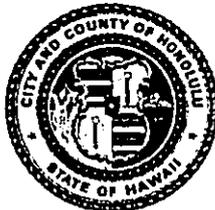


DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

C. MICHAEL STREET
ACTING DIRECTOR AND CHIEF ENGINEER
RECEIVED
IN REPLY REFER TO:

'92 MAR 16 92-12-015B 2:19

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

March 16, 1992

Mr. Brian Choy, Director
Office of Environmental Quality Control
State of Hawaii
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Choy:

Subject: Negative Declaration for Kaelepulu and Kawainui Streams Maintenance
Dredging Project, Kailua, Oahu, Hawaii, Tax Map Key: 4-2

This letter is a notice of Negative Declaration by the proposing agency, the City and County of Honolulu, Department of Public Works. The subject action has been assessed according to Title 11, Chapter 200, Environmental Impact Statement Rules, and Chapter 343, HRS.

A determination has been made that an environmental impact statement is not required based on an environmental assessment which was prepared by Paren, Inc. and Environmental Communications, Inc. for the Department of Public Works. Four copies of the environmental assessment are enclosed.

The pertinent information for this notice of determination is summarized below:

1. **Proposing Agency.** City and County of Honolulu, Department of Public Works.
2. **Description of the Proposed Action.** The proposed action involves maintenance dredging of sediment, silt, debris and vegetation from Kaelepulu and Kawainui Streams. The project will restore the streams to their original design and siltation storage capacity. There will be no increased widening or deepening of the streams.

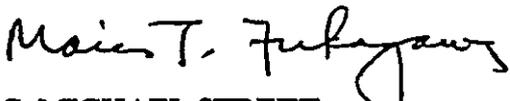
The anticipated cost is \$3,000,000 which will be funded by the City's Operating Budget.

Mr. Brian Choy
March 16, 1992
Page 2

3. **Determination.** After consulting other agencies and completing the environmental assessment, we have determined that the proposed improvement will not have a significant impact on the environment; therefore, an environmental impact statement is not required.
4. **Reasons Supporting the Determination.**
 - a. The proposed action does not adversely affect the physical or social welfare of the community.
 - b. The proposed action does not change the existing land use and zoning.
 - c. No rare or endangered wildlife or plantlife exists in the affected area.
 - d. There is no conflict with the State's long-term environmental policies or goals.
 - e. No historical or archaeological sites will be affected.
5. **Contact Person.**

ParEn, Inc.
c/o Environmental Communications, Inc.
P.O. Box 536
Honolulu, Hawaii 96809
Attention: Mr. Fred Rodriguez
Telephone: 521-8391

Very truly yours,

fn 
C. MICHAEL STREET
Acting Director and Chief Engineer

Encl.

1992-03-03-0A-*FEA-Kaelepulu + Kawainui*
Streams Maintenance Dredging

MAR 23 1992

Environmental Assessment

For the

KAELEPULU AND KAWAINUI STREAMS

MAINTENANCE DREDGING

PROJECT

KAILUA, OAHU, HAWAII

Job. No.24-91

This Environmental document prepared pursuant to Chapter 343, HRS

PREPARED FOR
DIVISION OF ENGINEERING

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

Responsible Official: C. Michael Street 3/12/92
C. Michael Street, Acting Director and Chief Engineer Date

PREPARED BY

ParEn, Inc.
Environmental Communications, Inc.

Environmental Assessment
For the
KAELEPULU AND KAWAINUI STREAMS
MAINTENANCE DREDGING
PROJECT
KAILUA, OAHU, HAWAII

Job. No.24-91

This Environmental document prepared pursuant to Chapter 343, HRS

PREPARED FOR
DIVISION OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

Responsible Official: C. Michael Street 3/12/92
C. Michael Street, Acting Director and Chief Engineer Date

PREPARED BY
ParEn, Inc.
Environmental Communications, Inc.

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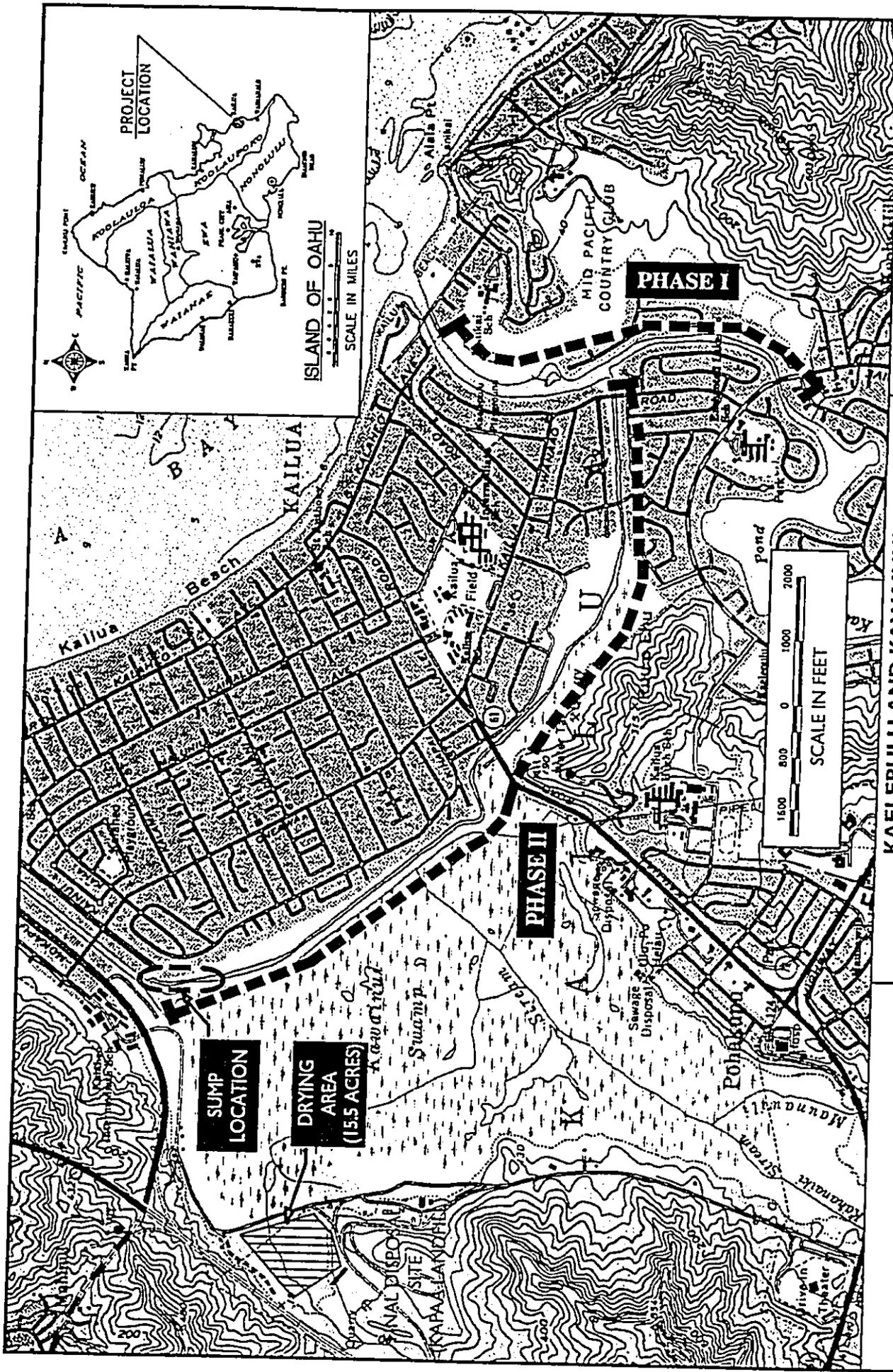
FIGURE

1. PROJECT LOCATION
2. SITE PLAN - PHASE I, KAELEPULU STREAM
3. SITE PLAN - PHASE II, KAWAINUI STREAM
4. SMA BOUNDARY MAP
5. STATE CONSERVATION DISTRICT BOUNDARY MAP

LIST OF EXHIBITS

EXHIBITS

- A. Chemical Analysis - Soil Samples from Kaelepulu and Kawainui Streams, Kailua, Oahu, Hawaii by GEOLABS-Hawaii, July 29, 1991.
- B. Honolulu Advertiser, April 2, 1991 news article "Stench from Enchanted Lake explained".
- C. Letter dated December 18, 1991 from State Department of Health, Environmental Management Division re: Daily Cover Material for Sanitary Landfill
- D. AECOS - Water quality sampling report dated 1/16/92



DIVISION OF ENGINEERING
 DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF HONOLULU

**KAELEPULU AND KAWAINUI
 STREAMS MAINTENANCE DREDGING**
 KAILUA, OAHU, HAWAII
 PROJECT LOCATION MAP
 JOB NO. 24-91

Prepared by:
 ParEn, Inc. dba Park Engineering
 Engineers, Surveyors, Planners

FIGURE 1

I. SUMMARY

CHAPTER 343, HAWAII REVISED STATUTES (HRS)
ENVIRONMENTAL ASSESSMENT

Proposing Agency: Department of Public Works
City & County of Honolulu

Project Name: Kaelepulu and Kawainui Streams
Maintenance Dredging
Job No. 24-91

Project Description: The proposed project involves maintenance dredging of sediment, silt, debris, and vegetation from the Kaelepulu and Kawainui Streams. (See Figure 1) . The project will be done in two phases, with Phase I focusing on the Kaelepulu Stream. (See Figure 2). This phase will involve a stream length of approximately 7050 feet, commencing at the entry point of Kaelepulu Pond near Akalei Place. The termination point will be at the upstream side of Kawailoa St. bridge. Phase II work is Kawainui Stream, approximately 12,900 feet long, running makai of the Kawainui Marsh and ending near Kawainui Canal. (See Figure 3) The stock piling and drying area consists of 15.5 acres of Kaneohe Ranch lands located adjacent to the Ameron Quarry above Quarry Road. (See Figure 3) .The dried silt material will be used as cover for the Kapaa Landfill, while the vegetation will be mulched into compost material. The two phase dredging will be done to a depth of approximately (-7') to (-8') feet below mean sea level elevation. An approximate total of 126,000 cubic yards of material will be removed in the two phase operation.

Project Location: Phase I: Kaelepulu Stream
Tax Map Key: 4-2-02: 32
 4-2-39: 76
 4-2-49: 87

Phase II: Kawainui Stream
Tax Map Key: 4-2-01: por 1, 5, 49,50,55
 : 4-2-03: por 29
 : 4-2-16: por 01
 : 4-2-75: por 01
 : 4-2-77: por 106, 107

Stock Piling/Drying Area
Tax Map Key: 4-2-15: por 6

State Land Use: Urban,
 Conservation (See Subzones)
 Phase I: General subzone
 Phase II: Protective Subzone

Permits Required:

U.S.Army Corps of Engineers
General Permit

State Department of Land and Natural Resources -
Stream Diversion Works Construction Permit
Stream Diversion Works Alteration Permit
Petition to Amend Interim Instream Flow Standard

State Department of Health -
Clean Water Certification Section 401 permit

City & County Department of Land Utilization,
SMA permit (permit exempted re: DLU letter dated 3-4-92)

City & County Department of Public Works,
Grading permit

Contact: ParEn, Inc. c/o
 Environmental Communications, Inc.
 P.O. Box 536
 Honolulu, HI 96809
 Telephone: 521-8391
 Attention: Fred Rodriguez

PROJECT TAX MAP KEYS

City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813-3036
Phone : (808) 527-6246

Kaneohe Ranch Company
Castle Junction
P.O. Box L
Kaneohe, Hawaii 96744
Phone : (808) 247-2184

PHASE I - KAELEPULU STREAM

TAX MAP KEY 4-2-02:32
TAX MAP KEY 4-2-39:76
TAX MAP KEY 4-2-49:87

City and County of Honolulu
City and County of Honolulu
City and County of Honolulu

PHASE II - KAWAINUI STREAM

TAX MAP KEY 4-2-01:por. 1,5,49,50,55
TAX MAP KEY 4-2-03:por. 29
TAX MAP KEY 4-2-16:por.01
TAX MAP KEY 4-2-75:por.01
TAX MAP KEY 4-2-77:por.106, 107

James C. Castle Estate
James C. Castle Estate
City and County of Honolulu
City and County of Honolulu
City and County of Honolulu

STOCKPILE / DRYING AREA

TAX MAP KEY 4-2-15:por. 6

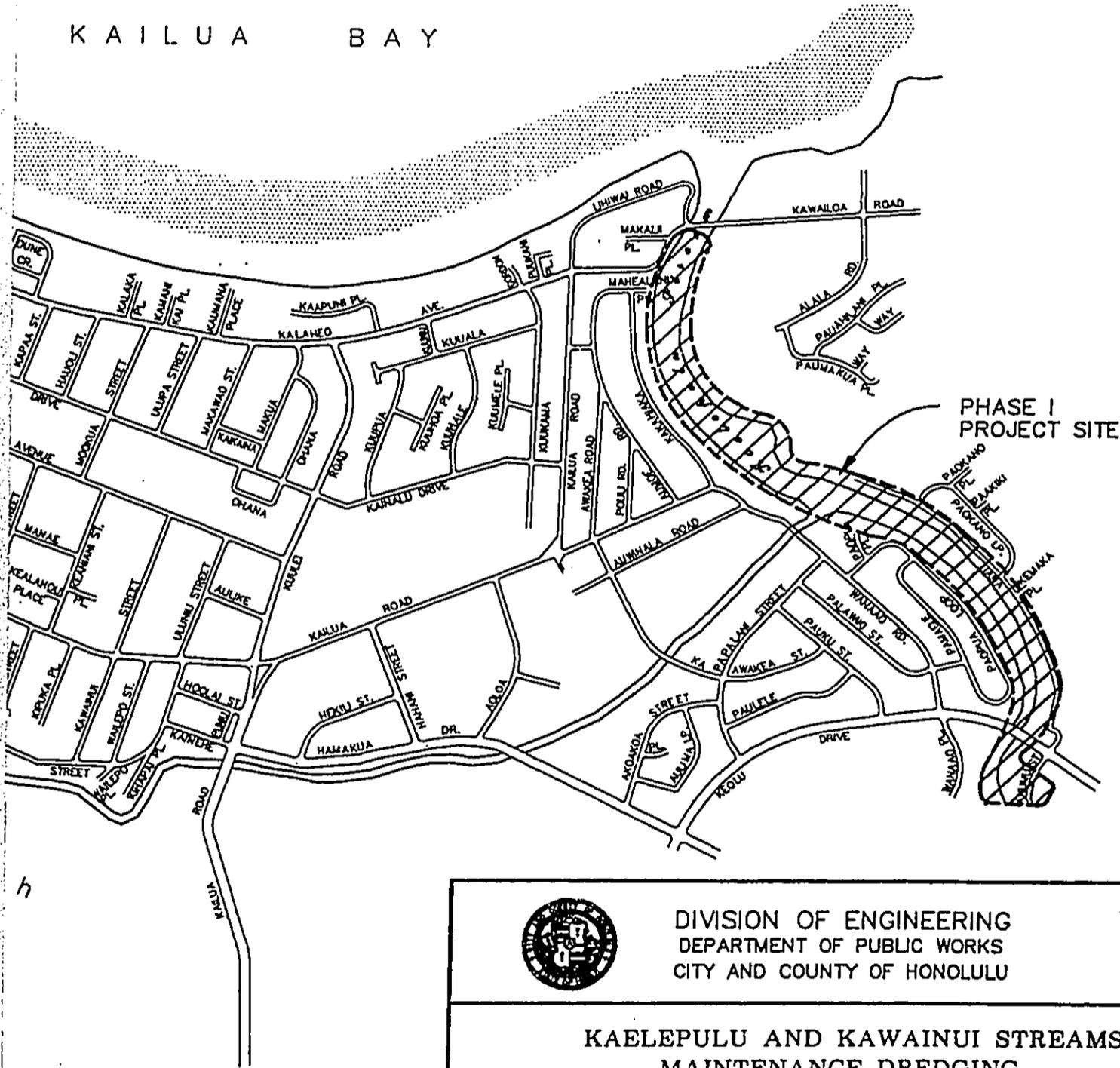
Michael C. Baldwin Trust
Kaneohe Ranch Company

The James C. Castle Estate and Michael C. Baldwin Trust is managed by the Kaneohe Ranch Company.



OAHU

KAILUA BAY



DIVISION OF ENGINEERING
 DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF HONOLULU

KAELEPULU AND KAWAINUI STREAMS MAINTENANCE DREDGING

KAILUA, OAHU, HAWAII

PROJECT SITE MAP

PHASE I

JOB NO. 24-91

FIGURE 2



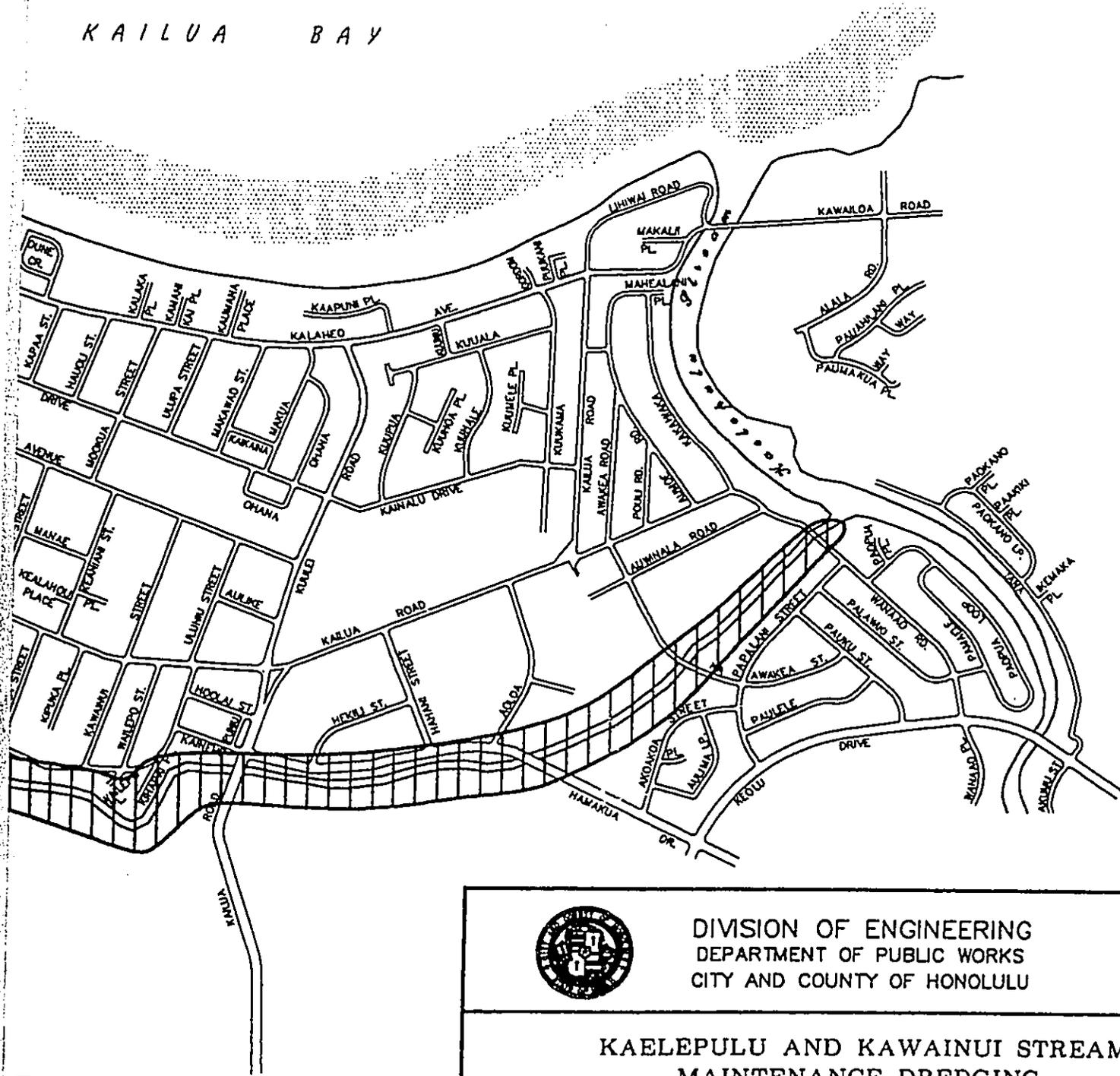
Prepared by :
 ParEn, Inc.
 dba Park Engineering
 Engineers, Surveyors, Planners

DOE 12/31/91 KADPH



OUND

KAILUA BAY



DIVISION OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

KAELEPULU AND KAWAINUI STREAMS
MAINTENANCE DREDGING
KAILUA, OAHU, HAWAII

PROJECT SITE MAP

PHASE II

JOB NO. 24-91

FIGURE 3

Prepared by :



ParEn, Inc.
dba Park Engineering
Engineers, Surveyors, Planners

12/31/91
JCE
K100P-6

II PROJECT DESCRIPTION

A. Project Location

The Phase I segment of this proposed project (Kaelepulu Stream) is the drainage outlet from Kaelepulu Pond. Runoff source is from above the Kalaniana'ole Highway and the stream provides an outlet for the drainage basin of the Olomana Peak and the Koolau mountain range. This drainage basin is 3337 acres and is zoned Agriculture and Conservation. The average annual rainfall for the Koolau Range is 86 inches and takes place in two separate or seasonal events. The cooler or wetter phase is during the months of October to April, and the drier or warmer summer phase occurs from May to September. Prevailing east north-east tradewinds are prevalent through April to September, with wind shifts during the winter months to north north-east, which result in cooler temperatures and more rainfall.

Kaelepulu Stream is located in the Enchanted Lakes and Mid-Pacific Country Club area, and is fringed with single family detached homes. Many of the residential homes have improved on their stream frontage, with physical improvements ranging from boat piers to structural improvements, i.e. walls, swimming pools, etc. The extent of dredging will be limited to restore the design capacity of Kaelepulu Stream as a drainage outlet from Kaelepulu Pond. There have been instances of stream overflow due to the sediment overload in the stream bed; however, there have been no recorded instances of property damage, and this project will relieve this potential risk. Phase II is the portion of the project that turns left at the confluence of Kaelepulu Stream as it turns north-west and joins Kawainui Stream. (See Figure 3) This portion of the project runs approximately 12,900 feet along the makai boundary of Kawainui Marsh, terminating at the Kawainui Canal.

B. Environmental Characteristics

Kaelepulu Stream is characterized by California grass (*Brachiaria mutica*) and honohono grass (*Commelina diffusa*). Mangrove trees have also established themselves

and will have to be removed wherever occurrence is in the stream alignment proper. Dredging will also result in the improvement of stream flow rates and the reduction of potential flood hazards. The environmental setting of Kaelepulu Stream is such that unlike the Kawainui Marsh, this waterway is not considered a prime wildlife habitat suitable for nesting or as a refuge. It can be a source for foraging/feeding, and "loafing" as birds pass through. The stream biota is dominated by warm water exotic species such as tilapia and mosquitofish, with documentation of freshwater turtles in the Kawainui Stream (Phase II). Freshwater crayfish, frogs, toads, and snails can also be found along the stream banks. Mongoose, feral dogs and cats also are likely to be found and are considered predators to the avifauna found in the stream as well as in Kawainui Marsh. There are no known endangered species on the Phase I segment of this project; however, along the Phase II which takes Kaelepulu Stream towards the Kawainui marsh, the Kawainui Stream is a known feeding habitat for the Hawaiian Coot and the Hawaiian Stilt. These two endangered birds favor open waterways, with shallow, mudflat and vegetation interface conditions. There are no known archaeological or historical sites located at the two project stream alignments. Previous historic/archaeological work has been conducted within the Kawainui Marsh area and also on the adjacent hard ground sectors near the Kapaa Quarry and Kapaa Landfill. The State Historic Preservation Division (SHPD), Department of Land and Natural Resources (DLNR) will be consulted in the event that dredging reveals previously undiscovered sites. All work will stop and the SHPD will evaluate any finds uncovered to assess the value of the find. The proposed dredging is not anticipated to impact this previously studied cultural and historic field. Laboratory analysis of soil samples taken during June, 1991 indicated that the volatile and semi-volatile materials found in the soil samples were within or below regulatory levels of detection. (See Exhibit A.) A sediment monitoring program is being evaluated by the City as a possible control device during the stream dredging program. If implemented, this program will be a contractor requirement to monitor the impacts on the stream water quality and also, the impact on the stream biota.

III. SUMMARY OF MAJOR IMPACTS AND PROPOSED MITIGATION MEASURES

The proposed stream maintenance dredging will not have any significant long term adverse impact on the environment. There will be temporary impacts due to the dredging, i.e. increased turbidity and certain loss of marine life that would be caught in the suction dredging intake line. At the conclusion of the dredging, the site will recover, and improve with the increased stream flow rate. The restoration of the stream to the original design capacity and siltation storage capacity will reduce the potential flood hazard risks and release of silt into the coastal zone.

The recommended method of silt removal will be to use suction pumping equipment that will be operating from small, low draft work barges. Mechanical means will be used to remove vegetation from the stream banks and waterways; this will be the case for locations in close proximity to residential areas. The exact type of machinery will depend upon the type of bids received and their evaluation by the City & County of Honolulu for the dredging contract. Debris within the stream alignment could also pose problems to the removal of the silt and vegetation. It is envisioned that conventional cranes can operate from segmented barges, using a claw to remove vegetation and debris, (solid refuse such as tires, abandoned appliances and furniture, etc.). Ideally, the equipment should include a rototiller to root out plants, a rake or claw to draw the vegetation to the barge, a clam bucket to remove sediment, vegetation, and debris into smaller material barges, and suction pumps for cleanup maintenance dredging.

Vegetation removed from Kaelepulu Stream will be placed initially in small transport barges, and taken to a contractor work site on City owned lands where the vegetation will be removed from the barges and transported by trucks to the stock piling/ drying site. Sediment will be suction dredged from Kaelepulu Stream and pumped directly to a sump area at the end of Kawainui Stream. Booster pumps will facilitate the movement of the sediment/slurry material to the sump

area. The sump area will consist of a two tiered weir system that will permit sediment to settle out prior to discharge water returning to Kawainui Stream. All materials removed from the stream and collected in the sump will be removed and hauled in enclosed and sealed bed trucks. The material will then be hauled to a designated stock pile and drying area adjacent to the Kapaa landfill. The 15.5 acre site is owned by Kaneohe Ranch and will be prepared prior to use to mitigate runoff and percolation into the Marsh. The site will be bermed and lined so that percolation and leachate problems will be minimized. The vegetation materials will be processed by chipping or shredding, so that it can be used as an additive soil constituent. The City Department of Parks & Recreation has expressed interest in the *by-product for use* in their ongoing island wide parks' maintenance programs.

One impact that will result from the stream maintenance dredging will be the release of hydrogen sulfide gas as the stream sediment is exposed to the air. (See Exhibit B.) This is an unfortunate by-product of dredging when the work takes place in a site that is primarily a drainageway. Adjacent residential homes will experience varying degrees of discomfort during the dredging operation, but it will be temporary.

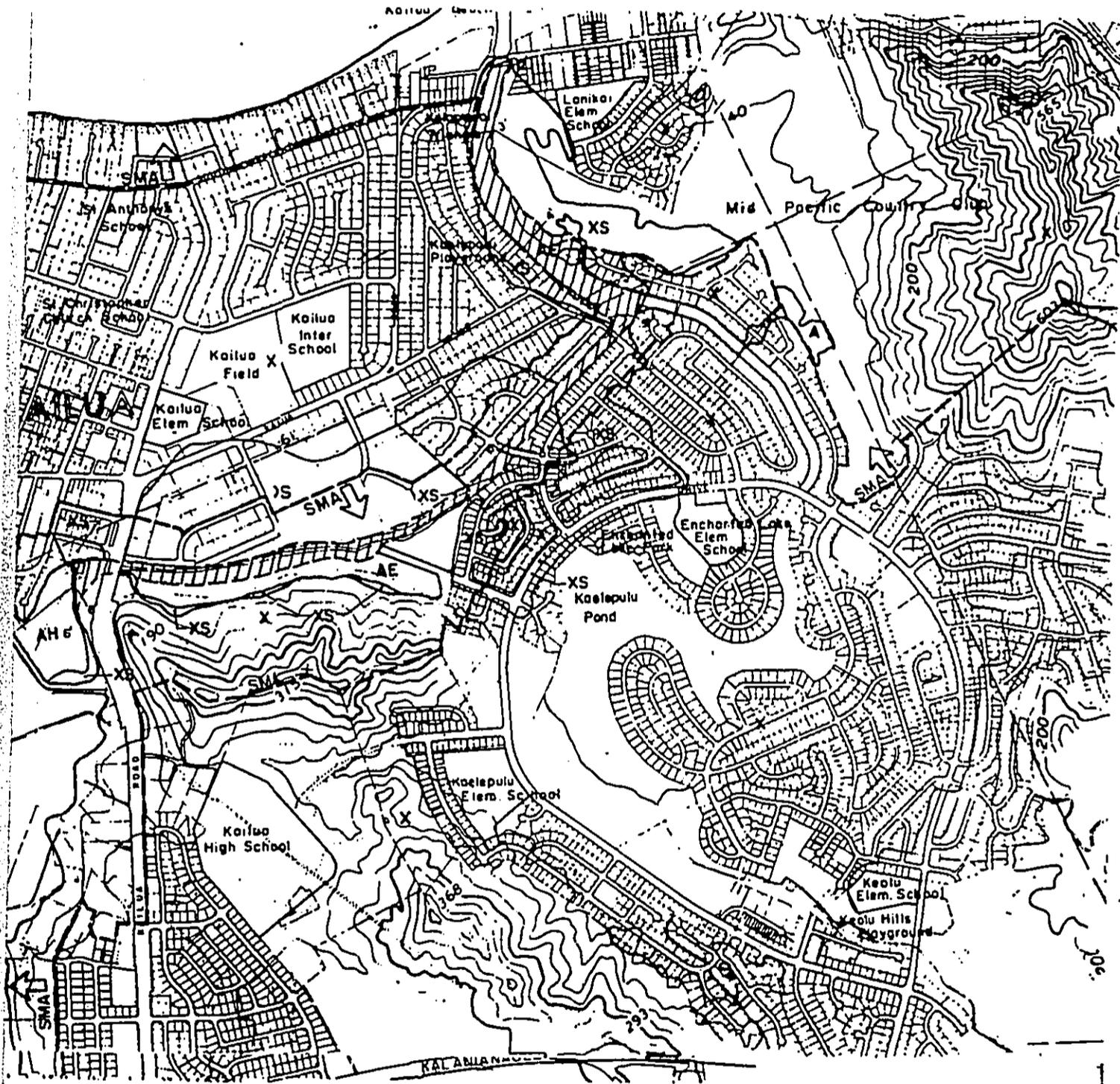
Potential impacts from the dredging process on the nearshore waters of Kailua Bay will be mitigated by the following: a) the natural, physical sand barrier at the Kailua Bay shore edge is a natural barrier in that the invert elevation at the Kawailoa Bridge is at -4', which in turn acts as a settlement basin, releasing only a minimal amount of stream flow. b) As a further safeguard, the contractor performing the work will be required to halt all dredging work when heavy rainfall creates a stream flow volume that would require the opening of the sand berm barrier to release the overflow of surface runoff. c) These combinations of the direct forced pumping of the sediment/slurry material to the sump area, the existing sand berm barrier, and the contractor work restrictions will provide significant mitigative measures that can reduce the need for siltation curtains.

Finally, the existing stream flow rate of Kaelepulu Stream is very slow and so that as sediment and vegetation is removed, there is little if any stream flow movement sufficient to move the silt plume towards the coastal zone. The stream flow rate is almost in a standing condition, and the silt settles in an area limited to the immediate location of the work being performed.

There will be minor instances of increased air and noise pollution levels due to the construction activity, but these will be mitigated by ensuring compliance with the provisions of Title II, Administrative Rules, Chapter 43, Community Noise Control for Oahu. Other mitigating measures will be to limit hours of construction, and requiring all construction equipment to be equipped with noise abatement mufflers.

The two phase project will not affect any existing State or County land use plans. The proposed stream maintenance dredging is planned and designed to alleviate and reduce the risk of flooding to the adjacent residential areas. The City Special Management Area (SMA) permit is required for this Project since portions of the Project are within the SMA boundary. (See Figure 4)

Traffic will be affected only to the extent that during the transfer of dredged spoil material, the covered transfer trucks will be moving the silt and debris to the stock piling and drying area at the disposal site. Adequate traffic controls and management will be provided with properly marked street signage to advise commuters of any change or disruption to existing traffic patterns. The contractor will be advised that all transfer will be done in an expeditious manner so as to minimize the inconvenience to the public. Removal of silt and debris will be limited to the original design and siltation storage capacity of the affected streams and there will be no increased widening or deepening of the streams.



SMA BOUNDARY MAP

FIGURE 4

IV.

ALTERNATIVES CONSIDERED

A "No Maintenance Dredging" alternative was considered and discarded since the basic intent and purpose of the project is to effectively restore the capacity of the two streams, thus protecting the adjacent urban and conservation properties from flood related injury and property damage. Further, the vegetative cleaning of the phase II Kawainui Stream will further promote avifauna usage of cleared water spaces. Potential negative impacts to the Kailua Bay estuary from sediment and turbidity will be managed by project design limitations that will restrict the extent of dredging away from the stream mouths that lead to the coastal zones. At the present time, the budget limitations for construction funding are uncertain; the full extent of the work schedule will not be determined until the project is put out to bid, and the final construction costs are established.

V. FUNDING AND PHASING

This project is planned in two phases, with the initial phase being the work along the Kaelepulu Stream. Estimated time and cost for the Phase I is 12 months and \$3.0 million dollars. Phase II will be planned and designed during the design and construction portion of Phase I. This will enable the City to monitor the contractor's progress during the work schedule and achieve a more efficient method of stream cleanout, transport of the dredge spoil to the stock piling and drying area, and gauge the potential usage and demand for the vegetation materials as ground cover or mulch . Estimated Phase I construction start will be during the third quarter of the 1992 after the required government review and approvals have been granted.

VI. **DETERMINATION, FINDINGS, AND REASONS
SUPPORTING DETERMINATION**

After completing an assessment of the potential environmental effects of the proposed project, and consulting with other government agencies, it has been determined that an Environmental Impact Statement (EIS) is not required. Therefore, this document constitutes a Notice of Negative Declaration.

Reasons supporting the Negative Declaration determination are as follows, using as the criteria, the policy, guideline and provisions of Chapters 342, 343, and 344, Hawaii Revised Statutes (HRS).

1. The proposed action will not adversely affect the physical and social environment. There will be minor discomfort and annoyances to the residences along the stream from noxious odors due to the hydrogen sulfide gas resulting from exposure to the air, but these will dissipate in short notice as stream water cover the stream bottom and sediment.
2. There will be no permanent degradation of the existing ambient air quality and noise levels. During the dredging and transport work phases, air quality and noise levels are expected to be temporarily affected, but these effects will be short term and minor in nature.
3. No residences or businesses will be disrupted by the project. Final determination of property metes and bounds along the Kaelepulu stream are currently under review and final determination.
4. There are no known endangered plant species along the proposed work alignment; endangered water birds will be temporarily disturbed, but will return upon completion of the project.
5. There are no known natural, historic, or archaeological sites within the stream project limits.

6. The project is compatible with the Development Plan Land Use map and the Public Facilities map for Oahu.

7. There are no adverse secondary effects on future development, population and public facilities.

8. The proposed maintenance dredging work will restore the drainage capacity and reduce the risk of injury, property damage, and potential loss of life due to flooding. The resulting enhancement of the stream banks due to clearing of vegetation will also be beneficial to water feeding birds. Also, the potential release of silt into the coastal zone will be reduced.

9. Beneficial recycling of the vegetation as mulch material for agency use (Parks & Recreation) , and the sediment as cover material for the Kapaa Landfill will also be achieved.

This Notice of Negative Declaration shall serve to meet the requirements of Chapter 343, HRS.

VII. LIST OF AGENCIES CONSULTED DURING THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT.

ORGANIZATIONS AND AGENCIES:

<u>Agency</u>	<u>Date of Consultation</u>	<u>Date Comment Received</u>
<u>Federal</u>		
U.S. Army Corps of Engineers	1-8-92	2-3-92
U.S. Department of Agriculture Soil Conservation Service	1-8-92	
U.S. Department of Interior Fish & Wildlife Service	1-8-92	
<u>State of Hawaii</u>		
Department of Land and Natural Resources	1-8-92	2-21-92 3-6-92*response to 2-21-92
Office of State Planning Coastal Zone Management	1-8-92	
Department of Health Environmental Management	1-8-92	
Representative Cynthia Y. Thielen	1-27-92	2-7-92
<u>City and County of Honolulu</u>		
Department of Land Utilization	1-8-92	3-4-92
Department of Transportation Services		
Department of General Planning		
Department of Public Works Division of Refuse Collection & Disposal	1-8-92	2-4-92
Division of Wastewater Management		
Kailua Neighborhood Board No.31	1-27-92	2-26-92
The Hon. John Henry Felix and The Hon. Steve Holmes (by courtesy) City Council		

VIII. LIST OF PREPARERS

City & County of Honolulu,
Department of Public Works,
Division of Engineering,
Drainage Section

ParEn, Inc. dba Park Engineering
Civil Engineering

Environmental Communications, Inc.
Environmental Assessment



DIVISION OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

**KAELEPULU AND KAWAINUI
STREAMS MAINTENANCE DREDGING**

KAILUA, OAHU, HAWAII
STATE LAND USE MAP
JOB NO. 24-91

Prepared by:
ParEn, Inc. dba Park Engineering
Engineers, Surveyors, Planners

FIGURE 5

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F FASI
MAYOR

SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

IN REPLY REFER TO
92-12-0007

January 8, 1992

Mr. William W. Paty, Chairperson
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Paty:

Subject: Kaelepulu/Kawainui Stream Maintenance Dredging Project, Kailua

The Department of Public Works is in the process of preparing an environmental assessment (EA) and construction documents for the subject project.

The scope of work is routine maintenance dredging of both streams to restore the streams to their original cross-sections. We will maintain the original cross-sections and stream alignments.

The project information is as follows:

1. TMK: 4-2, see attached map.
2. The objective of this project is to restore the streams to their original cross-sections to reduce the possibility of flooding. The objective will be accomplished by:
 - a. Suction pump material to a holding area at the end of Kawainui Stream.
 - b. Haul material to drying area.
 - c. Haul dried material to Kapaa Landfill.

Mr. William W. Paty, Chairperson
January 8, 1992
Page 2

3. Construction schedule and costs.

a. Plan I - Dredge Kaelepulu Stream

Approximately 90,000 cubic yards
Approximately \$3,000,000.00
Start construction 1992
Complete construction including drying material - August 1993

b. Plan II - Dredge Kawainui Stream

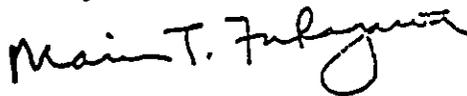
Approximately 100,000 cubic yards
Cost to be determined
Start and completion dates to be determined

When the EA is ready for review, we will forward a copy for your comments. However, at this time, we need your advice as to whether a CDUA and Stream Alteration Permit are required for this project.

Your timely response by January 20, 1992, will be greatly appreciated.

If you have any questions, please call Laverne Higa of the Division of Engineering at 527-6246.

Very truly yours,



~~For~~ SAM CALLEJO
Director and Chief Engineer

Attach.

cc: Park Engineering (Derrick Elfalan) w/o attach.

JOHN WAINEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

92-0699
WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPT. OF LAND AND NATURAL RESOURCES
John P. Keppeler, II
Dona L. Hanaike
Rae-M. Louis
AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION ZONE RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION PROGRAM
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

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FILE NO.: 92-449
DOC. NO.: 157

FEB 21 1992

Handwritten notes:
GCEA 10/27/92
Eng 3/2/92

The Honorable Sam Callejo
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 So. King Street
Honolulu, Hawaii 96813

Dear Mr. Callejo:

SUBJECT: Kaelepulu/Kawainui Stream Maintenance Dredging Project,
Kailua, Oahu

Thank you for giving our Department the opportunity to comment on this matter. We have reviewed the materials you submitted and have the following comments.

The Department of Public Works plans to conduct routine maintenance dredging in Kaelepulu and Kawainui Streams to restore their original cross-sections and alignments. However, based on the submitted documentation we are unable to determine whether a Conservation District Use Application is required. We, therefore, request that you provide us with the following information for our review and comment:

1. Who owns the stream(s)? Is it under an Executive Order(s) (EO)? Would the proposed activity be inside the EO(s)?
2. If the stream(s) is under an Executive Order(s), what is the relationship between the maintenance dredging and the purpose of the EO(s)?
3. Information (e.g. when did dredging start, how frequent) regarding past dredging activities that relates to the proposed maintenance dredging. (Information should include dates of previous dredging activities and the original and proposed dredging depth and width.)

Mr. S. Callejo

-2-

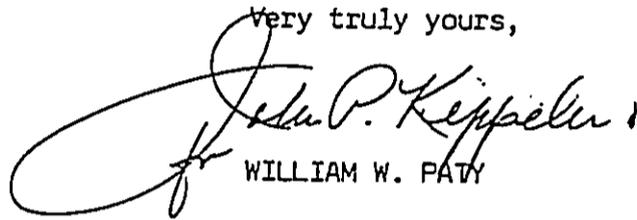
File No.: 92-449

4. State Land Use Boundary Interpretation delineating the location of the Conservation District boundary relative to the proposed maintenance dredging activities.

You will need to contact our Division of Water Resource Management to obtain information regarding Stream Channel Alteration Permit requirements. Also, we have enclosed our division's preliminary comments on this project for your use.

Thank you for your cooperation in this matter. Please feel free to call me or Sam Lemmo at our Office of Conservation and Environmental Affairs, at 587-0377, should you have any questions.

Very truly yours,


for WILLIAM W. PATY

Enclosure

February 10, 1992

5

LOG NO: 4528
DOC NO: 0563T

MEMORANDUM

TO: Roger Evans, OCEA

FROM: Don Hibbard, Administrator
State Historic Preservation Division *DH*

SUBJECT: Department of Public Works, City and County of Honolulu
-- Kaelepulu/Kawainui Stream Maintenance Dredging
Project (File No: 92-449)
Kailua, Ko'olaupoko, O'ahu
TMK: 4-2 various

HISTORIC PRESERVATION PROGRAM CONCERNS:

This project would restore these streams to their original cross-sections. This document does not specify the location of the drying area for the dredged material, so we cannot comment on this portion of the project. The dredging itself will have "no effect" on historic sites. We look forward to reviewing this project when the drying area location is determined.

TD:jen

DLNR
OCEA

'92 FEB 11 PM 12:55

RECEIVED

Department of Land & Natural Resources
Division of Forestry and Wildlife

30 January '92

MEMORANDUM:

TO: Roger Evans, OCEA

FROM: Michael G. Buck, Administrator

M. Buck

SUBJECT: Kaelepulu/Kawainui Stream Maintenance Dredging Project, Kaiwa
File No. 92-449

We have reviewed File No. 92-449 and have the following comments:

- 1) The assessment should include a provision for conducting the project during non-nesting periods for the endangered Hawaiian Stilt, coot, duck and moor hen to prevent disturbance to breeding efforts.
- 2) The assessment should be specific to the exact location of the operation and storage of spoil material.
- 3) The assessment should specify whether vegetation will be disturbed or removed.
- 4) A description of what the present and "original cross section" dimensions are and will be is necessary to determine impacts on wildlife. Further comments are not possible given the few facts provided.

cc: Oahu District

DLNR
OCEA

FEB 4 AM 10:38

RECEIVED

2707

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Office of Conservation and Environmental Affairs
Honolulu, Hawaii

DIVISION OF AQUATIC RESOURCES	
DIRECTION	<input checked="" type="checkbox"/>
PLANNING	<input checked="" type="checkbox"/>
REGULATORY	<input checked="" type="checkbox"/>
RESEARCH	<input type="checkbox"/>
EDUCATION	<input type="checkbox"/>
ADMINISTRATION	<input type="checkbox"/>
FINANCE	<input type="checkbox"/>
STATISTICS	<input type="checkbox"/>

JAN 22 1992

FILE NO.: 92-449
SUSPENSE DATE: 10 Working days
DOC. NO.: 2459E

MEMORANDUM

TO: ~~XXXXXXXXXX~~ Forestry & Wildlife, Land Management,
State Parks, Historic Preservation Division, Water
Resource Management

FROM: Roger C. Evans, Administrator
Office of Conservation and Environmental Affairs

SUBJECT: Kaelepulu/Kawainui Stream Maintenance
Dredging Project, Kaiwa

RECEIVED

JAN 22 1992

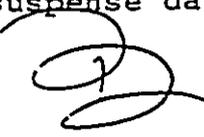
Div. of Aquatic Resources

Please review the attached:

- () DRAFT EIS
- () EIS PREPARATION NOTICE
- () ENVIRONMENTAL ASSESSMENT
- () PLAN REVIEW
- (X) CORRESPONDENCE AND OTHER MATERIALS
- () LUC REVIEW
- () STATE CLEARINGHOUSE REVIEW
- () PODCO
- () SHORELINE VARIANCE

and submit your comments within the time requested above. If more time is required, please call Sam Lemmo at 7-0377.

If no response is received by the suspense date, we will assume there are no comments.

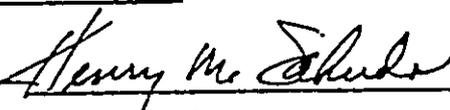

ROGER C. EVANS

RECEIVED
OCEA

JAN 23 1992
11 AM 10:30

Attachment(s)

- () We have no comments.
- (X) Comments attached.
- (X) Please contact _____ at _____ for our input.

Signed: 
Date: 2/3/92

State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

January 27, 1992

MEMORANDUM

To: Paul Kawamoto, Program Manager
Aquatic Resources and Environmental Protection

From: Bill Devick, Program Manager
Recreational Fisheries

Subject: Correspondence Review

Comments Requested By: Roger Evans, OCEA
Date of Request: January 22, 1992
Date Received: January 27, 1992

Summary of Proposed Project

Title: Kaelepulu/Kawainui Stream Maintenance Dredging
Project, File 92-449

Project By: Department of Public Works, City and County of Honolulu

Location: Kailua, Oahu

Brief Description: The proposal involves dredging of the Kaelepulu and Kawainui Streams near their confluences to restore their original cross sections in order to reduce the possibility of flooding and to restore their original cross sections. Material will be suction-pumped to a holding area at the end of Kawainui Stream, hauled to a drying area, then trucked to the Kapaa landfill.

Comments: This project has some potential for serious damage to downstream and inshore marine biota from increased sediment loading. Measures should be taken to limit the downstream spread of sediments suspended by this activity and to prevent runoff into the streams from the drying area.


Bill Devick

92-12-0121

March 6, 1992

Mr. William W. Paty
Department of Land and Natural Resources
Office of Conservation and Environmental Affairs
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Attention: Mr. Sam Lemmo

Dear Mr. Paty:

Subject: Kaelepulu/Kawainui Streams Maintenance Dredging Project

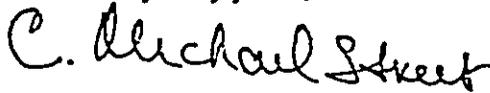
Thank you for responding to our letter dated January 8, 1992. We provide the following responses to your questions.

1. Kaelepulu Stream is owned by the City and the Enchanted Lake Association. Kawainui Stream is owned by the City and Kaneohe Ranch. See the attached Exhibit A. The streams are not under an Executive Order.
2. Not applicable since the streams are not under an Executive Order.
3. This is the first time the City will be dredging the streams. The streams were constructed about 1960. See Exhibit B for the original and proposed dredging depth and width.
4. See Exhibit C for the State Land Use Boundary Interpretation Map.

We have contacted Ms. Sherry Samuels of your Division of Water Resource Management regarding the Stream Alteration Permit requirements.

If you have any further questions, please call Laverne Higa at 527-6246.

Very truly yours,



C. MICHAEL STREET
Acting Director and Chief Engineer

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER
IN REPLY REFER TO
92-12-0008

January 8, 1992

Mr. Michael Lee, Chief
Operations Branch
U.S. Army Corps of Engineers
Building 230
Fort Shafter, Hawaii 96858-5440

Dear Mr. Lee:

Subject: Kaelepulu/Kawainui Stream Maintenance Dredging Project, Kailua

The Department of Public Works is in the process of preparing an environmental assessment (EA) and construction documents for the subject project.

The scope of work is routine maintenance dredging of both streams to restore the streams to their original cross-sections. We will maintain the original cross-sections and stream alignments.

The project information is as follows:

1. TMK: 4-2, see attached map.
2. The objective of this project is to restore the streams to their original cross-sections to reduce the possibility of flooding. The objective will be accomplished by:
 - a. Suction pump material to a holding area at the end of Kawainui Stream.
 - b. Haul material to drying area.
 - c. Haul dried material to Kapaa Landfill.

Mr. Michael Lee, Chief
January 8, 1992
Page 2

3. Construction schedule and costs.

a. Plan I - Dredge Kaelepu Stream

Approximately 90,000 cubic yards
Approximately \$3,000,000.00
Start construction 1992
Complete construction including drying material - August 1993

b. Plan II - Dredge Kawainui Stream

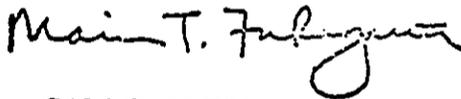
Approximately 100,000 cubic yards
Cost to be determined
Start and completion dates to be determined

When the EA is ready for review, we will forward a copy for your comments. However, at this time, we need your advice as to whether a COE permit is required for this project.

Your timely response by January 20, 1992, will be greatly appreciated.

If you have any questions, please call Laverne Higa of the Division of Engineering at 527-6246.

Very truly yours,



SAM CALLEJO
For Director and Chief Engineer

Attach.

cc: Park Engineering (Derrick Eifalan) w/o attach.



REPLY TO
ATTENTION OF

Operations Division

Mr. Sam Callejo
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King St.
Honolulu, Hawaii 96813

Dear Mr. Callejo:

This responds to your January 8, 1992 letter regarding the maintenance dredging of Kaelepulu and Kawainui Streams, Kailua Oahu, Hawaii. The work would involve the hydraulic suction dredging of accumulated material to restore the streams to their original cross-sections.

✓ A Department of the Army (DA) permit will be required for this activity. The attached January 24, 1991 letter to Park Engineering explains the regulatory requirements for this project.

In addition to the DA permit, you must apply for and obtain the following certifications prior to the issuance of a DA permit. If any certification is exempted, waived or otherwise not required, confirmatory letters should be submitted to the Corps.

a. Coastal Zone Consistency Determination from the Office of State Planning, Coastal Zone Management Program Office.

b. Section 401 Water Quality Certification from the State of Hawaii, Department of Health, Clean Water Branch.

If you have any questions on this, please contact Mr. Warren Kanai of the Corps' Operations Division at 438-9258 and refer to File No. PO 91-066

Sincerely,

Warren Kanai
for Michael T. Lee
Acting Chief, Operations Division

Attachment

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440
January 31, 1992

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DIV. OF ENGINEERING
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Dr. ...
92-0411

WORD
ELF.DOC

Operations Division 24 JAN 1991

zlw
Mizue
dk/9258

Mr. Derrick Elfalan
Park Engineering
Suite 303, Kawaiahao Plaza
567 South King Street
Honolulu, Hawaii 96813-3036

1/24
Arakaki
CEPOD-CO-0

Dear Mr. Elfalan:

This is in response to your December 28, 1991 letter regarding the Kaelepulu/Kawainui Streams Maintenance Dredging Project proposed by the City and County of Honolulu. A Department of the Army (DA) permit is required for maintenance cleaning and dredging of Kaelepulu and Kawainui Streams. In addition, any proposal for ocean disposal of the dredged material will require a DA permit. Specifically the Corps of Engineers regulates the transportation of dredged material for the purpose of disposing it in ocean waters at U.S. Environmental Protection Agency (EPA) approved disposal sites.

CEPOD-CO-0
FILE

For dredged material from Kaelepulu/Kawainui Streams, the South Oahu disposal site would be used. A copy (Encl 1) of the location of this site is enclosed for your use. Since the material would have to be hauled from the windward coast, land disposal may be more cost-effective. In addition, dredged material proposed for ocean disposal at EPA-designated sites in Hawaii may require bioassay and bioaccumulation testing in accordance with guidelines contained in 40 CFR 227, (Encl 2) unless the dredged material is determined to be exempt from testing.

DISK:
RUBY #6

With regard to land disposal, you should be aware that any fill in wetland areas will also require a DA permit. Both permanent and temporary fills during the construction period are subject to Corps regulation. Construction period fills may include sedimentation basins and equipment staging areas.

PO41-06

Once the selected method of disposal is identified, a determination of DA permit requirements can be made, and the entire proposal can be processed under a single permit application. A set of application materials (Encl 3) is also enclosed for your information and use. If you have any questions, you may contact me or my staff at 438-9258.

Sincerely,

Stanley T. Arakaki
Chief, Operations Division

Enclosures

Copy Furnished (w/o encl):

Department of Public Works, City & County of Honolulu

ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

Kailua Neighborhood Board No. 31
P. O. Box 487
Kailua, HI 96734

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project

Dear Chair,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

F. J. Rodriguez

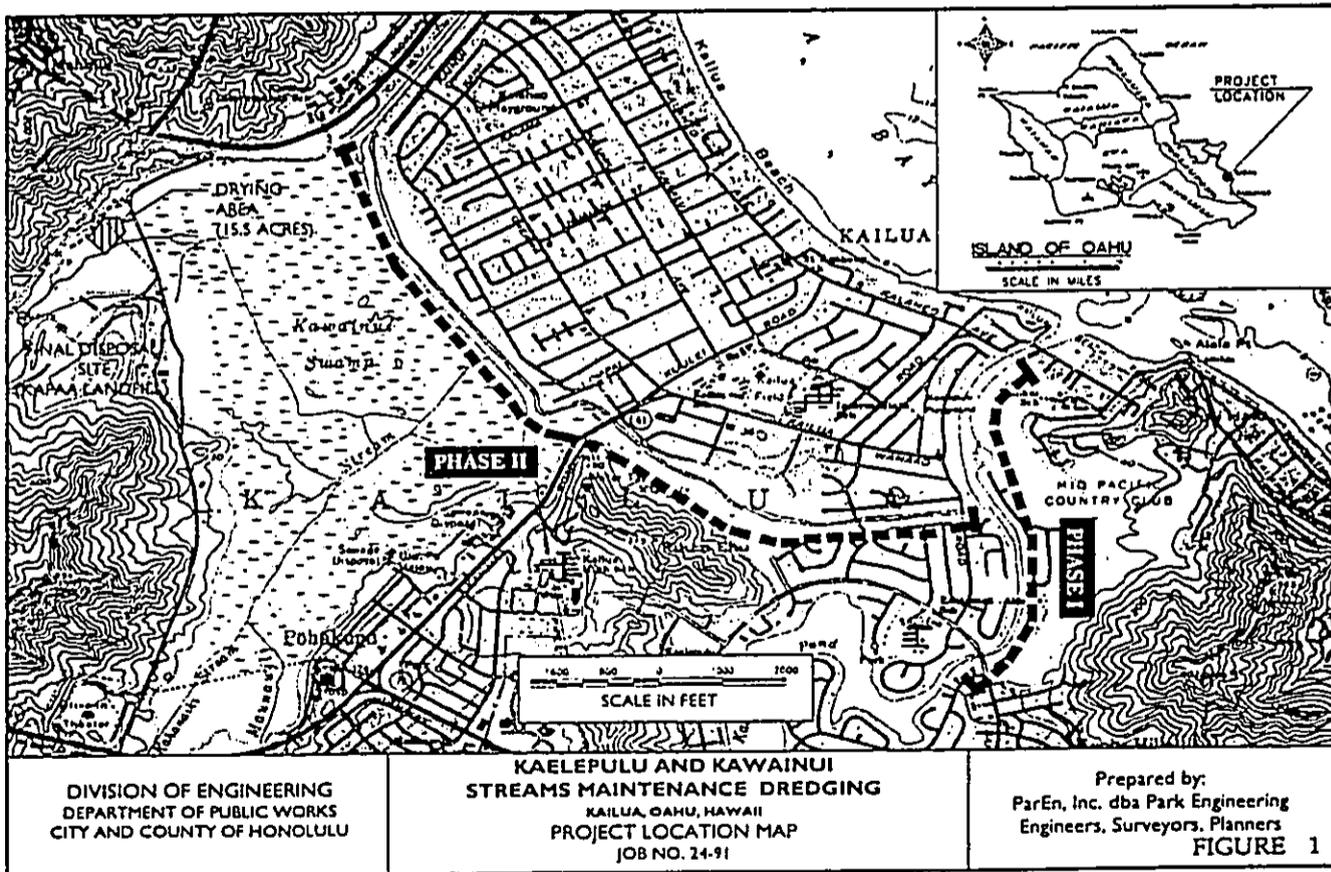
FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfaian (without enclosure)

F. J. RODRIGUEZ,
PRESIDENT

1146 FORT STREET WALL SUITE 200 • P. O. BOX 534 • HONOLULU, HAWAII 96813 • TELEPHONE (808) 521-0311





KAILUA NEIGHBORHOOD BOARD NO. 31

PO BOX 487 • KAILUA, HAWAII 96734

MAR 9 11 09 AM '92

February 26, 1992 6 5 28 PM '92

92-0897

Director and Chief Engineer Sam Callejo
Department of Public Works
City and County of Honolulu
650 So. King Street
Honolulu, HI 96813

Subject: Kaelepulu Stream Maintenance Dredging Project

Dear Mr. Callejo:

We have received information that the City plans to conduct maintenance stream dredging at Kaelepulu/Kawai'nui stream. Based upon the recommendation of our Committee on Environmental Protection, during our February 6, 1992 regular meeting, the Kailua Neighborhood Board voted unanimously to support the following statement/position:

"The Kailua Neighborhood Board supports the City's need to dredge Kaelepulu Stream, but insists that the City be required to conduct an Environmental Assessment on the project. The City should implement a plan to monitor the project both during and after dredging so as to better assess the environmental impacts and should initiate an ongoing maintenance program for protecting the stream and its impact area (beaches, wetlands, ocean, etc.)."

We very much appreciate your ongoing efforts to maintain Kaelepulu Stream and your favorable consideration of our recommendation in this regard.

Sincerely,

BONNIE L. HEIM, Chair
Kailua Neighborhood Board

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3/18/92
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Road-u
PKO-u



ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

The Hon. Cynthia Y. Thielen
State House of Representatives
Room 1308
State Office Tower
Honolulu, HI 96813

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project
Dear Rep. Thielen,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

F. J. Rodriguez

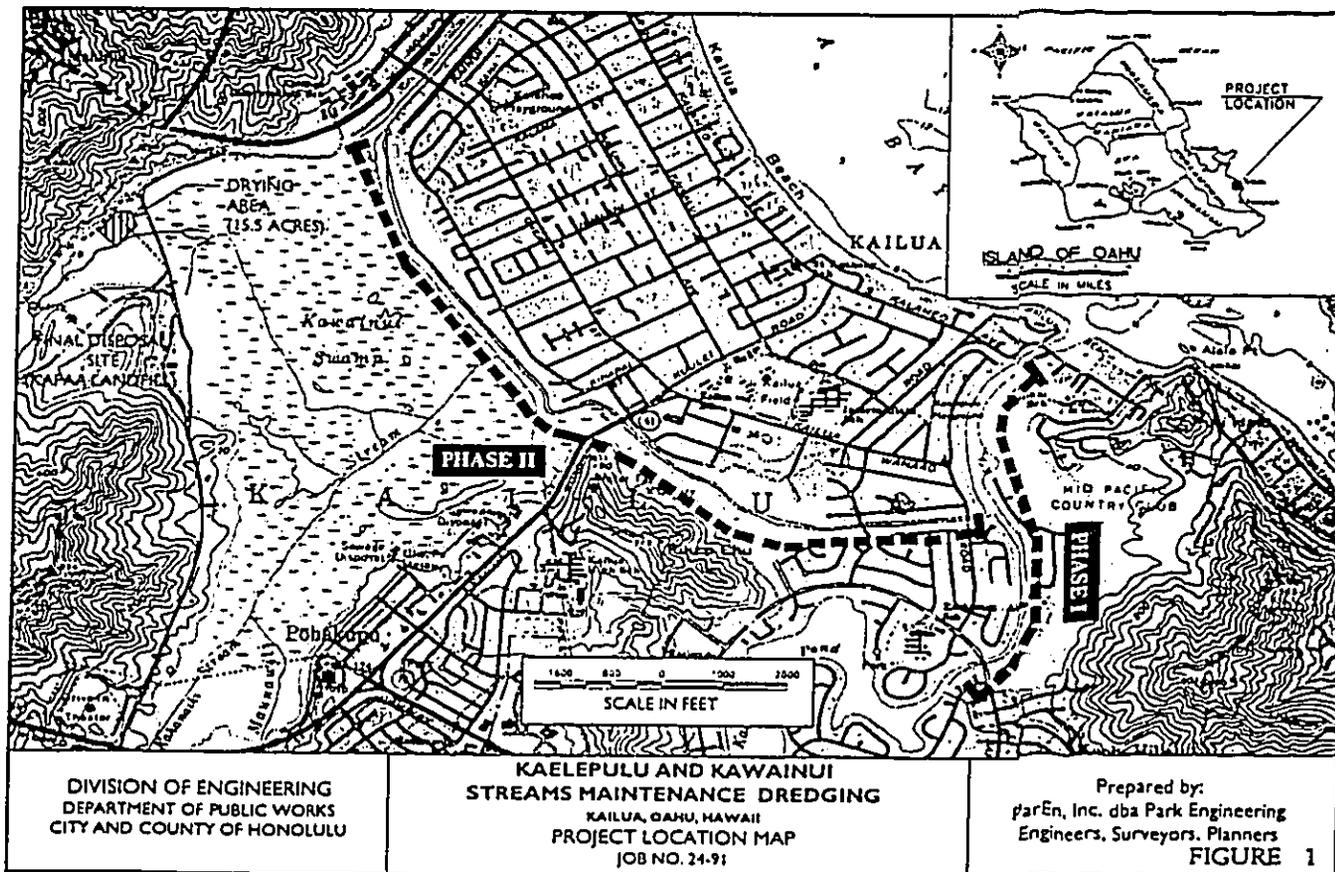
FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfalan (without enclosure)

F. J. RODRIGUEZ
PRESIDENT

1144 FORT STREET MAIL SUITE 200 • P. O. BOX 1314 • HONOLULU HAWAII 96829 • TELEPHONE (808) 521-8311





HOUSE OF REPRESENTATIVES

STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

February 7, 1992

F. J. Rodriguez
Environmental Communications, Inc.
1146 Fort St. Mall, Suite 200
P.O. Box 536
Honolulu, HI 96813

Dear Mr. Rodriguez:

Thank you for offering me the opportunity to comment on your proposed dredging project. After careful review, I wish to list the following concerns:

1. Is there a specific "Project Depth" or target depth to which the entire canal length(s) will be dredged?
2. What are the existing depths in the canal systems?
3. What is the exact purpose of the maintenance dredging? Is there a specific depth (or cross-sectional area) that needs to be maintained for storm drainage? If so, what is that depth or area?
4. How is the dredging to be accomplished (suction or bucket dredge?) and how will dredge spoil materials be transported to dewatering and disposal sites?
5. What are the proposed dewatering sites and how will dredge spoils be disposed? Will possible odor problems associated with dredging and dewatering be considered and mitigated?
6. What is the anticipated length of time dredging will be performed during each phase and during what approximate time of year will dredging be done?
7. Have there been any recent (in the last 5 years) analyses performed on canal sediments to determine heavy metal, pesticide, hydrocarbon, and sulfide contents? This information should be useful in deciding how dewatering, storage, transport and disposal of the dredge spoils will be handled.
8. What will the dredging effects of drastically increased sediment turbidity and sulfide levels have on the canal biota such as fish, water column algae and bottom algae? It might make sense to analyze a few fish (Tilapia), oysters (Crassostrea) and

FEB 11 1992

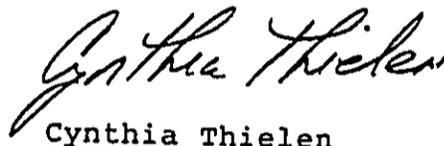
algae clumps (Gracilaria...common name "ogo") for broad spectrum pollutants before and during dredging operations to see if there is any uptake. These measurements would be extremely valuable for inclusion in a long term-data base on overall condition of the canal systems.

9. The maintenance dredging in these systems is presumably being done primarily to ensure that storm drainage through the canals is maintained. Are any studies being done to see what actions might be performed to improve water quality and environmental conditions in the ENTIRE Kaelepulu/Enchanted Lakes/Kawainui systems by enhancing water flow and flushing of the overall system?

10. Can the project examine if Kawainui canal and "Kawainui Stream" should be connected? A road berm separates the two near the south end of Kainui Street. Is it possible that flushing of the "Kawainui Stream" system could be greatly increased by connecting it to Kawainui canal, and what would be the environmental consequence?

I look forward to receiving a copy of the Environmental Assessment which I hope will respond to these comments.

Aloha,

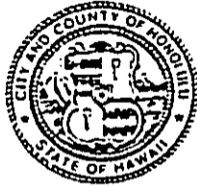


Cynthia Thielen

cc: S.O.B.B. Steering Committee

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

IN REPLY REFER TO:

92-12-0001

January 8, 1992

MEMORANDUM

TO: MR. DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

SUBJECT: KAELEPULU/KAWAINUI STREAMS MAINTENANCE DREDGING
PROJECT, KAILUA

A portion of the above project is within the Special Management Area. However, based on the Special Management Area Exemption List, Item No. 3, "Routine Maintenance Dredging of Existing Streams, Channels and Drainage Ways", we determined that this project is exempt.

The following information about the project is provided for your information:

1. TMK: 4-2, see attached map for location.
2. The objective of this project is to restore Kaelepulu and Kawainui Streams to their original invert elevation.

This objective will be accomplished by the following:

- a. Suction pump material to a holding area at the end of Kawainui Stream.
- b. Haul material from holding area to drying beds near Kapaa Landfill.
- c. Haul dried material from drying beds to Kapaa Landfill.

Mr. Donald Clegg
January 8, 1992
Page 2

3. Construction schedule:

- a. Phase I (cost \$3 million dollars) - Kaelepu Stream, remove about 90,000 cubic yards, start August 1992.
- b. Phase II (cost to be determined) - Kawainui Stream, remove about 100,000 cubic yards, start date to be determined.

We will be filing an Environmental Assessment/Negative Declaration with the State Office of Environmental Quality Control very shortly. At such time when our Environmental Assessment is available, we will forward a copy to you for review. However, at this time, we request that you review our determination of exemption and provide us with your comments.

Your timely response by January 20, 1992, to our determination will be greatly appreciated.

If you have any questions, please call Laverne Higa of the Division of Engineering at 527-6246.


SAM CALLEJO
Director and Chief Engineer

Attach.

cc: Park Engineering (w/o attach.)

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

92-0870

RECEIVED
DIV. OF ENGINEERING

850 SOUTH KING STREET
HONOLULU, HAWAII 96813 & (808) 523-4432

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FRANK F. FASI
MAYOR



Emj
DONALD A. CLEGG
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

LU1/92-212 (DK)

March 4, 1992

MEMORANDUM

TO: C. MICHAEL STREET, ACTING DIRECTOR
DEPARTMENT OF PUBLIC WORKS

FROM: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

SUBJECT: SPECIAL MANAGEMENT AREA REVIEW

Tax Map Key : 4-2
Type of Project: Kaelepulu/Kawainui Streams
Maintenance Dredging Project, Kailua

The proposed project on the referenced tax map key has been reviewed. We find that it:

- Is not within the Special Management Area.
- Is within the Special Management Area, but is not defined as "development" and is therefore, Exempt (Exemption No. 3).

Should you have any questions, please contact the Environmental Affairs Branch at 523-4077.

Very truly yours,

Donald A. Clegg
DONALD A. CLEGG
Director of Land Utilization

DAC:cct

a:Kaelepul.djk

ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

F. J. RODRIGUEZ,
PRESIDENT

Mr. Douglas S. Y. Tom
Office of State Planning
Coastal Zone Management Program
State Capitol, Room 406
Honolulu, Hawaii 96813

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project

Dear Mr. Tom,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

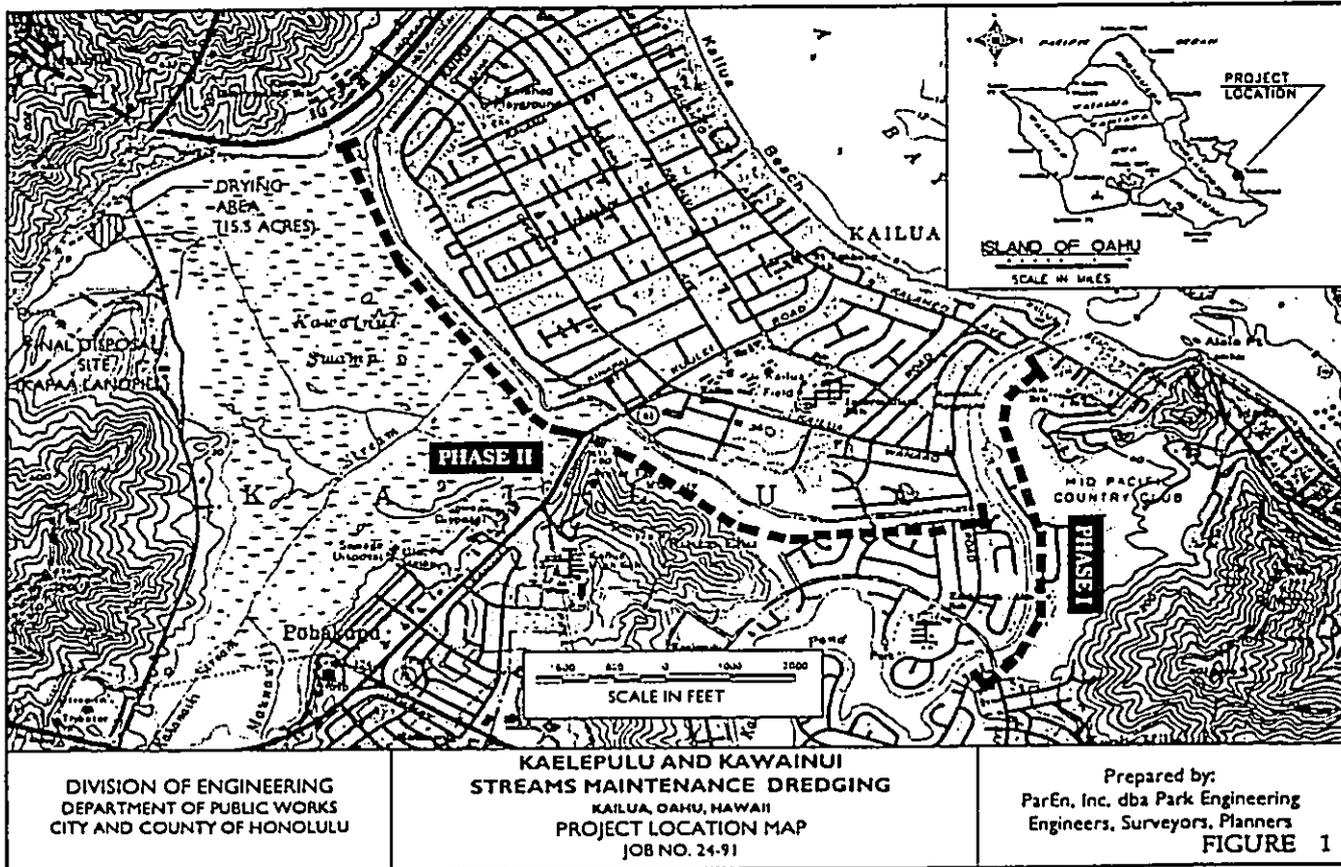
F. J. Rodriguez

FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfalan (without enclosure)

1148 FORT STREET MAIL SUITE 200 • P. O. BOX 58 • HONOLULU HAWAII 96813 • TELEPHONE (808) 551-5111



ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

Mr. Andy Yuen
U.S. Department of Interior
Fish & Wildlife Service
P. O. Box 50167
Honolulu, Hawaii 96850

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project
Dear Mr. Yuen,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

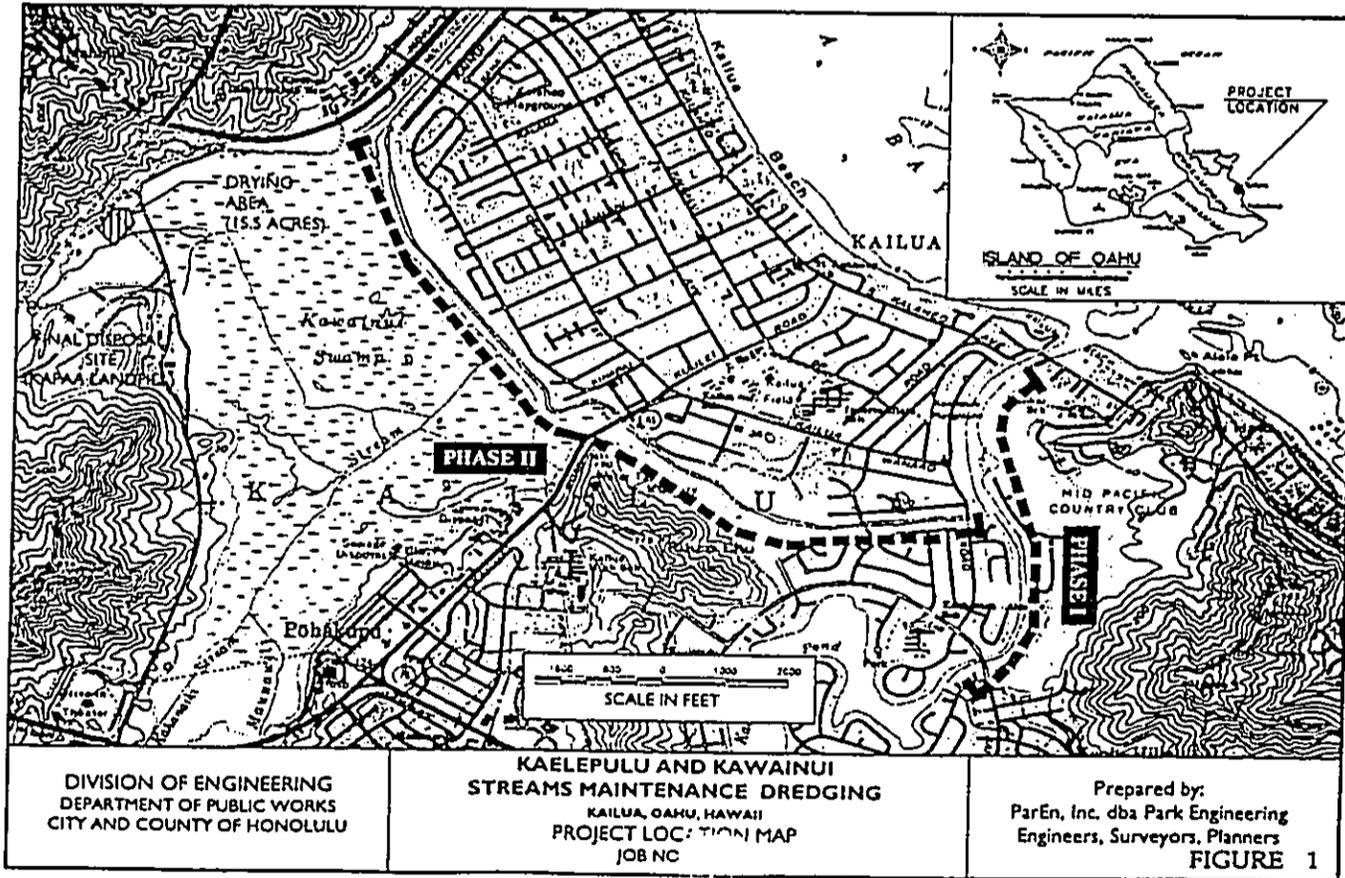
F. J. Rodriguez

FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Eifalan (without enclosure)

F. J. RODRIGUEZ
PRESIDENT



ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

Mr. Bruce Anderson, Deputy Director
State Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project

Dear Mr. Anderson,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

F. J. Rodriguez

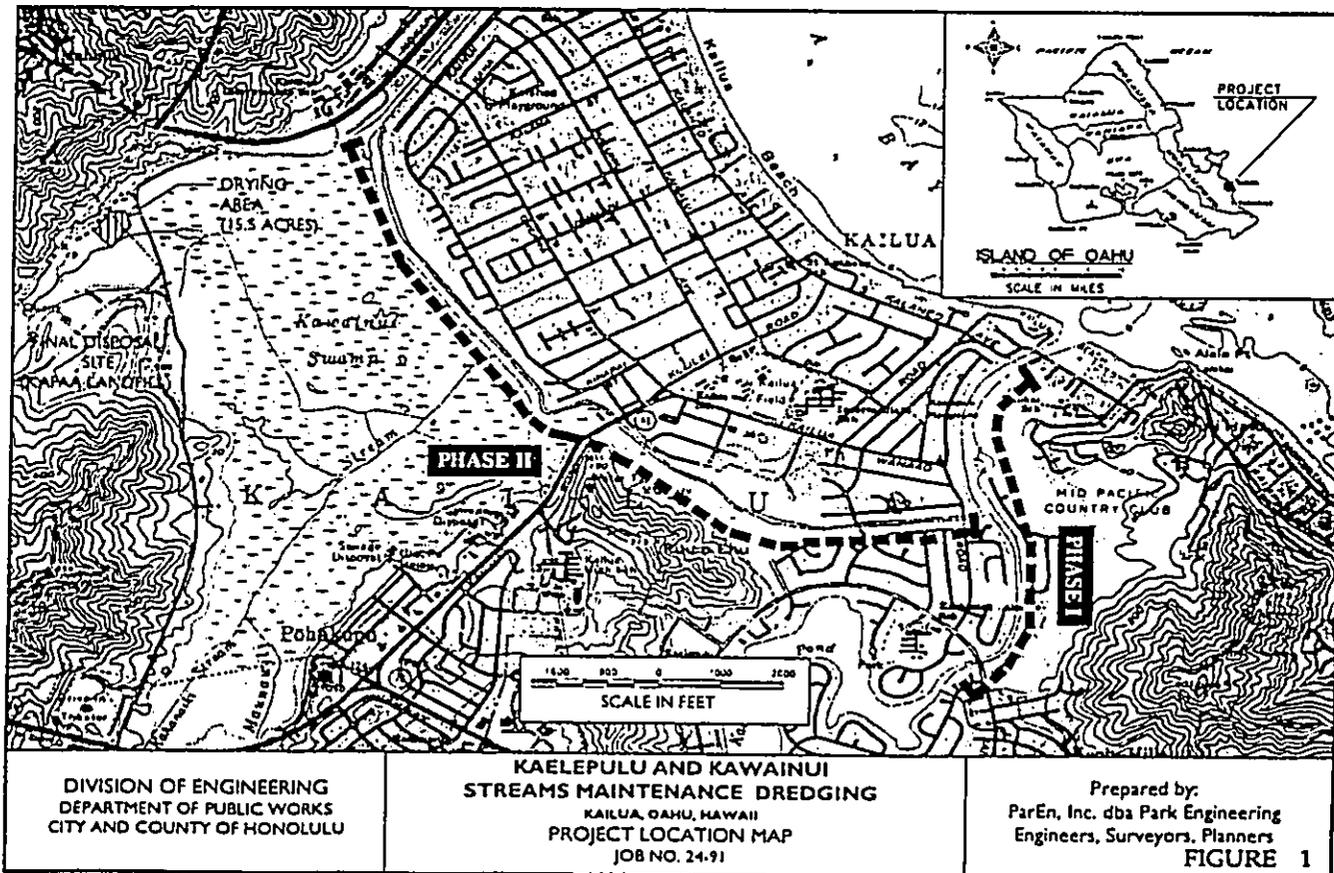
FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfalan (without enclosure)

F. J. RODRIGUEZ
PRESIDENT

1145 FORT STREET MAIL SUITE 200 • P. O. BOX 538 • HONOLULU HAWAII 96809 • TELEPHONE (808) 521-8781



ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 50004
Honolulu, Hawaii 96850

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project
Dear Sir,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

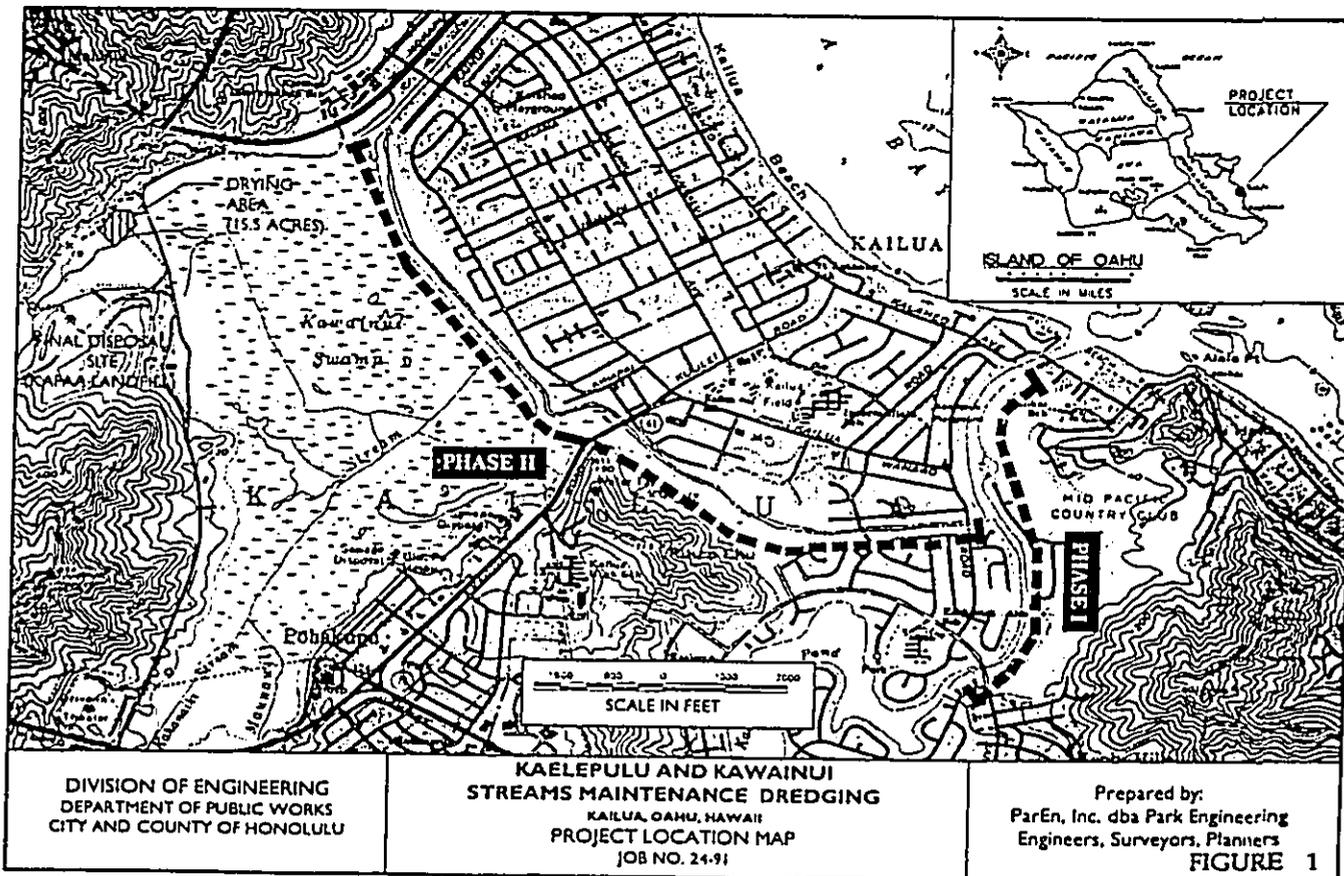
F. J. Rodriguez

FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfalan (without enclosure)

F. J. RODRIGUEZ,
PRESIDENT



ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

F. J. RODRIGUEZ,
PRESIDENT

The Hon. Whitney Anderson
State House of Representatives
Room 1107
State Office Tower
Honolulu, HI 96813

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project

Dear Rep. Anderson,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

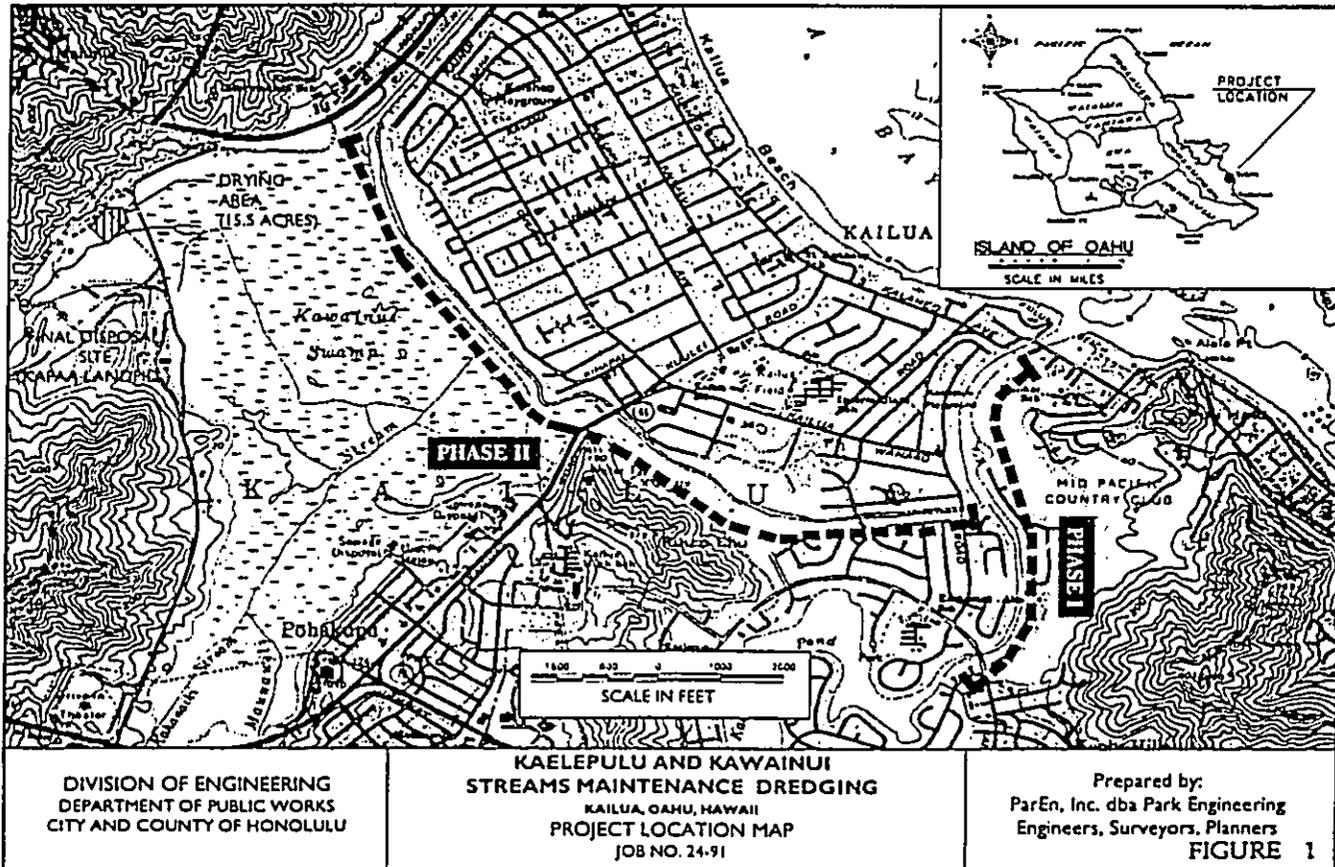
F. J. Rodriguez

FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfalan (without enclosure)

1110 FORT STREET MAIL SUITE 200 • P. O. BOX 3334 • HONOLULU HAWAII 96811 • TELEPHONE (808) 531-0211



ENVIRONMENTAL
COMMUNICATIONS
INC.

January 27, 1992

F. J. RODRIGUEZ,
PRESIDENT

The Hon. John Henry Felix
City Council
City & County of Honolulu
Honolulu, HI 96813

Subject: Kaelepulu/Kawainui Stream - Maintenance Dredging Project
Dear Councilman Felix,

The City and County of Honolulu is planning to conduct maintenance stream dredging at the Kaelepulu/Kawainui Stream (See attached Site Plan map). Your comments and areas of concern are requested at this time. We are preparing the Environmental Assessment and your comments will provide us with your agency's principal concerns. We are providing for your information, the proposed alignment, the quantities to be dredged, the final spoil de-watering site, and the mitigation measures to prevent runoff into Kailua Bay.

The estimated amount of dredge spoil material will be approximately 190,000 cubic yards of silt, debris, and vegetation. The spoil material will be de-watered at an approved hard ground site, prior to final disposition. The project is planned for two phases and is anticipated to take 12 months per phase.

Thank you for your attention to this matter and we look forward to hearing from your office in a timely manner. If there are any questions on this project, please feel free to contact our office.

Very truly yours,

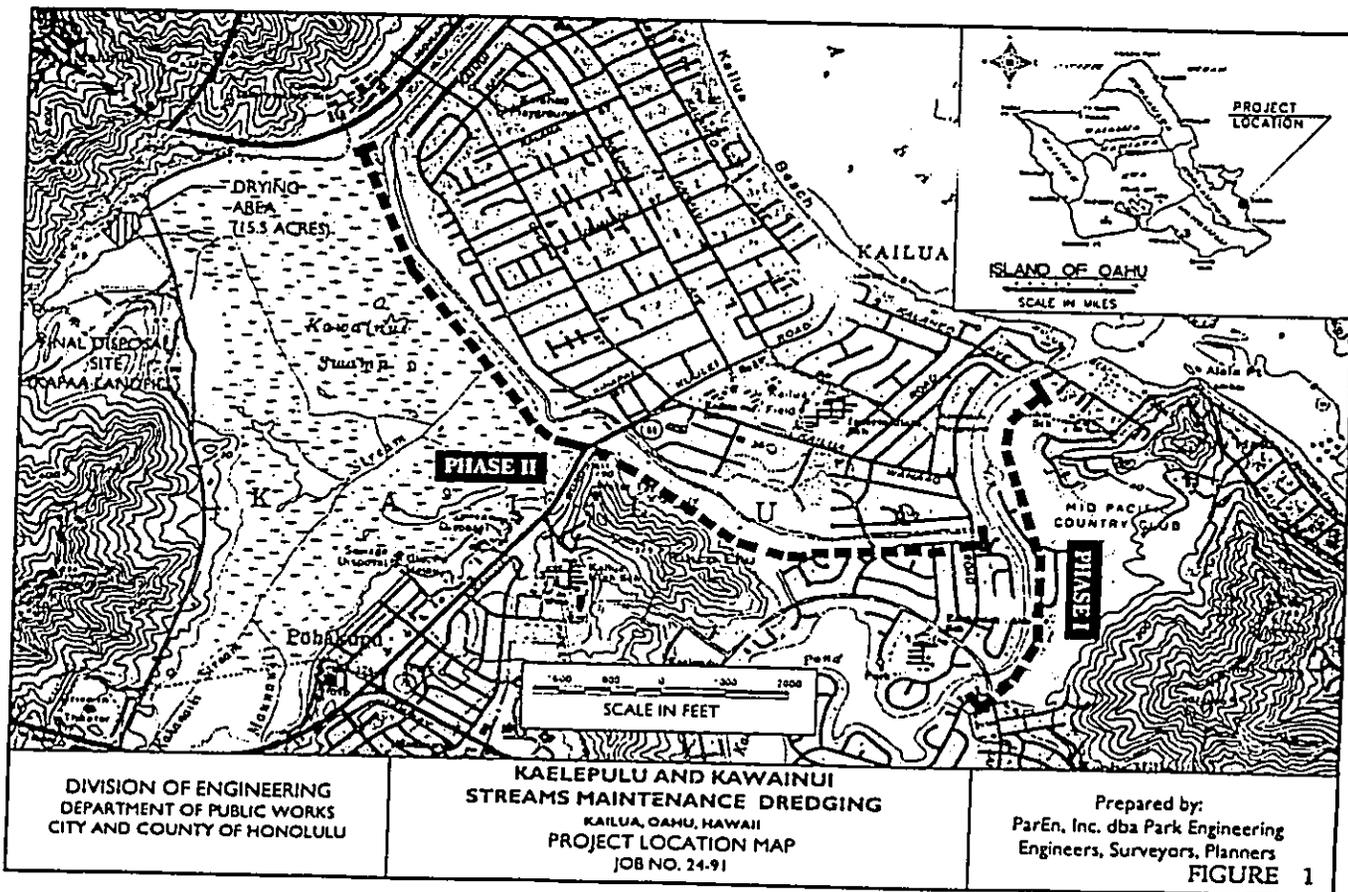
F. J. Rodriguez

FJR:kc

Enclosure: Preliminary Site Plan

cc: Derrick Elfalan (without enclosure)

115 FORT STREET MAIL SUITE 200 • P. O. BOX 534 • HONOLULU, HAWAII 96829 • TELEPHONE (808) 537-8391



Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-2 (6.1')	Date Sampled:	05/22/91
Lab Number:	9105319-01A	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/06/91
Preparation Method:	EPA 1311 ZHE	Date Analyzed:	06/10/91
Extraction Method:	EPA 5030		
Analytical Method:	EPA 8240		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Volatile Organic Compounds</u>				
benzene	71-43-2	ND	0.5	0.02
carbon tetrachloride	56-23-5	ND	0.5	0.02
chlorobenzene	108-90-7	ND	100.0	0.02
chloroform	67-66-3	ND	6.0	0.02
1,2-dichloroethane	107-06-2	ND	0.5	0.02
1,1-dichloroethylene	75-35-4	ND	0.7	0.02
methyl ethyl ketone	78-93-3	ND	200.0	0.1
tetrachloroethylene	127-18-4	ND	0.7	0.02
trichloroethylene	79-01-6	ND	0.5	0.02
vinyl chloride	75-01-4	ND	0.2	0.02

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-3 (3.5')	Date Sampled:	05/23/91
Lab Number:	9105319-02A	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/06/91
Preparation Method:	EPA 1311 ZHE	Date Analyzed:	06/1/91
Extraction Method:	EPA 5030		
Analytical Method:	EPA 8240		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Volatile Organic Compounds</u>				
benzene	71-43-2	ND	0.5	0.02
carbon tetrachloride	56-23-5	ND	0.5	0.02
chlorobenzene	108-90-7	ND	100.0	0.02
chloroform	67-66-3	ND	6.0	0.02
1,2-dichloroethane	107-06-2	ND	0.5	0.02
1,1-dichloroethylene	75-35-4	ND	0.7	0.02
methyl ethyl ketone	78-93-3	ND	200.0	0.1
tetrachloroethylene	127-18-4	ND	0.7	0.02
trichloroethylene	79-01-6	ND	0.5	0.02
vinyl chloride	75-01-4	ND	0.2	0.02

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-4 (6.0')	Date Sampled:	05/24/91
Lab Number:	9105319-03A	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/06/91
Preparation Method:	EPA 1311 ZHE	Date Analyzed:	06/10/91
Extraction Method:	EPA 5030		
Analytical Method:	EPA 8240		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Volatile Organic Compounds</u>				
benzene	71-43-2	ND	0.5	0.02
carbon tetrachloride	56-23-5	ND	0.5	0.02
chlorobenzene	108-90-7	ND	100.0	0.02
chloroform	67-66-3	ND	6.0	0.02
1,2-dichloroethane	107-06-2	ND	0.5	0.02
1,1-dichloroethylene	75-35-4	ND	0.7	0.02
methyl ethyl ketone	78-93-3	ND	200.0	0.1
tetrachloroethylene	127-18-4	ND	0.7	0.02
trichloroethylene	79-01-6	ND	0.5	0.02
vinyl chloride	75-01-4	ND	0.2	0.02

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-6 (3')	Date Sampled:	05/24/91
Lab Number:	9105319-04A	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/06/91
Preparation Method:	EPA 1311 ZHE	Date Analyzed:	06/10/91
Extraction Method:	EPA 5030		
Analytical Method:	EPA 8240		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Volatile Organic Compounds</u>				
benzene	71-43-2	ND	0.5	0.02
carbon tetrachloride	56-23-5	ND	0.5	0.02
chlorobenzene	108-90-7	ND	100.0	0.02
chloroform	67-66-3	ND	6.0	0.02
1,2-dichloroethane	107-06-2	ND	0.5	0.02
1,1-dichloroethylene	75-35-4	ND	0.7	0.02
methyl ethyl ketone	78-93-3	ND	200.0	0.1
tetrachloroethylene	127-18-4	ND	0.7	0.02
trichloroethylene	79-01-6	ND	0.5	0.02
vinyl chloride	75-01-4	ND	0.2	0.02

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9105319-05A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Extracted:	06/06/91
Preparation Method:	EPA 1311 ZHE	Date Analyzed:	06/10/91
Extraction Method:	EPA 5030		
Analytical Method:	EPA 8240		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Volatile Organic Compounds</u>				
benzene	71-43-2	ND	0.5	0.02
carbon tetrachloride	56-23-5	ND	0.5	0.02
chlorobenzene	108-90-7	ND	100.0	0.02
chloroform	67-66-3	ND	6.0	0.02
1,2-dichloroethane	107-06-2	ND	0.5	0.02
1,1-dichloroethylene	75-35-4	ND	0.7	0.02
methyl ethyl ketone	78-93-3	ND	200.0	0.1
tetrachloroethylene	127-18-4	ND	0.7	0.02
trichloroethylene	79-01-6	ND	0.5	0.02
vinyl chloride	75-01-4	ND	0.2	0.02

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-2 (8.0')	Date Sampled:	05/22/91
Lab Number:	9105319-01B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/07/91
Preparation Method:	EPA 1311	Date Analyzed:	06/11/91
Extraction Method:	EPA 3510		
Analytical Method:	EPA 8270		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Semivolatile Organic Compounds</u>				
o-Cresol	95-48-7	ND	200.0	0.01
m,p-Cresol	--	ND	200.0	0.01
Cresol (Total)	--	ND	200.0	0.01
1,4-Dichlorobenzene	106-46-7	ND	7.5	0.01
2,4-Dinitrotoluene	121-14-2	ND	0.13	0.01
Hexachlorobenzene	118-74-1	ND	0.13	0.01
Hexachlorobutadiene	87-86-3	ND	0.5	0.01
Hexachloroethane	67-72-1	ND	3.0	0.01
Nitrobenzene	98-95-3	ND	2.0	0.01
Pentachlorophenol	87-86-5	ND	100.0	0.01
Pyridine	110-86-1	ND	5.0	0.01
2,4,5-Trichlorophenol	95-95-4	ND	400.0	0.01
2,4,6-Trichlorophenol	88-06-2	ND	2.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-3 (4.5')	Date Sampled:	05/23/91
Lab Number:	9105319-02B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/07/91
Preparation Method:	EPA 1311	Date Analyzed:	06/11/91
Extraction Method:	EPA 3510		
Analytical Method:	EPA 8270		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Semivolatile Organic Compounds</u>				
o-Cresol	95-48-7	ND	200.0	0.01
m,p-Cresol	--	ND	200.0	0.01
Cresol (Total)	--	ND	200.0	0.01
1,4-Dichlorobenzene	106-46-7	ND	7.5	0.01
2,4-Dinitrotoluene	121-14-2	ND	0.13	0.01
Hexachlorobenzene	118-74-1	ND	0.13	0.01
Hexachlorobutadiene	87-86-3	ND	0.5	0.01
Hexachloroethane	67-72-1	ND	3.0	0.01
Nitrobenzene	98-95-3	ND	2.0	0.01
Pentachlorophenol	87-86-5	ND	100.0	0.01
Pyridine	110-86-1	ND	5.0	0.01
2,4,5-Trichlorophenol	95-95-4	ND	400.0	0.01
2,4,6-Trichlorophenol	88-06-2	ND	2.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-4 (7.0')	Date Sampled: 05/24/91
Lab Number: 9105319-03B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Extracted: 06/07/91
Preparation Method: EPA 1311	Date Analyzed: 06/11/91
Extraction Method: EPA 3510	
Analytical Method: EPA 8270	

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Semivolatile Organic Compounds</u>				
o-Cresol	95-48-7	ND	200.0	0.01
m,p-Cresol	--	ND	200.0	0.01
Cresol (Total)	--	ND	200.0	0.01
1,4-Dichlorobenzene	106-46-7	ND	200.0	0.01
2,4-Dinitrotoluene	121-14-2	ND	7.5	0.01
Hexachlorobenzene	118-74-1	ND	0.13	0.01
Hexachlorobutadiene	87-86-3	ND	0.13	0.01
Hexachloroethane	67-72-1	ND	0.5	0.01
Nitrobenzene	98-95-3	ND	3.0	0.01
Pentachlorophenol	87-86-5	ND	2.0	0.01
Pyridine	110-86-1	ND	100.0	0.01
2,4,5-Trichlorophenol	95-95-4	ND	5.0	0.01
2,4,6-Trichlorophenol	88-06-2	ND	400.0	0.01
			2.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-6 (4')	Date Sampled:	05/24/91
Lab Number:	9105319-04B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Extracted:	06/07/91
Preparation Method:	EPA 1311	Date Analyzed:	06/11/91
Extraction Method:	EPA 3510		
Analytical Method:	EPA 8270		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Semivolatile Organic Compounds</u>				
o-Cresol	95-48-7	ND	200.0	0.01
m,p-Cresol	--	ND	200.0	0.01
Cresol (Total)	--	ND	200.0	0.01
1,4-Dichlorobenzene	106-46-7	ND	7.5	0.01
2,4-Dinitrotoluene	121-14-2	ND	0.13	0.01
Hexachlorobenzene	118-74-1	ND	0.13	0.01
Hexachlorobutadiene	87-86-3	ND	0.5	0.01
Hexachloroethane	67-72-1	ND	3.0	0.01
Nitrobenzene	98-95-3	ND	2.0	0.01
Pentachlorophenol	87-86-5	ND	100.0	0.01
Pyridine	110-86-1	ND	5.0	0.01
2,4,5-Trichlorophenol	95-95-4	ND	400.0	0.01
2,4,6-Trichlorophenol	88-06-2	ND	2.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: METHOD BLANK	Date Sampled: --
Lab Number: 9105319-05A	Date Received: --
Sample Matrix/Media: SOIL	Date Extracted: 06/07/91
Preparation Method: EPA 1311	Date Analyzed: 06/11/91
Extraction Method: EPA 3510	
Analytical Method: EPA 8270	

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Semivolatile Organic Compounds</u>				
o-Cresol	95-48-7	ND	200.0	0.01
m,p-Cresol	--	ND	200.0	0.01
Cresol (Total)	--	ND	200.0	0.01
1,4-Dichlorobenzene	106-46-7	ND	7.5	0.01
2,4-Dinitrotoluene	121-14-2	ND	0.13	0.01
Hexachlorobenzene	118-74-1	ND	0.13	0.01
Hexachlorobutadiene	87-86-3	ND	0.5	0.01
Hexachloroethane	67-72-1	ND	3.0	0.01
Nitrobenzene	98-95-3	ND	2.0	0.01
Pentachlorophenol	87-86-5	ND	100.0	0.01
Pyridine	110-86-1	ND	5.0	0.01
2,4,5-Trichlorophenol	95-95-4	ND	400.0	0.01
2,4,6-Trichlorophenol	88-06-2	ND	2.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-2 (8.0')	Date Sampled:	05/22/91
Lab Number:	9105319-01B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Prepared:	06/11/91
Preparation Method:	EPA 1311	Date Extracted:	06/11/91
Extraction Method:	EPA 3510	Date Analyzed:	06/12/91
Analytical Method:	EPA 8080		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Chlorinated Hydrocarbons</u>				
Chlordane	57-74-9	ND	0.03	0.003
Endrin	72-20-8	ND	0.02	0.0005
Heptachlor	76-44-8	ND	0.008	0.0005
Heptachlor epoxide	1024-57-3	ND	0.008	0.0005
Lindane (gamma-BHC)	58-89-9	ND	0.4	0.0005
Methoxychlor	72-43-5	ND	10.0	0.005
Toxaphene	8001-35-2	ND	0.5	0.05

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-3 (4.5')	Date Sampled: 05/23/91
Lab Number: 9105319-02B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Prepared: 06/11/91
Preparation Method: EPA 1311	Date Extracted: 06/11/91
Extraction Method: EPA 3510	Date Analyzed: 06/12/91
Analytical Method: EPA 8080	

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Chlorinated Hydrocarbons</u>				
Chlordane	57-74-9	ND	0.03	0.003
Endrin	72-20-8	ND	0.02	0.0005
Heptachlor	76-44-8	ND	0.008	0.0005
Heptachlor epoxide	1024-57-3	ND	0.008	0.0005
Lindane (gamma-BHC)	58-89-9	ND	0.4	0.0005
Methoxychlor	72-43-5	ND	10.0	0.005
Toxaphene	8001-35-2	ND	0.5	0.05

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-4 (7.0')	Date Sampled: 05/24/91
Lab Number: 9105319-03B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Prepared: 06/11/91
Preparation Method: EPA 1311	Date Extracted: 06/11/91
Extraction Method: EPA 3510	Date Analyzed: 06/12/91
Analytical Method: EPA 8080	

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Chlorinated Hydrocarbons</u>				
Chlordane	57-74-9	ND	0.03	0.003
Endrin	72-20-8	ND	0.02	0.0005
Heptachlor	76-44-8	ND	0.008	0.0005
Heptachlor epoxide	1024-57-3	ND	0.008	0.0005
Lindane (gamma-BHC)	58-89-9	ND	0.4	0.0005
Methoxychlor	72-43-5	ND	10.0	0.005
Toxaphene	8001-35-2	ND	0.5	0.05

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-6 (4')	Date Sampled:	05/24/91
Lab Number:	9105319-04B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Prepared:	06/11/91
Preparation Method:	EPA 1311	Date Extracted:	06/11/91
Extraction Method:	EPA 3510	Date Analyzed:	06/12/91
Analytical Method:	EPA 8080		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Chlorinated Hydrocarbons</u>				
Chlordane	57-74-9	ND	0.03	0.003
Endrin	72-20-8	ND	0.02	0.0005
Heptachlor	76-44-8	ND	0.008	0.0005
Heptachlor epoxide	1024-57-3	ND	0.008	0.0005
Lindane (gamma-BHC)	58-89-9	ND	0.4	0.0005
Methoxychlor	72-43-5	ND	10.0	0.005
Toxaphene	8001-35-2	ND	0.5	0.05

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9105319-05A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Prepared:	06/11/91
Preparation Method:	EPA 1311	Date Extracted:	06/11/91
Extraction Method:	EPA 3510	Date Analyzed:	06/12/91
Analytical Method:	EPA 8080		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Chlorinated Hydrocarbons</u>				
Chlordane	57-74-9	ND	0.03	0.003
Endrin	72-20-8	ND	0.02	0.0005
Heptachlor	76-44-8	ND	0.008	0.0005
Heptachlor epoxide	1024-57-3	ND	0.008	0.0005
Lindane (gamma-BHC)	58-89-9	ND	0.4	0.0005
Methoxychlor	72-43-5	ND	10.0	0.005
Toxaphene	8001-35-2	ND	0.5	0.05

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-2 (8.0')	Date Sampled: 05/22/91
Lab Number: 9105319-01B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Prepared: 06/11/91
Preparation Method: EPA 1311	Date Extracted: 06/11/91
Extraction Method: EPA 3510	Date Analyzed: 06/12/91
Analytical Method: EPA 8150	

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Herbicides</u>				
2,4-D	94-75-7	ND	10.0	0.01
2,4,5-TP (Silvex)	93-72-1	ND	1.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-3 (4.5')	Date Sampled:	05/23/91
Lab Number:	9105319-02B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Prepared:	06/11/91
Preparation Method:	EPA 1311	Date Extracted:	06/11/91
Extraction Method:	EPA 3510	Date Analyzed:	06/12/91
Analytical Method:	EPA 8150		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Herbicides</u>				
2,4-D	94-75-7	ND	10.0	0.01
2,4,5-TP (Silvex)	93-72-1	ND	1.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-4 (7.0')	Date Sampled: 05/24/91
Lab Number: 9105319-03B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Prepared: 06/11/91
Preparation Method: EPA 1311	Date Extracted: 06/11/91
Extraction Method: EPA 3510	Date Analyzed: 06/12/91
Analytical Method: EPA 8150	

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Herbicides</u>				
2,4-D	94-75-7	ND	10.0	0.01
2,4,5-TP (Silvex)	93-72-1	ND	1.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-6 (4')	Date Sampled:	05/24/91
Lab Number:	9105319-04B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Prepared:	06/11/91
Preparation Method:	EPA 1311	Date Extracted:	06/11/91
Extraction Method:	EPA 3510	Date Analyzed:	06/12/91
Analytical Method:	EPA 8150		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Herbicides</u>				
2,4-D	94-75-7	ND	10.0	0.01
2,4,5-TP (Silvex)	93-72-1	ND	1.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9105319-05A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Prepared:	06/11/91
Preparation Method:	EPA 1311	Date Extracted:	06/11/91
Extraction Method:	EPA 3510	Date Analyzed:	06/12/91
Analytical Method:	EPA 8150		

Compound	CAS No.	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Herbicides</u>				
2,4-D	94-75-7	ND	10.0	0.01
2,4,5-TP (Silvex)	93-72-1	ND	1.0	0.01

* per 40 CFR Part 261.24

ND Not detected at or above limit of detection
-- Information not available or not applicable

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-2 (8.0')	Date Sampled:	05/22/91
Lab Number:	9105319-01B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Prepared:	06/12/91
Preparation Method:	EPA 1311	Date Analyzed:	06/11/91
Analytical Method:	EPA 6010		

Analyte	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Metals</u>			
Arsenic	<0.1	5.0	0.1
Barium	0.3	100.0	0.1
Cadmium	<0.05	1.0	0.05
Chromium	<0.1	5.0	0.1
Lead	<0.1	5.0	0.1
Mercury **	<0.01	0.2	0.01
Selenium	<0.1	1.0	0.1
Silver	<0.1	5.0	0.1

< Less than, below limit of detection
-- Information not available or not applicable

* per 40 CFR Part 261.24

** Analytical method EPA 7470, analyzed 06/12/91

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-3 (4.5')	Date Sampled: 05/23/91
Lab Number: 9105319-02B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Prepared: 06/12/91
Preparation Method: EPA 1311	Date Analyzed: 06/11/91
Analytical Method: EPA 6010	

Analyte	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Metals</u>			
Arsenic	<0.1	5.0	0.1
Barium	0.5	100.0	0.1
Cadmium	<0.05	1.0	0.05
Chromium	<0.1	5.0	0.1
Lead	<0.1	5.0	0.1
Mercury **	<0.01	0.2	0.01
Selenium	<0.1	1.0	0.1
Silver	<0.1	5.0	0.1

< Less than, below limit of detection
 -- Information not available or not applicable
 * per 40 CFR Part 261.24
 ** Analytical method EPA 7470, analyzed 06/12/91

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification: B-4 (7.0')	Date Sampled: 05/24/91
Lab Number: 9105319-03B	Date Received: 05/30/91
Sample Matrix/Media: SOIL	Date Prepared: 06/12/91
Preparation Method: EPA 1311	Date Analyzed: 06/11/91
Analytical Method: EPA 6010	

Analyte	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Metals</u>			
Arsenic	<0.1	5.0	0.1
Barium	0.4	100.0	0.1
Cadmium	<0.05	1.0	0.05
Chromium	<0.1	5.0	0.1
Lead	<0.1	5.0	0.1
Mercury **	<0.01	0.2	0.01
Selenium	<0.1	1.0	0.1
Silver	<0.1	5.0	0.1

< Less than, below limit of detection
-- Information not available or not applicable

* per 40 CFR Part 261.24

** Analytical method EPA 7470, analyzed 06/12/91

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	B-6 (4')	Date Sampled:	05/24/91
Lab Number:	9105319-04B	Date Received:	05/30/91
Sample Matrix/Media:	SOIL	Date Prepared:	06/12/91
Preparation Method:	EPA 1311	Date Analyzed:	06/11/91
Analytical Method:	EPA 6010		

Analyte	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Metals</u>			
Arsenic	0.1	5.0	0.1
Barium	0.4	100.0	0.1
Cadmium	<0.05	1.0	0.05
Chromium	<0.1	5.0	0.1
Lead	<0.1	5.0	0.1
Mercury **	<0.01	0.2	0.01
Selenium	<0.1	1.0	0.1
Silver	<0.1	5.0	0.1

< Less than, below limit of detection
-- Information not available or not applicable

* per 40 CFR Part 261.24

** Analytical method EPA 7470, analyzed 06/12/91

Results of Analysis
for
GEOLABS

Client Reference: 2693-00
Clayton Project No. 91053.19

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9105319-05A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Prepared:	06/12/91
Preparation Method:	EPA 1311	Date Analyzed:	06/11/91
Analytical Method:	EPA 6010		

Analyte	Extract Concentration (mg/L)	Regulatory Level * (mg/L)	Limit of Detection (mg/L)
<u>TCLP - Metals</u>			
Arsenic	<0.1	5.0	0.1
Barium	<0.1	100.0	0.1
Cadmium	<0.05	1.0	0.05
Chromium	<0.1	5.0	0.1
Lead	<0.1	5.0	0.1
Mercury **	<0.01	0.2	0.01
Selenium	<0.1	1.0	0.1
Silver	<0.1	5.0	0.1

< Less than, below limit of detection

-- Information not available or not applicable

* per 40 CFR Part 261.24

** Analytical method EPA 7470, analyzed 06/12/91



ENVIRONMENTAL CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only Page of
Project No.
Batch No. 9105319
Client No.
Date Logged In 5/30/91 By TS
Client Job No. 2093-00

Name D. FRAIM
Company GEOLABS - HAWAII
Address 2006 KALUHI ST.
City, State, Zip Honolulu, HI 96819

Name DAYTON E. FRAIM
Company GEOLABS - HAWAII
Address 2006 KALUHI ST.
City, State, Zip Honolulu, HI 96819
Telephone No. (806) 841-5064
Title Sr. Project Geologist

Date Results Required ASAP
Rush Charges Authorized? Yes
Special Instructions: (method, limit of detection, etc.)
Explanation of Preservative: TCLP soil? fresh water

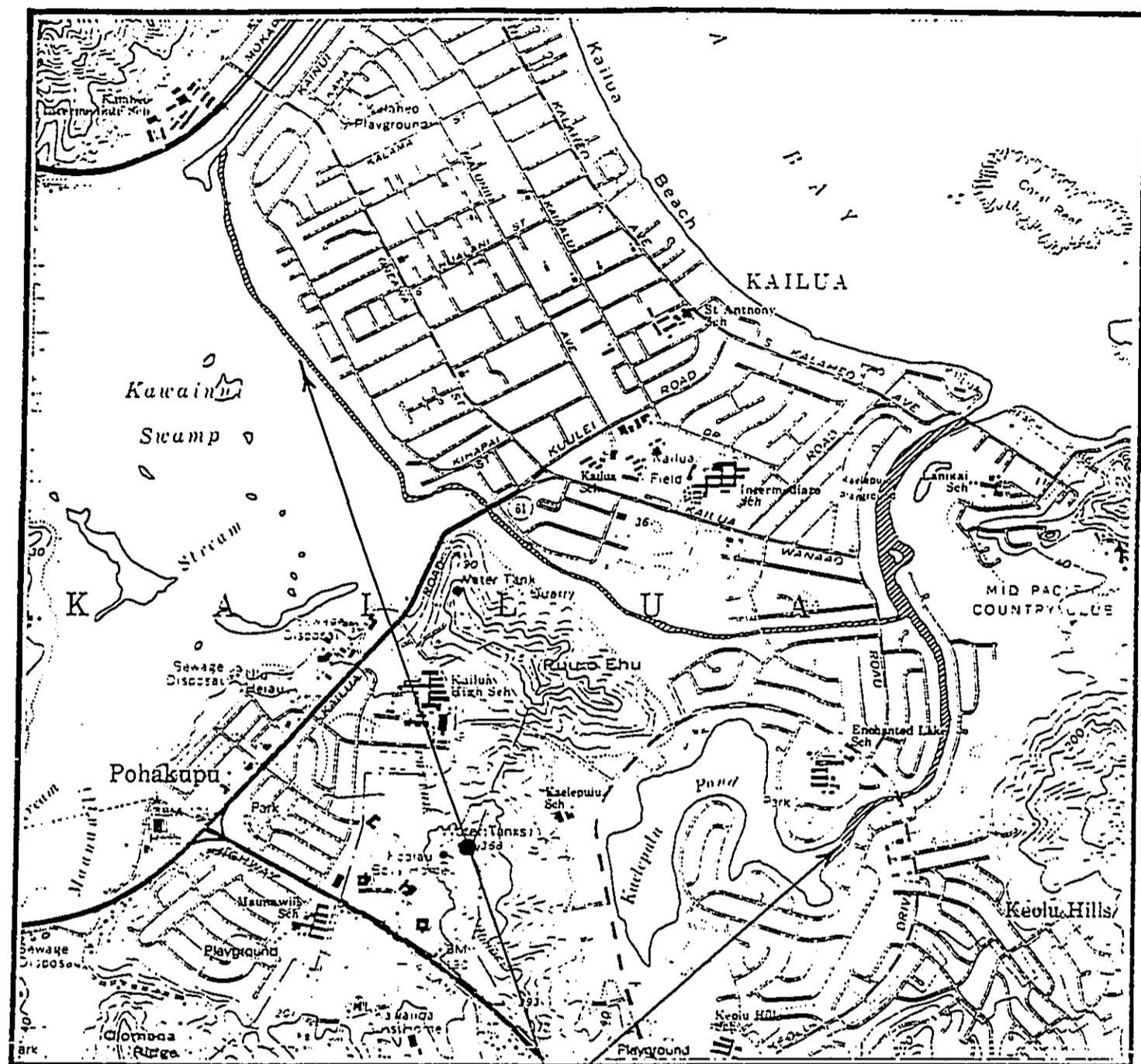
Table with columns: CLIENT SAMPLE IDENTIFICATION, DATE SAMPLED, MATRIX/MEDIA, AIR VOLUME, Samples are: (check if applicable) Drinking Water, Collected in the State of New York

Table with columns: Number of Containers, ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added.)*, FOR LAB USE ONLY

Relinquished by:
Relinquished by:
Method of Shipment:
Authorized by:
Date 25 May 1991

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:
22345 Rochel Drive, Novi, MI 48050
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144
1252 Quarry Lane, Pleasanton, CA 94566

DISTRIBUTION: WHITE - Clayton Laboratory, YELLOW - Clayton Accounting, PINK - Client Copy



GENERAL PROJECT LOCATION

PROJECT LOCATION MAP

SEDIMENT SAMPLING OF
KAWAINUI AND KAELEPULU STREAMS
KAILUA, OAHU, HAWAII

REFERENCE: U.S.G.S. QUADRANGLE
MAP; MOKAPU, OAHU, HAWAII (1983)

PLATE 1

	GEOLABS-HAWAII	
	Foundation & Soil Engineering • Geology	
	DATE JULY 1991	DRAWN BY K H N
SCALE 1" = 2,000'	W.O. 2693-00	

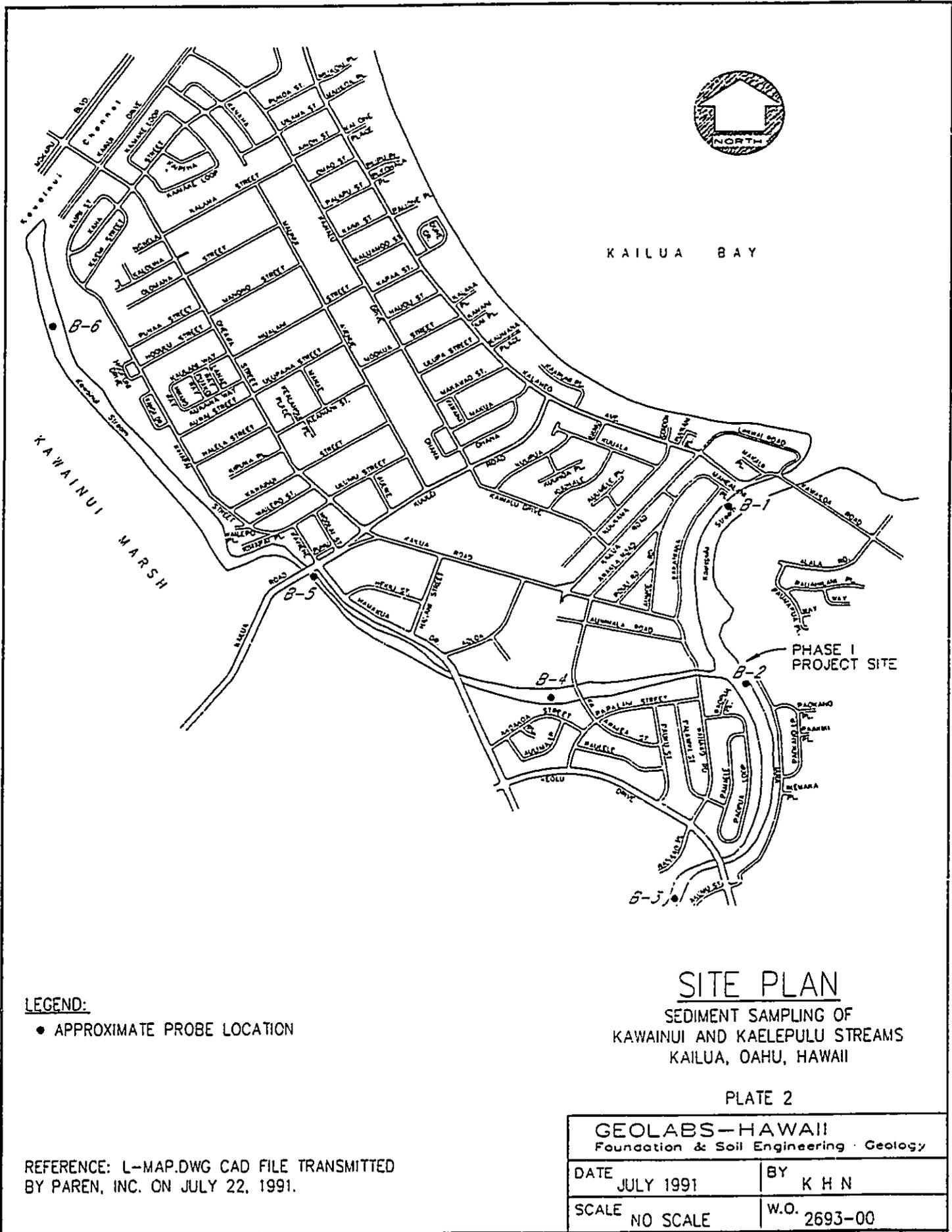


EXHIBIT B

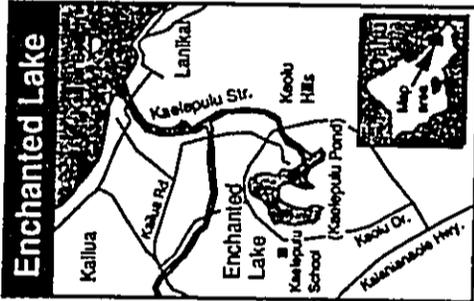
Stench from Enchanted Lake explained

By Thomas Kaber
Advertiser Staff Writer

Kailua's Enchanted Lake has a not-so-enchanting stench these days, and it's likely to remain for another next week or two unless heavy rains return, according to the state Health Department.

The lake's west shore, along Keolu Drive near Kaelepuu School, always has a swampy gas smell from the droppings of egrets that roost in mangrove trees there. But the current odor covers a much wider area, and immediately following the recent rains it was noticeable from miles away.

Enchanted Lake, historically called Kaelepuu Pond, is supposed to drain through Kaelepuu Stream and into the ocean at Kailua Beach Park, but a wave-formed sand berm there normally blocks that outflow. During the recent heavy rains, city bulldozers opened up the berm so the lake and nearby streams would not flood.



According to Bruce Anderson, state deputy director for environmental health, so much water has drained out of the lake that some of its mud bottom — and decaying material in it — has been exposed,

causing a distinct hydrogen sulfide, or swamp-gas, odor. "The smell poses no health hazard," Anderson says, but it will remain until the exposed mud and decaying material either dries up or is covered up by a rising water level created by more rains.

Sam Callejo, city director of public works, confirmed yesterday that bulldozers opened the berm March 11 through 14, "and it was still open the last time we checked, which was this past weekend." He said the city normally opens the berm about once a month — and when there is an impending rainstorm — to allow Enchanted Lake and nearby streams to drain.

The Health Department does have the authority to impose penalties for creating an odor. But Anderson said the department does not anticipate penalizing the city for apparently creating this odor.

"Their actions were well-intended. The prevention of Lake's water isn't much better,

but public access to the lake is limited, so no signs have been posted there yet," Anderson said.

"We would certainly caution anyone about swimming in Enchanted Lake or any of its streams because the bacteria levels we're getting exceed our recreational water-quality standards. There's just too much stagnant water in that whole area. When water stagnates, bacteria builds up."

"Whenever you have mangrove trees, you can expect roosting birds, a lot of decaying organic material, and the odor of hydrogen sulfide and other sulfurous compounds — the same gas you smell around sewage-treatment plants and geothermal wells."

"There's nothing harmful about this odor; it causes no serious or long-term health problems. It just stinks — and most people can smell it at very low levels."

APR 2 1991

No quick fix to sewage woes, Kailua folks told

By Christopher Neil
Advertiser Staff Writer

About 70 Kailua residents gathered at Kailua Intermediate School last night for a progress report on planned improvements to the Kailua sewage treatment plant.

Many took the opportunity to complain to a battery of state and county officials about persistent foul odors from Kaelepuu Pond and beach closures caused by sewage spills and organic matter washed down Kaelepuu Stream and into the ocean in the recent heavy rains.

State Rep. Cynthia Thelen, R-19th District (Kaelepuu/Kailua), who moder-



ated the meeting, asked several times what residents could do to obtain a "quick-fix" solution.

Deputy State Health Department Director Bruce Anderson told her there are no easy solutions.

"This problem has been in the making a long time," Anderson said.

"We all contribute to it every day and no regulatory agency is going to fix it overnight."

John T. Harrison, coordinator of the University of Hawaii's Environmental Center, agreed.

"Aroma wasn't built in a day," he punned.

The malodorous conditions around Enchanted Lake are caused by gas from decaying vegetable and animal matter, Anderson said. (See story above.)

Complaints about the sewage treatment plant — which empties into the ocean through the Mokapu outfall — centered last night on the beach closures that often follow heavy rain.

Rainwater overtaxes the sewage system and partially treated sewage ends up in the ocean.

Anderson said progress is being made on a \$61.3 million project to renovate the Kailua sewage treatment plant, but it won't be completed until mid-1994.

Currently the plant can process 5.5 million gallons of sewage a day; when the upgrades are completed, it will have a capacity of 15.2 million gallons a day, he said.

In 1988, Kailua residents' objections forced the city to back down on its plans to seek a waiver from federal rules about how much treated sewage must receive at Kailua before it's

pumped into the sea.

But Harrison said his studies show the stringent secondary treatment that's now required will have an insignificant effect on ocean water quality. Primary treatment is adequate if sewer lines are refurbished, manhole covers made watertight and illegal hook-ups to sewage lines suppressed, he said.

His remarks drew little applause. That was reserved for an elderly resident who said he believed there should be no contamination of ocean water whatsoever.

Thielen urged the assembly to make their concerns known to legis-

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EXHIBIT C

JOHN WAIHEE
GOVERNOR OF HAWAII



JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
ENVIRONMENTAL MANAGEMENT DIVISION
FIVE WATERFRONT PLAZA, SUITE 250
500 ALA MOANA BOULEVARD
HONOLULU, HAWAII 96813
December 18, 1991

In reply, please refer to:
EMD / SHW

S1225GS

Mr. Derrick Elfalan
Park Engineering
567 South King Street
Suite 300
Honolulu, Hawaii 96813

File: SW Corres./Alternate
Cover

Dear Mr. Elfalan:

Subject: Use of Kawainui Dredge Material
for Landfill Daily Cover

Regarding the telephone conversation on December 15, 1991, between yourself and Mr. Siu of my staff; we encourage alternative uses of materials that are normally disposed of in landfills. You should contact Ms. Wilma Namumnart of the City Department of Public Works, Refuse Division, concerning your proposal and if acceptable to the Refuse Division we will review it based on an evaluation of the alternative daily cover material as compared to soil cover. The enclosed attachment provides you with information on the functions of the daily cover.

In your evaluation you should include information on the possible disposal options for the Kawainui dredge material and an analysis of its percentage of organic material and its moisture content. You may wish to point out that soil is scarce and landfill space valuable, making the use of the material as alternative daily cover a needed option.

Should you have any questions, please contact Mr. Gary Siu of my staff at 586-4227.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Harder".

JOHN HARDER, Coordinator
Office of Solid Waste Management

GS:ma

cc: Wilma Namumnart
City & County of Honolulu, Refuse Division

Enclosure

CITY AND COUNTY OF HONOLULU

RECEIVED
DIV. OF ENGINEERING
DIVISION OF REFUSE COLLECTION AND DISPOSAL
630 SOUTH KING STREET, 14TH FLOOR
HONOLULU, HAWAII 96813

FEB 6 2 24 PM '92



FRANK F. FASI
MAYOR

SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

FRANK J. DOYLE
CHIEF

IN REPLY REFER TO:
RD 92-012

February 4, 1992

MEMORANDUM

TO: MR. MARVIN FUKAGAWA, CHIEF
DIVISION OF ENGINEERING

FROM: ROBERT YOUNG, ACTING CHIEF
DIVISION OF REFUSE COLLECTION AND DISPOSAL

SUBJECT: KAELEPULU/KAWAINUI STREAMS
MAINTENANCE DREDGING PROJECT

This is in response to your memo dated January 15, 1992, regarding the use of Kalaheo Sanitary Landfill as a temporary drying and stockpiling site. In consideration of possible impacts on the landfill and to the surrounding environment, we cannot permit the use of the landfill for that purpose.

Although the dredged material will be partially dewatered prior to delivery, assurances have not been given that the residual water content will not contribute to the eventual formation of leachate. We are also limited in area due to other ongoing remediation work, which may persist to the end of this year. At this time, therefore, we are not able to commit any area for your stockpiling needs.

As expressed previously, the high organic content would pose odor problems. Our past experience with odor complaints from the nearby residential community (while operating Kalaheo Landfill) makes us extremely cautious about activities which may once again affect public relations.

Mr. Marvin T. Fukagawa
February 4, 1992
Page 2

Once the moisture content of the dredged organic material is sufficiently reduced, we could use the material as daily cover material, subject to State Department of Health approval.

Sincerely,



ROBERT YOUNG
Acting Chief



AECOS

970 N. Kalaheo Avenue, Suite C311 • Kailua, Hawaii 96734
Telephone: (808) 254-5884

JOB: 670
DATE: 2/11/92
PAGE: 2 OF 2

Sample Name:	Sta 1	Sta 2	Sta 3	Sta 4	Sta 5	Analysis, Analyst
Measurements: (Unit)						
Dissolved Oxygen (mg/L)	7.8	6.65	12.10	5.80	8.50	1/16 ebg
Salinity (ppt)	14	14	15	17	21	1/16 ebg
Temperature (°C)	24.3	25.5	24.9	22.4	26.3	1/16 ebg