

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

July 28, 2014

Ryan Winn
Regulatory Office
U.S. Army Corps of Engineers, Honolulu District
Building 230,
Fort Shafter, HI 96858-5440

Subject: Final Environmental Impact Statement for the Proposed Honolulu Seawater Air Conditioning Project, Honolulu, Hawaii. (CEQ# 20140167)

Dear Mr. Winn:

The U.S. Environmental Protection Agency has reviewed the Final Environmental Impact Statement for the Proposed Honolulu Seawater Air Conditioning Project pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. Our comments were also prepared under the authority of, and in accordance with, Sections 303, 316, and 402 of the Clean Water Act, and the provisions of the Federal Guidelines promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act.

EPA continues to support innovative, energy saving technologies, provided that they are suitably located to minimize adverse environmental impacts. Using energy efficient technologies, such as seawater air conditioning for district cooling needs, can help the nation meet its energy requirements while reducing greenhouse gas emissions. As with any new technology, identifying potential impacts and finding potential mitigation opportunities can be challenging. We appreciate the efforts of the Corps and the Proponent to work with us to meet these challenges.

EPA reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Honolulu Seawater Air Conditioning Project and provided comments on May 10, 2011. We rated the document EO-2, Environmental Objections – Insufficient Information, based on potential violations of CWA Sections 303(c), 316 (a), and 402, which include requirements for the protection of water quality, due to the significant load of nutrients and difference in temperature of the discharge at the return pipe outlet. Our rating was also based on the intake velocity and lack of screening, which suggested the potential to violate CWA Section 316(b). This includes requirements to reduce the impingement and entrainment of species at the intake. We had additional significant concerns related to the project's potential impacts upon waters of the United States, biological resources, habitat, floodplain, hazardous materials from construction, and public health.

EPA applauds the Corps' decision to include, in the FEIS, two additional project alternatives -- Alternatives 3 and 4 -- for which the outflow diffuser is located in successively deeper water. Alternative 4 is the Corps' Preferred Alternative and identified as the Least Environmentally

Damaging Practicable Alternative (Appendix Q). Alternative 4 calls for a return pipe to terminate with a diffuser extending from “326 feet to 423 feet”. We understand that outflow at this depth would be much closer to ambient temperature than it would be with the diffuser proposed in the DEIS, which was at 150 feet. This change in outfall depth may also reduce adverse impacts to water quality and coral habitat. At 326 to 423 feet, the discharge diffuser would be below the photic zone and the thermocline, minimizing potential for eutrophication of surface waters and benthos waters around the discharge. We are also pleased to see that the proximity of an existing shelter for the homeless has been taken into consideration in the Contaminated Soil Management Plan to ensure that clients and staff of the shelter are protected.

Notwithstanding the above improvements, we have continuing concerns regarding the project’s compliance with section 304 of the Clean Water Act. The FEIS states that corals will be counted, measured, and corals >10 cm will be transplanted to a site 50 ft. inshore of the receiving site. We support this effort to minimize impacts to corals, which are considered a special aquatic site (40 CFR 230.44) and important elements of the marine ecosystem; however, the lack of compensatory mitigation remains a concern from a CWA 404 perspective. A compensatory mitigation plan is needed to account for direct and indirect impacts (including corals not transplanted and those that do not survive), temporal losses, and uncertainty of mitigation success. Please see the enclosed detailed comments for more information on CWA 404 compliance.

We appreciate the clarification, in the FEIS, that the proponent intends to comply with the CWA 316(b) phase I rule via Track II. Track II requires the proponent to submit, as part of its NPDES permit application, all the information required under 40 CFR 122.21(r) and 125.86(c), and to demonstrate that the intake and cooling system utilize the best technology available. While Track II does not require screening the intake, EPA believes that a screen on the intake would be a reasonable way to reduce adverse impacts to biological organisms, and that the proposed project provides an opportunity to consider innovations in screen design. Please see the enclosed detailed comments for more information on CWA 316(b) compliance.

We appreciate the opportunity to review this Final EIS. When the ROD is released, please send one electronic copy on CD to the address above (mail code: ENF-4-2). Should you have any questions regarding our comments, please contact me at (415) 972-3521, or contact James Munson, the lead reviewer for this project. Mr. Munson can be reached at (415) 972-3852 or munson.james@epa.gov.

Sincerely,

/s/

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures: Detailed Comments

EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE PROPOSED HONOLULU SEAWATER AIR CONDITIONING PROJECT, HONOLULU, HAWAII. (CEQ# 20140167) JULY 28, 2014

Clean Water Act Section 404

The project involves filling an area 40 x 40 ft. (1600 sq. ft. =0.04 ac) at the breakout site (receiving pit) and anchoring concrete collar structures to the seafloor to support the pipelines. Both impacts degrade the aquatic habitat by altering substrate and eliminating benthic and infaunal organisms. Coral recruits on new project structures do not count as compensatory mitigation. Specifically, pipelines and concrete structures essential to the HSWAC project may or may not attract corals and other marine organisms, but this incidental growth cannot be considered compensatory mitigation under Section 404 of the Clean Water Act. The lack of acceptable CWA 404 compensatory mitigation remains a concern for EPA.

As proposed, transplantation would save some of the corals in the vicinity of the intake, but a net loss would occur because only a portion of the impacted corals are proposed to be transplanted, and some mortality of transplanted corals is expected. Monitoring of the coral transplants is proposed for a 2 year period; however, the success criterion proposed in Appendix O is not measureable.

Recommendations:

The ROD should commit to compensatory mitigation involving restoration of degraded sites near the HSWAC project, such as low quality coral beds.

The ROD should include a robust compensatory mitigation plan for CWA section 404-related impacts to offset net loss of coral. We recommend that the removal of debris from the seafloor in the vicinity of the HSWAC construction be a component of this plan. Careful debris removal would open new natural habitat in the footprint of debris and prevent future habitat damage from moving debris and associated contaminants (e.g. metals).

Corals adjacent to the breakout pit site should also be relocated to minimize indirect impacts from construction activity. Coral transplantation, if successful, can reduce the amount of compensatory mitigation required; but, as proposed, is not sufficient as mitigation.

EPA recommends that success of coral transplantation be defined as 75% survival of transplanted corals after 2 years.

For further assistance with issues pertaining to waters of the U.S., please coordinate with Wendy Wiltse in EPA Region 9's Wetlands Office. Ms. Wiltse can be reached at (808) 541-2752, or by email at wiltse.wendy@epa.gov.

Clean Water Act Section 316(b)

As part of the preferred option, the project proponent has indicated that it is not including an intake screen due to difficulties associated with screen blockages, such as biofouling and organism impingement in deep waters, and the cost associated with cleaning and repair. Page 2-64 of the FEIS indicates that the project proponent has chosen to comply with CWA Section 316(b) via Track II requirements, rather than Track I requirements, due to the nature of the proposed intake technology. In order to comply with Track II, the proponent must submit, as part of its NPDES permit application, all the information required under 40 CFR 122.21(r) and 125.86(c). Subsequently, before receiving an NPDES permit, the proponent must fully demonstrate, to the satisfaction of EPA and Hawaii Department of Health, that the intake and cooling system utilize the best technology available. Given the innovative nature of the proposed project, few precedents are readily available; however, this may provide an opportunity to improve on existing intake screen technology.

Recommendations:

Consider the feasibility and utility of employing a breakaway screen design that would enable panels within the screen to collapse when a certain pressure differential is exceeded, e.g., due to debris accumulation and biofouling, thereby allowing for continued uninterrupted operation of the intake as an open intake until the system can be serviced. Evaluate the maintenance needs of such a design relative to those of a fixed screen.

Consider the feasibility of a velocity cap. Such a device redirects intake flow from a vertical open pipe to a horizontal orientation. Many fish use a physiological feature (known as the lateral line) to sense changes in velocity; however, these organisms are only capable of detecting changes in the horizontal plane—any changes in velocity in a vertical direction are missed. The velocity cap would provide nearby fish with a physiological trigger to avoid the intake structure.

For further assistance with issues pertaining to Clean Water Act Section 316(b), please contact Jamie Marincola in EPA Region 9's Water Division. Mr. Marincola can be reached at (415) 972-3520, or by email at Marincola.JamesPaul@epa.gov.