State of Hawaii, Department of Health, Clean Water Branch	Previously Assigned NGPC File No. (for renewal NOI only): HI _____
CWB NOI Form G	
Notice of Intent for HAR, Chapter 11-55, Appendix G - NPDES General Permit Coverage Authorizing Discharges Associated With Construction Activity Dewatering	

Before completing this form, read the *General Guidelines for NOI Forms B through L and Guidelines for CWB NOI Form G*. Alteration of the text in this form may delay the processing of this submittal.

G.1. Dewatering Discharge Information (see Guidelines for CWB NOI Form G - Note 1)

a. Quantity of Discharge: 4.0 (~~gallons~~/million gallons)

b. Rate of Discharge: 40,000 (~~cfs~~/gpd)

c. Frequency of Discharge (check the appropriate space(s)

Continuous ☐ Emergency ☐ Daily ☒ Intermittent ☐

G.2. Location Map (see Guidelines for CWB NOI Form G - Note 2)

a. A location map which shows the following is attached: Yes ☒ No ☐

i. Island on which the project is located, and — See Figure 1

ii. Location of the project. — See Figures 1 and 2

b. A topographic map or maps of the area which clearly show the following is/are attached:

Yes ☒ No ☐

i. Legal boundaries of the project, — See Figures 3 and 4

ii. Location and identification number of each of the project's existing and/or proposed outfalls or discharge points, — See Figure 4

iii. Receiving State water(s) and receiving storm water drainage system(s), if applicable, identified and labeled, and — See Figure 4

iv. Location(s) where the water quality sample was collected in relation to the proposed project. — See Figure 4

G.3. Flow Chart (see Guidelines for CWB NOI Form G - Note 3)

A flow chart or line drawing showing the general route taken by the dewatering effluent through the project from intake to the discharge point is attached.

Yes ☒ No ☐

G.4. Existing or Pending Permits, Licenses, or Approvals (see Guidelines for CWB NOI Form G - Note 4)

Provide the status and corresponding file numbers on any existing or pending environmental permits.

a. Other NPDES Permit or NGPC File No.: CWB-NOI Form C – NGPC File # pending.

b. DA Permit: To be prepared. Permit number pending.

c. Section 401 WQC: To be prepared. Permit number pending.

d. RCRA Permit (Hazardous Wastes): N/A

e. Facility on SARA 313 List (identify SARA 313 chemicals on site): N/A

f. Other (Specify): SCAP to be prepared. Permit number pending.

G.5. Site Characterization (see Guidelines for CWB NOI Form G - Note 5)

a. The history of the land use at the proposed construction site and surrounding area.

The Kaneohe area was used mainly for farming of plants such as taro, hala, wauke, and yams. After the late 1800's, cattle ranching took place. The dominant crops were sugar and rice in the 1880's and pineapple between 1910 and 1925. The project area is currently a residential subdivision.

b. The potential pollutant(s) that may be present and its source(s) at the proposed construction site and surrounding area.

Historic pollutants from historic agricultural or ranching activity is not expected to be present at the site.

G.6. Project Description (see Guidelines for CWB NOI Form G - Note 6)

a. General description of the construction activity, including the quantity of disturbed area (in acres)

The project includes demolition of existing drainage outlet structure, existing homes and walls. Construction of new concrete outlet structure, gabion walls and apron; installation of fences and gates; site grading and landscaping. The total project area is 2.04 acres, of which 1.57 acres will be disturbed by the proposed improvements. See Appendix A for construction drawings of the proposed improvements.

b. Portion of the project involving construction dewatering

Construction of the new concrete drainage outlet and gabion walls will be done within a temporary cofferdam. It is anticipated that dewatering of accumulated subsurface waters from within the cofferdam will be done.

c. Construction Schedule

☒ A proposed construction schedule is attached. An updated construction schedule will be submitted before the construction activity begins.

☐ The final schedule is attached.

d. The time frame of the proposed discharges (24 hours/day, working hours, etc.)

Discharge will occur daily to remove accumulated water from within the cofferdam.

G.7. Physical Source Water Quality (see Guidelines for CWB NOI Form G - Note 7)

Check the appropriate column.

Parameter	Believe Present	Believe Absent
Floating Debris		X
Scum or Foam	X	
Color	X	
Odor		X

G.8. Water Quality Parameters (see Guidelines for CWB NOI Form G - Note 8)

a. All parameters must be tested and reported. Provide laboratory data sheets in addition to completing the following table.

Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54 (**)
Total Nitrogen (1 µg/l)	3200	µg/l	SM4400 NO3E, N Org B	500	800/600
Ammonia Nitrogen (1 µg/l)	220	µg/l	SM4500 NH3 B/C	100	None
Nitrate + Nitrite (1 µg/l)	470	µg/l	SM4500 NO3-E	100	300/170
Total Phosphorus (1 µg/l)	<200	µg/l	SM4500 P B/E	200	150/80
Turbidity (0.1 NTU)	8.65	NTU	EPA 180.1 Rev. 2.0 (1993)	0.01	25/10
Total Suspended Solids (1 mg/l)	28.8	mg/l	SM 2540D (1998)	0.1	80/55
pH (0.1 standard units)	7.09		SM4500 H+ (1998)	0.1	±0.5 5.5 – 8.0

Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54 (**)
Dissolved Oxygen (0.1 mg/l)	2.04	mg/l	YSI meter / SM4500-O G 91998)	0.1	See %sat below
Oxygen Saturation (1%)	24	%	calculated	0.1	≥ 80%
Temperature (0.1 °C)	24.0	°C	YSI meter / SM2550B (1998)	0.1	±1°C
Salinity (0.1 ppt)	n/a	ppt			
or Chloride (0.1 mg/l)*	n/a	mg/l			
or Conductivity (1 µmhos/cm)*	195	µmhos/cm	SM2510B (1998)	1	≤300
Oil and Grease (1 mg/l)	< 1.0	mg/l	EPA 1664A	1.0 mg/l	None

* Fresh waters and effluent samples
** Wet/Dry Season parameters, where indicated.

b. Provide explanation and evaluation of the source water quality data with respect to the applicable specific numeric criteria for the receiving water(s) specified under the HAR, Chapter 11-54.

The results of the source water quality analysis is included in Appendix B. Comparison of the analysis results against State water quality criteria for dry season reveals that parameters for total phosphorus, nitrate + nitrite, and oxygen saturation are exceeded. These parameters might likewise be exceeded during construction and post-construction sampling.

c. Quality Assurance/Quality Control (QA/QC) and Chain of Custody Documents

☒ The QA/QC and chain of custody documents are submitted as an attachment to CWB NOI Form G.

If not, explain why:

G.9. Toxic Parameters (see Guidelines for CWB NOI Form G - Note 9 and Glossary of Chemicals in General Guidelines for NOI Forms B through L - Note V)

Provide laboratory data sheets in addition to completing the following tables. In cases when test results are not available at the time of the NOI submission, complete the columns for Test Method, Method Detection Limit, and HAR, §11-54-4(b)(3) for parameters believed to be present. For parameters not believed present, indicate “N/A” for “not applicable” in the Test Result column. If the Test Result column is left blank, the CWB will consider the parameter to be present and test results will be required.

a. Metals

Total Recoverable Metal Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Aluminum	n/a	µg/l			
Antimony	n/a	µg/l			
Arsenic	n/a	µg/l			
Beryllium	n/a	µg/l			
Cadmium	n/a	µg/l			
Chromium (VI)	n/a	µg/l			
Copper	n/a	µg/l			
Lead	n/a	µg/l			
Mercury	n/a	µg/l			
Nickel	n/a	µg/l			
Selenium	n/a	µg/l			
Silver	n/a	µg/l			
Thallium	n/a	µg/l			
Tributyltin	n/a	µg/l			
Zinc	n/a	µg/l			

b. Organonitrogen Compounds

Organonitrogen Compound Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Benzidine	n/a	µg/l			
2,4-Dinitro-o-cresol	n/a	µg/l			
Dinitrotoluenes	n/a	µg/l			
1,2-Diphenylhydrazine	n/a	µg/l			
Nitrobenzene	n/a	µg/l			
Nitrosamines	n/a	µg/l			
N-Nitrosodibutylamine	n/a	µg/l			
N-Nitrosodiethylamine	n/a	µg/l			
N-Nitrosodimethylamine	n/a	µg/l			
N-Nitrosodiphenylamine	n/a	µg/l			
N-Nitrosopyrrolidine	n/a	µg/l			

c. Pesticides

Pesticide Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Aldrin	n/a	µg/l			
Chlordane	n/a	µg/l			
Chlorpyrifos	n/a	µg/l			
DDT	n/a	µg/l			
Demeton	n/a	µg/l			
Dieldrin	n/a	µg/l			
Endosulfan	n/a	µg/l			
Endrin	n/a	µg/l			
Guthion	n/a	µg/l			
Heptachlor	n/a	µg/l			
Lindane	n/a	µg/l			
Malathion	n/a	µg/l			
Methoxychlor	n/a	µg/l			
Mirex	n/a	µg/l			
Parathion	n/a	µg/l			
TDE - metabolite of DDT	n/a	µg/l			
Toxaphene	n/a	µg/l			

d. Phenols

Phenol Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
2-Chlorophenol	n/a	µg/l			
2,4-Dichlorophenol	n/a	µg/l			
2,4-Dimethylphenol	n/a	µg/l			
Nitrophenols	n/a	µg/l			
Pentachlorophenol	n/a	µg/l			
Phenol	n/a	µg/l			
2,3,5,6-Tetrachlorophenol	n/a	µg/l			
2,4,6-Trichlorophenol	n/a	µg/l			

e. Phthalates

Phthalate Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Bis (2-ethylhexyl) phthalate	n/a	µg/l			
Dibutyl phthalate (esters)	n/a	µg/l			
Diethyl phthalate (esters)	n/a	µg/l			
Dimethyl phthalate (esters)	n/a	µg/l			

f. Polynuclear Aromatic Hydrocarbons

Polynuclear Aromatic Hydrocarbon Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Acenaphthene	n/a	µg/l			
Fluoranthene	n/a	µg/l			
Naphthalene	n/a	µg/l			
Polynuclear aromatic hydrocarbons	n/a	µg/l			

g. Volatile Organics

Volatile Organic Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Acrolein	n/a	µg/l			
Acrylonitrile	n/a	µg/l			
Benzene	n/a	µg/l			
Carbon tetrachloride	n/a	µg/l			
Bis(2-chloroethyl)ether	n/a	µg/l			
Bis(chloroethers-methyl)	n/a	µg/l			
Bis(chloroisopropyl)ether	n/a	µg/l			
Chloroform	n/a	µg/l			
Dichlorobenzenes	n/a	µg/l			
Dichlorobenzidine	n/a	µg/l			
1,2-Dichloroethane	n/a	µg/l			
1,1-Dichloroethylene	n/a	µg/l			
Dichloropropanes	n/a	µg/l			
1,3-Dichloropropene	n/a	µg/l			
Ethylbenzene	n/a	µg/l			
Hexachlorobenzene	n/a	µg/l			
Hexachlorobutadiene	n/a	µg/l			

Volatile Organic Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Hexachlorocyclohexane, alpha	n/a	µg/l			
Hexachlorocyclohexane, beta	n/a	µg/l			
Hexachlorocyclohexane, technical	n/a	µg/l			
Hexachlorocyclopentadiene	n/a	µg/l			
Hexachloroethane	n/a	µg/l			
Isophorone	n/a	µg/l			
Pentachlorobenzene	n/a	µg/l			
Pentachloroethanes	n/a	µg/l			
1,2,4,5-Tetrachlorobenzene	n/a	µg/l			
1,1,2,2-Tetrachloroethane	n/a	µg/l			
Tetrachloroethanes	n/a	µg/l			
Tetrachloroethylene	n/a	µg/l			
Toluene	n/a	µg/l			
1,1,1-Trichloroethane	n/a	µg/l			
1,1,2-Trichloroethane	n/a	µg/l			
Trichloroethylene	n/a	µg/l			
Vinyl chloride	n/a	µg/l			

h. Others

Other Parameter	Test Result	Units	Test Method	Method Detection Limit	HAR, §11-54-4(b)(3)
Chlorine	n/a	µg/l			
Cyanide	n/a	µg/l			
Dioxin	n/a	µg/l			
Polychlorinated biphenyls	n/a	µg/l			

i. Provide an explanation addressing the evaluation of the toxic pollutants analyzed and an evaluation of the source water quality data collected with respect to the numeric standards for the toxic pollutants for the receiving water(s) as specified under HAR, Chapter 11-54.

Based on the historic use of the area, its time relative to the current activity, the current residential use of the area, and the source of the effluent (subsurface and stormwater) we do not believe that any of the toxic parameters listed above will be present in the groundwater at or near the project site. Toxic pollutants were not detected during the water quality monitoring of Kapunahala Stream during construction of drainage improvements for the Kahekili Highway project (WQC 229), Army File No. NW 95-017.

G.10. Dewatering Facility Designer Information (see Guidelines for CWB NOI Form G - Note 10)

Legal Name: ParEn, Inc. dba Park Engineering

Mailing Address: 711 Kapiolani Blvd., Suite 1500

City, State and Zip Code+4: Honolulu, HI 96813-5273

Street Address: 711 Kapiolani Blvd., Suite 1500

City, State and Zip Code+4: Honolulu, HI 96813-5273

Contact Person & Title: Mr. Russell Arakaki, Project Manager

Phone No.: (808) 593-1676 Fax No.: (808) 593-1607

G.11. Treatment Facility Designer Information (see Guidelines for CWB NOI Form G - Note 11)

Legal Name: ParEn, Inc. dba Park Engineering

Mailing Address: 711 Kapiolani Blvd., Suite 1500

City, State and Zip Code+4: Honolulu, HI 96813-5273

Street Address: 711 Kapiolani Blvd., Suite 1500

City, State and Zip Code+4: Honolulu, HI 96813-5273

Contact Person & Title: Mr. Russell Arakaki, Project Manager

Phone No.: (808) 593-1676 Fax No.: (808) 593-1607

G.12. Dewatering Plan (see Guidelines for CWB NOI Form G - Note 12)

a. Dewatering Plan shall be designed to ensure the discharge will comply with the basic water quality criteria specified under HAR, Chapter 11-54.

i. The pumping devices to be used, their pumping capacity, and the number of devices to be used

Since numerous available pump types, sizes and configurations would perform equally to produce the desired result of removing water from the excavation, only general guidelines for pump selection are provided. In general, the pump should be submersible type with either internal combustion or electric motor. The pump should be capable of operating in either constant operation or intermittent operation modes. The pump should be capable of operating at a minimum volumetric output rate of 20 GPM. Two pumps are to be provided, with one acting as a stand-by replacement pump in the event the primary pump fails.

ii. Treatment design

A sump pit will be dug within the cofferdam to help separate silt and debris from the dewatering effluent. A pump will route the accumulated water from the cofferdam sump pit to a settling basin. The settling basin, holding tank, or similar storage vessel should have a minimum storage capacity of 40,000 gallons, or 5,350 cubic feet (24-hour dewatering volume). Within the settling basin, the effluent will pass through a filter device (gravel bags, gravel berm, silt fence, etc.) before being tested for water quality criteria. If water quality criteria is met, the effluent will be discharged to the stream. If water quality criteria is not met, additional filtering, settlement or other means will be undertaken until water quality criteria is met.

iii. Design concerns

Although the soil's permeability coefficient (used to calculate the anticipated dewatering rate and volume) is based on soil samples taken at the site, the soil permeability at the exact location of the dewatering might differ from the assumed values and might affect actual dewatering rates.

iv. Calculations used in the treatment design

The various assumptions, recommendations, and calculations can be found in Appendix C of the attachment.

v. Proposed mitigative measures

Add additional filter media at sump pit, suction pipe, and/or effluent pipe; route effluent through additional filter device; use a larger settling basin; allow additional time for settling of silt before testing and discharge; add a secondary settling basin (use one for collecting effluent and other for settling and testing); discharge effluent from still basin; construct mud slab in cofferdam to minimize groundwater intrusion.

b. ☐ The Site-Specific Dewatering Plan is submitted as an attachment to CWB NOI Form G.

☒ The Site-Specific Dewatering Plan will be submitted 30 days before the start of the construction dewatering activities.

G.13. Dewatering System Maintenance Plan (see Guidelines for CWB NOI Form G - Note 13)

a. The dewatering system maintenance plan shall ensure that the dewatering effluent discharge will meet conditions of this General Permit, basic water quality criteria, and applicable specific water quality parameters.

i. Schedule of activities

Maintain pump in good working order; clean suction and effluent pipes; remove accumulated sediment and debris from settling basin regularly; clean and replace filters as needed; conduct inspection of dewatering and treatment systems daily; keep a log of inspection and maintenance activity.

ii. Operation and maintenance procedure to prevent or reduce the pollution of state water, including:

(1) Responsible field person of the system, by title or name

Information will be submitted by contractor as part of site-specific submittal.

(2) Operations plan

Submit site-specific dewatering plan at least 30 calendar days prior to start of construction activity; install erosion control devices and temporary construction site BMPs according to the contract documents; Install cofferdam according to the plans; Begin excavation activity within cofferdam; Keep excavated material away from excavation pit; Begin dewatering when water begins to accumulate within the excavation; Route effluent to dewatering treatment system; Conduct water quality monitoring and testing activity; Perform daily inspection and maintenance on the dewatering system as needed; Modify dewatering procedure according to the proposed mitigative measures when and if the construction dewatering effluent does not meet the conditions of the General Permit, basic and specific water quality criteria.

(3) Maintenance scheduling or action criteria

Conduct inspection of the dewatering and effluent treatment system daily. Immediately repair or replace any component of the dewatering and treatment systems that are not working properly.

(4) Maintenance program

The maintenance program shall consist of repairs to or replacement of pumping equipment and hoses, removal of accumulated silt and debris from the settling basin, removal of accumulated silt from the sump pit, and cleaning or replacement of the filter. Daily logs of the inspection and maintenance activities shall be kept. If repair of equipment is needed, it shall be performed immediately or the equipment shall be replaced.

(5) Sediment Handling and Disposal Plan

All accumulated sedimentation that is removed from the excavation, sump pit, or settling basin shall be stockpiled at designated material storage pits. The dried material, if accepted by the Engineer, can be used as onsite fill material. If the material is not accepted, it shall be disposed of offsite by the contractor as general waste material according to State disposal laws.

(6) Monitoring and visual inspection program

Perform daily monitoring and inspection of the dewatering and effluent treatment Systems. Inspect the pump, hoses, filters, sediment basin, and quality of discharge. Temporarily stop dewatering activity if any component of the dewatering or effluent treatment system is not working properly, until repairs are made. Keep a log of daily inspections and any maintenance performed.

(7) Cessation of discharge plan

Stop discharge of effluent if: water quality criteria does not meet the conditions of the General Permit or water quality criteria; the dewatering and effluent treatment systems are not in proper working order; when dewatering is not needed; or when instructed by the State of Hawaii Department of Health.

(8) Effluent control plan

Normal dewatering operation shall consist of daily inspection of the dewatering equipment and effluent treatment system, activation of the dewatering equipment, routing of the effluent to the treatment system, testing of the treated effluent, and discharge of acceptable effluent to the stream.

iii. Treatment requirements

All dewatering effluent shall be routed from the excavation to the effluent treatment system. The treatment system shall be capable of removing or otherwise mitigating the dewatering effluent such that water quality criteria is met.

b. ☐ The Site-Specific Dewatering System Maintenance Plan is submitted as an attachment to CWB NOI Form G.

☒ The Site-Specific Dewatering System Maintenance Plan will be submitted 30 days before the start of construction dewatering activities.

G.14. Construction Pollution Prevention Plan (see Guidelines for CWB NOI Form G - Note 14)

Construction pollution prevention plan to prevent or reduce the pollution of State waters due to other discharges. The construction pollution prevention plan shall include:

a. Prohibited practices,

Discharging the dewatering effluent without appropriate permits, treatment or when physical changes are discovered; continuing the dewatering operation when contamination is encountered; storing construction materials near the dewatering site; falsifying the dewatering effluent water quality test report to conform to basic water quality criteria.

b. Other management practices to prevent or reduce the pollution of state waters, and

Provide stormwater management training to all employees; designate material storage areas that are located away from watercourses and protected from stormwater runoff; store and handle all construction materials according to manufacturer's requirements; develop a spill control plan; and designate and train personnel to address spill cleanup; use and apply fertilizers, detergents, herbicides, or any other construction material according to manufacturer's recommendations (restrict to minimum use required to complete the intended job); clean construction vehicles and equipment at designated egress locations prior to the vehicle entering public streets; maintain construction vehicles and equipment in proper operating condition; immediately perform repairs to vehicles that are leaking any fluids; maintain all construction site BMPs and temporary erosion control devices in proper working condition.

c. Practices to control project site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage or stockpiling area(s).

Install erosion control devices and temporary construction BMPs s indicated in the plans; Store hazardous materials and wastes in covered containers and protect containers from vandalism or the elements; Keep and maintain a supply of cleanup materials for spills; Keep and contain sludge and waste disposal in designated material storage pits; Cover stockpiled material with tarpaulin or otherwise protect from stormwater and the elements; Place silt fence, straw rolls or gravel bags around stockpiles.

☐ The Site-Specific Construction Pollution Prevention Plan is submitted as an attachment to CWB NOI Form G.

☒ The Site-Specific Construction Pollution Prevention Plan will be submitted 30 days before the start of construction dewatering activities.

G.15. Additional Information (see Guidelines for CWB NOI Form G - Note 15)

None.