in 2003-2004. The Draft Permit also discusses this study.¹⁷⁸ In summarily concluding that this single study is somehow sufficient to satisfy the heavy burden on the Sewage Plant, the Draft Permit fact sheet selectively chooses a quote from a letter by the scientists indicating that *Toxoplasma* RNA “was not detected” in the mussels from the outfall.”¹⁷⁹ Based on this single sentence, the Draft Permit concludes “These results suggest that the subject discharge is not a source of *T. gondii* loading to Estero Bay.”¹⁸⁰

Center of a 20 km long, 1.5 km wide coastal sea otter habitat with high *T. gondii*-seropositivity



The Draft Permit, however, ignores other material language in the very same letter that it quotes—language that completely invalidates the agencies’ draft decisions on this critical point. In this highly unusual letter (from Dr. Conrad to Bruce Keogh on Dec. 13, 2004), the study’s first author, Dr. Patricia Conrad, cautions:

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).

Dr. Conrad explains that because of test procedure “limitation[s],” there are “false negative” results and that the study is incomplete. As such, Dr. Conrad concludes that the single assay results may not be detecting *T. gondii* even though it may be “present.”

The inconclusive nature of this single study combined with the plethora of scientific studies from 2003 to present documenting Morro Bay and Estero Bay as a hotspot for otter mortality simply precludes a regulatory conclusion that evidence shows that the Plant is not

¹⁷⁸ Draft Permit, at F-19.

¹⁷⁹ *Id.* at F-20.

¹⁸⁰ *Id.*

contributing to the lack of a balanced indigenous population of marine life. In fact, the scientific studies themselves identify sewage discharge as one of two land based sources of pathogens. In a 2005 study, Dr. Conrad focuses on this “land-sea” connection between *T. gondii* and otter infections finding that:

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.¹⁸¹

Another prominent biologist with the California Department of Fish and Game names “the discharge of primary treated sewage” as a leading factor that may account for the Morro Bay *Toxoplasma* hotspot.¹⁸² In addition, runoff alone does not explain the extraordinarily high infection rates of California sea otters in Morro Bay. Another leading study states that even *after* accounting for runoff and other factors, “otters sampled at this location were nine times more likely to be seropositive for *T. gondii*.”¹⁸³ Moreover, it is undisputed that the Sewage Plant discharges an average of 1.4 million gallons of *freshwater* wastewater into Morro Bay every day—500 million gallons per year.¹⁸⁴ Dr. Conrad’s 2005 study also recognizes that as currently designed “wastewater treatment practices are not designed to destroy the highly resistant oocysts of *T. gondii*.”¹⁸⁵

Critically, many of the researchers acknowledge that the studies’ “design did not allow for an in-depth evaluation of the potential effect of sewage,” and that further work is needed before one can “exclude sewage as a risk factor for *T. gondii* exposure.” Moreover, in their discussion of the factors that may be contributing to Morro Bay’s outbreak, the study’s authors note with interest that Morro Bay is the only region within the range of the southern sea otter where primary treated municipal sewage is discharged into the nearshore marine environment.¹⁸⁶ Equally important, the Sewage Plant has not identified a study analyzing the presence of *T. gondii* in the open ocean in the vicinity of its discharge (which also accounts for its sewage spill discharges) sufficient to satisfy its burden that a balanced indigenous population of marine life exists.

Therefore, accounting for causation, even though it is not required, the weight of the evidence demonstrates that the Sewage Plant has not satisfied its heavy burden. Considering the studies showing Estero Bay and Morro Bay are hotspots for *T. gondii*-related otter mortality, research identifying the threatened otter as a sentinel species representative of an unhealthy ecosystem diseased by bacterial pathogens, as well as the fact that no study conclusively exonerates that Sewage Plant, the Plant cannot show either that its discharge has no “actual” or

¹⁸¹ Conrad, *supra* note 113, at 1156 (emphasis added).

¹⁸² Jessup, *supra* note 162, at 922.

¹⁸³ Miller, *supra* note 155, at 1005.

¹⁸⁴ Application, at II-1.

¹⁸⁵ Conrad, *supra* note 113, at 1164.

¹⁸⁶ Miller, *supra* note 155, at 1004.

“potential” affect on the sea otter, and marine life at large, alone or in combination with other discharges.¹⁸⁷

Taking the causal analysis one step further, the Sewage Plant fails to account for its own discharge from sewage spills that may and likely do affect marine life. Finally, the Sewage Plant cannot show that its discharge does not currently affect marine life and that it will not affect marine life in the *future* considering the inconclusive nature of the scientific research, the variety of sources of pollution, and growth slated for San Luis Obispo County.¹⁸⁸

B. The Sewage Plant Cannot Meet the “Stressed Waters” Exception.

While the Sewage Plan has steadfastly maintained that local waters support a balanced indigenous population, the evidence above might cause it to contend that an exception exists that could allow a waiver to issue from secondary standards if it could show that the cause of the degraded indigenous marine population is entirely related to other human causes, and not its effluent. If it could make this showing, then the agencies might be able to issue a waiver notwithstanding degraded local conditions if three stringent criteria are met:

If your current discharge is to stressed ocean waters, does or will your current or modified discharge:

1. Contribute to, increase, or perpetuate such stressed condition?
2. Contribute to further degradation of the biota or water quality if the level of human perturbation from other sources increases?
3. Retard the recovery of the biota or water quality if human perturbation from other sources decreases?¹⁸⁹

Meeting these three criteria is “extremely difficult.”¹⁹⁰ As discussed in *In re Mayaguez*, “the discharge of additional pollutants into an already polluted marine environment virtually always increases or contributes to adverse impact; it is extremely difficult, as a practical matter, to demonstrate that it is not.”¹⁹¹ Moreover, when it appears that the receiving waters are or “may” be stressed, the application examines the “the presence or absence of stressed conditions.”¹⁹² If stressed conditions exist, EPA Guidance directs examination of the “magnitude of those

¹⁸⁷ See EPA Guidance, at III.D.

¹⁸⁸ See *id.*; U.S. Census Bureau, 2000 statistics; Appl., at II-14; EPA Tentative Decision, at 8.

¹⁸⁹ EPA Guidance III.D.8; 40 C.F.R. §§ 125.62(c),(f).

¹⁹⁰ *In re Mayaguez Regional Sewage Treatment Plant Puerto Rico Aqueduct and Sewer Authority*, 4 E.A.D. 772 (1993).

¹⁹¹ *Id.*

¹⁹² EPA Guidance, at III.D.8.

stresses”—including detailed “biological surveys” that “ensure that adequate, high-quality data are collected.”¹⁹³

Here, this exception cannot be met for multiple reasons. First, the Sewage Plant has not submitted documents to support the grant of a waiver for stressed conditions.¹⁹⁴ Second, the Plant has not shown that the cause of degradation is the result of some other “human perturbation.” If it did, the Plant would still have to overcome the evidence implicating that the only conceivable other cause of the degraded state of local waters would be the result of animal-related perturbation, *i.e.*, one caused by cats. This alone makes the exception inapplicable. Third, the data available does not demonstrate that other causes, human or otherwise, are solely responsible for the stressed condition of local waters. Fourth, and more particularly, the data certainly does not (1) address the difference between the sea otter communities that currently exist in the vicinity of its outfall and the balanced, indigenous population that would exist in the absence of all sources of pollution; (2) demonstrate that the Plant’s discharge is not contributing to the present biological degradation associated with stressed waters by comparing the sea otter populations at the outfall site with those at a similarly stressed control site (absent its discharge); or (3) demonstrate that the Plant’s discharge will not contribute to further degradation of the sea otter habitat if the level of pollution from other sources increases, and will not retard the recovery of the sea otter population if the level of pollution from other sources decreases.¹⁹⁵

C. The 301(h) Waiver Is Prohibited Under 40 C.F.R. § 125.59(b)(4) Because the Discharge of Pollutants “Enters Into Saline Estuarine Waters.”

Federal regulations contain an absolute “prohibition” of 301(h) waivers for discharge that “enters” into estuaries where a balanced indigenous population does not exist:

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.¹⁹⁶

The prohibition is absolute: “The prohibition . . . shall apply without a causal relationship between such characteristics and the applicant’s current or proposed discharge.”¹⁹⁷

Here, it is well accepted that the Sewage Plant’s discharge *enters* the Morro Bay National Estuary.¹⁹⁸ In fact, the Anthony and Jagger study, conducted in the mid-1980’s, revealed that

¹⁹³ *Id.*

¹⁹⁴ *See* 44 Fed. Reg. 34,806; *In re Mayaguez*, 4 E.A.D. 772.

¹⁹⁵ *Id.*

¹⁹⁶ 40 C.F.R. § 125.59(b)(4) (emphasis added); EPA Guidance, Statutory Criteria and Regulatory Requirements section (same); EPA Guidance, at III.D.5.

¹⁹⁷ *Id.*

effluent from the Sewage Plant regularly enters and mixes with fresh water in the Morro Bay estuary.¹⁹⁹ “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.”²⁰⁰ Given the absence of a balanced indigenous population of marine life, a 301(h) waiver is accordingly prohibited. The Sewage Plant application, the EPA tentative document, and the draft Permit, however, do not discuss this prohibition. Proper consideration of this prohibition shifts the weight of the evidence towards a denial of the 301(h) waiver.

Part 3C

The Sewage Plant Cannot Demonstrate Compliance With Water Quality Standards.

In addition to its failure to satisfy the balanced indigenous population requirement, the issuance of another § 301(h) waiver is illegal because the Sewage Plant cannot demonstrate that the modified discharge will meet the requirements for compliance with water quality standards.²⁰¹ Importantly, the Plant cannot show that its discharge does not exceed “all applicable water quality standards.”²⁰² Likewise, the Plant cannot show that its discharge assures “the attainment or maintenance of water quality which allows for recreational activities” along “shores and beaches.”²⁰³ Finally, the Plant cannot demonstrate that its discharge will comply with applicable water quality standards for total suspended solids (“TSS”)—one of the principal constituents subject to the 301(h) waiver.²⁰⁴

A. The Water Quality Standards Analysis Suffers from General Deficiencies.

The analysis of compliance with water quality standards is deficient based on three overarching reasons. First, the Plant’s application and Draft Permit provide inadequate data to conclude that the Plant can meet water quality standards, as discussed above in Part 3A as well in the letters submitted by Dr. Bruce Bell and Dr. Mark Gold. For example, the Draft Permit and EPA’s Tentative Decision are largely based on information from the Plant’s 2003 application.

¹⁹⁸ 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)).

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ Under § 301(h), an applicant bears the burden of showing compliance with all applicable federal and state water quality laws and regulations in order for a waiver to be granted. See also 40 C.F.R. §§ 125.59(b), 125.61(b).

²⁰² 40 C.F.R. § 125.62(a)(1).

²⁰³ 40 C.F.R. § 125.62(d).

²⁰⁴ 40 C.F.R. § 125.61.

As a result, the Draft Permit is based on a stale and incomplete record that fails to include any reported violations of effluent limitations for nearly three years.

Second, the draft decision documents do not consider the requirement that the Plant must demonstrate that its modified discharge, “alone or in combination with pollutants from other sources,” will not interfere with the attainment or maintenance of water quality.²⁰⁵ “Absent a demonstration of the relative contribution” of the Plant’s discharge, it has not been demonstrated that a waiver of secondary treatment standards will not interfere with the attainment of Ocean Plan standards.²⁰⁶ 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 sources²⁰⁷— does not interfere with attainment of water quality standards.

Third, the Draft Permit fails to meet the conditions set forth in 40 C.F.R. § 122.44(d). Specifically, this section requires permits to include water quality-based limitations for all pollutants that “are or may be” discharged at levels that “*cause, have a reasonable potential to cause, or contribute*” to a violation of any State water quality standard.²⁰⁸ The Draft Permit fails to meet this requirement, instead including language that is more lenient than what the regulations require.²⁰⁹ The Permit inexplicably truncates the requirement to “shall not cause” violations for at least 18 different discharge requirements.²¹⁰ However, this language contravenes the clear language in 40 C.F.R. § 122.44, which sets forth a more restrictive standard, namely, that pollutants cannot cause, *or* have a reasonable potential to cause, *or* contribute to, a violation of water quality standards. Equally important, this impermissible narrowing casts a doubt on the Regional Board staff’s overall assessment of water quality standards compliance. Given that the Regional Board staff has only considered whether the discharge has “caused” a violation, its analysis is incomplete because the law requires additional consideration of whether the discharge has a “reasonable potential to cause or contribute” to violations. The Regional Board staff may not dispense with this requirement in its analysis of the Plant’s application or in the final Permit’s terms.

²⁰⁵ 33 U.S.C. § 1311(h); EPA Guidance, at Introduction.

²⁰⁶ *In re Rimmon C. Ray*, 1986 WL 25526, at *7.

²⁰⁷ 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.

²⁰⁸ 40 C.F.R. § 122.44(d)(1)(i) (emphasis added).

²⁰⁹ *Id.*

²¹⁰ For example, the Draft Permit states that the discharge “shall not cause” violations of the specified bacterial limits to be exceeded; and the discharge “shall not cause” violations of various numeric and narrative standards for other physical and chemical water quality characteristics. Draft Permit, at 15-16; 20.

B. The Plant Cannot Show Compliance with Water Quality Standards to Protect Recreational Use.

In the Tentative Decision, EPA concluded that the Plant's discharge complies with 40 C.F.R. § 125.62(d), which states that "the applicant's modified discharge must allow for the attainment or maintenance of water quality which allows for recreational activities beyond the zone of initial dilution, including, without limitation, swimming, diving, boating, fishing, and picnicking, and sports activities along shorelines and beaches." As discussed in Dr. Gold's letter, however, "the data referenced by EPA and the Regional Board are insufficient to support their conclusions that the Plant's discharge poses no potential health risk to people who use nearby waters for recreation."²¹¹

Dr. Gold supports his expert opinion with bacteria data from Heal the Bay's Beach Report Card. Although the Regional Board staff relies on a portion of the Beach Report Card to show compliance with water quality standards, it ignores other material evidence in the Report Card. Staff ignores evidence that water quality standards for fecal indicator bacteria were exceeded 15 percent of the time during the 2004-2005 monitoring year at Morro Bay City Beach.²¹² In addition, Atascadero Beach received an "F" grade for wet weather in 2005 Report Card.²¹³ As such, Dr. Gold concludes that this variation reveals "poor" beach water quality.²¹⁴ Further, EPA's conclusion that fecal coliform shoreline contamination was "not of reasonable concern"²¹⁵ is based on data prior to July 2003, when the Plant submitted its application. In light of the fact that material evidence, such as the Beach Report Card and water quality exceedances, has been omitted from the record, there is no basis for the agencies' conclusions that water quality compliance is assured.

In this connection, the monitoring data relied on by EPA and Regional Board is insufficient to conclude that the discharge meets water quality standards that allow for recreational use. For example, as discussed by Dr. Gold, the Plant's application does not contain enough information to determine if the effluent plume comes back to shore and poses a potential health risk to the public.²¹⁶ Considering that the Plant's outfall is only half a mile offshore at a depth of less than 20 meters²¹⁷ (most southern California outfalls are 3 to 5 miles offshore in 60 meters depth),²¹⁸ a comprehensive plume study taking into account varying conditions of season,

²¹¹ Letter from Dr. Mark Gold to EPA and State Board (Jan. 26, 2005), at 1 ("Dr. Gold Letter").

²¹² Dr. Gold Letter, at 2.

²¹³ Although Atascadero Beach received "A" grades from 2002-2004, this sort of variation suggests influences beyond seasonal storm water discharge, such as influences from the Plant's effluent. Dr. Gold Letter, at 2.

²¹⁴ Dr. Gold Letter, at 4.

²¹⁵ EPA Tentative Decision, at 23.

²¹⁶ Dr. Gold Letter, at 3.

²¹⁷ Dr. Gold Letter, at 2.

current, swell height, and temperature should have been conducted in order to make sure the discharge plume does not impact the beach.²¹⁹

Another problematic consideration is that the sampling required in the draft permit is insufficient in that surf zone monitoring is to be “collected as far seaward within the surf zone as possible.”²²⁰ As explained by Dr. Gold, most POTW beach monitoring programs occur at ankle depth—the worst case exposure to protect young children.²²¹ A program designed to study the surfzone that is conducted as far seaward as possible is highly unusual.²²² Also unusual is the fact that Regional Board did not provide enterococcus data, EPA’s preferred fecal indicator, which is required under AB 411 and the California Ocean Plan.²²³ Without sufficient analysis of this type of information for beach water quality, the Regional Board and EPA cannot make credible findings that are supported by the evidence.

C. The Sewage Plant Cannot Demonstrate It Will Comply With Specific Water Quality Standards.

In order to obtain the waiver, the Plant must demonstrate that its discharge will comply with all applicable state and federal water quality standards.²²⁴ The agencies’ findings with respect to this requirement are inadequate.

*1. Violations of Total Suspended Solids Effluent Limitations*²²⁵

The Sewage Plant has a record of discharge violations for TSS during the term of its current permit that clearly show the facility has not consistently met applicable water quality

²¹⁸ Dr. Gold Letter, at 2. *See also* Heal the Ocean, Discharge Inventory for the State of California (2005), at 4, 5, 31 (World Health Organization recommends sewage outfalls to be a minimum of one mile offshore and/or at a minimum depth of 60 feet (about 18 meters) for low health risks to be obtained), at www.healtheocean.org/CA_discharge_Inventory.pdf.

²¹⁹ Dr. Gold Letter, at 3. Although a dye cast study was conducted in the mid-1980’s, this study only discussed whether the plume reaches the Morro Bay Estuary, which it does, and did not look at the normal parameters needed in the plume study.

²²⁰ Draft Permit, at E-13.

²²¹ Dr. Gold Letter, at 3.

²²² Dr. Gold Letter, at 3 (“[Monitoring as far seaward as possible is] an approach I have never heard of in monitoring recreational water quality.”).

²²³ Dr. Gold Letter, at 3.

²²⁴ *See* 40 C.F.R. § 125.61.

²²⁵ *See Ocean Plan*, at 11; WDR Order No. 98-15, at 4 (“Dischargers shall, as a 30-day average, remove at least 75% of suspended solids . . . from the influent stream before discharging wastewater to the ocean.”).

standards—as recognized in the Draft Permit and EPA’s Tentative Decision.²²⁶ The Plant reported three TSS effluent violations during the last permit period which represent a period of several weeks during which the Plant was in violation of the permit’s effluent requirements.²²⁷ Indeed, these reported violations do not even include the period after July 2003 when the Plant submitted its application. The record contains no evidence about the nearly three year period since the application was submitted.

2. *Violations of Total Coliform and Other Pathogens*

To conform to water quality standards in the Ocean Plan, the Sewage Plant’s 1998 NPDES permit sets limits on total coliform bacteria that may exist in the Sewage Plant’s effluent.²²⁸ On a number of occasions from 1996 to 1999, the Plant’s effluent exceeded the permit limits due to malfunctioning, inadequate treatment processes.²²⁹ Indeed, the Regional Board has also recognized that the Sewage Plant’s treatment operations may lack the reliability and redundancy to consistently comply with effluent limitations.²³⁰ Accordingly, the facility’s operations are incapable of consistently disinfecting the effluent to meet the limits set in the NPDES permit, and the facility has not demonstrated compliance with the applicable water quality laws. Further, the waiver may not issue because violations due to malfunctioning processes or improperly designed treatment facilities constitute noncompliance under federal regulations.²³¹ EPA’s Tentative Decision acknowledges, but downplays, these violations, stating effluent limitations are low “with exception of a few occasions.” EPA’s Tentative Decision, ultimately, concludes without adequately reconciling these violations or providing other support to show that the Plant could comply with coliform effluent limitations.²³²

²²⁶ EPA Tentative Decision, at 11 (EPA found that the three instances of failure “does not merit a denial of the current application.”); Draft Permit, at F-10.

²²⁷ During September 2002, the Plant reported a monthly average TSS of 79 mg/L (70 mg/L is the maximum monthly average allowed); on September 11, 2002, the Plant reported an instantaneous TSS of 147 mg/L, and on August 26, 2002, the Plant reported an instantaneous TSS of 107 mg/L (105 mg/L is the maximum allowed at any given time). Draft Permit, at F-10.

²²⁸ The 1998 permit sets a 30-day median of 23 MPN/100 mL and an instantaneous maximum of 2400 MPN/100 mL for total coliform bacteria in the effluent. WDR Order No. 98-15, at 7.

²²⁹ On February 8-16, 1999, the reported 30-day median density was 28 MPN/100 mL; and on August 1-9, 1998, the reported 30-day median density was 40 MPN/100 mL, both in violation of the allowed 30-day median density of 23 MPN/100mL. According to the application, the failures resulted from “inefficient pumping,” “inability to precisely control the hypochlorite dose,” a “pinhole leak in the discharge pipe,” and other “similar event[s].” See Application, at III-28. See also EPA Tentative Decision, at 22.

²³⁰ See Letter from Roger Briggs, Central Coast RWQCB, to Morro Bay/Cayucos Sanitary District (Jan. 15, 2003), at 3.

²³¹ See Draft Permit, at D-3, D-21 (¶25) (citing 40 C.F.R. § 122.41 (n)(1)).

²³² See EPA Tentative Decision, at 22.

Moreover, total coliform limits were consistently exceeded at the Morro Creek surf zone monitoring station.²³³ Heightened bacteria levels at this station implicate input from the Plant's collection system. The Sewage Plant is equally responsible for discharges from its collection system as it is for discharges from its outfall pipe. Contributions to violations of receiving water bacteria limits from the collection system likewise reflect noncompliance.

3. *Future Violations Resulting From the Plant's Outdated Design*

As recognized by the Regional Board, the violations are compounded by the Plant's outdated design, which lacks sufficient redundancy and reliability.²³⁴ Other problems associated with the aging Plant's outdated design include limited maintenance accessibility, inadequate size, and treatment processes that may be nearing the end of their useful life.²³⁵ Violations attributable to "operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation" constitute noncompliance²³⁶ in violation of the Clean Water Act and State Water Code.²³⁷

Not only has the Plant been in past violation of effluent limitations, but it cannot show that under a new 301(h) waiver it will be in compliance in the future. Influent flows at the Plant are expected to increase in the future along with increases in population.²³⁸ The Plant anticipates that by 2009, the influent will increase from the current 1.14 MGD to 1.2 MGD, correlating with projected population growth in the area of 5.2 percent.²³⁹ By 2014, annual average flow is expected to reach 1.23 MGD, correlating with population growth of another 9.8 percent.²⁴⁰

While the Plant's annual average flow rate is currently at levels that allow some of the flow to be treated to secondary treatment levels,²⁴¹ these processes are close to maximum

²³³ See Draft Permit, at F-12.

²³⁴ See Letter from Roger Briggs, Central Coast RWQCB, to Morro Bay/Cayucos Sanitary District (Jan. 15, 2003), at 3.

²³⁵ *Id.*

²³⁶ As explained in the Draft Permit, these potential causes for noncompliance are specifically excluded from the kinds of failures that can be excused as "upset" events. See Draft Permit, at D-3, D-21 (¶25) (citing 40 C.F.R. § 122.41(n)(1)).

²³⁷ See WDR Order No. 98-15 at 3 (¶¶15, 17), 12 (¶14); Draft Permit, at D-1 (citing 40 C.F.R. § 122.41(a)).

²³⁸ Population increases should be considered in connection with a 301(h) waiver application. See, e.g., *Hawaii's Thousand Friends v. City and County of Honolulu*, 821 F. Supp. 1368, 1376 (D. Haw. 1993).

²³⁹ See Application, at II-14; EPA Tentative Decision, at 8.

²⁴⁰ See EPA Tentative Decision, at 8.

²⁴¹ See Application, at ES-1, II-14.

capacity.²⁴² Therefore, all additional influent flows will increase the proportion of primary-treated wastewater in the discharge,²⁴³ and overall removal rates for BOD and TSS, as well as for all other pollutants, will decrease unless the Plant upgrades its facility.²⁴⁴ In light of these expected and inevitable increases, the Sewage Plant's assertion that removal rates will remain stable over the next five years is inaccurate.²⁴⁵

4. *Increased Ineffectiveness in Pathogen Removal*

For removal rates of pathogens, in particular, increased exceedances of TSS are of special concern because suspended solids interfere with the overall disinfection of pathogens. As described by Carpenter Environmental Associates ("Carpenter"), microorganisms attached to or inside of suspended solids are shielded from contact with chlorine used for disinfection.²⁴⁶ Thus, the higher the levels of TSS in effluent, the greater number of pathogenic microorganisms are discharged into receiving waters.²⁴⁷

It is widely accepted that increased proportions of primary treated effluent will also result in increased pathogens in the water. Primary treatment does not effectively eliminate bacterial or viral pathogens from sewage.²⁴⁸ The vast majority of pathogens remain in solely primary-treated wastewater.²⁴⁹ For example, 85 percent of shigella bacterium, 85-100 percent of salmonella, 50-100 percent of *Entamoeba histolytica*, and greater than 90 percent of fecal coliform may remain in wastewater even after primary treatment.²⁵⁰ In light of such data, several national reports, including the final report by the United States Commission on Ocean Policy in 2004, have

²⁴² See Application, at II-14.

²⁴³ Application, at II-14.

²⁴⁴ While the removal rates of TSS and BOD from the flow that is processed to secondary levels will remain constant, the fraction of total flow that does not receive secondary treatment will increase resulting in increased concentration of BOD and TSS in the blended effluent. According to the Sewage Plant, at the current average annual flow rate of 1.14 MGD, the 0.14 MGD that is diverted around the secondary treatment process contributes approximately 50% of the BOD and 36% of the TSS in the blended effluent stream. By 2009, when annual average flow is estimated to reach 1.2 MGD, the diverted primary flow will contribute approximately 60% of the BOD and 45% of the TSS loading in the blended effluent stream. See Application, at II-14.

²⁴⁵ See Application, at II-5.

²⁴⁶ See Bruce Bell, Ph.D, P.E., DEE, Carpenter Environmental Associates, Inc., letter to Anjali Jaiswal, Natural Resources Defense Council, at 2 (Jan. 31, 2006) (hereinafter "Dr. Bell Letter").

²⁴⁷ See *id.*

²⁴⁸ See *id.*

²⁴⁹ National Research Council, *Issues in Potable Reuse: The Viability of Augmenting Drinking Water Supplies with Reclaimed Water*, National Academy Press, Washington, D.C., at 90-91 (1998) (hereinafter "National Research Council").

²⁵⁰ National Research Council, at 92.

concluded that coastal waters are being “bombarded by pollutants,”²⁵¹ compromising their ecological integrity. In short, the result of discharging primary treated wastewater is a dramatic increase in disease-causing pathogens contaminating coastal waters.²⁵²

In contrast, the biological processes involved in secondary treatment remove pathogens from sewage. Secondary treatment removes up to 95 percent of suspended solids in the waste stream,²⁵³ and is significantly more effective than primary treatment in removing biologic pathogens from sewage. For example, secondary treatment removes 80-90% of *Shigella* bacterium, 70-99 percent of *Salmonella*, and 75-99 percent of Enteric viruses prior to discharge of the effluent.²⁵⁴ Continued discharge of blended wastewater, containing ever-increasing proportions of solely primary-treated effluent, into Estero Bay will only cause further harm to an already stressed marine wildlife population—including the otter—further destabilize the region’s ecology, and ultimately, further degrade ocean waters that are in critical need of greater protection.

5. *Plant Cannot Show Compliance With Chlorine Residual, Dioxin, or Trace Metals Effluent Limitations*

Another problem with primary treatment of suspended solids is that the Plant has violated the total chlorine residual limitation several times in the past permit cycle.²⁵⁵ In its application, the Plant reports that these exceedances resulted from “*unavoidable* emergency repairs” and “*unavoidable* mechanical failure.”²⁵⁶ However, the Plant’s characterization is undermined by the Regional Board staff’s observation that several of the “violation[s] might not have occurred had the facility been designed to meet secondary treatment standards, because solids would not be present in the chlorine contact chamber at levels that would alter the chlorine dosing process.”²⁵⁷ Given these violations, EPA and the Regional Board staff’s finding that the Plant is in compliance with the chlorine residual limitation is unsupported.

²⁵¹ U.S. Commission on Ocean Policy, *An Ocean Blueprint for the 21st Century*, at Executive Summary 3, Washington, D.C. (2004).

²⁵² This is concern is magnified in Estero Bay in light of the scientific evidence regarding bacterial pathogens and infection of the sea otter, as discussed in Part 3B. *See e.g., Hawaii’s Thousand Friends*, 821 F. Supp. at 1385.

²⁵³ National Research Council, at 92.

²⁵⁴ National Research Council, at 92.

²⁵⁵ On January 16, 2003 and December 29, 2002, the Plant’s reported levels were greater than 10 mg/L, far exceeding the 1.07 mg/L daily maximum and 8.04 mg/L instantaneous maximum; on April 21, 2000, the Plant’s reported levels were 3.45 mg/L, on September 9, 1999, the Plant’s reported levels were approximately 8.04 mg/L, and on August 4, 1998 the Plant’s reported levels were approximately 1.1 mg/L, all exceeding the 1.07 mg/L daily maximum. *See* Draft Permit, at F-11; Application, at III-26, Fig. 27.

²⁵⁶ Application, at III-26 (emphasis added); Draft Permit, at F-11, F-12.

²⁵⁷ Draft Permit, at F-12.

For dioxin, the Plant's data reveals a series of violations in its effluent.²⁵⁸ The application shows that dioxin was detected in 73 percent of effluent samples,²⁵⁹ and the effluent limitation for dioxin was exceeded in July 2002 by a margin of 10.8 percent.²⁶⁰ Such exceedances represent *de facto* violations.²⁶¹ Given the serious public and environmental health implications of dioxin—a human carcinogen that bioaccumulates in the food chain—even one dioxin violation is matter of significant concern.²⁶² Finally, it is important to note that the Plant's current discharge of blended effluent results in higher discharges of dioxin than would effluent that was fully treated.²⁶³

For trace metals, the Plant's data also shows a series of violations. Importantly, the presence of detectable concentrations of trace metals in the Plant's effluent violates the Ocean Plan's requirement that “waste discharged to the ocean must be essentially free”²⁶⁴ of numerous toxic pollutants, as well as the requirement that sediment concentrations of these toxic pollutants be kept below levels that would degrade marine organisms.²⁶⁵ For example, detectable levels of copper have been measured in 85 percent of effluent samples since 1993.²⁶⁶ Detectable levels of chromium have been measured in 55 percent of effluent samples.²⁶⁷ Sediment data shows that levels of chromium, nickel, copper, and arsenic will likely accumulate in the near future above levels considered harmful to biota.²⁶⁸ Finally, as the proportion of solely primary-treated effluent increases, so too will mass loading of trace metals into Estero Bay. Trace metals attach to solids, so as less effluent receives secondary treatment, fewer metal contaminants are

²⁵⁸ The Ocean Plan sets water quality standards for dioxin, according to which the NPDES permit sets a 30-day effluent concentration limit of 0.52 pg/L. *See* Ocean Plan, at 8; WDR Order No 98-15, at 6.

²⁵⁹ Application, at II-11, Table 3.

²⁶⁰ *See* Application, at III-23. Although the Sewage Plant asserts that this violation was an anomaly, the Board should note that the presence of several other samples that were reported as containing dioxin levels close to 70% of the Ocean Plan limit tends to indicate that the July 2002 violation was not as anomalous as the Sewage Plant suggests.

²⁶¹ *See* Monitoring and Reporting Program No. 98-15, at 3.

²⁶² *See* Dr. Bell Letter, at 3.

²⁶³ *See id.*

²⁶⁴ Ocean Plan, at 10.

²⁶⁵ *See* Ocean Plan, at 5. In addition to setting numeric effluent concentration limitations for metals such as nickel, copper, and chromium, the Ocean Plan addresses the adverse biological effects of the accumulation of pollutants such as nickel and chromium in sediment and marine biota, providing that sediment concentrations of certain toxic pollutants “shall not be increased to levels which would degrade indigenous biota.” *Id.* at 5, 6.

²⁶⁶ *See* Offshore Monitoring and Reporting Program, 2003 Annual Report (hereinafter “2003 Annual Report”), at 2-44; Application, at II-9, Table 3.

²⁶⁷ *See* Application, at II-9, Table 3.

²⁶⁸ *See* 2003 Annual Report, at ES-4.

removed.²⁶⁹ In its Tentative Decision, EPA recognizes these violations, yet oddly concludes that the Plant’s compliance is “likely assured.”²⁷⁰ While unwarranted in any case, “likely assured” is not the standard for a § 301(h) waiver—the Plant must demonstrate it *will* comply with water quality standards. Thus, it was improper for the EPA to conclude that the Plant will comply with water quality standards regarding these toxic constituents.

In sum, all the evidence discussed above demonstrates that EPA’s and the Regional Board staff’s analyses of compliance with water quality standards are faulty and incomplete. Proper analysis of this evidence shows that the Plant cannot meet its burden for a 301(h) waiver. As such, the weight of the evidence shifts against the issuance of another waiver.

D. The Draft Permit Does Not Include the Required Water Quality Standard for *T. Gondii*.

Despite the overwhelming evidence regarding impairment of beneficial uses for marine habitat for threatened species—sea otters—by the pollutant *T. gondii*, the Draft Permit does not even discuss an effluent limit or monitoring requirements for this pollutant. The permit must establish effluent limits that will fully protect designated uses, including marine and wildlife habitat and rare, threatened or endangered species. 40 C.F.R. § 122.44(d)(1)(vi)(A). Here, the Draft Permit includes no limits for *T. gondii* even though the extensive data discussed above clearly establishes that the Plant has a reasonable potential to cause or contribute to a violation of receiving water standards. Indeed, as a matter of pure policy, given the totality of the situation, to fail to impose a limitation on a pathogen that is causing mortality and morbidity in a species like the California sea otter makes a mockery of these proceedings and the Regional Board’s professed concern for otter survival.

Part 3D

The Draft Permit’s Monitoring Requirements Are Inadequate.

A prerequisite for granting a 301(h) waiver is the establishment of a monitoring program pursuant to 40 C.F.R. § 125.63. The monitoring program must be “designed to provide data to evaluate the impact of the modified discharge on the marine biota, demonstrate compliance with applicable water quality standards or water quality criteria . . . and measure toxic substances in the discharge”²⁷¹ The monitoring program must also include biological monitoring (to the extent practicable) that includes “periodic surveys of the biological communities and populations which are most likely affected by the discharge”²⁷²

²⁶⁹ See Dr. Bell Letter, at 3.

²⁷⁰ EPA Tentative Decision, at 24.

²⁷¹ 40 C.F.R. § 125.63(a)(i)(A).

²⁷² 40 C.F.R. § 125.63(b).

The monitoring program should contain representative data²⁷³ to ensure that other 301(h) waiver criteria are met. In accordance with 40 C.F.R. § 125.62(c), the discharge must allow for:

- The attainment or maintenance of water quality which *assures protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife*;
- A balanced indigenous population of shellfish, fish, and wildlife.²⁷⁴
 - Immediately beyond the zone of initial dilution of the applicant's modified discharge; and
 - In all other areas beyond the zone of initial dilution where marine life is actually or potentially affected by the applicant's modified discharge.
- Conditions within the zone of initial dilution that do not contribute to extreme adverse biological impacts, including, but not limited to, the destruction of distinctive habitats of limited distribution, the presence of disease epicenter, or the stimulation of phytoplankton blooms which have adverse effects beyond the zone of initial dilution.

EPA Guidance on 301(h) waivers further explains that “[a] monitoring program for applicants granted 301(h) modified discharge permits is important to evaluate the impact of the modified discharge on selected marine biological communities”²⁷⁵ For areas with “special circumstances, such as the presence of distinctive habitats, a full suite of monitoring components are required to examine the problem at hand.”²⁷⁶

Here, it is widely accepted that Estero Bay is a hotspot for sea otter mortality attributed to the land-based parasite, *T. gondii*. The monitoring program, however, does not comply with these regulations because it fails to require monitoring for *T. gondii*. As discussed in Part 3B, 87 percent of sea otters tested in the Cayucos/Morro Bay area were seropositive for *T. gondii*.²⁷⁷ A 2003 study identified *T. gondii* encephalitis as a “primary cause of death” in 16.2% of otters surveyed.²⁷⁸ Scientists generally agree that “[t]he most plausible explanation for the high number of southern sea otters infected by *T. gondii* off the coast of California is exposure to oocysts that are shed by felids and reach the ocean through streams, urban runoff and/or *sewage effluent*.”²⁷⁹ Indeed, one prominent biologist with the California Department of Fish and Game

²⁷³ 40 C.F.R. § 122.48.

²⁷⁴ This requirement is addressed in detail in Part 3B.

²⁷⁵ EPA Guidance, at III.F.

²⁷⁶ *Id.*

²⁷⁷ Miller 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, 1001 (2002).

²⁷⁸ C. Kreuder et al., *Patterns of Mortality in Southern Sea Otters (Enhydra lutris nereis) from 1998-2001*, 39(3) *Journal of Wildlife Diseases* 495, 499 (2003).

²⁷⁹ Arkush et al., *Molecular and bioassay-based detection of Toxoplasma gondii oocyst uptake by mussels (Mytilus galloprovincialis)*, 33 *International Journal for Parasitology* 1087, 1088

names “the discharge of primary treated sewage” as the second among four factors that may account for the Morro Bay *T. gondii* hotspot.²⁸⁰

Accordingly, the sea otter population is a distinctive habitat and a “biological community most likely to be affected by the discharge” that the monitoring program must take into account.²⁸¹ However, the Draft Permit fails to require any monitoring of *T. gondii*. The Draft Permit’s requirements will yield no data upon which to determine whether the permit meets water quality standards *vis-à-vis* the otter population, namely, whether the discharge “assures protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.”²⁸² For these reasons, the Draft Permit’s monitoring program is inadequate.

Part 3E

The Sewage Plant Cannot Show that Re-issuance of Another 301(h) Waiver Will Not Violate Anti-Degradation Policies.

The Regional Board as well as EPA must conduct a full anti-degradation analysis whenever any action is proposed that would lower water quality.²⁸³ In general, the State anti-degradation policy, which incorporates federal anti-degradation policy, requires the maintenance of “existing Beneficial Uses of navigable waters, preventing their further degradation.”²⁸⁴ A full anti-degradation analysis must be conducted and anti-degradation effects must be considered whenever there is the potential for an increase in the emissions of a pollutant, “even if there is no other indication that the receiving waters are polluted.”²⁸⁵ The anti-degradation consists of three

(2003) (emphasis added). *T. gondii* enters the Plant through flushable cat litter containing feces infected with the parasite.

²⁸⁰ David A. Jessup, *Good Medicine for Conservation Biology: Comments, Corrections, and Connections*, 17(3) *Conservation Biology* 921, 922 (June 2003).

²⁸¹ EPA Guidance, at III.F; 40 C.F.R. § 125.63(b).

²⁸² 40 C.F.R. § 125.62(c).

²⁸³ Memorandum from William Attwater, SWRCB Chief Counsel, to Regional Board Executive Officers 5 (Oct. 7, 1987) at 3, 5, 18 (“State Antidegradation Guidance”); EPA Region 9 Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12, at 1 (“Region 9 Guidance”).

²⁸⁴ *PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, 511 U.S. 700, 705 (1994); see also SWRCB Resolution No. 68-16; 40 C.F.R. § 131.12. Under the policy, the state must make an “antidegradation finding” if water quality is reduced as a consequence of an action taken by the State Board. See State Antidegradation Guidance (“antidegradation policy is triggered by a lowering of surface water quality”); Memorandum from James W. Baetge, Executive Director, SWRCB, *Antidegradation Administrative Procedure Update*, at 4 (July 2, 1990) (“Antidegradation APU”).

²⁸⁵ *In re Rimmon C. Fay*, 1986 WL 25526, at *21; see also Antidegradation APU, at 4.

“tiers” of action. Tier 1 Waters is the basic level for “existing uses” in all waters.²⁸⁶ Tier 2 waters provide additional protections for among other things “propagation of fish, shellfish, and wildlife, and recreation.”²⁸⁷ Tier 3 waters provide the highest level of protection for “Outstanding National Resource Waters.”²⁸⁸ For these waters, no degradation of water quality is allowed, and accordingly, no new or increased discharges are allowed that would result in lower water quality.²⁸⁹

A. The Plant’s Application as well as EPA and Regional Board Documents Do Not Properly Evaluate Estero Bay As A “Tier 3 Water”.

Tier 3 waters are “waters of exceptional recreational or ecological significance.”²⁹⁰ As explained by the State Board, Tier 3 waters include “water bodies that are important, unique, or sensitive ecologically, but whose water quality as measured by traditional parameters (dissolved oxygen, pH, etc.) may not be particularly high or *whose character cannot be adequately described by these parameters.*”²⁹¹ In addition, the policy casts a wide net for candidates under Tier 3 as “state and federally” designated areas and parks, and even states “even if no formal designation has been made, individual permit decisions should not allow any lowering of water quality for waters, which because of exceptional recreational and ecological significance, should be given special protection.”²⁹² Toward this end, the State Board has explained, “the federal anti-degradation policy serves as a ‘catchall’ water quality standard, to be applied where other waste quality standards are not specific enough for a particular water . . . or where other water quality standards do not address a particular pollutants.”²⁹³

The 301(h) application before the Board and EPA constitutes the exact action that qualifies for a Tier 3 “catchall” anti-degradation analysis. First, it is undisputed that Morro Bay—which is wholly contained within Estero Bay—is a water of “exceptional” ecological significance, given its designation as a National Estuary.²⁹⁴ Second, both Estero Bay and Morro Bay’s character cannot be adequately described by “traditional parameters” (BOD, TSS, pH) because it is widely accepted that these waters are a hotspot for *T. Gondii* infections in sea otters, which functions as a sentinel over the overall health of the ecosystem.²⁹⁵ Hence, the anti-

²⁸⁶ 40 C.F.R. § 131.12(a)(1).

²⁸⁷ 40 C.F.R. § 131.12(b).

²⁸⁸ 40 C.F.R. § 131.12(c).

²⁸⁹ EPA Antidegradation Handbook, at 4-10; State Antidegradation Guidance, at 15.

²⁹⁰ See 40 C.F.R. § 131.12(c).

²⁹¹ State Antidegradation Guidance, at 15 (emphasis added).

²⁹² *Id.* at 16.

²⁹³ *Id.* at 2.

²⁹⁴ See 40 C.F.R. § 131.12(c); State Antidegradation Guidance, at 15.

²⁹⁵ See Jessup, *supra* note 162, at 922; Conrad, *supra* note 113, at 1161.

degradation policy directs a rigorous test that is “very restrictive” affording these waters the highest protection.²⁹⁶

The Draft Permit and its fact sheet states that the “this permit is consistent” with the anti-degradation policy.²⁹⁷ However, neither the Draft Permit nor the EPA Tentative Decision document evaluates Estero Bay as a Tier 3 water, requiring the highest level of protection.²⁹⁸ EPA’s and Regional Board’s documents also ignore that EPA has a long-standing “absolute prohibition on the imposition of new or increased discharges” that would lower water quality in Tier 3 waters. For Estero Bay, even the Sewage Plant admits and the discussion in Part 3C shows an increased discharge that lowers water quality. This degradation is magnified by the scientific evidence discussing the disease epicenter for *T. gondii* and bacterial pathogens relating to otter mortalities. Thus, even the slightest addition of pollutants by the Sewage Plant, which is predicted to occur, triggers the “absolute prohibition” of the activity—i.e. the issuance of 301(h) waiver is prohibited.

B. The Issuance of Another Waiver Violates the Anti-Degradation Policy.

Even if it were somehow established that Estero Bay is not a Tier 3 water, the issuance of another waiver violates the anti-degradation policy for even the lowest tiered waters—Tier 1. As discussed above, the anti-degradation requirement mandates that “[e]xisting instream water uses and level of water quality necessary to protect the existing uses shall be maintained and protected.”²⁹⁹ The anti-degradation requirements must be considered whenever there is the potential for an increase in the emissions of a pollutant, “even if there is no other indication that the receiving waters are polluted.”³⁰⁰ Here, issuance of another waiver would not maintain and protect existing uses for several reasons.

First, as discussed in Part 3C, the Plant anticipates influent increases from the current 1.14 MGD to 1.2 MGD and average flow to reach 1.23 MDG accounting for population growth.³⁰¹ Thus, additional influent flows will increase the proportion of primary-treated wastewater in the discharge,³⁰² and overall removal rates for BOD and TSS, as well as for all

²⁹⁶ See State Antidegradation Guidance, at 15.

²⁹⁷ Draft Permit, at 6.

²⁹⁸ Moreover, it seems that the Regional Board has not considered, as part of this permit decision” whether the Morro Bay and Estero Bay waters ‘should be designated as outstanding national resource waters.’ See State Antidegradation Guidance, at 15.

²⁹⁹ 40 C.F.R. § 131.12(a)(1); *In re* Friends of the Sea Otter and Dep’t of Fish & Game, State Board Order No. WQ 90-1, 1990 WL 15109, at *15 (Jan. 18, 1990).

³⁰⁰ *In re* Rimmon C. Fay, 1986 WL 25526, at *21; see also Antidegradation APU, at 4.

³⁰¹ See Application, at II-14; EPA Tentative Decision, at 8.

³⁰² Application, at II-14.

other pollutants (metals, dioxin, etc.) will decrease.³⁰³ As such, pollutant loading will increase and will further degrade water quality. These loadings are compounded by the increases in flow with respect to *T. gondii*, which is unregulated at this point. Thus, increased flow of only partially treated sewage may result in further degradation due to *T. gondii*, and further impairment for beneficial uses related the threatened species, such as the otter, as discussed in Part 3B. Because of these increased flows and resulting degradation, the issuance of another waiver violates anti-degradation policies. Hence the findings in EPA’s Tentative Decision and the Regional Board’s Draft Permit are not supported by the evidence. As such, the weight of the evidence shifts towards a denial of the 301(h) waiver.³⁰⁴

Part 3F

The Sewage Plant Has Not Demonstrated Full Compliance with the Endangered Species Act and the Marine Mammal Protection Act.

A. Violations of the Endangered Species Act.

1. EPA and the Board May Not Approve the Proposed Waiver Until EPA Completes Formal Consultations with the U.S. Fish & Wildlife Service

Before the EPA or the Board can approve the Sewage Plant’s waiver it must first initiate and complete consultations with Fish and Wildlife Service (“FWS”) under section 7 of the Endangered Species Act (“ESA”). The ESA and its implementing regulations require all federal agencies to consult with FWS before taking any “action” that “may affect” a listed species.³⁰⁵ Issuance of the Sewage Plant’s 301(h) waiver is an agency “action” subject to section 7 of ESA.³⁰⁶ There also can be no doubt that issuing a 301(h) waiver to the Sewage Plant “may

³⁰³ While the removal rates of TSS and BOD from the flow that is processed to secondary levels will remain constant, the fraction of total flow that does not receive secondary treatment will increase resulting in increased concentration of BOD and TSS in the blended effluent. According to the Sewage Plant, at the current average annual flow rate of 1.14 MGD, the 0.14 MGD that is diverted around the secondary treatment process contributes approximately 50% of the BOD and 36% of the TSS in the blended effluent stream. By 2009, when annual average flow is estimated to reach 1.2 MGD, the diverted primary flow will contribute approximately 60% of the BOD and 45% of the TSS loading in the blended effluent stream. See Appl., at II-14.

³⁰⁴ See *Topanga*, 11 Cal. 3d at 514-515; *In re* Petition of Exxon Co., U.S.A., State Board Order No. 85-7, 1985 WL 20026, at *6 (Aug. 22, 2985); Cal. Code Civ. Proc. § 1094.5.

³⁰⁵ 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.

³⁰⁶ ESA’s implementing regulations define an agency action as “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas.” 50 C.F.R. § 402.02. Under section 301(h) of the CWA, EPA is authorized to issue permits waiving the requirement that publicly owned treatment plants comply with CWA’s secondary treatment requirements. 33 U.S.C. § 1311(h). The issuance of a 301(h) waiver thus clearly qualifies as a federal action subject to the requirements of section 7 of ESA.

affect” a listed species—namely, the California sea otter as well as other listed species, such as steelhead trout and the tidewater goby.³⁰⁷ As discussed above in Part 3B, the evidence is overwhelming that the threatened sea otter in the Morro Bay and Estero Bay waters suffers from high *T. gondii* infection rates, resulting in mortality. In addition, even after adjusting for freshwater flows from shore, otters in Morro Bay are still nine times more likely to test positive for *T. gondii* than otters elsewhere in California.³⁰⁸ As such, the only other potential source of *T. gondii* dispersal into Morro Bay is the Sewage Plant, which discharges well over a million gallons of wastewater into the Bay every day. The Sewage Plant’s wastewater is not treated for *T. gondii*. Allowing this discharge to continue thus easily meets the low “may affect” threshold set by Section 7 of the ESA.

EPA’s Tentative Decision asserts that “compliance with Endangered Species Act was established by FWS and NMFS as part of the Sewage Plant’s original application in 1987. FWS and NMPS apparently provided “correspondence” as part of the previous waiver in 1998. Even though this information is nearly a decade old, EPA’s Tentative Decision reasons that “there have been no significant changes” that would “change the level of impacts to endangered species.”³⁰⁹ Although the EPA Tentative Decision notes the infections of the sea otters, it fails to recognize that this emerging scientific research constitutes a “significant change” warranting full input and consultation from other federal agencies, such as FWS and NMFS. Instead, the Tentative Decision is satisfied with a three year-old letter from NMFS and that the Sewage Plant has “requested” a letter from FWS. However, these do not constitute formal or informal consultations with the FWS as required by the ESA.

In this connection, EPA is required to undergo “new” consultations for all new proposed “federal action”—such as the approval of a 301(h) waiver—that may affect the sea otter. Consultations must also be “reinitiated” where “discretionary Federal involvement or control over the action is retained or is authorized by law” and new information reveals effects of the action that were not previously considered or the identified action is subsequently modified in a manner that may cause an effect not previously considered.³¹⁰ In light of the new information of the possible effects of the Sewage Plant’s waiver that were not previously considered—impacts on the sea otters and disease epicenter—ESA regulations mandate that the consultation must be “reinitiated.”³¹¹ Consultation must be reinitiated for all species listed under the ESA.³¹²

³⁰⁷ The ESA also lists several species of birds and plants in Morro Bay. *See* <http://www.epa.gov/owow/estuaries/programs/morro.htm>.

³⁰⁸ Miller, *supra* note 155, at 1005.

³⁰⁹ EPA Tentative Decision, at 20.

³¹⁰ 50 C.F.R. § 402.16.

³¹¹ *See id.*

³¹² Similarly, issuing another waiver violates §§ 30230 and 30231 of the California Coastal Act, the state law implementation of the federal Coastal Zone Management Act. Cal.Pub.Resources Code § 30001.5 *et. seq.* The Coastal Act requires protection of the marine environment in order that “the biological productivity and the quality of coastal waters . . . appropriate to *maintain optimum populations of marine organisms* . . . shall be maintained and, where feasible, restored

2. *The Sewage Plant's Discharges into Morro Bay Violate Section Nine of ESA in the Absence of an Incidental Take Permit*

ESA and its implementing regulations strictly prohibit the “taking” of a species listed as either endangered or threatened.³¹³ The definition of “take” includes activities that kill or harm listed species.³¹⁴ Discharging *T. gondii* into the marine environment plainly constitutes a “take” under ESA both because *T. gondii* infection causes encephalitis, a leading cause of mortality in sea otters, and because *T. gondii* infection injures and harms sea otters by making them sick and by increasing their chances of being attacked by a shark or developing cardiovascular disease.

Based on the current information it seems that the Sewage Plant has neither sought nor received an “incidental take permit” from FWS authorizing the take of sea otters in Morro Bay. The FWS may issue such a permit if it determines, among other things, that the Plant has taken steps to minimize the impact of its discharges on the California sea otter to the “maximum extent practicable.”³¹⁵ Without a valid incidental take permit, however, the introduction of inadequately treated sewage into Morro Bay is prohibited by the plain terms of ESA and its implementing regulations.³¹⁶ Moreover, a 301(h) waiver cannot be granted where it violates any other state and federal laws.³¹⁷

B. Violations of the Marine Mammal Protection Act.

Violations of the Marine Mammal Protection Act (“MMPA”) are also implicated by continued operation of the Sewage Plant’s 301(h) waiver. The MMPA imposes a moratorium on the “take” of any marine mammal by any “person,” a term which includes private entities as well as departments, instrumentalities and political subdivisions of the State or Federal

through, among other means, minimizing adverse effects of waste water discharges . . .” Cal. Pub.Resources Code § 30231. Like the ESA requirement, the Sewage Plant relies on letters submitted during the previous permit term to satisfy the Coastal Zone Management Act. However, in light of the recent scientific research documenting high otter mortality in the vicinity of the discharge, among other things, the Coastal Commission, as the expert agency, must have the opportunity to reassess its concurrence considering that the discharge may have adverse impacts on the otter population because it may prevent maintenance of an “optimum population” of the otters.

³¹³ 16 U.S.C. §§ 1536, 1538(a)(1)(A)-(B).

³¹⁴ 16 U.S.C. § 1532(19).

³¹⁵ 16 U.S.C. § 1539(2)(B).

³¹⁶ State and federal agencies may also be held liable for approving activities or issuing permits that will result in the take of listed species. *See Turtle Island Restoration Network v. Nat’l Marine Fisheries Serv.*, 340 F.3d 969, 977 (9th Cir. 2003) (remanding as viable a claim that NMFS’s act of granting permits to fisherman resulted in a “take” of threatened species injured by the fisherman’s practices). Like the Sewage Plant, as far as we know neither the Board nor EPA has been granted an incidental take permit by FWS.

³¹⁷ 40 C.F.R. § 125.59(b)(3).

government.³¹⁸ Here, the Sewage Plant is a “person” under the MMPA and is therefore prohibited, absent a permit, from taking actions that have “the potential to injure” the sea otters of Morro Bay.³¹⁹ Continuing to discharge primary-treated waste into Morro Bay has such “potential,” as shown by the body of evidence discussing the untreated pathogens in Morro Bay to sea otter disease and death. This evidence is detailed at length above and need not be repeated here.

To our knowledge, neither the Sewage Plant nor the agencies have ever sought or obtained an MMPA permit from the FWS with respect to Sewage Plant operations, despite the strong evidence regarding the decline of sea otter health and populations in Morro Bay and land based pollution, such as the Sewage Plant’s discharge. Without such a permit, the Sewage Plant is currently violating the MMPA with its continuing waste discharge activities, and the Board and EPA would violate the MMPA if they were to approve the District’s application for a renewed 301(h) waiver. For these reasons, EPA and the Board cannot approve the District’s 301(h) waiver application without violating the MMPA.

³¹⁸ 16 U.S.C. §§ 1362(10), 1372(2).

³¹⁹ 16 U.S.C § 1362(18)(A)(i).

Part 4

Why the 9.5 Year Upgrade Timeline is Illegal.

While NRDC strongly supports an upgrade to secondary treatment, the evidence before the Regional Board demonstrates that the 9.5 year timeline for the Plant’s upgrade is twice as long as is necessary and appropriate to reach secondary treatment. Accordingly, to comport with law, the schedule must be shortened so that it is no longer than the applicable “as soon as possible” standard—here, 56 months. Indeed, the 9.5 year timeline pads the time needed throughout the entire process, including the initial coordination process, facilities planning, and financial planning. The justifications given for these delays are untenable and do not fit within the factors that can legally be considered when designing an upgrade time schedule. In fact, even a consideration of cost demonstrates that it is more cost-effective to upgrade the Plant sooner rather than later.

A. The Conversion Schedule Must Complete Upgrade As Fast As Possible.

Both state and federal law require the secondary treatment upgrade to be completed as soon as possible.³²⁰ California Water Code § 13385(j)(3)(C) states:

The regional board establishes a time schedule for bringing the waste discharge into compliance with the effluent limitation that is *as short as possible*, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation (emphasis added).³²¹

In fact, the California Legislature indicated what is considered “as short as possible” when it stated, “the time schedule may not exceed five years in length.” Cal. Wat. Code § 13385(j)(3). Similarly, federal regulations also require compliance “as soon as possible” but not later than the five-year permit term under the Clean Water Act. 40 C.F.R. § 122.47. Thus, an NPDES permit and accompanying time schedule order would require compliance within five years.³²² Indeed, the EPA has questioned whether a compliance schedule that extended beyond the length of the

³²⁰ See Cal. Water Code § 13385(j)(3)(C); 23 CCR § 2243; and 40 C.F.R. § 122.47(a)(1).

³²¹ We recognize that section 13385 is generally invoked when a discharger is ordered to come into compliance with law, and that the City believes its upgrade is voluntary. Given the ample evidence that an application for a 301(h) waiver should be rejected, *see* Part 3, an upgrade is in fact in order here. Even if the City were in compliance, the totality of relevant statutory and regulatory guidance still supports the requirement that the upgrade still needs to be completed “as soon as possible.” Indeed, the “as soon as possible” standard is also found in the California Code of Regulations: “A time schedule should always be included in a cease and desist order unless there is a lack of information upon which to base a schedule in which case the discharger should be instructed to comply forthwith. ‘Forthwith’ means *as soon as is reasonably possible*.” 23 CCR § 2243(a) (emphasis added).

³²² See *In re City of Moscow*, E.A.B., 2001 WL 988721 (July 27, 2001).

permit is proper.³²³ Towards this end, EPA's goal for publicly owned treatment plants is to achieve secondary treatment "*as soon as possible*," and no later than July 1, 1988, except under "extraordinary circumstances."³²⁴

While the proposed agreement itself correctly notes that any time schedule order must "meet the requirements of Water Code section 13383[sic](j)(3),"³²⁵ the "as soon as possible" requirement is clearly not met here. As compared with a normal five-year permit term, the proposed conversion schedule is nearly twice this long. In addition, as the record demonstrates (*see* Section B below), the 9.5 year timeline is not the shortest time period in which compliance can be achieved taking into consideration "technological, operational, or economic" factors.³²⁶ Cal. Wat. Code 13385(j)(3)(C). Nor has the Sewage Plant shown that any "extraordinary circumstances" exist here and thus, under EPA's own policy, the settlement agreement should not be approved.³²⁷

Rather than being based on a legitimate justification, the 9.5 time schedule is padded simply for the convenience of the discharger to allow for bureaucratic delays, specifically, agency in-fighting. Importantly, the EPA has stated that the burden should be on the permit applicant to show that it *cannot* comply within the five year life of a permit.³²⁸ Here, there is no evidence in the record that the Sewage Plant ever made any convincing determination that it could not comply within five years.

³²³ *Id.* (applying 40 C.F.R. § 122.47).

³²⁴ EPA, *Notice of National Municipal Policy on Publicly-Owned Treatment Works* (1984), 49 FR 3832 (emphasis added); *see also In re City of San Bernardino and City of Colton*, State Board Order No. WQ 86-14, 1986 WL 25521 (Aug. 21, 1986) (Regional Board was legally required to issue NPDES permit that required compliance within five years even though cities complained they could not meet deadlines in the time schedule order).

³²⁵ Settlement Agreement, at 4.

³²⁶ Indeed, almost every other wastewater treatment plant in California has already upgraded. *See* Letter from Roger Briggs, Central Coast RWQCB, to Morro Bay/Cayucos Sanitary District (Jan. 15, 2003), at 1 ("Your treatment plant is now one of only four remaining in California that operates under a 301(h) Waiver.").

³²⁷ *See In re City of Moscow*, 2001 WL 988721 ("When the Region [EPA] reasonably believes that a state water quality standard requires a more stringent permit limitation than that specified by the state, the Region has an independent duty under Section 301(b)(1)(C) of the CWA to include more stringent permit limitations.").

³²⁸ *See In re City of Moscow*, 2001 WL 988721 ("Petitioner in any case failed to show that it is not possible to comply consistent with the time frames set forth in the Region's permit."). The Environmental Appeals Board (E.A.B.) decisions have precedential value. When "the EAB gives its prior decisions precedential value, members of the regulated communities can rely on these decisions to guide their conduct." EPA, *A Citizens' Guide to EPA's Environmental Appeals Board* (Sep. 2005), at 17.

B. The Sewage Plant Understood That the Upgrade Must Be Completed As Fast As Possible.

The record is replete with evidence that the Sewage Plant—including members of the Joint Powers Agreement (“JPA”) and staff—has long understood that the upgrade process must be completed “as soon as possible.” In 2004, before the Sewage Plant had even decided to move forward with an upgrade, the Sewage Plant’s Wastewater Manager, Mr. Bruce Keogh, informed the JPA Board of this requirement at least twice: the “Regional Board’s request was that we bring back a written timeline to them for review and comment. Their suggestion or their request was the process in their words should be ‘as fast as practicable.’” Bruce Keogh, June 17, 2004 JPA Meeting.³²⁹ And later he again stated, the “timeline from Regional Board’s perspective has to be ‘as fast as practicable.’” Bruce Keogh, June 17, 2004 JPA Meeting.³³⁰ Staff affirmed that Regional Board acknowledged this legal standard, declaring that the timeline for compliance must be “as fast as practicable,” and many of the timeframes (in the 15 year timeline) were too long. Matt Thompson, April 6, 2005 JPA Meeting.³³¹ Thus, the parties to the proposed settlement agreement have been operating with the knowledge that the upgrade must be completed as soon as possible, yet the evidence in the record demonstrates that the timeline in fact does not require compliance as soon as possible.³³²

C. Evidence in Record Does Not Support the Contention That the 9.5 Year Timeline Achieves Compliance As Fast As Possible.

While 9.5 years may now be recommended by the Plant’s consultants, Carollo Engineers (“Carollo”), it does not mean that timeframe is “as fast as possible” or comports with *law*. Rather, evidence in the record demonstrates that the 9.5 year timeline does not achieve compliance “as soon as possible,” as will be shown through the JPA Staff Report written by Bruce Keogh, statements by the JPA Board members and Regional Board staff, Carollo’s proposal, the letter submitted by Dr. Bruce Bell, President of Carpenter Environmental Associates (“Carpenter”), and other evidence.

³²⁹ DVD of hearing, at counter number 52:50 (all counter numbers are according to Windows Media Player) (DVDs of hearings included in record).

³³⁰ DVD of hearing, at counter number 1:11:45.

³³¹ DVD of hearing, at counter number 1:06:00.

³³² City and Staff should be estopped from attempting to now make any statements to the contrary. *See, e.g., Poweragent Inc. v. Electronic Data Systems Corp.*, 358 F.3d 1187, 1192-93 (9th Cir. 2004).

1. *Statements in Record Reflect Admission by JPA, Regional Board Staff and Carollo that the Upgrade Can Be Completed in Less Than 9.5 Years*

Time and again, members of all parties admitted that the upgrade could, and should, be accomplished in substantially less than 9.5 years.

- “We believe it [the timeline] could be somewhat shorter.” Regional Board Staff, Matt Thompson, May 19, 2005 JPA Meeting.³³³
- “Santa Cruz and Watsonville each completed similar upgrades in 7 years.” Regional Board Staff, Matt Thompson, April 6, 2005 JPA Meeting.³³⁴
- Our goal “will be much shorter than the 9.5 years.” Morro Bay Mayor Janice Peters, May 19, 2005 JPA Meeting.³³⁵
- “If you want to go faster [than 9.5 years], you [can] set that as a goal for your staff.” Dave Stringfield, May 19, 2005 JPA Meeting.³³⁶
- “I believe this could be done on a shorter time schedule.” Melody DeMeritt, May 19, 2005 JPA Meeting.³³⁷
- “We need to in our hearts say we’re going to do this in 7 years, but let’s give ourselves a little breathing space because we know what can happen with bureaucracy. And let’s go for the 9.5 with the idea that we’re not going to take it.” Bill Pierce, May 19, 2005 JPA Meeting.³³⁸

Carollo similarly offered an initial proposal of an upgrade in 8.5 years.³³⁹ However, this was rejected by the Sewage Plant staff because additional time was needed “given the record of the JPA in quickly making decisions.”³⁴⁰ The statements above demonstrate that the 9.5 year timeline is not “as soon as possible,” because the JPA, Regional Board Staff, and Carollo all believe the upgrade can be completed in less time.³⁴¹ The reasons for this are abundantly obvious, as seen below.

³³³ DVD of hearing, at counter number 1:40:20.

³³⁴ DVD of hearing, at counter number 1:06:51. *See also* Letter from Roger Briggs, Central Coast RWQCB to Morro Bay/Cayucos Sanitary District (April 5, 2005), at 1 (“The cities of Santa Cruz and Watsonville completed similar upgrades in 7 years.”).

³³⁵ DVD of hearing, at counter number 1:46:50.

³³⁶ DVD of hearing, at counter number 1:19:10.

³³⁷ DVD of hearing, at counter number 1:41:20.

³³⁸ DVD of hearing, at counter number 1:44:30.

³³⁹ Staff Report by Bruce Keogh titled “Morro Bay-Cayucos J.P.A. Wastewater Treatment Plant” (May 13, 2005), at 2 (hereinafter “Keogh Staff Report”).

³⁴⁰ Keogh Staff Report, at 2.

³⁴¹ It appears that while the JPA understood the 9.5 timeline was not “as soon as possible,” it did not understand this was a *legal* requirement.

2. *The Time Schedule Pads the Time Needed in the Planning Process*

There was never any real discussion of how the time schedule could be made shorter and more efficient.³⁴² Instead, the record reflects that the only alternative to the 9.5 year timeline ever considered was the 15 year timeline.³⁴³ However, the record shows that years can be cut from the timeline by making simple changes such as carrying out planning tasks concurrently and meeting monthly rather than bi-monthly.

(a) *Planning Should Be Shortened and Run in Parallel Stages*

The record reflects that members of the JPA, Regional Board, and Carollo believe that the Facilities, Financial, and Environmental elements leading up to construction could be shortened and run in parallel. In this connection, Carollo admits that “many of our clients run the meat of these three elements (Facilities, Financial, and Environmental) in parallel,”³⁴⁴ and Staff admits, “you gotta [sic] do those critical tasks concurrently.” Matt Thompson, April 6, 2005 JPA Meeting.³⁴⁵

When the initial 15-year timeline was proposed, one JPA member was “stunned by the fatness of the schedule and that it’s so linear.” Melody DeMeritt, April 6, 2005 JPA Meeting.³⁴⁶ Even after the schedule had been shortened to 9.5 years, JPA members still believed that many tasks could run concurrently, rather than sequentially. Speaking about the permit renewal process and the initial coordination with the City and District, one JPA member stated, “I think we should overlap this, and then reduce that time.” Melody DeMeritt, May 19, 2005 JPA Meeting.³⁴⁷ Regarding the generous amount of time allotted for coming to agreements during this initial coordination phase, a Carollo engineer recognized that the JPA members could certainly come to agreements quicker. Dave Stringfield, May 19, 2005 JPA Meeting.³⁴⁸

(b) *Time Allotted for Coordination and Planning Delays Is Unreasonably Long*

There was an acknowledgment, especially by the Sewage Plant, that the time allotted for coordination and planning was unnecessarily long. For example, the proposed 9.5 year timeline allows over 12 months for “Initial Coordination with the City and District,” including time for JPA meetings every other month for the entire year, and also to define goals, define the different

³⁴² In fact, to say the timeline is 9.5 years is misleading. The City’s permit expired close to two years ago, thus essentially giving the City 11.5 years to comply rather than 9.5 years.

³⁴³ This is true both of the JPA Meetings and the proposed settlement agreement negotiations.

³⁴⁴ Letter from David Stringfield to JPA (May 13, 2005), at 3.

³⁴⁵ DVD of hearing, at counter number 1:29:14.

³⁴⁶ DVD of hearing, at counter number 1:51:00.

³⁴⁷ DVD of hearing, at counter number 1:29:10.

³⁴⁸ DVD of hearing, at counter number 1:30:30.

roles, establish a decision-making protocol, and negotiate cost sharing.³⁴⁹ This initial period is so long in part because of the “difficulty the City and District have historically demonstrated in reaching consensus in the decision making process.”³⁵⁰ These types of bureaucratic delays do not represent acceptable bases for designing upgrade time schedules under Water Code section 13385(j)(3) (time schedule must be as short as possible taking into account “technological, operational, and economic factors”) or federal regulations. The Sewage Plant must submit a proposal with timeline that meets the legal requirement of “as soon as possible,” rather than devising a timeline that facilitates and encourages inefficiency and disagreement. This principle was acknowledged by one JPA Member: “If we know we can get it done in seven years, why aren’t we setting that higher standard? . . . Our sights are set pretty low.”³⁵¹ Moreover, the Sewage Plant met with Regional Board staff beginning in May of 2004 to begin discussions of an upgrade. Bruce Keogh, April 6, 2005 JPA Meeting.³⁵² Thus, initial coordination should have long been instituted and political issues resolved by the time a permit is finalized.³⁵³

The Facility Plan allowing for over 3 ½ years is also excessive, again because of additional JPA meetings. Carollo even recognizes that “[t]his is more meetings than most wastewater projects require.”³⁵⁴ The excuse for delay is that the “coastal communities with joint treatment works allow extra time for community and environmental input as the project is being developed.”³⁵⁵ This purported rationale, however, is vague, conclusory, and not supported by any evidence in the record.³⁵⁶ For example, there is no discussion of how this plant differs from other similar plants that would require “extra time” for community and environmental input.³⁵⁷

³⁴⁹ See David Stringfield, May 19, 2005 JPA Meeting, DVD of hearing, at counter number 1:10:30.

³⁵⁰ Keogh Staff Report, at 4.

³⁵¹ Betty Winholtz, December 15, 2005 JPA Meeting, DVD of hearing, at counter number 51:50, and 52:38.

³⁵² DVD of hearing, at counter number 19:20.

³⁵³ Letter by Dr. Bruce Bell of Carpenter Environmental Associates, Inc. (Jan. 31, 2006), at 6-7 (hereinafter “Dr. Bell Letter”).

³⁵⁴ Letter from David Stringfield to JPA (May 13, 2005), at 3.

³⁵⁵ *Id.*

³⁵⁶ Abuse of discretion is established when findings are not supported by the evidence. Cal. Code Civ. Proc. § 1094.5(b-c).

³⁵⁷ Instead, Carollo improperly based its 9.5 year timeline on Goleta’s 10 year timeline for secondary treatment upgrade. Dave Stringfield, May 19, 2005 JPA Meeting, DVD of hearing, at counter number 1:20:55 (Goleta used as “template”). However, there are obvious differences between the situation in Goleta and the situation here. For example, the Goleta upgrade occurred only after protracted litigation. See Matt Thompson, May 19, 2005 JPA Meeting, DVD of hearing, at counter number 1:59:10 (“I don’t think it’s fair to compare with the Goleta settlement agreement because we did have a lawsuit there.”). In fact, Staff acknowledged during JPA meetings that each city’s upgrade schedule must be established based on individualized factors.

Alternatively, Carpenter Environmental Associates has reviewed the Carollo timeline and concluded that the upgrade can be completed in 56 months on an expedited basis consistent with state and federal legal standards and no longer than 79 months when conducted at a leisurely pace.³⁵⁸ Carpenter suggests that, for example, the Initial Coordination phase can be decreased to 6-8 months simply by scheduling monthly meetings rather than meeting every two months.³⁵⁹ Meeting monthly will also allow the JPA to finalize the Financial Plan in only 6 months.³⁶⁰ Carpenter also estimates that the Draft Facilities Plan could be completed within 9-11 months of project start, and the Environmental Review and Permitting 17 months after project start.³⁶¹ In approving a settlement agreement, the Regional Board should “fully and carefully consider[] all possible alternatives.”³⁶²

3. *Other Rationales For 9.5 Year Timeline Are Unsubstantiated*

The Staff Report provides many other rationales for the 9.5 year timeline that can be resolved easily and do not necessitate extra time in the conversion schedule. First, there are claims that a treatment upgrade is highly complex.³⁶³ There is nothing unusual or complex about upgrading an existing plant to secondary or even tertiary treatment.³⁶⁴ Moreover, a subsequent decision to upgrade to tertiary will not affect the timeline.³⁶⁵ Second, there is concern that unforeseen circumstances could result in failure to meet the schedule.³⁶⁶ Unforeseen circumstances beyond the control of the City or JPA would be an issue in every type of construction project entered into. This is the reason for *force majeure* language in a settlement agreement, which contractually sets out the consequences of unforeseeable acts of nature.³⁶⁷ Third, the Staff Report states that the project will require an “extreme commitment” by the City and District to meet on a regular monthly basis. It is hardly an “extreme commitment” to ask the JPA to meet once a month to meet a schedule for a critical project. Indeed, one JPA member declared that monthly meetings would prompt the JPA to come to agreements more quickly. Janice Peters, May 19, 2005 JPA Meeting.³⁶⁸

³⁵⁸ Dr. Bell Letter, at 5.

³⁵⁹ *Id.* at 6.

³⁶⁰ *Id.*

³⁶¹ *Id.*

³⁶² *U.S. v. Telluride Co.*, 849 F. Supp. 1400, 1406 (D. Colo. 1994).

³⁶³ Keogh Staff Report, at 2.

³⁶⁴ Dr. Bell Letter, at 5 (This upgrade “has been done many times in many places in far less than 9.5 years.”).

³⁶⁵ Letter from David Stringfield to JPA (May 13, 2005), at 5; Dr. Bell Letter, at 1.

³⁶⁶ Keogh Staff Report, at 3.

³⁶⁷ *See* Dr. Bell Letter, at 6.

³⁶⁸ DVD of hearing, at counter number 1:46:25.

D. Delaying Upgrade is Not Cost Effective.

The record is replete with evidence that it will be much more cost-effective to upgrade the Plant sooner rather than later, and without incorporating a 301(h) waiver into the process. First, the cost of maintaining a 301(h) waiver is high. There are significant monitoring costs associated with a 301(h) waiver, and at least \$100,000 could be saved annually *without* the waiver. Matt Thompson, April 6, 2005 JPA Meeting.³⁶⁹ Second, the cost of upgrading increases with each year that construction is delayed. For example, the inflationary difference between beginning construction in 2005 versus in 2013 (when it is currently slated to begin) is significant: \$7.3 million.³⁷⁰ Further, these saved costs would be passed on to ratepayers. “If you build the project now, quickly, it fixes in the rates to the ratepayers, at that cost today.” Dave Stringfield, April 6, 2005 JPA Meeting.³⁷¹

Also, non-local sources of funding are waning. In 2003, Regional Board noted that the costs to upgrade were currently low, due to potential available grants through Propositions 40 and 50, and due to low-interest loans available through the State Revolving Fund Loan Program.³⁷² However, just two years later Regional Board staff noted that “Prop. 50 money is dwindling.” Matt Thompson, April 6, 2005 JPA Meeting.³⁷³ Finally, any concern that a quicker upgrade will cost more money seems unsubstantiated based on a comparison between the costs for upgrade on a 15 year timeline and 9.5 year timeline. When Carollo first introduced a timeline for upgrade of 15 years, it estimated costs at \$16.7 million (at 2005 prices).³⁷⁴ The revised 9.5 year timeline actually resulted in the lesser cost of \$15.2 million (at 2005 prices).³⁷⁵ Thus, the record demonstrates that a cost savings analysis weighs heavily in favor of shortening the 9.5 year timeline.

³⁶⁹ DVD of hearing, at counter number 1:07:35. *See also* Letter from Roger Briggs to Morro Bay/Cayucos (Apr. 5, 2005), at 1.

³⁷⁰ Carollo Engineers, Attachment 9 ½ Year Full Secondary Treatment Preliminary Costs (April 19, 2005). To further this point, Dave Stringfield at Carollo stated that the costs of construction for this type of project had risen 25-40% in only five years, between 2000 and 2005. April 6, 2005 JPA Meeting, DVD of hearing, at counter number 31:00.

³⁷¹ DVD of hearing, at counter number 1:25:01.

³⁷² Letter from Roger Briggs, Central Coast RWQCB to Morro Bay-Cayucos Sanitary District (Jan. 15, 2003), at 3.

³⁷³ DVD of hearing, at counter number 1:47:00.

³⁷⁴ Dave Stringfield, April 6, 2005 JPA Meeting DVD of hearing, at counter number 33:12; *see also* Carollo Engineers, Wastewater Treatment Upgrade Time Schedule (Feb. 18, 2005), at 15.

³⁷⁵ Carollo Engineers, Attachment 9 ½ Year Full Secondary Treatment Preliminary Costs (April 19, 2005).

Ultimately, however, costs were not the main concern for this project.³⁷⁶ Carollo estimated that the monthly increase to the ratepayer as a result of the upgrade will be \$11.50 for Cayucos (for a monthly total of \$39.50), and \$13.25 for Morro Bay (for a monthly total of \$30.00).³⁷⁷ Compared to other cities' sewage bills, the Carollo engineer stated, "I can guarantee the Regional Board thinks those are very affordable." Dave Stringfield, May 19, 2005 JPA Meeting.³⁷⁸

In sum, the evidence in the record does not support the conclusion that the 9.5 year timeline in the proposed settlement agreement requires the secondary treatment upgrade "as soon as possible," as is legally required. For the reasons set forth above, the proposed settlement agreement including the 9.5 year conversion schedule cannot be approved.

³⁷⁶ In finding that the JPA should not get hung up on financing, one member stated, "We pay less to get rid of our trash and our effluent out of the wastewater treatment plant than we pay for our lattes." Dave Elliot, June 17, 2004 JPA Meeting, DVD of hearing, at counter number 1:05:12.

³⁷⁷ Dave Stringfield, May 19, 2005 JPA Meeting, DVD of hearing, at counter number 1:32:00, and 1:35:00.

³⁷⁸ DVD of hearing, at counter number 1:36:00.

Part 5

Why the Proposed Settlement Agreement Is Seriously Flawed.

The proposed settlement agreement suffers from a number of flaws which should raise serious concerns to the Regional Board. Whatever the intentions of Staff, the record suggests that the agreement does not meet the “arms-length” criteria³⁷⁹ because it contains a number of clauses that are unnecessarily disadvantageous to the Regional Board and the public it serves.³⁸⁰ Further, the structure of the agreement as an out-of-court “settlement agreement” rather than a court-approved consent decree will make it more difficult for the Regional Board to enforce the settlement.

A. The Record Shows Settlement Was Not “Negotiated At Arms-Length”.

The record indicates that the proposed settlement agreement was not the product of sufficiently vigorous negotiations, which at least in part has led to an agreement which ignores the “as soon as possible” mandate and is disadvantageous to the Regional Board in other respects.³⁸¹ First, the agreement incorporates the City’s “first offer” for a timeframe. Although all parties acknowledged that the upgrade could be completed in less than 9.5 years (see Part 4), the agreement does not reflect what could actually be accomplished notwithstanding the fact that a shorter timeline would provide greater benefit to the waters around Estero Bay.³⁸²

Second, the liquidated damages provision sets the fines for noncompliance with the Conversion Schedule at an extraordinarily low level—in all likelihood, far too low to actually compel compliance.³⁸³ Liquidated damages are “contractually stipulated as a *reasonable estimation of actual damages* to be recovered by one party if the other party breaches.”³⁸⁴ By contrast, the administrative civil liability fines provided for in the Water Code more realistically reflect the value of damage that occurs when dischargers fail to comply discharge requirements: under the Water Code, a non-complying Discharger could be liable for fines up to \$25,000/day,

³⁷⁹ See *U.S. v. Telluride Co.*, 849 F. Supp. 1400 (D. Colo. 1994) (refusing to approve parties’ consent decree because negotiations were not in good faith or at arms-length).

³⁸⁰ In fact, it appears that Staff anticipated problems with this settlement structure. See Options to Memorialize Morro Bay/Cayucos WWTB Upgrade Timeline (“environmental organizations may protest”).

³⁸¹ See *U.S. v. Oregon*, 913 F.2d 576, 581 (9th Cir. 1990).

³⁸² According to the City’s attorney, “That was really our only direction, to negotiate the 9.5 year conversion schedule.” Rob Schultz, December 15, 2005 JPA Meeting, DVD of hearing, at counter number 32:18.

³⁸³ See Settlement Agreement, at 11.

³⁸⁴ *Black’s Law Dictionary* 418 (8th ed. 2004) (emphasis added).

plus a multiplier of \$25/gallon for discharge not susceptible to cleanup.³⁸⁵ In contrast, the proposed settlement agreement sets liquidated damages at \$100/day to \$1,000/day depending on the phase of the compliance schedule in which noncompliance occurs.³⁸⁶ Such low damages do not reflect, as liquidated damages should, a “reasonable estimation of the actual damages” to the Regional Board’s interest in protecting and improving coastal water quality “for use and enjoyment by the people of the state.”³⁸⁷

Third, the *force majeure* clause is extremely over-inclusive and excuses the City’s noncompliance for almost any reason. See Settlement Agreement, at 8 (“A ‘force majeure event’ is *any* event beyond the control of the Discharger, its contractors, or any entity controlled by the Discharger...”)(emphasis added). Typically, a *force majeure* clause excuses noncompliance for an “act of God,” which is defined as “an act occasioned exclusively by forces of nature” that “could not have been prevented or escaped from by any amount or foresight or prudence, or by any reasonable degree of care or diligence, or by the aid of any appliances which the situation of the party might reasonably require him to use.”³⁸⁸ Here, however, the City can point to *any event* beyond its control to justify missed deadlines; the liquidated damages provision is certainly inadequate to compel compliance as well.

Fourth, the settlement agreement’s definition of “new evidence” required to modify the permit’s effluent limitations is inconsistent with the Clean Water Act. The settlement agreement defines “new evidence” as “*clear and convincing evidence* not in the administrative record at the time the Modified Discharge Permit is issued that would show that more stringent limits are necessary.”³⁸⁹ However, this illegally sets a more restrictive standard than that set forth in the CWA, which merely requires “new information not available at the time of permit issuance” for modification of a permit.³⁹⁰ Thus, the settlement agreement impermissibly restricts the ability of the Regional Board to include more stringent effluent limitations in the second five-year permit cycle by adopting a standard of proof well in excess of that which applies to these proceedings and Regional Board actions in general.”

³⁸⁵ Cal. Water Code § 13385(b). The Clean Water Act also provides for administrative penalties of up to \$10,000/day, and criminal penalties for negligent violations of \$2,500 to \$25,000/day. See 33 U.S.C. §§ 309(c),(g).

³⁸⁶ In addition to the remarkably low per diem fines in the settlement agreement, the liquidated damages may only accrue for one task at a time, artificially limiting the cost to the Discharger if it falls behind schedule. Settlement Agreement, at 11.

³⁸⁷ Cal. Water Code § 13000.

³⁸⁸ *Black’s Law Dictionary* 33 (6th ed. 1990). See also *Gulf Oil Corp. v. FERC*, 706 F.2d 444, 452 (3d Cir. 1983) (“To use the clause as an excuse to nonperformance, the event must have been beyond the party’s control and without its fault or negligence.”).

³⁸⁹ Settlement Agreement, at 3 (emphasis added).

³⁹⁰ 40 C.F.R. § 122.62(a)(2).

Other factors also contribute to the impression that the proposed agreement was not negotiated at “arms-length,” as that term is defined by decisional authority.³⁹¹ For instance, the proposed agreement “[is] not the product of the parties’ desire to settle long-running litigation, through which the strength and weakness of each side’s case was revealed.”³⁹² Also, the parties have not “fully and carefully considered all possible alternatives,” which is a key indicator of whether an agreement is negotiated in good faith and is fair.³⁹³ The Regional Board has a duty to conduct an independent evaluation of the proposed settlement agreement and avoid giving a “rubberstamp approval,”³⁹⁴ especially where, as here, the process does not bear the mark of a good faith, arms-length negotiations.

B. The Out-of-Court Settlement Agreement Poses Serious Enforcement Difficulties.

The proposed settlement agreement as it is currently memorialized—a privately entered-into agreement without the benefit of court approval—poses serious enforceability difficulties. Importantly, court-entered agreements are legally backed by the power of the court and are fully enforceable through contempt proceedings. The United States Supreme Court has noted that it is for this reason that court-backed agreements (consent decrees) are well-suited instruments for memorializing agreements in public law matters, while out-of-court settlement agreements are not.³⁹⁵ This is particularly true in cases involving matters of public law, for “public law settlements are often complicated documents designed to be carried out over a period of years . . . [consequently] any purely out-of-court settlement would suffer the decisive handicap of not being subject to continuing oversight and interpretation by the court.”³⁹⁶

The proposed settlement agreement pending before the Board is exactly the type of document that warrants formalization as a consent decree. The objectives of the underlying statutes are to protect human health, the environment, and Californians’ use and enjoyment of the State’s water resources.³⁹⁷ The proposed agreement comprises these objectives, not only in the length of the upgrade, but the structure of the agreement in multiple phases, cumulatively lasting

³⁹¹ See *U.S. v. Telluride Co.*, 849 F. Supp. 1400 (D. Colo. 1994) (refusing to approve parties’ consent decree because negotiations were not in good faith or at arms-length).

³⁹² *Telluride*, 849 F. Supp. at 1403. See also *U.S. v. Chevron*, 380 F. Supp. 2d 1104, 1111-12 (N.D. Cal. 2005) (parties should “demonstrate that there was substantial give-and-take during the . . . negotiations,” or that “the negotiation process was fair and full of adversarial vigor,” for process to bear the mark of a good-faith, arms-length negotiation).

³⁹³ *Telluride*, 849 F. Supp. at 1404-1406.

³⁹⁴ See *Chevron*, 380 F. Supp. 2d at 1111.

³⁹⁵ See *Local No. 93, Int’l Ass’n of Firefighters v. City of Cleveland*, 478 U.S. 501, 524 n.13 (1986) (quoting M. Schwarzschild, *Public Law by Private Bargain: Title VII Consent Decrees and the Fairness of Negotiated Institutional Reform*, 1984 Duke L.J. 887, 899).

³⁹⁶ *Id.* (quoting Schwarzschild, at 899) (noting advantages of consent decree as a means of facilitating settlement).

³⁹⁷ See Cal. Water Code §§ 1300, 13142.5.

9.5 years. The complexity of the upgrade plan, in particular, would present major obstacles to enforcing the agreement as a whole in a timely way because of the need to initiate and prosecute new litigation to enforce a violation—a much longer process than would be necessary if a consent decree were in place. Without incorporation into a court order, however, a court has no authority to use contempt proceedings to enforce an agreement.³⁹⁸ In short, “[i]t is easier to obtain enforcement of a consent decree because it will be unnecessary to prove many facts that would otherwise have to be shown in order to establish the validity of an ordinary contract [such as an out-of-court settlement agreement].” A court that maintains continuing jurisdiction over a consent decree will have a more flexible repertoire of enforcement measures.³⁹⁹

³⁹⁸ See *B.H. v. McDonald*, 49 F.3d 294, 300 (7th Cir. 1995) (noting that a party must file suit to enforce an out-of-court settlement, but courts have the power to enforce the terms of consent decrees and to penalize a noncomplying party through contempt proceedings).

³⁹⁹ *Local No. 93*, 478 U.S. at 524 n.13.