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November 10, 2022

Hawai'i Department of Health
Clean Water Branch
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Re: Surfrider Foundation. Kaua'i Chapter's comment on draft permit Sunrise Capital, Inc.'s application for renewal of National Pollutant Discharge Elimination System (NPDES) permit, Docket No. HI 0021654, dated October 19, 2022, and request for public hearing.

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Please find below the Surfrider Foundation Kaua'i Chapter's ("Surfrider") comment on the above-referenced draft National Pollutant Discharge Elimination System ("NPDES") permit

renewal for Sunrise Capital, Inc. (“Applicant”), which operates concentrated aquatic animal production (“CAAP”) facility located at 6526 Kaumualii Highway, Kekaha (“facility”). Surfrider also requests a public hearing on the draft permit. Surfrider Foundation is a grassroots, environmental organization dedicated to the protection and enjoyment of the world’s ocean, waves and beaches for all people through a powerful network.

1. Public hearing on the application is warranted.

Surfrider is an interested person and group with respect to the application, which proposes methods for regulating pollution of Kaua’i’s oceans and nearshore environment. Surfrider Kaua’i Chapter is comprised of volunteers and community leaders working toward clean water and healthy beaches on the island of Kaua’i. Our programming includes ocean water quality monitoring, preventing polluted runoff from entering the ocean, reducing microplastics, and public education to protect Kaua’i’s beaches and ocean. Surfrider and its officers and supporters recreate, work, and conduct cultural practices in nearshore and ocean environments impacted by Applicant’s facility operations.

Surfrider and its officers and supporters have a constitutional right to a clean and healthful environment defined by the proper implementation of Hawai’i Revised Statutes (HRS) chapter 342D and Hawai’i Administrative Rules (HAR) chapters 11-54 and 11-55, amongst other laws.

A public hearing is warranted because there are significant omissions in the application and outstanding questions in the community about the proposal as discussed further *infra*. A public hearing will increase community input, which can be vital for a successful project as well as resource protection, and offer transparency for the government decision-making process. A public hearing will also allow members of the public to learn about each others’ concerns and to raise them to the Applicant and the Hawai’i Department of Health (“Department”) to address.

2. “Receiving waters” are estuaries with effluent limits and not an undefined class.

Facility discharges are gathered from two initial sedimentation canals and are then discharged into Canal D. Canal D, or the Suez Canal, waters flow into Kawai’ele ditch and then to Kinikini ditch. There is continuous flow from the facility into Canal D, the ditches, and the ocean.

The Department regulates basic water quality in “receiving waters.” HAR §11-54-4. The Department proposes the “Suez Canal” (Canal D) as the receiving waters for the facility. Fact Sheet at 5. The Department asserts the “receiving water is the first State water that receives the discharge. The first State water that receives the discharge from the facility is the ‘Suez Canal.’ Therefore, the ‘Suez Canal’ is the receiving water.” Fact Sheet at 5.

The Department proposes to regulate facility discharges at the “Suez Canal”, even though it concedes the term “canal” is undefined and lacks a receiving water classification. Fact Sheet at 3, 6. The Department asserts only basic water quality criteria applicable to all waters and no specific water quality criteria for canals applies. *Id.* at 14-15. This is incorrect because the “Suez Canal” is an inland estuary with specific water quality criteria. HAR §11-54.5.2(d)(1)

The state Agribusiness Development Corporation describes the “Suez Canal” as “Canal D” on the map below.



Source: Agribusiness Development Corporation, Fig. 2, Kekaha-Kōke'e Agricultural Map, Island of Kaua'i, prepared by Hart Crowser, Inc. (Apr. 2020).

Canal D is not an unregulated water body, but an inland brackish or saline water.¹ All inland brackish or saline waters are classified as standing waters, wetlands, or estuaries, including developed estuaries. “Developed estuaries” means “volumes of brackish coastal waters in well-defined basins constructed by man or otherwise highly modified from their natural state. Developed estuaries include, but are not limited to, dredged and revetted stream termini.” HAR §11-54-2. “Coastal waters” is defined to “include[] those brackish waters, fresh waters, and salt waters that are subject to the ebb and flow of the tide.” *Id.* Canal D, Kawai’ele ditch, and Kinikini ditches are developed estuaries.² Because Canal D first receives discharge from the facility, the Department regulates effluent at Canal D.

Pollution into inland estuaries are regulated under HAR §11-54.5.2(d)(1):

¹ HAR §11-54-2 “Classification of state waters” provides in relevant part:

(2) All inland brackish or saline waters are classified as follows, based on their ecological characteristics and other natural criteria:

(A) Standing waters.

(i) Anchialine pools; and

(ii) Saline lakes;

(B) Wetlands.

(i) Coastal wetlands (marshes, swamps, and associated ponds);

(C) Estuaries.

(i) Natural estuaries (stream-fed estuaries and spring-fed estuaries); and

(ii) Developed estuaries.

Id.(a)(2)(C)(ii). Brackish waters are those with salinity of between 0.5 and 32 parts per thousand (ppt), which saline waters have salinity of more than 32 ppt. HAR §11-54-1. Reported salinity is 27.2 – 34.2 ppt. Fact Sheet at 7.

² “Kinikini Ditch . . . is a brackish coastal water with a continuous tidal surface connection to the Pacific Ocean that allows entry of marine fauna.” DOH, “Mānā Plain Surface Water Quality Regulatory Analysis, Kekaha, Hawai’i, Island of Kaua’i” prepared by PG Environmental, at 12 (Sep. 2022).

<u>Parameter</u>	<u>Geometric mean not to exceed the given value</u>	<u>Not to exceed the given value more than ten per cent of the time</u>	<u>Not to exceed the given value more than two per cent of the time</u>
Total Nitrogen (ug N/L)	200.00	350.00	500.00
Nitrate + Nitrite Nitrogen (ug [NO ₃ + NO ₂]-N/L)	8.00	25.00	35.00
Ammonia Nitrogen (ug NH ₄ -N/L)	6.00	10.00	20.00
Total Phosphorus (ug P/L)	25.00	50.00	75.00
Chlorophyll a (ug/L)	2.00	5.00	10.00
Turbidity (N.T.U.)	1.5	3.00	5.00

Effluent limits for estuaries are far lower than that proposed in the draft permit. The draft permit also proposed to remove Nitrate + Nitrite requirements, which is not permitted under this rule. The draft permit fails to regulate the receiving waters as developed estuaries and imposes impermissibly lax limits on effluent. The Department is required to implement lower effluent limits for estuaries in the proposed permit.

Canal D/ Suez Canal also contributes pollution to ditches and the ocean, where the Department is also required to regulate marine water quality in relation to other water pollutants. Better regulating Canal D under stricter effluent limits would assist in meeting marine water quality requirements.

3. Unlined sedimentation canals seep pollution in nearshore areas

The facility discharges waste from “shrimp pond circulation water and the pond drainage system water” into “one of two sedimentation/conveyance canals running the length of the facility prior to discharging into a canal (‘Suez Canal’).” Public Notice, dated Oct. 19, 2022 at 1 (emphasis added); see Fact Sheet at 4 (same). Canals running the length of the facility and joining into a single pool prior to these initial two sedimentation canals are unlined, allowing pollutants to seep into the ground and to stagnate as evident by the strong odors in the area. It is unclear whether and how the build-up of sediment in these canals may be remediated.

The facility is in a sensitive area. The Department of Land and Natural Resources (DLNR) maintains the Kawai‘ele State Bird Sanctuary adjacent to Canal D, which is home to native and listed wetland birds. Though not listed as a Class 1 inland water within a sanctuary established by DLNR, the canals and ditches communicate with those within the Kawai‘ele bird sanctuary. See HAR §11-54-5.1(A). DLNR describes a relatively permanent subterranean, aquatic connection between the waters at the Kawai‘ele sanctuary and the surrounding area.³ As part of its

³Joana Tavares, DLNR, Division of Aquatic Resources, Invasive Fish Control and Eradication: A Preliminary Plan for the Kawai‘ele Bird Sanctuary, at 9 (Feb. 2009) dlnr.hawaii.gov/ais/files/2014/02/Tilapia-control-plan-for-Kawaiiele-

permitting and public trustee authority, the Department could require Applicant to line or remove the sludge from the canals as it does for the shrimp ponds, which may both protect wetland bird habitat and water quality. *Compare* Responses to Comments at 16.

4. Draft permit proposes unlawful procedures for review and compliance

The draft permit recites the minimum legal standards for permit issuance then relegates disclosure of the ways Applicant plans to meet those standards until *after* the permit is effective. This procedure operates as an end-run around required public processes, allowing review of Applicant's plans to be confined to discussions with the Department. The plans must first be submitted in order for the Department to make findings necessary to approve the permit. This Department cannot "impos[e] these self-serving conditions without requiring a hearing to review the additional" plans. *Hui Alaloe v. Maui Planning Com'n*, 68 Haw. 135, 138, 705 P.2d 1042, 1045 (1985) (commission reversibly erred by issuing a permit under HRS chapter 205A conditioned on applicant completing further plans and studies).

For instance, Applicant's revised/ updated Effluent Monitoring Program is to be submitted 30 days after the effective date of the permit. Draft Permit at 9. The permit would be issued, despite acknowledging Applicant has a record of making substantive "matrix interference errors associated with the inductively coupled plasma mass spectrometry (ICP-MS) analysis method" such that it was allowed to do a new RPA test that walked-back effluent requirements. Fact sheet at 16-17. At minimum, the Department should review monitoring and testing procedure before approving the permit.

Within sixty days of the effective date of the permit, Applicant is required to submit a best management practice (BMP) plan. Draft permit at 23. Yet, BMPs and best practicable technology are the primary means by which effluent from CAAP operations are limited. 40 C.F.R. §451.11. The draft permit recites BMP requirements under 40 C.F.R. §451.11 regarding solids control for the facility, but none of the documents describe whether and how these will be implemented. Applicant is required to "identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting aquatic animals in the production system" but Applicant describes only the disposal of settled and skimmed solids from its shrimp ponds into the Kaua'i landfill. 40 C.F.R. §451.11(a)(2); Response to Comments at 22. Applicant concedes solid "wastes are further settled in a sedimentation canal running the length of the facility" but does not identify procedures for removing these accumulated solids. *Id.* Applicant's plan for ocean monitoring is also not required until 60 days after the permit is effective. Draft permit at 19.

The Department cannot take the required "close look" without examining Applicant's plans for meeting required criteria *before* approving the permit and therefore violates its public trust duties.⁴

Bird-Sanctuary.pdf

⁴ See *In re Waiola O Moloka'i, Inc.*, 103 Hawai'i 401, 425, 83 P.3d 664, 685 (2004) (the state's trustee duties and the

Applicant's Toxicity Reduction Evaluation work plan and Biological Monitoring plan is to be submitted within 90 days of an effective permit. Draft permit at 13. The Department acknowledges "Permittee has not identified any planned changes at the facility." Fact sheet at 9. The facility has caused, or at least contributed to significant fish kills, indicating some toxic conditions. *Id.* at 9. Thus, the Department is proposing to allow the facility to continue to unchanged operations without even examining plans for reducing toxicity and biological monitoring for three months.

The Department violates its obligations to protect public trust resources by proposing to approve a permit without even knowing the plans and potential for the Applicant to comply with permit conditions. All provisions for Applicant to submit plans after permit issuance should be revised to require those plans provided in a revised permit application and proposed permit subject to public review and contested case procedures.

5. Protocols to prevent mass die-off of fish in ditches are unspecified and ineffective.

The draft permit requires Applicant to coordinate with other Canal D/ Suez Canal users in preventing "fish kills", but no specific steps for either coordination or prevention are outlined. Draft permit at 23. First, the problem is not with other users of Canal D, but rather where other users' pollutants mix with Canal D pollutants. This occurs where Canal D dumps into Kawai'ele and Kinikini ditches. The draft permit needs to address coordination with all users of whole drainage system and not just Canal D.

Further, the proposed condition leaves too much to Applicant's discretion and the likelihood that no meaningful measures will be created nor implemented. The draft permit anticipates that increasing oxygen in ditch waters is possible. Decreasing the ability of fish to enter the ditches is also possible. The draft permit should include required procedures for implementing these measures, including increasing the number and effectivity of oxygenating mechanisms ("bubblers") in the ditches and fish deterrent or prevention devices.

Specific mechanisms for achieving fewer or no mass die-offs should be included instead of delegating the matter to the vague coordination between "Suez Canal" users violates the Department's obligations. Instead, the Department is obligated to address the adverse impacts of "fish kills" as they extend from the ditches all the way to the ocean. Failure to address and disclose the important mass die-off issue now robs the public of the knowledge and ability to comment on the fish kill prevention measures that are very important to the community. This is one of several issues proceeding from the overall absence of enforcement and remediation in the draft permit. *See infra* Part 8.

Department oversight is also needed to ensure users' plans to address mass fish deaths do not further degrade the environment. The Kawai'ele State Waterbird Sanctuary borders Canal "D" and may be impacted by actions taken to address mass fish die-offs, or the failure to act appropriately to prevent such toxic conditions.

constitutional origins of the public trust "augment presumptions of the agency decision's validity and require reviewing courts to 'take a close look' at the action to determine if it complies with the public trust doctrine and it will not act merely as a rubber stamp for agency or legislative action") *quoting Waiāhole*, 94 Hawai'i at 143-44, 9 P.3d at 455-56 (other cases omitted).

6. No baseline supports permit biological monitoring of benthic communities

The proposed permit does not require a biological monitoring plan for bottom communities until 90 days after the permit is effective, and only requires monitoring once during the permit term. The permit proposes no means of establishing a baseline for conditions prior to the implementation of the permit – so as to indicate whether the permitted activities are compliant – or prior to the initiation of facility activities.

As discussed further *infra* Part 7, the Department indicates benthic community monitoring has occurred only since 2007 but not that this pre-dates facility operations. Responses to Comments, at 16. The Department’s records demonstrate facility inspections on October 22, 1999, May 22, 2001, October 11, 2001, April 18, 2002, and June 15, 2007. Newsmedia report Applicant’s predecessor CEATECH USA, Inc. received land rights to proceed with its CAAP facility prior to June 1998 and has been operating from approximately that time.⁵ Four years later, Rhoda Libre, head of Kauai’s Westside Watershed Council, reported CEATECH’s effluent was seeping into the ocean, noting: “there are dead animals all over the place.”⁶ The CEATECH CAAP facility reportedly regularly exceeded levels of nitrogen and ammonia nitrogen allowed by its NPDES permit, which at that time allowed a maximum daily level of nitrogen of 1725 µg/L, and 63 µg/L for ammonia nitrogen. These levels are far lower than the 3,000 µg/L and 700 µg/L allowed under the 2016 and current draft permit. In 1998, the CAAP was forecasted to produce 1,150 µg/L of total nitrogen and 15 µg/L of ammonia nitrogen.⁷

Benthic communities in 2007 had already been impacted by many years of facility operations, dating back as early as 1978 by recollection of some community members. Applicant’s consultant’s opinion that there have been no significant changes during facility operations does not support a conclusion that these operations have not impacted corals or other nearshore ecosystems. Please also indicate where the benthic studies from 2007 to the present have been made available for public review in connection with concerns raised on the permit.

One means of establishing the level of facility operations impacts on nearshore environments may be to suspend operations, or otherwise prevent all water pollution from entering the ocean for several years and then observe environmental changes. Another means of comparing facility impacts would be to examine nearby areas that have not been affected by water pollution. However, much of southwest Kauai’s nearshore waters are already affected by agricultural and commercial pollution, rendering this method unreliable.

In any case, none of the material before the Department presents an evidentiary basis

⁵ See “Pilot shrimp farm is used to provide broodstock to CEATECH,” *Environment Hawai’i* (Jun. 1998) and T. Dawson, “CEATECH Violates Discharge Permit, Blames Tilapia for High Nitrogen Levels,” *Environment Hawai’i* (June 2002) (“some in the community have noticed an increase in the frequency and number of fish kills since a big shrimp farm made its home in the quiet, rural town in the late 1990s.”)

⁶ T. Dawson, “CEATECH Violates Discharge Permit, Blames Tilapia for High Nitrogen Levels,” *Environment Hawai’i* (June 2002)

⁷ “Antidegradation analysis for CEATECH USA, Inc. Shrimp Aquaculture Project, Kekaha, Kauai” (Jan. 1998) available at: wpc-viewer.doh.hawaii.gov/wpc-documents/permits/HI0021654/Antidegradation%20Analysis1998.PDF

upon which to find that facility operations have not, and are not continuing, to maintain the nearshore area in a degraded condition.

The proposed permit also does not require a biological monitoring prior to the implementation of the permit, such that the later monitoring report could be compared to ascertain whether permit conditions are preventing further degradation of the nearshore environment.

7. Proposed permit lacks controls for *Vibrio* bacteria produced by the facility

As pointed out by NOAA in its comment on the 2015 proposed permit, Applicant's waste discharges include shrimp waste. Most shrimp diseases are bacterial and viral, and most bacterial diseases are caused by *Vibrio* species. *Vibrio* bacteria may be harmful to coral and lead to disease and bleaching, and also be harmful to other fish and humans. *Vibrio* infections usually occur in fish from marine and estuarine environments. *Vibrio* infections can spread rapidly when fish are confined in heavily stocked, commercial systems, and may result in mass fish die-off. Other types of bacteria and viruses may also impact the microbial community structure of the natural marine environment. Applicant admitted that it lacks protocols to address or monitor for *Vibrio* (instead, it monitors for *Enterococcus spp.*).

In its responses to comments, the Department states it "has no water quality criteria for vibrio and as a result, vibrio cannot be regulated under an NPDES permit." Responses at 16. The Department further responds the draft permit and previous permits require benthic studies every other year since 2007 that have not demonstrated impacts to the marine biological community structure of the offshore areas. Responses at 16. As discussed *supra* Part 6, the 2007 benthic study would not describe pre-facility baseline conditions but rather describe the results of operations that had been ongoing for approximately eight years. That Applicant's consultant registers no observed changes in benthic communities does not establish facility operations have no effect and may rather demonstrate their ongoing and consistent impacts.

In regard to the first, the Department not only has the authority, but the obligation to refrain from issuing the permit if doing so will compromise the integrity, healthfulness, and quality of public trust resources, including the nearshore and oceanic environments of Kaua'i.

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

All public natural resources are held in trust by the State for the benefit of the people.

Hawai'i Const. art. XI, §1; *see also Morgan v. Planning Dept., County of Kauai*, 104 Hawai'i 173, 184 n. 12, 86 P.3d 982, 993 n. 12 (2004); *Kaua'i Springs v. Kaua'i Planning Comm'n*, 133 Hawai'i 141, 324 P.3d 951 (2014); *Waiāhole*, 94 Hawai'i at 131–32, 9 P.3d at 443–44.

Under the constitutional public trust doctrine, the state, including the Department, has

the “affirmative duty” to protect the public trust in natural resources, including water. *Kaua’i Springs, Inc. v. Planning Comm’n*, 133 Hawai’i 141, 172, 324 P.3d 951, 982 (2014). These “constitutional public trust obligations exist independent of any statutory mandate and must be fulfilled regardless of whether they coincide with any other legal duty.” *Ching v. Case*, 145 Hawai’i 148, 178, 449 P.3d 1146, 1176 (2019). An “agency must perform its functions in a manner that fulfills the State’s affirmative obligations under the Hawai’i constitution.” *In re Application of Gas Co.*, 147 Hawai’i at 207, 465 P.3d at 654. These obligations are also “ongoing, regardless of the nature of the proceeding.” *Id.*, 147 Hawai’i at 207, 465 P.3d at 654 (emphasis added). The Department may “not relegate itself to the role of a ‘mere umpire’” in proposing the permit “but instead must take the initiative in considering, protecting, and advancing public rights in the resource at every stage of the planning and decision-making process.” *Kelly v. 1250 Oceanside Partners*, 111 Hawai’i 205, 231, 140 P.3d 985, 1011 (2006) (quoting *Waiahole I*, 94 Hawai’i at 143, 9 P.3d at 456).

Therefore, the Department’s observation that *Vibrio* is not a specifically regulated water quality criteria does not excuse the Department’s obligations to take affirmative steps to prevent the growth and spread of *Vibrio* and other bacterial and viral pathogens consequent to facility operations under the permit. At minimum, this must mean monitoring for the presence of these bacterial pathogens, identifying feasible measures that may be taken to prevent their increase and spread.

8. Permit lacks enforcement and remediation procedures, including to hold accountable multiple operators contributing water pollution.

Several tenants of the Agribusiness Development Corporation (ADC) amongst others and in addition to Applicant, pollute canal and ditch waters that passing through the Kawai’ele outfall and Kinikini ditch. As proposed, the permit does not anticipate whether and how exceedances of effluent limitations will be remediated in this situation. Nor does it address the ways required coordination amongst ditch polluters will be coordinated in response to “fish kills”. See *supra* Part 5. The permit should be revised to anticipate this condition and outline the specific steps that will be followed to ensure remediation and enforcement.

Otherwise, Applicant and others may merely attempt to deflect blame amongst each other, with the result that the Department lacks recourse to repair and prevent further exceedances and harms to public trust waters. For instance, in 2002, the previous operator of the CAAP facility reportedly attempted to shift blame for high nitrogen levels to sewage.⁸ The Department may be able to address this issue by imposing effluent standards at the point of discharge from the facility alone, which is not the “Suez canal,”⁹ but rather in the facility’s sediment basins.

Related to this point, the draft permit includes *no* enforcement or remediation

⁸ T. Dawson “CEATECH Violates Discharge Permit, Blames Tilapia for High Nitrogen Levels,” *Environment Hawai’i* (June 2002) (“CEATECH blames the sewage. Both are at fault.”).

⁹ The Department acknowledges several users and owners of the “Suez Canal.” Draft permit at 28 (“The Permittee shall coordinate with the owner and other users of the “Suez Canal” and provide regular maintenance and improvements to the ‘Suez Canal’ to prevent low oxygen conditions and fish kills.”).

procedures in the event of permit violations. The only remedy described is further Department review, with no plans to take steps for actual enforcement.

9. Ocean monitoring at fewer, distant points lacks rationale

The Department proposes to regulate effluent from the facility in the “Suez Canal” even though it has not been assessed as an impaired water body and no TMDLs have been established for it. Fact Sheet at 7. Instead, the draft permit proposes regulation in the nearshore environment. *Id.*

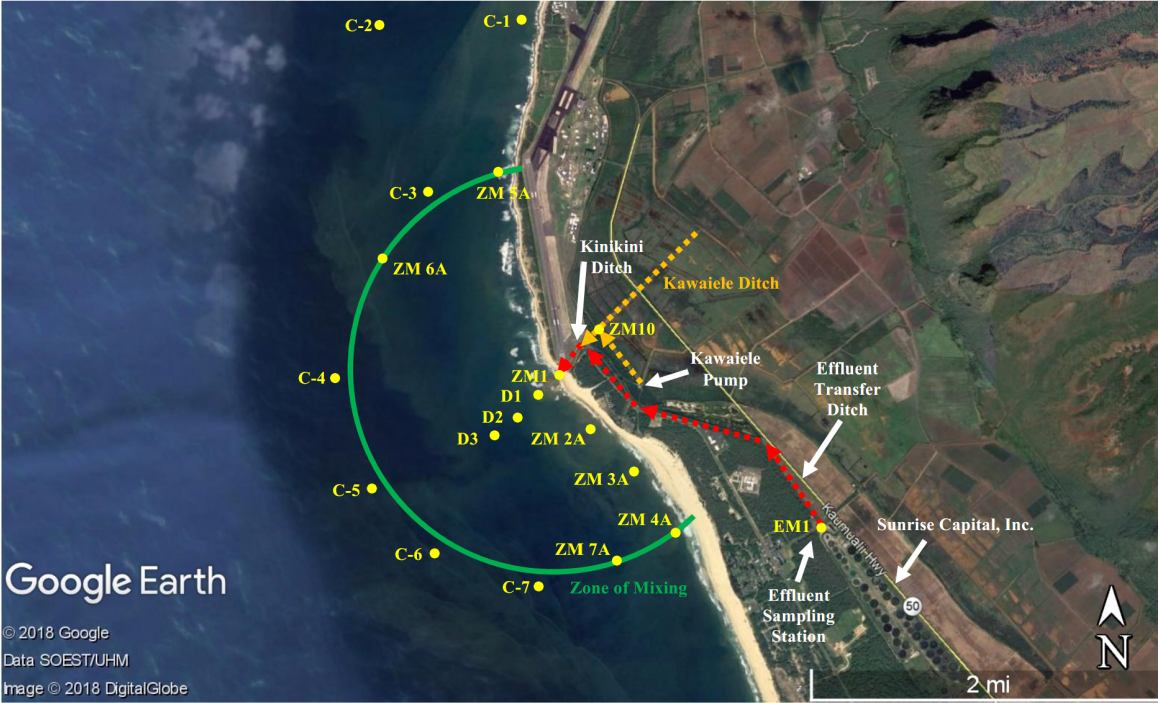


Figure 1-2. Map of the project area with the effluent path shown in red, sample locations, and the Zone of Mixing

Source: Sunrise Capital Inc. “ZOM Dilution Analysis Study” prepared for the Hawai’i Dep’t of Health, at 3 (Jan. 2021).

“The draft permit requires the Permittee to continue to monitor the Pacific Ocean at the same monitoring locations designated in previous permits to determine if the facility’s effluent limitations continue to be protective of the Pacific Ocean.” Fact Sheet at 25. First, it is unclear why sampling would continue to be defined by the former zone of mixing (ZOM) where that ZOM is no longer being used to determine effluent limitation performance. Second, Applicant’s 2021 ZOM Dilution Study describes 16 monitoring stations (below), however the draft permit only refers to nine such monitoring stations.¹⁰ Therefore, if the ZOM rationale applies, data from all 16 stations should be utilized.

The ocean monitoring efforts are very important to community members and ocean users, and should be thoroughly explained and discussed with the public in a public hearing.

¹⁰ Compare Draft Permit at 14 and Sunrise Capital Inc. “ZOM Dilution Analysis Study” prepared for the Hawai’i Dep’t of Health (Jan. 2021).

10. Insufficient data and rationale provided for draft permit anti-backsliding

Anti-backsliding laws under the Clean Water Act prevent the Department from re-issuing a permit that contains effluent limitations, permit conditions, or standards less stringent than those established in the previous permit with limited exceptions. The proposed 2022 permit appears to be less stringent than previous permits in at least two regards. First, the 2022 permit calls for a maximum flow rate of 20 MGD; however, the 2020 permit application listed the maximum daily discharge as 7.0 MGD and the monthly average discharge as 5.0 MGD. Historic flow rates have ranged from 2.3 MGD to 4.9 MGD. Fact Sheet at Table F-2. Second, the draft permit removes Nitrate + Nitrite Nitrogen solely based on the representation that the Department “has become aware that nitrate + nitrite nitrogen does not accurately characterize water quality.” Fact Sheet at 24. More than this bare assertion is needed to support the Department’s finding of compliance with anti-backsliding laws. Nitrogen has been a water quality indicator of great concern. *See supra* Parts 6, 8. The facility violated Nitrate+ Nitrite limitations three times between 2016-2020. Fact Sheet at 8.

11. The 1998 Environmental Assessment is stale and requires supplementation.

On February 8, 1998, the previous operator completed a final environmental assessment (FEA) for a substantially different CAAP, which has since changed in size, scope, intensity, use, location, or timing, among other things.¹¹ A “supplemental EIS” means an updated EIS prepared for an action for which an EIS was previously accepted, but which has since changed substantively in size, scope, intensity, use, location, or timing, among other things. HAR §11-200.1-2. “If there is any change in any of these characteristics which may have a significant effect, the original EIS that was changed shall no longer be valid because an essentially different action would be under consideration and a supplemental EIS shall be prepared and reviewed as provided by this chapter.”¹²

Amongst other things, effluent from the facility has changed from that expected in 1998 to that reported in the draft permit. The 1998 FEA expected the following water quality conditions.¹³

Currently, the facility reports Total nitrogen between 14.99-3056 µg/L (up to 3.056 mg/L) and ammonia nitrogen at between 151.31-1843.8 µg/L (up to 1.84 mg/L). By comparison, the facility was expected to have 1.15 mg/L total nitrogen and 0.015 mg/L of ammonia nitrogen. FEA Appx. 5 at 10. The 2016 permit and the proposed draft permit would allow 3 mg/L total nitrogen and 0.7 mg/L ammonia nitrogen, both of which are far higher than that initially expected. The unexpectedly high levels of nitrogen production were associated with significant destruction of

¹¹ See Final Environmental Assessment for the CEATECH USA, Inc. Hawai‘i Marine Shrimp Farm (Feb. 8, 1998) available at: https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/1998-02-08-KA-FAE-Ceatech-Hawaii-Marine-Shrimp-Farm.pdf.

¹² *Id.* §-30; *Unite Here! Local 5 v. City & Cty. of Honolulu*, 123 Hawai‘i 150, 178, 231 P.3d 423, 451 (2010) (passage of twenty years created “an ‘essentially different action’” than the one proposed, necessitating a supplemental EIS).

¹³ 1998 FEA, Appx. 5 at 10 (Anti-Degradation Analysis).

Table 2. Expected Aquaculture Effluent Water Quality

Parameter	Concentration	Daily Loading
Flow	360 gpm ¹	55 mgd ²
Temperature	26 - 29°C	
Salinity	33 - 35 ppt	
Dissolved Oxygen ³	6 - 8 mg/L	
BOD ^{4,5}	10 mg/L	4489 ppd
pH	7.5 - 8.5	
TSS ⁵	40 mg/L	18000 ppd
Chlorophyll a	54.3 ug/L	24.4 ppd
Turbidity ⁵	9.9 NTU	
Total Phosphorous ⁵	0.3 mg/L	135 ppd
Total Nitrogen ⁵	1.15 mg/L	517 ppd
Ammonium-Nitrogen ⁵	.015 mg/L	6.7 ppd
Nitrate + Nitrite ⁵	.042 mg/L	18.9 ppd

marine life within the first years of the facility's operations.¹⁴ This changed condition, amongst other changes and new information, establish the need for supplemental environmental review documents to be prepared prior to the Department's decision-making on the draft permit.

Conclusion

Mahalo for considering Surfrider's comments. We reiterate our request for a public hearing on this permit for the foregoing reasons. The draft permit needs to be revisited in multiple parts in order to comply with our environmental laws and to uphold the public trust. Please contact Dr. Berg with any questions or concerns.

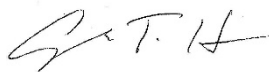
Sincerely,



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Counsel for Surfrider Foundation

¹⁴ See T. Dawson "CEATECH Violates Discharge Permit, Blames Tilapia for High Nitrogen Levels," *Environment Hawai'i* (June 2002).