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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

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OFC. OF ENVIRONMENTAL QUALITY CONTROL

MAY 18 2000

MEMORANDUM

To: Genevieve Salmonson, Director
Office of Environmental Quality Control

From: Dean Y. Uchida, Administrator
Land Division

Subject: Final Environmental Assessment and Finding of no Significant Impact (FONSI) to the Environment to Support a Statewide Conservation District Use Application and State Program General Permit for Small-Scale Beach Nourishment Projects in the Hawaiian Islands

The Department of Land and Natural Resources is proposing a statewide authorization for small-scale beach nourishment projects in Hawaii. A draft environmental assessment was published for the proposed action on March 8, 2000. The Land Division has reviewed all comments received on the draft EA and has provided responses to each issue/question. Based on the scope, limitation and controls imposed on these types of beach nourishment projects, the Land Division has determined that small-scale beach nourishment projects will not have significant environmental effects. We hereby issue a FONSI for the action.

Please publish notice of availability for this project in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Bulletin Publication Form and four (4) copies of the application. Please contact Sam Lemmo of our Land Division's Planning Branch at 587-0381 should you have any questions.

Attachments

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2000-06-08-OA-FEA- Hawaiian Islands

ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT
IMPACT (FONSI) TO THE ENVIRONMENT

For (Small Scale Beach Nourishment) Projects in the Hawaiian Islands

And to Support the Processing of a
State Program General Permit and Conservation
District Use Application for
Small Scale Beach Nourishment Projects
In the State of Hawaii

DEPARTMENT OF LAND AND NATURAL RESOURCES
COASTAL LANDS PROGRAM
LAND DIVISION
JUNE 2000

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CHAPTER 1
INTRODUCTION AND PROJECT DESCRIPTION

1.1 ENVIRONMENTAL ASSESSMENT DOCUMENT

This environmental assessment (EA) document has been prepared by the Department of Land and Natural Resources (DLNR), Coastal Lands Program (CLP) in compliance with Chapter 343, of the Hawaii Revised Statues (HRS) and Title 11, Chapter 200 of the Hawaii Administrative Rules, as required for compliance with any applicable triggers under Chapter, 343 HRS and for the use of Conservation District lands.

The proposed State Program General Permit (SPGP) and statewide Conservation District Use Permit (CDUP) for small-scale beach nourishment projects are considered to be an "Agency Action" under Chapter 11-200-5, Subchapter 5, because implementation of the proposed actions would involve the use of submerged government lands. The purpose of this EA is to evaluate the significance of potential environmental impacts that could result from small-scale beach nourishment projects and to determine whether an environmental impact statement (EIS) is required. This assessment will assist the State Board of Land and Natural Resources (BLNR) and the U.S. Army Corps of Engineers in their review of the CDUP and SPGP.

The purpose of this EA is to meet Chapter 343 requirements and to complete the application requirements for a statewide Conservation District Use Application to authorize small-scale beach nourishment projects statewide. This EA may also be used by the U.S. Army Corps of Engineers to comply with any federal environmental review requirements in the processing of the SPGP. The DLNR, Coastal Lands Program believes that an EIS will not be required for this action since the whole intent of the SPGP is to provide only for small-scale

beach nourishment projects less than 10,000 cubic yards of sand. The SPGP includes strict procedural guidelines to mitigate any potential significant environmental impacts resulting from sand nourishment operations.

Applicant:	Department of Land and Natural Resources
Accepting Authority:	Department of Land and Natural Resources

1.2 AGENCIES/PARTIES CONSULTED IN MAKING THE ASSESSMENT

STATE OF HAWAII

- Department of Land and Natural Resources
  - Land Division
  - Division of Aquatic Resources
- Office of Environmental Quality Control
- Department of Health
  - Clean Water Branch
- University of Hawaii
  - Department of Geology and Geophysics
- Office of Planning, Coastal Zone Management Program

FEDERAL

- U.S. Army Corps of Engineers
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service

1.3 GENERAL DESCRIPTION OF THE PROPOSED ACTION

The loss of Hawaii's sandy beaches is a major social, economic, and environmental problem. Studies show that hardening the shoreline where there is chronic coastal erosion causes beach narrowing and

beach loss[1]. Researchers found that nearly 25 percent, or 17 miles of sandy beaches on the island of Oahu have been lost or severely narrowed over the past 70 years due to shoreline armoring on retreating shorelines. Similar losses have occurred on the island of Maui, and to a lesser degree, on Kauai and Hawaii.

In January of 1996, DLNR, Land Division initiated development of a strategic plan to address coastal erosion within a framework of beach protection, something that had never been attempted before in this State. These efforts resulted in the development of the Hawaii Coastal Erosion Management Plan (COEMAP)[2] adopted in August 1999 by the BLNR and the establishment of the Coastal Lands Program[3].

One of the plan's major recommendations is to promote beach nourishment and restoration as a viable alternative to shoreline armoring (i.e., the practice of building hard shoreline structures to stop land loss/shoreline retreat). Unfortunately, this customary practice has caused the accelerated loss of Hawaii's beaches. When a hard structure is present, beach loss can occur for two primary reasons: 1) the shoreline structure refocus wave and current action on the sandy beach, causing it to erode rather than retreat landward, and 2) these structures cut-off the supply of sand to the beach resulting in beach deflation or starvation.

Beach loss seriously impacts all of us. When beaches erode, shoreline access is lost. Recreation and cultural activities are limited, coastal habitat is impacted, and our visitor economy suffers.

Implementation of a statewide CDUP and Corps SPGP will streamline the permitting process for small-scale beach nourishment projects and consolidate permitting of these projects within one agency, the DLNR. This would provide an incentive for shore owner groups to seriously consider this practice as an alternative to shoreline armoring. Use

of small-scale beach nourishment in Hawaii could reduce the incidence of shoreline armoring and enhance public beaches with minimal negative environmental consequences.

A schematic representation of a generalized small-scale beach nourishment project of approximately 3,000 cubic yards of sand is included for informational purposes (Figure 1). Note that the project adds a substantial quantity of sand to a degraded beach and covers as much as 300 lineal feet of beach.

1.4 TECHNICAL CONSIDERATIONS

This environmental assessment (EA) will cover all beaches that have experienced sand loss. However, in accordance with the SPGP guidelines, some areas are excluded. Areas where sand extraction and/or beach nourishment may not occur without the written consent of the respective agency authority include known turtle nesting areas during egg-laying and hatching periods, endangered critical habitat, sanctuaries and refuges, historic properties, or in areas of recognized biological importance such as coral reefs, vegetated shallows, fish spawning grounds or areas of concentrated shellfish production, without the consent of the National Marine Fisheries Service, the DLNR Division of Aquatic Resources, and the U.S. Fish and Wildlife Service.

In addition, potential sand source areas, such as channel and stream mouths as well as small boat harbors, inland sand sources (excluding healthy dune ecosystems), and near shore sand deposits, will be included and covered under this EA. [Note: inland sand deposits would not necessarily be covered under this environmental document and would be subject to the regulatory requirements of the respective County authorities.]

Environmental quality in general will be maintained by adherence to the guidelines and project controls outlined in the SCDUP/SPGP, and through "Procedures for Applying for a Permit" (Appendix A), Special Conditions (Appendix B) and a Panel of Technical Experts (PTE) (Appendix C). The PTE will evaluate individual applications for consistency with the provisions of the SCDUP/SPGP. The PTE will ensure that individual projects will not cause significant negative environmental consequences. Some of the standard project controls are as follows:

1.4(a) Scope of Work

In accordance with the SPGP/SCDUP the following activities could potentially be considered for approval:

1. The placement of up to 10,000 cubic yards of sand for the purposes of restoring and nourishing the beach.

2. Construction, installation and removal of erosion protection, including, but not limited to appropriate and effective silt containment devices.

3. Placement of offshore submerged berms for the purposes of retaining sand on the adjacent beach by reducing the strength and/or frequency of waves and currents impinging on the shoreline. Small scale sand retention devices such as sand filled bags or rocks would be permissible under certain situations where the effects of the structures on coastal processes, marine organisms, mauka property and public access, could be shown to be negligible or otherwise benign due to existing conditions.

4. Sand that is dredged from a boat harbor should be placed on an adjacent shoreline in the same littoral cell.

5. Sand excavated from a stream mouth or channel-clearing project shall be placed on an adjacent shoreline in the same littoral cell.

6. Pumping of sand from the near shore area to adjacent beaches to nourish an erosion hot spot[1] or pumping sand into a porous geotextile bag, used for shore protection, under the condition that the extraction of the near shore sand source would not cause adverse effects to the beach profile.

[Note: This EA sets a limit on the amount of sand at 10,000 cubic yards (CY) per project. The DLNR will discourage multiple projects being proposed in a single area if the total amount of sand exceeds 10,000 CY. However, it is feasible that there could be two simultaneous projects, one in Lanikai and one at Kailua Beach. This would not be a problem because these areas are distinct and separate coastal segments. There would be no cumulative impacts. However, two projects occurring simultaneously in Lanikai could cause cumulative impacts in the Lanikai area. This would not be allowed.

Another possible scenario would be where small-scale beach nourishment projects are planned in phases - e.g., one 10,000 CY project in Lanikai every year for 10 years. This could create cumulative impacts in the area beyond that anticipated in the programmatic EA. This situation would need to be monitored to determine what additional steps would be required under the State environmental laws, consultation with resource agencies, and the CDUA process.]

1 An erosion hotspot is defined as a place where progressive coastal erosion or beach loss is causing management concerns due to the threat of economic, ecological, recreational, or cultural losses.

1.4(b) Limitations of Work

1. All sand placed for the purpose of beach nourishment must comply with Department of Health, Clean Water Branch regulations (Chapter 11-54, Hawaii Revised Statues) adopted pursuant to the Clean Water Act. Testing by a lab may be required when there is probable cause to believe that the material is contaminated as determined by the PTE, CLP or DOH.

2. The sand placed on the beach must be free of debris, clay, roots, branches and other organics, rubble, and other non-beach material; and, must be compatible in color and texture with the native beach sediment. The grain size distribution of the sand must be compatible with that of the pre-project native beach, more specifically determined as follows:

   a) The Grain size distribution of at least one typical, dry sample of the beach fill sediment shall be measured by laboratory sieves[2]. For this purpose, at least six (6) sieves shall be used, distributed more or less uniformly in size between, and inclusive of, the U.S. Standard # 4 sieve and the # 200 sieve. [Note: Physical sand size distribution is measured by shaking the oven-dried sand sample through a "nest" of sieves; coarsest on top, finest at the bottom, with a solid pan at the bottom. The sieves are shaken and the sand grains are distributed by size, the larger particles staying in the upper sieves (as in # 4

2 A sieve is a device with meshes or perforations through which particles of various sizes are passed to separate them from either finer or more course materials.

sieve) and the finer particles falling into the bottom sieves (as in # 200 sieve), and finally the pan. The mass retained in each sieve, and the pan, is expressed as a percentage of the total mass of material.]

b) The beach fill sediment shall contain not more than 6 percent fine sediments, defined as the #200 sieve (0.074 mm). [Note: This number may be adjusted where native beach sediments display a higher than normal percentage of fines. However, the percentage of fines shall never be higher than nine (9) percent.]

c) The beach fill sediments shall contain not more than 10 percent coarse sediments, defined as the #4 sieve (4.76 mm), excepting those native beaches that naturally exhibit greater than 10% coarse sediments.

d) For beach fill projects of 1,500 cubic yards or more, the compatibility of the native beach and fill shall be further demonstrated, as follows. The grain size distribution of the typical dried native beach sand shall be measured as described in (a). The grain size distribution of the beach fill sediment shall fall within 20 percent of the native beach sediment, as measured by cumulative percent-finer-than (or percent-coarser-than) values. (For example, if the native beach sand contains 45 percent grain size finer-than the #100 sieve, the beach fill must contain between 25 percent and 65 percent grain size finer-than the #100 sieve). Alternatively, and for cases where the beach fill grain size distribution curve is uniformly finer than the native beach, the overall fill ration of the fill sediment relative to the native beach shall not exceed 1.5.

1.4(c) Construction Methods

While there are no set guidelines for construction methods, the most common form of construction for beach nourishment projects include dredging at a borrow site, utilizing either clamshell or hydraulic suction dredge. In some cases, sand can be moved with loaders and bulldozers, placed in dump trucks and delivered to the nourishment site. In addition, there may be cases where sand is pumped via a pipeline from a near shore site directly to the beach. Dewatering may be required under some circumstances prior to placement of the material on a public beach.

At the nourishment site, sand would be dumped and then spread onto the beach with a loader or bulldozer. During nourishment operations, it is wise to erect signage in the vicinity of the project informing the general public of the nourishment operation. The general public should avoid the immediate project area while work is in progress.

1.4(d) Categories of Activities

Projects that fall within the scope of this EA will include Category I and Category II projects. All other projects will require individual permitting and individual environmental documentation.

Category I projects involve the placement of up to 500 cubic yards of sand within the shoreline area.

Category II projects involve the placement of more than 500 and up to 10,000 cubic yards of sand within the shoreline area.

Both categories are included within this EA. Category I projects would be expedited by the Coastal Lands Program staff, would not

require panel review or U.S. Army Corp of Engineers and Department of Health, Clean Water Branch review unless specifically requested. [Note: National Marine Fisheries Service will be consulted on all prospective beach nourishment and all offshore sand pumping projects.] Category II projects would require full PTE review and review by the U.S. Army Corp of Engineers and Department of Health, Clean Water Branch concurrence.

1.4(e) Panel of Technical Experts

A Panel of Technical Experts (PTE) was formed to review individual applications in order to ensure consistency with the provisions of the SPGP and to maintain a high level of environmental quality. The panel includes a marine biologist, coastal geologist and wave and current expert. The PTE will make recommendations on applications for small-scale beach nourishments projects (Category II). The PTE will also be consulted on all offshore sand borrowing proposals. The PTE will have discretion to apply special conditions or waive others that may not be necessary. Projects will be reviewed through a consensus-based process. The Chairperson of the Department of Land and Natural Resources will have final decision-making authority under the terms of the statewide CDUP. Furthermore, notice of Category II permits will be published in the Office of Environmental Quality Control, Environmental Notice for public review. A copy of the PTE guidelines is included as Appendix C.

1.5 ECONOMIC CONSIDERATIONS

Beach nourishment projects range in cost considerably due to a number of variable costs. While sand is a relatively cheap commodity per unit cost, other variables dictate ultimate project costs, such as the location of the sand source(s) and difficulty of extraction, cost of extraction and distance between borrow site and nourishment site.

Typically, delivered sand costs range from about $15/cubic yard to as much as $70/cubic yard. Incorporation of sand stabilizing structures will increase the cost of beach nourishment projects considerably. In addition, other costs must be considered such as consulting and permitting fees. Based on these figures, small-scale beach nourishment projects can range anywhere from $10,000 to $200,000.

The economic benefits of beach nourishment have often been discussed in the literature. Such benefits come in two forms. First, beaches form a natural buffer to prevent or reduce property damages resulting from storm surge and coastal erosion. Second, beaches induce economic activity in the form of tourism. In Miami Beach Florida, it has been reported that for every $1 invested in beach restoration, an additional $700 in tourism dollars was generated.

In the balance, this action would increase spending which would result in positive economic multipliers. Other benefits in the form of storm surge or erosion protection and increased tourism may also be realized.

1.6 SOCIAL CONSIDERATIONS

Both shorefront owners and the general public would benefit from small-scale beach nourishment projects. Shorefront owners would gain additional private property protection from potential storm surge and erosion damages. The general public would benefit from beach nourishment due to the expansion of beach areas for recreational, spiritual or cultural pursuits. While some beach nourishment may occur adjacent to private property, the general public would be given free access to newly restored beach areas below the shoreline.

1.7 ENVIRONMENTAL CONSIDERATIONS

Beaches are dynamic environments consisting of unique ecological communities. When beaches are degraded there is a potential for damage to plant and animal life. Beaches and dunes support an abundance of rare and unique life forms and are important in the life cycle of some of Hawaii's most important and endangered wildlife such as egg laying sea turtles and monk seals. Small-scale beach nourishment projects would enhance or restore degraded beach segments, thus improving the habitat of many organisms.

CHAPTER 2

EXISITING CONDITIONS

2.1 DESCRIPTION OF THE AFFECTED ENVIRONMENT

This EA will cover those activities covered in a State Program General Permit (SPGP) and Statewide Conservation District Use Permit (SCDUP) that will be issued by the U.S. Army Corps of Engineers and the Board of Land and Natural Resources (BLNR) respectfully. These permits will cover small-scale beach nourishment projects on sandy beaches in the Hawaiian Islands except for the excluded areas listed in the SPGP and SCDUP. In addition to the sand nourishment sites, sand sources, or "sand borrow" sites will be utilized. These areas will generally include channel, stream or harbor mouths where well-sorted beach sand has accumulated due to littoral drift. Sand is commonly dredged from these areas for maintenance purposes and placed on adjacent beaches. In some cases upland and/or near shore sand sources may be utilized for small-scale beach nourishment.

2.2 SUMMARY OF POTENTIAL IMPACTS AND THEIR SIGNIFICANCE

Beach nourishment work includes several different phases from dredging operations at the sand borrow site, to delivery methods, and finally, sand placement at the nourishment site. Each phase involves some negative and positive impact on the community and the environment.

2.2(a) Sand Extraction

During the sand-dredging phase, heavy equipment would be deployed which may, under certain circumstances, cause an inconvenience to the surrounding community, residences, boaters, and beach ocean users.

For dredging work in streams, harbors or in the near shore areas, there will be some release of particulate material, which would cause some turbidity (suspended solids in water column). The level or incidence of turbidity will depend on the amount of fines and sediment (dirt) in the sand source. Sand extraction from the near shore marine environment would likely be by hydraulic suction dredge, although clamshell might also be used. It is anticipated that hydraulic dredging of sand would cause short-term turbidity, which could cause some temporary environmental impacts, such as a reduction in water quality, water pollution and potential impacts to marine fauna. However, projects proposed under the SPGP/EA would be required to disclose information on the nature and extent of nearby marine life.

In addition, sand pumping from near shore waters would cause an alternation in the bottom by creating craters where the pump intake hose is located. The intake would be moved around to reduce cratering, and after time the sand would move around and redistribute itself to equilibrium state. However, were possible the intake should be somewhat stationary to reduce the possibility of disturbing surface dwelling organisms in the sand. The degree to which sweeping as opposed to pumping from a hole would depend on the thickness of the sand and the nature of the ecological communities found at the project site.

Turbidity can interfere with in-water recreational activities. However, since near shore sand deposits are generally well sorted and washed, and contain a low percentage of fines, these impacts would be temporary and short lived. Moreover, the generally small-scale nature of these activities would tend to reduce these potential impacts to acceptable levels.

In addition, sand extraction from the sea floor could have ecological consequences. Sand deposits contain small organisms that may serve

as food for larger invertebrates. However, small and localized sand extraction is not expected to adversely impact the marine food chain.

In some cases sand extraction from near shore channels may improve the habitat for shellfish and other invertebrates by restoring areas of vertical relief in the substrate.

Sand extraction from streams, channels and small boat harbor mouths would also result in turbidity that would likely migrate into marine waters. In some cases, removal of sediment blockages from streams and/or channels can release higher concentrations of sediment that has washed into the channel over time from upland areas. Under some situations, stream mouth or channel clearing projects already are permitted activities under U.S. Army Corps Nation Wide Permits, Department of Health and Department of Land and Natural Resources approvals.

Extraction of sand from upland sources is not expected to significantly impact natural resources, provided that sand is not extracted from near shore dunes. However, there are suitable relic sand deposits available for sand mining. This sand was deposited by wave, current and wind action thousands of years ago, when sea level was higher. Such viable deposits can exist as far as one mile landward of the shoreline. However, since cultural deposits could be present in these areas, a pre-project survey would need to be conducted prior to any decision-making on actual sand extraction. As noted on page 4 of this EA, inland sand deposits would not necessarily be covered under this environmental document and would be subject to the regulatory requirements of the respective County authorities.]

2.2(b) Sand Transport

After the sand is extracted from the borrow site, it must be transported to the nourishment site or staging area. Sand can be transported by two primary methods. The most common method of sand delivery on the U.S. Mainland is via pipeline directly to the nourishment site. Sand that is dredged from the ocean bottom is pumped in liquid slurry directly to the nourishment site. Potential impacts from this practice would involve potential damages resulting from the pipeline striking the marine substrate. In Hawaii, a smaller-scale version of this practice could be presently deployed using a boat, generator, 10-12 inch suction dredge and pipeline. Sand could be suction dredged from near shore sand channels and pumped through a PVC pipe to be discharged at the nourishment site. In order to avoid damage to coral, the pipes would have to be carefully affixed to the ocean bottom or floated in the water column. During the sand extraction operation, the area would have to be closed to the public.

Truck Haul is a commonly used mode of transportation of beach fill. This involves the loading of sand into the truck with a loader vehicle, transport over surface streets to the nourishment or staging area, dumping and spreading of the material by a bulldozer to the desired beach formation.

Impacts resulting from truck haul projects are generally social in nature. Increased truck activity in and around parks and neighborhoods can cause minor nuisances. In some cases, truck haul would result in temporary closure of one or two beach right-of-ways, which would be used by the trucks during the nourishment operation. The immediate beach area being nourished would also need to be closed to the public for safety purposes.

Another method of transport would be via a barge. Sand may be extracted from the seafloor and pumped into the barge and then transported to the nearest harbor for offloading. The sand could then be truck-hauled to the nourishment site.

2.2(c) Sand Nourishment

Sand nourishment would generally occur along sandy beach segments that have been subjected to chronic sand losses and are undergoing a sand deficit. The placement of sand within the shoreline area will have two primary impacts. First, people will be excluded from the area during the nourishment operation. Second, there will be some incidental turbidity due to the presence of fines and sediment in the material. For beach fill, fines and sediment are generally defined as a percentage of the total volume of the beach fill material. For the purpose of this program, beach fill sediments shall not contain more than 6 percent fine sediments (less than 0.074mm grain size or #200 sieve). Fines will be kept to a minimum to reduce turbidity and to ensure that the beach fill material is compatible with the resident beach sand. Sand nourishment can potentially displace or damage marine organisms if too much material is placed into the marine environment without the proper controls or if sand nourishment occurs directly adjacent to coral reefs or other important marine resources. However, with the proposed controls, namely high standards for sand quality, these impacts should be minimal.

There is a potential for negative impacts to the traditional and customary gathering rights of native Hawaiians if natural resources are damaged which native Hawaiians use, such as marine animals and plants. However, the program has been developed with limitations, controls and monitoring guidelines so that negative impacts can be minimized and avoided in most cases.

CHAPTER 3

ALTERNATIVES CONSIDERED

Beach nourishment serves two primary purposes such as shore protection and recreation. If the purpose of beach nourishment is to protect landward property and facilities from damage due to storm surge or chronic erosion, there are more effective alternatives to beach nourishment. The most common practice is shoreline armoring, which will buffer storm waves to some extent and halt coastal erosion (land loss). Shoreline armoring may be cheaper and more efficient than nourishment, but there are serious negative impacts associated some forms of armoring - e.g., grouted vertical seawalls.

Studies show that hardening the shoreline where there is chronic coastal erosion causes beach narrowing and beach loss. Studies show that nearly 25 percent of sandy beaches (17 miles) on the island of Oahu have been severely narrowed or lost over the past 70 years due to shoreline armoring. On the island of Maui, nearly 30 percent (9 miles) of the shoreline has experienced beach loss or significant narrowing.

While there are a number of possible factors (sea level rise, wave and current action, reef degradation and others) that taken together may result in beach loss, shoreline armoring has had the greatest impact on beach processes.

Other alternatives include developing erosion control technologies to slow the rate of erosion including the construction of offshore wave absorbing devices. Another long-term solution would involve shoreline retreat - i.e., the act of relocating structures away from the flood and/or erosion prone areas. This would allow shoreline processes to continue unabated and would promote natural beach formation on sandy shorelines.

The benefit of beach nourishment, although expensive, is that some degree of flood and erosion mitigation can be achieved with the added benefit of improving the beach for recreational purposes.

If the purpose of beach nourishment is to enhance recreational or environmental (dune ecosystem) values, there is no other substitute for beach nourishment except abandonment of the shoreline and removal of all structures and shoreline armoring.

Another alternative would be to do nothing. Beach loss would continue and society would suffer negative consequences. Beaches are also the backbone of Hawaii's visitor economy, which provides the bulk of the State's jobs and income. Beaches are also crucial for ecological, spiritual, local recreational and cultural reasons.

CHAPTER 4

PROPOSED MITIGATION MEASURES

There are potential problems in the beach nourishment operation. However, these can be sufficiently mitigated to acceptable and non-intrusive levels. First, standard Best Management Practices (BMPs) are identified in the SPGP/SCDUP, which will be imposed on a case-by-case basis -- i.e., silt containment devices may not be a required BMP in every case if the sand material is of high quality. In any case, the Coastal Lands Program staff and members of the Expert Panel will make these decisions, with input from the agencies.

However, the real impacts resulting from sand extraction, delivery and placement are mitigated by the choice of sand. Sand quality would be controlled by the SPGP/SCDUP specifications on sand grain size and fines content. The goal is to produce a sand source that contains the least amount of fines and sediment. Fines and sediment are generally responsible for the turbidity that results during the nourishment operation. In accordance with the SPGP/SCDUP, the maximum allowable percentage of fines (defined as 0.074mm in size) would be 6 percent of the material content. Much of the sand sources used for small-scale beach nourishment would have even fewer fines than the 6 percent threshold, because these sands would generally be well sorted (relic upland deposits), or if in water, well washed (recently accumulated sand in a channel, stream or harbor mouth).

In a recent sand-bypassing project from Kailua Beach (Kaelepulu Stream) to Lanikai Beach, turbidity test were conducted by AECOS Lab. The tests indicated a sharp decrease in Nansen Turbidity Units (NTU's) to normal background levels, only 12 hours after the cessation of nourishment operations (450 NTU to 7 NTU). The turbidity plume was also well contained within the project area,

never moving more than seven meters offshore. The tests clearly indicated that, while turbidity will result from nourishment operations, the effects are short lived. The tests show that the best method of controlling turbidity is to control the quality of the fill material.

If near shore hydraulic dredging and direct pumping to the beach are utilized, appropriate BMP's must be in place to protect water quality. The decision to use settling basins or containment devices would be made on a case-by-case basis. The appropriate technology and practice would be developed based on the site conditions.

Also, the applicant must try to maintain public access to these areas to the greatest extent possible during nourishment operations, although temporary closure may be required. During nourishment operations, it is wise to erect signage in the vicinity of the project informing the general public of the nourishment operation. The general public should avoid the immediate project area while work is in progress.

Other mitigation measures include periodic water quality monitoring, and curtailment of dredging or nourishment operations during unfavorable conditions that create greater potential for turbidity, such as strong offshore or longshore current and high tide conditions.

CHAPTER 5

GOVERNMENT PERMITS AND APPROVALS

The following government permits and approval are required:

Statewide Conservation District Use Application (DLNR)
State Program General Permit (Army Corps)
401 Water Quality Certification (DOH)
CZM Federal Consistency Clearance (CZM)
Right-of-Entry (DLNR)
Special Management Area Use Permit/Shoreline Setback Variance
(when project is landward of certified shoreline)

CHAPTER 6

DETERMINATION AND FINDINGS OF NO SIGNIFICANT IMPACT TO THE ENVIRONMENT (FONSI)

In accordance with provisions set forth in Chapter 343, Hawaii Revised Statutes, and the significance criteria in Section 11-200-12 of the Department of Health Administrative Rules, it has been determined that the proposed issuance of a SPGP/CDUP for small-scale beach nourishment projects will not have any significant adverse effects on the environment.

Although some minor, short-term impacts are expected to occur from these operations, small-scale beach nourishment is expected to enhance beach resources by reducing the demand for shoreline armoring, which may cause beach loss, and increasing the sand budget of degraded beach cells.

1. *No irrevocable commitment to loss or destruction of any natural or cultural resource would result.* The purpose of the Statewide CDUP/SPGP is to enhance natural resources (beaches), and provide shore owners with a soft protection alternative to hardening. In order to further protect natural resources, including cultural resources, certain areas will be excluded, such as historic properties, designated critical wildlife habitat or areas of recognized biological importance, unless written consent can be obtained from the proper agency authorities.

2. *Beach nourishment would not curtail the range of beneficial uses of the environment.* Small-scale beach nourishment projects will enhance the beneficial use of the environment by replacing sections of lost beaches and providing enhanced opportunities for recreation (beach use and access to the sea), cultural expression and ecological processes. Any impacts, such as

temporary turbidity would be short-lived.

3. *Beach nourishment would not conflict with the State's long-term environmental policies or goals and guidelines.* The State's environmental policies and guidelines as set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental Policy", encompass two broad polices: conservation of natural resources, and enhancement of the quality of life. Small-scale beach nourishment has the potential to conserve and enhance beach resources, and enhance the recreational experience for both visitors and the local populace.

4. *Beach nourishment will improve the economic and social welfare of the community and State.* Beaches have been called the backbone or engine of the State's economy. Beaches are essential for our livelihood and to maintain a competitive edge over other visitor destinations. Beaches are an inextricable part of Hawaii's history and culture. Beach nourishment will, therefore, improve and contribute to the economic and social welfare of the community and State.

5. *Beach Nourishment would not substantially affect public health.* Issuance of a general authorization for small-scale beach nourishment is not expected to impact public health. Some turbidity is expected to occur, but this would be temporary. Data collected by AECOS indicates that, with beach quality sand, turbidity levels drop rapidly after sand placement.

6. *Beach nourishment would not result in secondary impacts such as population changes or effects on public facilities.* Small-scale beach nourishment projects will not affect population, but could serve to protect public facilities from erosion damages.

7. *Beach nourishment is not expected to substantially degrade environmental quality.* Beach nourishment activities would be expected to produce short-term impacts including turbidity, noise for construction equipment and some potential inconvenience to the public who use the State's beaches. However, because the activities are small-scale in nature, these effects are not expected to be substantial.

8. *No cumulative effect on the environment or commitment to larger actions will be involved.* It is possible that several small-scale nourishment projects occurring within the same area and at the same time could result in cumulative effects. However, this is an unlikely scenario. In addition, larger projects that would not qualify as small-scale beach nourishment efforts would be excluded and would require individual permitting from the appropriate agencies. Although there would be no commitment to larger actions, a successful small-scale nourishment project could provide a justification for or impetus for a larger project. This EA sets a limit on the amount of sand at 10,000 cubic yards (CY) per project. The DLNR will discourage multiple projects being proposed in a single area if the total amount of sand exceeded 10,000 CY.

9. *No rare threatened or endangered species or their habitats are affected.* The CDUP/SPGP excludes certain areas from consideration, such as designated endangered species critical habitat, sanctuaries and refuges or areas of recognized biological importance, such as coral reefs, mud flats, vegetated shallows, and areas of concentrated shellfish production, unless the consent of the appropriate agency is first obtained. In addition, each application for small-scale beach nourishment must include a description of the marine biological communities in the immediate project areas. This information is to be

reviewed by the Expert Panel, which includes a State Aquatic Biologist.

10. *Beach nourishment will not detrimentally affect air or water quality or ambient noise levels.* Construction activities would likely cause short-term impacts, such as increased turbidity and noise. However, implementing BMPs and using only higher quality sand fill with a low amount of fines and sediment would mitigate these impacts.

11. *Beach nourishment will not detrimentally affect environmentally sensitive areas such as flood plains, tsunami zones, beaches, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.* Small-scale beach nourishment projects would generally occur seaward of the shoreline and would not affect fresh waters, estuaries or other inland areas. Beach nourishment would improve degraded beaches and slow the rate of coastal erosion, which provides substantial benefits to landward development and facilities.

12. *Beach nourishment will improve scenic vistas and view planes identified in state or county plans.* Small-scale beach nourishment is not expected to affect view planes or scenic vistas, and should actually improve these resources by providing sandy areas for viewing coastal resources.

13. *Beach nourishment will not induce the need for substantial energy consumption.* Other than fuel for construction work, no additional energy requirements are foreseen.

Based on the anticipated findings of this Environmental Assessment, an Environmental Impacts Statement is not required and this Environmental Assessment is hereby being filed as a FONSI.

APPENDIX A

Procedures for Applying for a Permit

All applicants or authorized representative will submit an application to the State Department of Land and Natural Resources, Coastal Lands Program at least 45 days prior to the planned date of work. The following information along with the required documents must be submitted to the DLNR:

a. Name, address and telephone number(s) of the party responsible for the work and the owner(s) of the affected land, if other than the responsible party.

b. An explanation of the project purpose and the need for the work.

c. Location maps to include an island map, vicinity and parcel map and photograph of the coastline at the project site. Also a valid shoreline survey and composite maps showing erosion rates relative to current shoreline is required. Also, copy of last certified shoreline must be submitted.

d. An assessment of the causes of beach erosion and sand loss and the ability of the project to correct the problem as well as an analysis of the longevity of the project.

e. Scaled drawings showing the shoreline, aerial and linear extent of the area to be filled and/or excavated and details of the proposed work, cross-sectional views with elevations and dimensions for the project site.

f. Description of the source, type, composition, quantity of the sand to be used as described under 1.4(b)1&2, the method of placement, the length of time and frequency of placement, extraction and delivery methods employed, as well as evidence that sand meets CLP and DOH Clean Water Act requirements. A sample of the sand shall be submitted. Also, the application shall include a sample analysis of the sand at the proposed nourishment site. For offshore sand borrowing, the PTE shall establish sampling parameters on a case-by-case basis.

g. If retention structures are proposed the following information is required:

1) Type and dimensions of the retention structure.
2) Location of where the structure will be placed.
3) A description of the potential affects of the structure on coastal processes and marine substrate.
4) Length of time the retention structure will remain in place.
5) Proof of liability insurance.

h. Range of water depths.

i. Brief description of major topographic features (e.g., slope, ledges, holes, reefs - or relevant section of hydrographic chart).

j. Description of bottom types to include percent of surface area covered (e.g., 10% rock, 20% sand, 5% sand and rubble, 25% coral colonies, 2% limu, etc.).

k. The application must bear the seal of a professional engineer (PE) with substantial training and experience in

coastal engineering (Category II only). [Note: If a question arises regarding the fulfillment of this requirement, the review panel shall determine whether the seal shall be required]

l. The type of equipment, methods work or construction.

m. Any other pertinent or supporting data, including best management practices to be employed during project implementation, in particular those which will insure protection of water quality.

n. $50.00 processing fee for Category I. $100.00 for Category II.

o. Date activity expected to commence.

p. Name of the contractor performing the work.

q. Projects proposed under this permit should include engineering design information. [DLNR staff, in consultation with the PTE and the applicant, will decide what specific information, in addition to the information required above, shall be included in the application.

r. Description of a written compliance report. Should include a final report within two months of completion of the authorized project. The compliance report must include, as appropriate, descriptions of the construction activities, discussion(s) of any deviations from the proposed project design and the cause of these deviations, results of environmental monitoring, discussion(s) of any necessary corrective action(s), and photographs documenting the progress of the permitted work. The applicant shall take

photographs of the site/project before, during and after construction. If a groin is approved and constructed as part of the project, it shall also be documented by taking photos immediately after the completion of the groin, and at least twice annually for two (2) consecutive years. Photographs shall be submitted to Department of Land and Natural Resources, Land Division, Coastal Lands Program. In some cases, post project beach profiling may be required for larger scale sand placement projects that occur in the vicinity of coral reefs or fish habitat. The National Marine Fisheries Service's input will be sought as to what projects should be required to conduct post project profiling.

s. Description of water quality monitoring program [if required by the DLNR].

t. When the DLNR receives sufficient information from the applicant, the DLNR will meet with the PTE to determine what additional specific information will be required and/or considered. Procedures are as follows:

1) Projects determined to be Category I will be processed by the DLNR. Comments will be solicited from the National Marine Fisheries Service. Other agencies may also review the Category I applications when requested or required. The DLNR will issue a letter of authorization to the applicant with the concurrence of the resource agencies.

2) Projects under Category II require review by resource agencies. The DLNR, Corps and resource agencies will meet to discuss the project.

If the proposed work does not qualify for authorization under Category I or II of the SPGP, the DLNR will notify the applicant that the project must be processed under both the DLNR and Corps individual permit procedures. The Corps would then initiate permit processing under its individual permit procedures, as would the DLNR.

APPENDIX B

Special Conditions

In addition to general conditions, the following special conditions would apply to all projects reviewed under the SPGP/CDUP.

a. The District Engineer reserves the right to require that any request for authorization under this general permit be evaluated as an individual permit. Compliance with the terms and conditions of this SPGP does not automatically guarantee a permit.

b. No activity will be authorized under this SPGP which is likely to adversely affect a Federally listed threatened or endangered species or a species proposed for such designation, or destroy or adversely modify its designated critical habitat.

c. No activity authorized by this SPGP may substantially disrupt the movement of those species of aquatic life indigenous to the area, including those species, which normally migrate through the area.

d. No activity will be authorized under this SPGP in properties listed or eligible for listing in the National Register of Historic Places <u>without the written consent of the State Historic Preservation Officer</u>.

e. When the Chairperson is notified by the applicant or the public that an individual activity deviates from the scope of the approved application, or activities are adversely

affecting fish or wildlife resources or their harvest, the Chairperson will direct the permittee(s) to undertake corrective measures to address the condition affecting these resources. The permittee(s) must suspend or modify the activity to the extent necessary to mitigate or eliminate the adverse effect.

f. When the Chairperson of the CLP is notified by the U.S. Fish and Wildlife Service, the National Marine Fisheries Service or the State Department of Land and Natural Resources that an individual activity or activities is adversely affecting fish or wildlife resources or their harvest, the Chairperson will direct the permittee(s) to undertake corrective measures to address the condition affecting these resources. The permittee(s) must suspend or modify the activity to the extent necessary to mitigate or eliminate the adverse effect.

g. The applicant must submit written compliance reports to the CLP and CWB, including a final report within two months of completion of the authorized project. The compliance reports must include, as appropriate, descriptions of the construction activities, discussion(s) of any deviations from the proposed project design and the cause of these deviations, results of environmental monitoring, discussion(s) of any necessary corrective action(s), and photographs documenting the progress of the permitted work.

h. Failure to comply with all conditions of the Federal authorizations under this SPGP would constitute a violation of the Federal authorization.

i. On a case-by-case basis the Corps may impose special conditions, which are deemed necessary to minimize adverse

environmental impacts.

j. This SPGP will be valid for 5 years from the date of issuance unless suspended or revoked by issuance of a public notice by the District Engineer. The DLNR in conjunction with the Federal resource agencies will conduct periodic reviews to determine that the continuation of the permit is not contrary to the public interest. If revocation occurs, the Corps will evaluate any future applications for activities covered by the SPGP.

k. If the SPGP 99-001 expires or is revoked prior to completion of the authorized work, authorization of activities, which have commenced or are under contract to commence under this permit will remain in effect, provided the activity is completed within 12 months of the date the SPGP expired or was revoked.

l. The General conditions attached hereto are made a part of this permit and must be attached to all authorizations processed under this permit.

m. The length of time required to process each request under this SPGP will be directly related to the adequacy and completeness of the information submitted by the applicant.

n. <u>Abutting landowners shall not be permitted to claim areas artificially nourished with sand under the State's accretion laws</u>.

o. <u>Small-scale nourishment projects shall not result in a seaward location of the certified shoreline</u>

APPENDIX C

GUIDELINES FOR REVIEW OF PROJECTS BY THE PANEL OF TECHNICAL EXPERTS

Purpose:

A panel of technical experts has been established to ensure that small-scale beach nourishment projects conform to and qualify for processing under the State Program General Permit (SPGP) and State Conservation District Use Permit (SCDUP) guidelines, conditions and procedures for work.

Applicability:

Once the Department of Land and Natural Resources (DLNR), Coastal Lands Program receives an application for a Category II project, the Panel of Technical Experts (PTE) shall review it. Category I projects shall be reviewed and processed by the program authority, which is the DLNR/Coastal Land Lands Program.

The DLNR, in consultation with the U.S. Army Corps of Engineers and other interested parties, has the discretion to require Category I projects to go before the PTE if there is reason to believe that the project, due to its scope and purpose, does not qualify as a Category I project.

Participants:

The DLNR, Coastal Lands Program has review authority over all requests for small-scale beach nourishment under the provisions of the SPGP/SCDUP. In order to assist the DLNR in interpreting the

evaluation criteria, purpose and intent of the SPGP/SCDUP with respect to individual applications, a Panel of Technical Experts (PTE) has been established to assess and qualify Category II projects under the guidelines of the SPGP/SCDUP, and all projects involving offshore sand pumping.

The PTE is comprised of individuals with expertise in the following fields:

1. *Marine Geology*
2. *Aquatic Resources*
3. *Coastal or Marine Engineering*

General Evaluation Criteria:

In reviewing applications for Category II projects, the PTE shall consider the following criteria:

1. The PTE shall recommend to the DLNR/Coastal Lands Program staff whether and application for a Category II project is complete in accordance with the requirements of the SPGR/SCDUP.

2. The PTE shall ensure that individual requests for sand nourishment shall not exceed 10,000 cubic yards.

3. The PTE shall determine whether lab testing will be required if there is uncertainty or probable cause to believe that the material is contaminated.

4. The PTE shall review the material for silt content and shall determine whether it meets the SPGP/SCDUP guidelines established for acceptable levels of silt content. Silt

content shall be considered and evaluated with respect to the quality or the receiving environment and the quality of the receiving sands.

5. The PTE shall evaluate the effects of pumping sand from the marine environment to nourish a public beach or to be used in geotextile bags to ensure that the impact to marine organisms is minimal and to ensure that pumping will not adversely affect coastal processes, beach stability or resources.

6. If small-scale sand retention devices are proposed, the PTE shall evaluate the effects of the structures on coastal processes, marine organisms, mauka property and public access. The effects of these structures must be shown to be benign or negligible.

7. The PTE shall ensure that the project does not interfere with known turtle nesting areas during egg laying and hatching periods.

8. If evidence suggests that any project authorized under this permit may cause permanent degradation of marine water quality of marine resources (coral reefs), or alter the marine habitat in such a way as to cause permanent loss of marine resources, the PTE shall recommend rejection of the application to the Department of Land and Natural Resources or recommend an individual permit process. The burden of demonstrating that the project will not cause permanent damage shall rest with the applicant, with the concurrence of the panel.

9. The PTE shall evaluate the distribution (% of surface area covered) of bottom types (e.g., bare rock, bare sand, sand and rubble, coral colonies, limu, etc.) and determine whether sand

nourishment may adversely affect these resources id they are found to exist in the project vicinity.

10. The PTE shall review the list of macro algae, macro invertebrate species (including jellyfish, corals and sea anemones, starfish, sea cucumbers and sea urchins, mollusks, crabs, shrimp and lobsters) and fishes present in the vicinity of the project (both marine extraction site and nourishment site) and determine whether it accurately represents the biological communities present. Using this and any other information, the PTE will form an opinion as to probable biological/ecological impacts of the proposed project. The PTE should give special attention to transport of problem algae from proposed extraction to proposed nourishment sites.

11. The PTE shall consider the ambient water quality conditions at the proposed project site and estimate the resultant increase in the turbidity levels and the duration ambient levels would be exceeded from the nourishment operations, based on tides, currents, etc. If turbidity is expected to significantly exceed ambient turbidity levels as a result of nourishment operations, an acceptable duration shall be set by the PTE not to exceed one week.

12. The PTE shall evaluate the Best Management Practices (BMPs) plan to determine its adequacy.

Review Procedures:

Upon receipt of an application, DLNR/Coastal Lands Program shall make an initial determination the type of project, either Category I or II, and shall review the application for completeness. If Coastal Lands Program staff determines that the project may quality

as a Category II project, staff will contact members of the PTE and solicit their review of the application pursuant to the review criteria in the SPGP/SCDUP. Following appropriate review procedures and public notification, Coastal Lands Program staff will make a recommendation to the Chairperson of the Department of Land and Natural Resources to either deny or approve a project.

APPENDIX D

PUBLIC/AGENCY COMMENTS AND RESPOSE LETTERS

University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
2550 Campus Road • Crawford 317 • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

APR 17 3 52 PM '00

April 7, 2000
EA: 00205

Mr. Sam Lemmo
Department of Land and Natural Resources
Office of the Chairperson
1151 Punchbowl Street, Room 130
Honolulu, HI 96813

Dear Mr. Lemmo;

Environmental Assessment
Hawaiian Islands Beach Nourishment Projects
Statewide

The DLNR proposes a plan for beach nourishment and restoration throughout the State of Hawaii as a viable alternative to shoreline armoring. The plan is an attempt to address the major social, economic, and environmental problems caused by coastal erosion. Additionally, the plan calls for the implementation of a statewide Conservation District Use Permit and State Program General Permit in order to streamline the permitting process for small-scale beach nourishment projects, and consolidate permitting within one agency.

This review was prepared with the assistance of Clifford Smith, Botany; K.W. Cheung, Ocean and Resource Engineering; and Jolie Wanger, Environmental Center.

General Comments

This is a very poorly written, confusing document that would have been improved by submitting it to a professional editor. This document fails to outline the many potential impacts, positive and negative, of an arguably much needed program. There are so many grammatical and organizational errors that it is impossible to review them all here.

There are some technical issues that must be addressed. First, is the organization of the document. Section 1.5 (f) Procedures for Applying for a Permit, is a review of the proposed guidelines of the program and have little bearing on the impacts of beach nourishment on the environment. These should be stated elsewhere, such as in an appendix, and only summarized in this section of the document.

Second, there are no maps of any proposed sites that fit the criteria outlined. It would be helpful to see some of the potential sites that would be considered for beach nourishment.

Third, although beach replenishment may be the only feasible solution to the problem of coastal armoring and shoreline erosion at the present time, it is highly labor and cost intensive and provides only a temporary solution. The State should not give up its search for more long-term solutions. Due to the factors mentioned on page 22 as well as natural subsidence of islands, we can expect to see an increase in the number of requests for beach nourishment projects. Additionally, this method is not a one-time solution and the need to identify future replenishment sources should be considered. The impact on quarried areas will increase year by year. When applying for a permit, the applicant should be required to assess future needs and sources for sand. Source sand is not an endless resource. The permitting process should require a model of the probable high water line for the next 100 years using state-endorsed figures for sea-level rise and shoreline subsidence. The benefit of nourishment could then be fairly evaluated. From that analysis, a long-term projection should be made including the possibility of removing the shoreline property as one alternative.

Our reviewers also believe that small-scale beach nourishment may be a valid short-term solution. However, the problem is long-term and large scale. Adding a small amount of sand to a littoral cell is unlikely to affect the sediment budget and change the erosion trend, especially when individual property owners carry out projects in an uncoordinated manner. DNLR should gather more empirical data before claiming this as an effective way to resolve the beach erosion problem in Hawaii.

Potential Environmental Impacts and their Significance

In general, environmental impacts are dismissed with little substantial evidence or discussion. The potential impacts considered are primarily turbidity concerns. More serious concerns such as contaminants and disruption of biological communities are essentially ignored.

Small boat harbors are considered as a potential source of nourishment sand. The sand and sediment in these areas are often highly contaminated and may contain a greater amount of alien species. Such contaminants cannot be allowed to be moved elsewhere. Additionally, there is no mention of the impact of dredging on nearby marine life.

The mining of inland dunes as a source for sand has environmental considerations not considered in the environmental assessment. These are one of the most devastated ecosystems in the islands mostly due to off-road vehicle activity. Previously stable dunes covered by a veneer of a unique biological dune-crust community have been destabilized because of a loss of these crusts. The crusts are a community of blue-green algae, fungi and lichens up to one inch in thickness, which can create an almost rock-like surface to the dunes. Once broken they take a very long time to rebuild, and the underlying sand, no longer contained, is easily blown elsewhere. On O'ahu, the dunes are almost all destroyed, and on Maui dunes are severely threatened; dunes on the other islands likely face similar problems.

There is no biological study included to substantiate such claims as "small and localized sand extraction is not expected to adversely impact the marine food chain." (p.19) Contrary to the claims in the environmental assessment, our reviewers assert that beaches have a complex community of invertebrates and fungi in particular, which are capable of dealing with the natural process of beach erosion and buildup. The natural communities in the sands could be severely

disrupted by nourishment activities. Although not much is known about these beach communities, it does not give license to be cavalier about their management. The biological implications need to be clearly addressed in any application.

Specific Minor Comments

1.4(a) Scope of Work

Section 6. What is an erosion hot spot and how are they determined?

1.4(b) Limitations of Work

Section 1. The reference for the Hawaii Revised Statutes or Hawaii Administrative Rules should be cited.

Section 2. This section is full of jargon and cannot be understood by the general public. It should be clearly explained.

Section 2a) What is a six (6) U.S. Std. Sieve?

1.4(c) Construction Methods

Erecting signage to inform the general public of the nourishment operation is more of a mitigation measure than a construction method. Perhaps signage could be discussed in a section on mitigative measures

1.4(e) Panel of Technical Experts

Who is responsible for appointing the Panel of Technical Experts? Will the DLNR Chair, Governor, or County Mayors appoint the panel? Will there be one panel for each county?

What is meant by a consensus building process? Does this mean that all the panel members have to be in agreement before an action is approved? Please elaborate on this issue.

1.5 Economic Considerations

Increased spending resulting in positive economic multipliers can hardly be considered justification for undertaking such a project.

1.6 Social Considerations

This section could benefit from a good deal more thought. Social considerations are highly complex surrounding this issue as they are indeed around most issues. Why not consider the fact that many people may not be in the position to take advantage of such a method due to economic disparity or other reasons? Are there any community objections from public meetings, scoping meetings etc.?

1.2 Summary of Potential Impacts and Their Significance

2.2(a) Sand Extraction

What are the conditions under which hydraulic suction dredge and/or clamshell might be used? What might be the degree of temporary impacts on water quality, water pollution and to marine fauna and flora, as well as to other aspects of the local environment?

What are *fines*? Please include a definition of technical terms, not everyone understands these terms.

Although some stream mouth or channel clearing projects are already permitted activities, they still have impacts that should be considered in his EA.

2.2(b) Sand Transport

A comparison is made between transport of sand on the mainland and in Hawaii. In this comparison however, there is no definition of scale for the mainland projects. It is therefore impossible to compare them with the "smaller-scale" projects proposed in this program.

Chapter 4

Please define the unit *NTU*.

Concluding Remark

In conclusion, our reviewers feel the proposed beach nourishment is an important alternative to shoreline armoring. The Environmental Center has traditionally opposed shoreline armoring as a means of erosion control and welcomes alternative to it. Streamlining the process of obtaining a permit for beach nourishment will make this alternative more attractive. We feel however, that even programs that may benefit the public in the ling run need to be carefully considered. This particular draft environmental assessment is in need of more thought as well as more specific evidence substantiating its claims.

Thank you for the opportunity to comment on the Draft Environmental Assessment.

Sincerely,

Peter Rappa
Environmental Review Coordinator

cc: OEQC
James Moncur, WRRI
Clifford Smith, Botany
K.F. Cheung, Ocean & Res. Eng.
Jolie Wanger, Environmental Center

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Mr. Peter Rappa
University of Hawaii at Manoa
Environmental Center
2550 Campus Road, Crawford 317
Honolulu, Hawaii 96822

Dear Mr. Rappa:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

General Comments:

You note that the document fails to outline the many positive and negative impacts of the program.

Positive Impacts

Page 3, paragraphs 2-4 discuss the purpose of the action, which is to provide an alternative to shoreline hardening. As you suggest in your comments, shoreline hardening has had negative impacts on our beaches. This action will streamline the permitting process, thus providing a "positive" incentive to nourish rather than harden the shoreline. Project benefits are discussed on pages 10-12, under economic, social and environmental considerations. Under economic considerations, beach nourishment can reduce property damages and can induce economic multipliers

(although such multipliers would not be expected to be significant as a result of small-scale projects). However, it is important to note that the Miami Beach nourishment effort was reported to generate $700 for every $1 invested in beach restoration.

Under social considerations, we noted that the general public would benefit from beach nourishment due to the expansion of beach areas for recreational, spiritual or cultural pursuits. While some beach nourishment may occur adjacent to private property, the general public would be given free access to newly restored beach areas below the shoreline. As an added precaution to ensure public use and access, we added a special condition to the EA stipulating that small scale nourishment projects shall not result in a seaward location of the certified shoreline.

Under environmental considerations, we noted that small-scale beach nourishment projects would enhance or restore degraded beach segments, thus improving the habitat of many organisms.

These "positive" benefits are admittedly generalized. However, it is not possible to calculate the "actual" positive benefits of this program since it is a new program. Benefit/costs analysis is performed for larger scale beach restoration projects, in order to justify the expenditure of government funds; usually federal funds. These analyses are typically based on future storm damage reductions, rather than recreational benefits. For small-scale projects, benefit/costs analysis is not warranted. The benefits of beach nourishment projects are obvious for an island state that is losing its beaches as long as there are those willing to pay. The Lanikai project is an excellent example of a project with positive benefits. Kaelepulu Stream was maintained (dredged) which was beneficial for flood control, and South Lanikai Beach was partially restored with the dredged sand. Beach access and use were restored and the community was grateful. A detailed and expensive study was not warranted in this case to illustrate the project's positive benefits.

Negative Impacts

The document also discusses potential negative impacts resulting from small-scale beach nourishment. Under Section 2.2, "Summary of Potential Impacts and their

Significance", negative impacts are discussed. Negative impacts are discussed under sections discussing sand extraction, sand transport and sand nourishment. We suggest you review pages 13-17 for a discussion of negative impacts.

The purpose of this program is to promote "small-scale" nourishment projects with the hope of maintaining environmental impacts at a minimum level. The DEA is written with this goal firmly in mind. Specific controls, guidelines, special conditions, and limitations are included in the EA to illustrate the care with which projects will be implemented. Nevertheless, every project has negative impacts. We feel that we identified those potential negative impacts that would normally be expected to arise from projects of this scale. There may be project specific impacts, greater than that discussed in the EA, that are discovered when a project is proposed under this program. That is why we have outlined a detailed application process, have established an expert panel and will publish notice of these projects in the Environmental Notice. Projects that do not comport with these requirements will be rejected.

Section 1.4(f) was removed from the body of the EA and is included as Appendix A of the EA.

Maps

We did not include any maps of proposed nourishment sites since any beach that has undergone beach loss could be considered as a candidate for small-scale beach nourishment. Instead, we opted to include color photographs of the Lanikai effort, before and after beach nourishment. We feel that this is more instructive.

Labor Intensive/Temporary Solution/Long Term Solution

Beach nourishment is labor intensive and may be considered temporary. This is a fact. Beach nourishment is just one component, albeit an important one, of our Coastal Lands Program (CLP). Beach nourishment and other strategies are mentioned in the Coastal Erosion Management Plan (COEMAP) which is referenced on page 3 of the EA. COEMAP is a comprehensive State strategy to combat coastal erosion, in a framework of beach preservation. Long-term strategies include improvement of scientific understanding

of coastal processes, working with the Counties to assess their zoning, subdivision and building standards in coastal areas subject to erosion hazards, and investigating the potential for shoreline retreat (i.e., moving structures and facilities away from erosion hazards).

Impact on Quarried Areas

In general, extracting sand from offshore sand deposits, stream and harbor mouths would be considered a maintenance activity; basically recycling sand from the offshore area to the beach. As such, much of the work done under this program would involve the manipulation of sand deposits that have accumulated due to artificial coastal structures and facilities. A good example of this is Kikiaola Harbor on the island of Kauai. The location of the harbor has resulted in down drift beach impacts (sand accumulation on the up drift side, but sand loss on the down drift side). As such, sand will be moved periodically around the harbor to maintain the longshore drift of sand, which nourishes the down drift beach.

The coastal environment is a dynamic one and it is not easy to assess long-term sand sources or limits. For sources including harbors and streams, for instance, the purpose is merely to mechanically bypass sand around an artificial coastal feature to maintain both the artificial feature for navigation and drainage and the natural ebb and flow of sand, which has been interrupted by human activities.

For small-scale nourishment projects, it would not be necessary to conduct long-term studies of sand sources nor as a prerequisite for project approval, since this program would limit sand quantities anyway. The State, through the CLP has been working with various entities, including U.H./SOEST and USGS and others to identify larger sources of marine based sand, which can be extracted for beach nourishment. Development of these larger sources would likely be a separate review process.

For upland sources, mining of sand for beach nourishment would be more permanent activity focused in particular area. This could result in borrowing pits being left behind. It is not the intent of this EA or program to provide a blanket approval for inland sand quarrying. The respective County authority would regulate this activity. Page 4 of the EA has been amended to clarify this point.

Need for More Data

We are unsure as to what additional data could be collected to support the view that small-scale beach nourishment is effective. It is our view that past sand management practices have not been effective, such as removing sand from the littoral system due to sand mining on beaches, channel, stream, and/or harbor dredging which fail to place this sand back in the littoral system at its most optimal location. This program would facilitate opportunities for better sand management practices by private and government entities.

Why spend additional money on gathering more empirical data when we already know that small-scale nourishment projects benefit Hawaii's pocket beaches? We would rather see the money used for nourishment. We feel that the information and data we receive on projects approved under this program will help us better understand the benefits and impacts of beach nourishment. This would naturally lead to revisions in certain assumptions and practices. This is not to suggest that additional research is not necessary. In order to fully understand these matters, one needs to do both research, and also collect data and feedback from on-going projects. The program can be redirected or modified in the future if feedback calls for it.

In response to your request that a model be created of the probable high water line for the next 100 years, we feel that this information would be useful. However, this would provide no guidance on the usefulness of beach nourishment. Waves, currents and human actions in the shoreline environment probably affect beach loss more than sea level rise ever will. In addition, shoreline retreat is not a viable option in places like Waikiki where beach restoration must be done to provide for recreation.

Potential Environmental Impacts and their Significance:

Dismissal of Environmental Impacts

It appears that you fail to understand the scope of this program. In almost every situation where a small-scale sand nourishment project was proposed, the impact to biological communities was shown to be negligible. No one doubts the need for more in-depth environmental studies for larger scale projects, but the whole premise of this effort

was that through appropriate management controls, agency consultation (i.e., limiting sand volumes and excluding areas), environmental impacts could be minimized.

Small Boat Harbors

We note that small boat harbors are dredged on a regular basis under Army Corps 404 permits and Department of Health 401 Water Quality Certifications. In addition, these projects require consultation with Federal agencies such as the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. We do not wish to change this procedure. The purpose of the State Program General Permit (SPGP) would be to allow for the beneficial use of dredged material on State beaches. In terms of contamination, under "Limitations of Work" # 1, "testing by a lab may be required when there is probable cause to believe that the material is contaminated as determined by the Panel of Technical Experts (PTE), Coastal Lands Program (CLP) staff or the Department of Health (DOH)".

Some small boat facilities like the one at Kihei, Maui do not serve as drainage basins for streams. Visual inspection and sand grain analysis would be sufficient to determine compatibility and cleanliness. On the other hand, there are small boat facilities, such as at Haleiwa, Oahu (which serves as a drainage basin for a stream). In this case, more detailed analysis would be warranted to safeguard the receiving waters and ecology from potential contamination.

No Mention of Impact of Dredging on Nearby Marine Life

As the Waikiki Beach sand pumping demonstration project proved, sand could be dredged hydraulically, with minimal impacts on water quality. This project was conducted over several weeks in and around popular surfing sites. There was very little if any disturbances of recreational activities. Because turbidity can be contained with hydraulic dredging, there is no concern for impacts on nearby marine life. In fact, the dredging of sand from these areas will improve the habitat for dwelling sea creatures seeking areas of vertical relief in the marine substrate.

For dredging in streams, channels and harbors, applicable federal and state requirements must be followed to protect marine resources. The SPGP would not relax these regulations. The program has been developed with restrictions and limitations to protect sensitive areas such as coral reefs. Section 1.4(g) of the EA lists special conditions, which if properly observed, should minimize impacts to marine resources.

Mining of Inland Dunes

The mining of inland dunes is actually outside the scope of this program EA since any inland mining operation would require the approval of the respective County authority. We did not intend this action to provide a blanket environmental approval for such operations, but only sought to identify inland sand deposits as a potential source of beach material. This will be clarified on page 4 of the EA. The removal of upland sand, which occurs on a regular basis in places like Maui, would continue to be managed under the current regulatory process.

We agree that Hawaii's coastal dunes have been devastated and are currently under attack from a variety of uses. Historically, Hawaii's dunes and beaches were mined for construction purposes and for the sugar cane industry to create lime. Our dunes have been flattened and filled for coastal development. Off road vehicle use continues to degrade this important natural resource and its unique ecological communities. Sand mining for beach nourishment did occur on a limited basis in the past, but the volumes of material were minimal compared with the overall impact on dunes from other activities.

The Department would not be supportive of mining coastal dunes for beach nourishment. Page 15 of the EA does note that sand should not be extracted from near shore dunes. However, there exist inland relic sand deposits that could be considered as a sand source for beach nourishment. For instance, on the island of Kauai, the DLNR recently issued land licenses to mine sand from the Mana Plain, which is inland from the coast and dunes. The overall purpose of the project was to create a bird sanctuary for watering foul. This sand is of high beach quality, is well sorted and clean, and could therefore, be used for beach nourishment. The area was not within the shoreline area

and was not an extant dune system, although it may have been at some time in the past.

Impact of Sand Extraction on Marine Food Chain

Offshore sand deposits do harbor small fauna that are an important source of food for larger fish in the food chain. However, we do not believe that small-localized sand extraction for use on adjacent degraded beaches would cause significant impacts to this ecological community. This EA was provided to a number of resource management agencies, none of which identified this as a potential major problem.

Sand in these areas is highly mobile and constantly shifting. Much of the sand that would be utilized probably came from nearby beaches, and this action only seeks to return the sand to the beach. Sand extraction could actually benefit these communities by mobilizing nutrients drawing sand from fish holes that have filled in, thereby, creating conditions more favorable for juvenile dwelling fish species. Appendix A of the EA requires applicants to disclose information on the nature and extent of nearby marine life.

Clearly, sand extraction will disrupt the immediate ecological community, but long-term effects are not anticipated for small-scale operations. At some point in the future, it would be useful to commission a comprehensive study of both deepwater and near shore sand extraction in the Hawaiian Islands to assess impacts. It is our understanding that this was done in the State of Florida as a precursor to sand extraction projects there.

Beaches are Complex Communities

No biological study has been done. However, we believe that small-scale nourishment projects can be conducted without adversely affecting the marine food chain. Moreover, each project would need to be reviewed by the Panel of Technical Experts (PTE), which includes an aquatic biologist. Some projects could also involve site inspections. Larger-scale initiatives would require some type of ecological assessment, but these projects are too large to be processed under this program, and would require individual permitting and environmental review.

We agree that beaches support complex biological communities. However, these communities are quite resilient and must survive in a range of extreme environmental conditions. Small-scale sand extraction and nourishment will disturb these biological communities to some extent, but due to the limitations and controls imposed under this program, project impacts will be temporary.

Please refer to page 11, first paragraph, and first sentence: "Beaches are dynamic environments consisting of unique ecological communities. When beaches are degraded there is a potential for damage to plant and animal life. Beaches and dunes support an abundance of rare and unique life forms and are important in the life cycle of some of Hawaii's most important and endangered wildlife such as egg laying sea turtles and monk seals. Small-scale beach nourishment projects would enhance or restore degraded beach segments, thus improving the habitat of many organisms." Further discussion is provided on pages 13-15 of the EA on beach and offshore communities.

In addition, we apologize if our approach to this problem appears "cavalier". We are trying to approach this issue from a "problem solving" perspective rather than an "academic" perspective. To accomplish this, the DLNR through the CLP, has worked diligently to preserve and restore Hawaii's beaches. We have worked closely in a network of government, university and community groups to come up with sound solutions to these problems. We believe that this EA does disclose the important positive and negative side of this effort. Moreover, the EA establishes what we feel is a better process for reviewing and authorizing projects than currently exists. This will reduce unauthorized actions and enhance and preserve beach resources. The DLNR through its network of agencies and panel members will consider the ecological consequences of small-scale beach nourishment projects through the application project.

In terms of the author's tone, we suggest that you choose more constructive terms when commenting on these documents. Terms such as "cavalier" or "impossible to review" bring attention to the author's personal opinions, which are in any case, not constructive or professional.

Specific Minor Comments:

1. *Scope of Work*

   Section 6

   An erosion hotspot is defined as a place where progressive coastal erosion or beach loss is causing management concerns due to the threat of economic, ecological, recreational, or cultural losses. This definition has been included in the EA.

2. *Limitations of Work*

   Section 1

   The appropriate reference for Department of Health Requirements will be included in the EA. The appropriate reference is Chapter 54, of the Hawaii Administrative Rules for "Water Quality Standards".

   Section 2

   Sand grain size analysis is in fact a technical matter. Standards for beach nourishment have been established. These standards are based on sieve size. A sieve is a device with meshes or perforations through which particles of various sizes are passed to separate them from either finer or more course materials. The 200^{th} sieve refers to the finest allowable material, which is about 0.074 mm (close to silt), and the 4^{th} sieve refers to the more course material. The idea is to limit fines to less than 6 percent of the total material and limit course material to less than 10 percent of the total volume. The overall goal is to try to match the source material to the native beach material and to reduce fines, which would mitigate potential water quality impacts.

   It is not always possible to simplify all technical requirements. Nevertheless, we will try to rewrite the section to make it clearer.

Section 2(a)

This refers to the number of sieves (screens) that are recommended to be used when the sand grain size analysis is conducted.

3. *Construction Methods*

The need for signage will be included under the section on mitigation measures.

4. *Panel of Technical Experts (PTE)*

The panel will be comprised of an aquatic biologist from the DLNR, a coastal geologist and an expert in coastal or marine engineering. At this time we are working with professors from the Department of Geology and Geophysics, School of Ocean Earth Science and Technology. The panel will be selected and updated by CLP program staff.

The panel will make decisions by consensus. Failure to achieve agreement by panel members to proceed with a project would likely result in the project being denied or a recommendation that it be processed through an individual permit, not through the proposed SPGP and Statewide Conservation District Use Permit (SCDUP). If a panel member fails to recommend approval for a project, he/she should provide solid environmental reasons for this determination.

However, the panel is not the decision-making authority. If the Board of Land and Natural Resources (BLNR) approves a SCDUP, then the authority to issue permits would rest with the Chairperson of the BLNR. The panel is advisory.

5. *Economic Considerations*

We are not sure what your point is here. Is it that spending cannot be justified for small-scale beach nourishment projects, or for beach nourishment projects in general? Are you saying that beach restoration in Waikiki, as an investment to improve the visitor economy, is not a justification for undertaking such a project? This is illogical.

Beach nourishment in Miami Beach revitalized the beachfront economy for that community. However, if your point is that "small-scale" projects can hardly be justified on their economic benefits, your comment may be justified, although improving a small pocket beach could potentially result in positive economic multipliers.

6. *Social Considerations*

Again, we are not sure of your point here. All that is being said is that beaches benefit the public. What does economic disparity have to do with one's ability to enjoy a resource that is open to the public, without charge? Are you saying that some people lack the ability to travel to a beach or cannot physically get access to a beach due to a disability? Is it that beach nourishment might occur in affluent costal communities as opposed to other communities? Perhaps you are thinking too hard on this one.

7. *Sand Extraction*

The decision to use either hydraulic or clamshell depends on the conditions at the sand borrow site. This decision can only be made on a case-by-case basis when we have had an opportunity to assess the information provided in the application in terms of marine conditions, marine communities and sand source depths and thickness. In general, hydraulic dredging would be employed where your sand source is thin (2-4 feet). Clamshell could be used with thicker sand deposits. In general it appears that the industry is moving towards submersible suction dredges, because they are easier to deploy, can operate in a wider spectrum of marine conditions, and can minimize turbidly plumes and disturbance to marine substrate.

The impacts of sand extraction have been addressed in the EA. There will be short-term impacts but long-term impacts are not expected due to the limited nature of these projects. In addition, marine dredging can be accomplished with minimal disturbance of surrounding waters and benthos due to advances in the industry.

8. *Explain Fines*

Fines are the material that falls with a range of grain size that we try to minimize in beach nourishment operations. Fines may be considered silt, but not always. Some of the fine material defined at 0.074 mm in size is just small sand (carbonate) particles. Silt is usually terrigenous material that comes from the land and mixes with the carbonate sand material. Fine material causes turbidity which is the primary concern stemming from beach nourishment. If fine material can be minimized in beach nourishment material, then some BMP's may be relaxed, as turbidity does not become a serious concern.

9. *Sand Transport*

Reference to the U.S. Mainland was made only to illustrate the different forms of sand transport on the mainland because Hawaii has not typically restored or nourished its beaches. Either of these methods would be selected regardless of the project scale, although truck haul is expensive and time consuming for really large projects. The largest truck haul projects on the mainland are about 100,000 cubic yards of sand. In Hawaii, we would seldom if ever see single projects over that amount, which means that we could employ any of the three methods with reasonable efficiency.

10. *Define NTU*

NTU stands for Nansen Turbidity Unit (NTU). The EA will be revised accordingly.

We feel comfortable with the basic content of the document but will make some recommended changes. Based on the proposed scale of these operations and the conditions and limitations imposed, we do not feel that further studies are warranted at this time. If, in the future, impacts greater than anticipated are observed, we will re-evaluate the program.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

C: Timothy E. Johns
Janet Kawelo
Dean Uchida

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6743

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI AIA
DIRECTOR

LORETTA K C CHEE
DEPUTY DIRECTOR

2000/CLOG-1337(ASK)

April 7, 2000

Mr. Dean Y. Uchida, Administrator
Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

Draft Environmental Assessment (EA) for
Small-Scale Beach Nourishment Projects

The subject document is intended to meet Chapter 343, HRS requirements and to complete the application requirements for a Statewide Conservation District Use Application for small-scale beach nourishment projects through out the state. We support beach nourishment as it is consistent with the objectives of our Coastal Zone Management law to protect coastal recreation and can be an alternative to beach armoring. Efforts to encourage its careful implementation are worthy of support.

We have reviewed the Draft EA above document and offer the following comments:

1. Beach Loss

   The Final EA should recognize that armoring alone does not result in beach loss, rather it is the combination of armoring on a chronically eroding shoreline that results in beach loss.

2. Chapter 343, Hawaii Revised Statutes (HRS)

   We are somewhat concerned that the subject assessment is intended to satisfy Chapter 343, HRS requirements for an unspecified number of projects located through out the state. Rather than an in-depth description of specific project impacts, the Draft EA tends to focus on permit procedures.

Only through examination of the specifics of a project can the actual project impacts be anticipated and disclosed. The processing of such an EA in the proposed manner will, in effect, exempt future sand nourishment projects from the preparation of individual assessments. As an alternative to processing this general assessment, the Department of Land and Natural Resources should consider amending its exemption list to include small-scale beach nourishment projects.

3. County Requirements

The placement of sand landward of the certified shoreline is subject to the requirements of Chapters 23 and 25, Revised Ordinances of Honolulu.

4. Clarifications

The Final EA should include the following:

a. A description of the criteria used for selecting project locations. The term "erosion hot spot", used on page 6 of the Draft EA, should be defined;

b. A discussion, in lay terms, of sediment size distribution found on Page 6 of the Draft EA;

c. An explanation of the authority of the "Panel of Technical Experts" regarding oversight and regulation of mitigation measures; and

d. An explanation of how cumulative impacts will be addressed in the event that sand deposits in excess of 10,000 cubic yards are to be used at a nourishment site. Will this trigger the need for an individual environmental assessment?

5. State Permit Procedures

Sections 1.5(f), "Procedures for Applying for Permit" and Section 1.4(G) "Special Conditions" of the Draft EA largely describe permit procedures and could be attached to the Final EA as an Appendix.

In describing application requirements, page 10 (Section 1.5.f.e) of the Draft EA states that source sand information will be required. We recommend that applications be required to include information on the sand at the nourishment site.

The following section, f, related to "retention structures" should disclose the length of time the structure will remain in place.

Section g, "Range of water depths" requires further clarification. From where, and at what time, are these depth measurements to be taken?

Section j should clarify the purpose of obtaining a seal from a professional engineer. What is the professional certifying?

Section q, on page 12 refers to "completion of the groin". We understood that the compliance report would address construction of a beach nourishment project, which may include a groin. This could be clarified in the Final EA.

We note that compliance reports are both an application requirement (page 11, item "q") and Special Condition (page 14, item g). If it is an application requirement, there may be no need to list it as a "Special Condition".

We recommend that a current certified shoreline survey be a permit application requirement.

6. Public Lands

The Final EA should disclose whether nourishment projects will result in the placement of sand on privately owned property or be restricted to publicly owned beach areas. If public resources are to be used to support beach nourishment projects, it would seem logical that priority be given to publicly used beaches.

Would sand deposited within the private property boundaries be subject to claims of accretion by abutting property owners.

As existing state law provides for public access seaward of the shoreline, the Final EA should disclose if nourishment projects will alter the location of the shoreline.

Should you have questions regarding the above, you may contact Ardis Shaw-Kim of our staff at 527-5349.

Sincerely yours,

Barbara A Moore

RANDALL K. FUJIKI, AIA
for Director of Planning and
Permitting

RKF:lg
DN 32728

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

The Honorable Randall K. Fujiki, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Beach Loss

We agree with your statement that armoring does not alone result in beach loss, rather it is a combination of armoring on a chronically eroding shoreline that results in beach loss. This will be explained in the EA.

Chapter 343, Hawaii Revised Statutes

The purpose of the EA is to satisfy Chapter 343, Hawaii Revised Statutes (HRS) requirements. The EA is written to reflect the content and procedures that will be required under the proposed State Program General Permit (SPGP) and Statewide Conservation District Use Permit (SCDUP) for small-scale beach nourishment. The permit procedures are illumined in the EA to illustrate the tight controls that will be in place to minimize potential impacts occurring under this blanket EA.

We decided to proceed with a programmatic EA, rather than seek an exemption from Chapter 343, HRS because we felt that this would provide agencies, applicants and the general public with information on the potential environmental, social and economic issues related to small-scale beach nourishment projects and would provide a forum for public/agency discussion and revisions to EA content. The publication of a programmatic EA is similar to the process of developing General Permits for certain "class type" actions with the U.S. Army Corps of Engineers.

County Requirements

We will amend the EA to include a statement that a Special Management Area Use Permit and Shoreline Setback Variance may be needed.

Clarifications

a. Criteria for selecting project locations have not been formally developed. Generally, locations that have a history of beach loss may be considered as candidate sites for small-scale beach nourishment projects. Appendix A (d) of the EA requires applicants to assess the causes of beach erosion and sand loss and the ability of the project to correct the problem.

   The term "Erosion Hot Spot" has been defined on page 6 of the EA. An erosion hotspot is defined as a place where progressive coastal erosion or beach loss is causing management concerns due to the threat of economic, ecological, recreational, or cultural losses.

b. Sand grain size analysis is a technical issue. Standards for beach nourishment have been established. These standards are based on sieve size. A sieve is a device with meshes or perforations through which particles of various sizes are passed to separate them from either finer or more course materials. The 200^{th} sieve refers to the finest material, which is about 0.074 mm (close to silt), and the 4^{th} sieve refers to the more course material. The idea is to limit fines to less than 6 percent of the total material and limit course material to less than 10 percent of the total volume. The overall goal is to try to match the source material to the native beach material and to

reduce fines, which would mitigate potential water quality impacts.

It is not always possible to simplify all technical requirements. Nevertheless, we will rewrite the section to make it clearer.

c. The Panel of Technical Experts (PTE) will make decisions by consensus. Failure to achieve agreement by panel members to proceed with a project would likely result in the project being denied or a recommendation that it be processed through an individual permit, not through the proposed SPGP and Statewide Conservation District Use Permit (SCDUP). If a panel member fails to recommend approval for a project, he/she should provide solid environmental reasons for this determination.

However, the panel is not the decision-making authority. If the Board of Land and Natural Resources (BLNR) approves a SCDUP for the program, then the authority to issue permits would rest with the Chairperson of the BLNR. The panel is advisory.

d. The project sets a limit on the amount of sand at 10,000 cubic yards (CY) per project. Although not stated in your letter, we assume that you are concerned about multiple projects being proposed in a single area; all of which requesting 10,000 CY. We would discourage this practice since it could be viewed as a way to do larger nourishment projects through segmentation, in order to circumvent the more cumbersome individual permit process.

However, it is feasible that there could be two simultaneous projects, one in Lanikai and one at Kailua Beach. This would not be a problem because these areas are distinct and separate coastal areas. There would be no cumulative impacts. But two projects occurring simultaneously in Lanikai could cause cumulative impacts in the Lanikai area. This would not be allowed under this program.

Another possible scenario is where projects are planned in phases - e.g., one 10,000 CY project in Lanikai every year for 10 years. This could create cumulative impacts in the area beyond that anticipated

in the programmatic EA. This situation would need to be monitored to determine what additional steps would be required under the State environmental laws, consultation with resource agencies, and the CDUA process.

Additional information will be added to Section 1.4(a) of the EA to clarify this issue to the greatest extent possible.

State Permit Procedures

Special Conditions

We have decided to move the both "Procedures for Applying for a Permit" and "Special Conditions" into an Appendix (A-B), per your recommendation.

Sand at Nourishment Site

Appendix A (f) has been amended to include a requirement that a sample and analysis of sand at the nourishment site be submitted.

Retention Structures

Appendix A (g) has been amended to require disclosure of the length of time the retention structure will remain in place.

Range of Water Depths

For the purposes of this EA, depth measurements would likely be based on existing information from topographic or navigation maps. Detailed bathymetry would not be required for small-scale projects.

Engineer's Seal

The purpose of this requirement, especially if retention structures are proposed, is to ensure that the technical assumptions of the project are sound - i.e. that a retention structure will perform like we want it to (retain sand), and will not cause unanticipated impacts to the shoreline.

Completion of Groin

This will be clarified in the EA.

Shoreline Certification

The EA currently requires the submission of a shoreline survey map, but does not require the map to be certified. The reason for this is that beach nourishment is temporary. The sand may or may not remain at the site, and could shift to other areas of the shoreline or offshore. Shoreline certification can be a lengthy process. The purpose of the program is to provide for the expeditions review of small-scale projects through one agency.

Public Lands

Placement of Sand on Privately Owned Property

It is not the intent of this SPGP and SCDUP to use public funds to finance these projects. It is the intent of the State to encourage coastal landowners and coastal communities to utilize beach nourishment in lieu of shoreline hardening. There may be situations where an agency dredges a small boat harbor, stream, or canal and a decision is made to place the material on a public beach that abuts private property, such as in Lanikai Oahu, or Halama Beach, Maui. The decision "where" to place sand on the State's public beaches would be determined by a number a factors, but is mainly a function determined by the beach area within the coastal cell that needs the sand the most due to a history of erosion. Certainly, priority would be given to beaches that are utilized more often and by more people than beaches that are not.

Accretion Claims

This is an important issue. The EA will be amended to include a statement that abutting landowners shall not be permitted to claim areas artificially nourished with sand under the State's accretion laws.

Alteration of Shoreline

Small-scale nourishment projects may alter the location of the shoreline. The shoreline will be surveyed prior to the nourishment operation. If a landowner needs to obtain

a certified shoreline to obtain a building permit from a County authority, the shoreline survey submitted as part of the application for a small-scale beach nourishment permit could be used to determine the shoreline. Under "Special Conditions" we have included a stipulation that small-scale beach nourishment shall not result in a seaward location of the certified shoreline.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

MAR 10 3 21 PM '00

Charles Fletcher, Professor
University of Hawaii

Department of Geology and Geophysics
1680 East-West Road
Honolulu, HI. USA 96822
808.262.8531 hm 808.956.2582 wk
fletcher@soest.hawaii.edu http://www.soest.hawaii.edu/coasts

School of Ocean & Earth
Science & Technology

Dean Y. Uchida, Administrator
Land Division
Department of land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

3/9/00

Dear Mr. Uchida,

I have reviewed the draft environmental assessment to support the Statewide Conservation District Use Application and State Program General Permit for small-scale beach nourishment projects in Hawaii. I have written several comments on the draft and enclose it for your information. Below I expand on what I consider the major points of my review.

1. I feel very strongly that the CLP is in need of staff with experience in technical aspects of coastal engineering. The SPGP, to be administered most effectively in the future and guarantee its success, needs to have an experienced coastal engineer with beach restoration background on staff. This is not meant to be a criticism of present staff, who do a very good job but are forced to make decisions that are outside the realm of their training.

2. The PTE should also have a coastal engineer on board with experience in beach restoration. If it does not represent a conflict of interest for future contracts, you could request Kevin Bodge to sit on the PTE and conduct mail and phone reviews for the CLP in a formal relationship under the PTE.

3. Are you actively and systematically using the legislative appropriation from last year to secure new revenues to the CLP? Or is the beach fund slowly running out of money without a serious prospect for replacement?

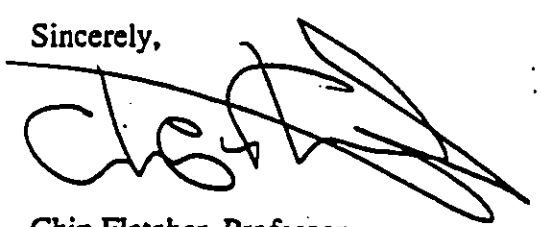
4. It is important that a sand resource investigation be initiated with a local geotechnical firm to identify a large sand body for state use under the SPGP. Likely sources include the Mana Plain on Kauai, coastal plain sands on Oahu in the Kahuku and Mokuleia regions, offshore sands, and fallow Ag. lands on the Maui saddle.

5. The OEQC has a comprehensive list of suggested information to be included with EA's for shoreline change projects. It seems that you could correlate the requirements of the SPGP "Procedures for Applying for a Permit" (p. 9) with the OEQC list. At the least, you should add a requirement that an applicant include an assessment of the causes of erosion and sand loss at the project site and a statement of the ability of the project to correct the problem.

6. In the "Procedures..." section you ask for very little in the way of technical analysis of the littoral processes at a project site. For instance, at the Lanikai project, the CLP has allowed a sand bag groin to remain in place even though it has no rational engineering purpose. In fact, it separates the project into 2 separate regions (N and S) such that the sand in the two regions cannot flow readily back and forth. This decreases the flexibility of the new project beach to respond to erosive wave conditions, each side of the project has to fend for itself instead of being able to share the sand. The result will be fairly rapid erosion of the new beach under trade wind waves this spring and summer.

Thank you for this opportunity to respond to the SPGP Draft EA. Implementation of this plan is an important and precedent-setting forward step in Hawaiian beach management.

Sincerely,



Chip Fletcher, Professor
Chair of Graduate Studies

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Dr. Charles Fletcher, Professor
Department of Geology and Geophysics
1680 East-West Road
Honolulu, Hawaii 96822

Dear Dr. Fletcher:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Administration of Coastal Lands Program (CLP)

We also believe that it would be beneficial for the program to have a trained coastal engineer on staff. However, coastal engineering is a specialized field and it would be difficult to recruit a qualified coastal engineer with the requisite experience to handle sometimes-complicated technical issues. In addition, it is not possible to pay a specialist at a competitive industry rate due to current hiring restrictions and the civil service structure.

In the meantime, we have been relying on coastal engineers in the private sector and specialists such as you for technical guidance.

We are in no way ruling-out this option. However, we are not in a position to do what you ask at this time.

Coastal Engineer on Panel of Technical Experts (PTE)

The PTE is currently comprised of a coastal/marine geologist, aquatic biologist and ocean/marine engineer. We considered seeking the participation of a coastal engineer

with experience in beach nourishment, but there are none that we know of in government or the University. This means that we would have to seek an individual from the private sector to be on the panel. This brings up issues of monetary compensation and potential conflicts of interest that we are not prepared to handle in the context of this EA. That being said, we would like to discuss this matter with you and others on the PTE to see how we can solicit the participation of a coastal engineer with experience in beach nourishment.

Legislative Appropriation

This is beyond the scope of the EA. However, we are currently investing different ways to generate revenues for the Coastal Lands Program.

Sand Resource Investigation

Your comments on potential sand sources have been noted. This issue is somewhat beyond the scope of this EA and involves discovering and developing fixed sand borrow sites for beach nourishment. The proposed small-scale beach nourishment program would utilize smaller qualities of sand that could be borrowed from existing sand reserves like channel mouths, small boat harbors, near shore sand deposits and some existing inland sources. A good example of this is Kikiaola Harbor on the island of Kauai. The location of the harbor has resulted in down drift beach impacts (sand accumulation on the up drift side, but sand loss on the down drift side). As such, sand will be moved periodically around the harbor to maintain the longshore drift of sand, which nourishes the down drift beach.

We plan to fund geotechnical sand investigations once we have narrowed the potential sites down to two or three. The selection of a larger sand borrow site involves many factors including deposit size, sand quality, accessibility, proximity to transportation nodes and cultural and environmental matters. If suitable sites were found, development would likely be subject to a separate environmental review and permitting process, since these sites would be in areas where sand excavation operations would be concentrated.

Correlation with OEQC List of Suggested Information to be Included in an EA

We believe that some of this information is not applicable to small-scale beach nourishment projects, but is more oriented towards shoreline armoring projects. However, per your suggestion, we have included a statement in the EA under "Procedures for Applying for a Permit" which requires, "An assessment of the causes of beach erosion and sand loss and the ability of the project to correct the problem as well as an analysis of the longevity of the project".

Sand Bag Groin at Lanikai Beach

The contractor who installed the groin offered to remove it about one month ago and place it elsewhere. We said that we would like him to remove it for the very reasons cited in your letter. CLP staff will follow-up on this matter to see how the groin is affecting the beach and then make a decision with input, on whether the groin should be removed immediately.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact Sam Lemmo of the Land Division, Planning Branch at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

Michael Varney
P.O. Box 2891
Kamuela, HI 96743

(808) 885-8022
fax: 887-1157

APR 3 10 01 AM '00

Department of Land and Natural Resources
Office of the Chairperson
1151 Punchbowl Street, Room 130
Honolulu, HI 96813

April 4, 2000

Re: Hawaiian Islands Beach Nourishment Projects

Dear Sirs,

A would like to start off thanking the DLNRs land division on the development of COEMAP. I hope the various Counties take into consideration all the data of this management plan when approving development projects on or near our shores.

The Hawaiian islands beach nourishment projects will be an excellent way to mitigate some of the damage done to our beaches and coastline due to sea walls and shoreline hardening.

I believe this could be used to improve existing beaches and in some cases create a completely new ones. Makaiwa Bay, here on the Big Island near the Mauna Lani Resort has an excellent man-made sandy beach were only a rocky cove existed before.

Shorelines with higher wave action could also be improved with small pebbles creating a beach with improved ocean access to the same time protecting the shoreline.

The sources for this sand or pebbles must be taken into consideration as very little exists on land. Offshore sources for this material would be the only alternative.

Our island with many miles of various types of shoreline has seen tremendous change in the last one hundred years. County or State agencies in the past have destroyed or narrowed some of our finest beaches mainly for infrastructure improvements such as roads or harbors. Hilo Bayfront, Kawaihae Harbor and Kailua Bay to name a few.

Beach nourishment would be an excellent way to offset some of these losses as long as the proper coastal, ocean, and current conditions are carefully assessed. Cultural and access issues will also have to be taken into consideration for each proposed project.

Hawaii's beaches our an investment in our future, weather for tourism or recreation . We have the best beaches in the world and lets take care of them.

Thank you for the opportunity to comment on this very important matter.

Sincerely,

Michael L. Varney

00 APR 6 A9:15

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Mr. Michael Varney
P.O. Box 2891
Kamuela, Hawaii 96743

Dear Mr. Varney:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Response from Counties

The purpose of the action is to provide for an alternative to shoreline hardening. As you suggest in your comments, shoreline hardening has had negative impacts on our beaches. This action will streamline the permitting process by providing "positive" incentives to nourish rather than harden the shoreline. Project benefits are discussed on pages 10-12, under economic, social and environmental considerations. We hope that coastal landowners as well as the respective County administrations take advantage of the opportunities offered by this program.

Improvement of Existing Beaches

The general public would benefit from beach nourishment due to the expansion of beach areas for recreational, spiritual or cultural pursuits. While some beach nourishment may occur adjacent to private property, the general public would be given free access to newly restored beach areas below the shoreline. We have revised the EA to stipulate

that small-scale nourishment projects shall not result in a seaward location of the certified shoreline.

Cobble Beaches

Hawaii has many cobble/pebble/coral rubble beaches. The idea of placing this material on eroded beach segments has been considered but, to our knowledge, has not yet been done.

Sand Sources

The State is carefully considering the problem of sand sources. We believe that there exist inland and offshore sand sources that can be used for beach nourishment.

This issue is somewhat beyond the scope of this EA and involves discovering and developing fixed sand borrow sites for beach nourishment. The proposed small-scale beach nourishment program would utilize smaller qualities of sand that could be borrowed from existing sand reserves like channel mouths, small boat harbors, near shore sand deposits and some existing inland sources.

We plan to fund geotechnical sand investigations once we have narrowed the potential sites down to two or three. The selection of a larger sand borrow site involves many factors, including deposit size, sand quality, accessibility, proximity to transportation nodes and cultural and environmental matters. If suitable sites are found, development would likely be subject to a separate environmental review and permitting process, since these sites would be in areas where sand excavation operations would be concentrated.

Destruction of Beaches

We are hopeful that with this and other efforts, we can preserve and enhance Hawaii's remaining beaches.

Cultural Issues

The EA will be amended to discuss possible impacts to the traditional and customary gathering rights of native Hawaiians.

In general, we believe that the program would improve or enhance these values for native Hawaiians as beach access and use could be enhanced. There is a potential for negative impacts if natural resources are damaged which native Hawaii's use such as marine animals and plants. However, the program has been developed with limitations, controls and monitoring guidelines so that negative impacts can be minimized and avoided in most cases.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

Apr 13 3 27 '00

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to
File:

April 12, 2000

00-047/epo

TO: Dean Y. Uchida, Administrator
Land Division
Department of Land and Natural Resources

FROM: Gary Gill
Deputy Director for Environmental Health

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA) TO SUPPORT A STATEWIDE CONSERVATION DISTRICT USE APPLICATION AND STATE PROGRAM GENERAL PERMIT FOR SMALL-SCALE BEACH NOURISHMENT PROJECTS IN HAWAII

Thank you for allowing us to review and comment on the subject document. We have the following comments to offer.

Water Pollution

The Department of Health has received a Section 401 Water Quality Certification (File No. WQC 0000364) application from the U.S. Army Corps of Engineers (COE) for the proposed state program general permit (File No. GP97-001)) for small-scale beach nourishment projects in Hawaii. The Clean Water Branch (CWB) staff are working closely with staff of the COE, State Department of Land and Natural Resources, and the Coastal Zone Management Program in the Office of Planning, State Department of Economic and Business Development and Tourism, regarding the subject general permit program.

The CWB supports the concept and efforts in restoring and enhancing the State's precious beach resources. However, the proposed statewide general permit program should include applicable conditions, requirements, and procedures to insure that the construction of any beach nourishment projects will comply with applicable requirements contained in Hawaii Administrative Rules, Chapter 11-54, "Water Quality Standards," Sections 11-54-01.1, 11-54-03, 11-54-04, 11-54-06, 11-54-07, 11-54-08 and 11-54-10. To comply with Section 11-54-01.1 requirements, proper screening procedures shall be established. To comply with Section 11-54-03 requirements, site-specific Best Management Practices (BMPs) shall be established and

incorporated as part of the permit conditions. All BMPs and control measures need to be designed, implemented, and maintained in a manner to properly isolate and confine the construction activities and to contain and prevent potential pollutants from adversely impacting water quality. To comply with Sections 11-54-04, 11-54-06, 11-54-07, 11-54-08 and 11-54-10 applicable monitoring requirements shall also be established and implemented to insure that the construction and operation of the proposed beach nourishment activities will not have any temporary or permanent adverse impacts to the receiving water quality.

If there are any questions on these comments, please contact Mr. Ed Chen of the CWB at 586-4309.

c: CWB

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Memorandum:

To: Gary Gill, Deputy Director
Department of Health

From: Sam Lemmo, Senior Staff Planner
Land Division, Coastal lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Water Pollution

The appropriate reference for Department of Health Requirements will be included in the EA. The appropriate reference is Chapter 54, of the Hawaii Administrative Rules for "Water Quality Standards".

We have reviewed the applicable sections of Chapter 54, HAR referenced in your April 12, 2000 letter and are confident that the EA and the permit process will address all applicable DOH, Clean Water issues.

Section 11-54-07(a)(3)(c) sets a limit on the size of sand grains at no less than 0.125 millimeters in diameter, for not more than 50 percent of the material. The proposed State Program General Permit (SPGP) and Statewide Conservation District Use Permit (SCDUP) have established

parameters for grain size. We believe that our standards are actually more conservative than the DOH standard. For instance, while the minimum grain size is 0.074 millimeters (smaller than that specified by DOH), we allow only six (6) percent of this material to be less than this size. [Note: The U.S. Army Corps standard for fines is less than nine (9) percent. Hawaii's standard would be even more conservative than this standard.] However, the DOH standard allows for fifty (50) percent of the material to be smaller than 0.125 millimeters in diameter. This standard could result in considerably more fines being released into the marine environment. In addition, the limited size of the nourishment operation (10,000 CY maximum) further limits the amount of fines that would be released into the marine environment.

Other DOH requirements relate to pollutants, testing requirements and monitoring. The EA discloses and discusses how these matters would be handled through the permit process.

The purpose of the EA is to disclose, analysis and mitigate potential environmental impacts, including water quality, arising from small-scale beach nourishment projects. The EA identifies potential water quality problems arising from dredging and nourishment operations and offers mitigation measures to minimize these impacts, including requiring BMPs, water quality analysis, discussion of ambient water quality, sand source analysis, water quality monitoring, etc. Most of these application requirements are listed in the Appendix of the EA under "Procedures for Applying for a Permit".

In terms of sand nourishment, we believe that ambient water quality conditions can be maintained for most of these projects. Sand quality/grain size determines the level of water quality impacts. It is a goal of this program to utilize high quality sand, which would be similar to the sand occurring on the receiving beach (native sand).

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact Sam Lemmo of the Land Division, Planning Branch at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

JAMES "KIMO" APANA
Mayor

CHARLES JENCKS
Director

DAVID C. GOODE
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

MAR 23 10 05 AM '00

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS AND WASTE MANAGEMENT
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

March 22, 2000

RALPH NAGAMINE, L.S., P.E.
Land Use and Codes Administration

RON R. RISKA, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

ANDREW M. HIROSE
Solid Waste Division

Mr. Dean Uchida, Administrator
Land Division
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
CONSERVATION DISTRICT USE APPLICATION
SMALL-SCALE BEACH NOURISHMENT PROJECTS

Dear Mr. Uchida:

We reviewed the subject request and have the following comments.

1. Beach nourishment does not address the problem of the cause of the beach loss and, unless addressed, will result in a continuous cycle of loss and nourishment.

2. Off-shore improvements such as berms, sand-filled bags, or rocks may accelerate the deposit of seaweed on coastal areas, causing noxious odors as it sits and rots. These improvements would be agreeable if the State immediately mitigates any future problems, such as seaweed removal.

3. It is recommended that a time element be included to preclude parceling of small beach nourishment projects that would exclude full environmental review in lieu of a large beach nourishment project which would require full environmental review.

4. It is expected that our regular channel sand plug clearing activities will not fall into review criteria for these types of projects.

5. Extraction of sand from upland sources will require a grading permit. The grading permit application shall comply with the provisions of the Maui County grading ordinance.

If you have any questions, please call David Goode at 270-7845.

Sincerely,

CHARLES JENCKS
Director of Public Works
and Waste Management

DG:msc/mt

S:\LUCA\CZM\beach.wpd

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

The Honorable Charles Jenks,
Director of Public Works and
Wastewater Management
200 South High Street
Wailuku, Maui 96793

Dear Mr. Jenks:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Beach Nourishment Does Not Address the Cause of Sand Loss

We agree. A number of interrelated factors including, waves and currents, sea level rise, degradation of our coral reefs and shoreline armoring, cause beach loss. Sand nourishment is not intended to address these broader problems. Sand nourishment is not a permanent solution to beach loss and coastal erosion. That is why, in addition to this program, we are trying to develop other strategies to manage coastal erosion and beach loss, without damaging beaches in the process. We have enclosed a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), which provides more information on coastal erosion, beach loss and the State's proposed future actions.

Our sole purpose through this program is to make small-scale sand nourishment a readily available alternative, by streamlining the permit process. This would tend to make it as cost effective as possible, should you or others wish to do it.

If sand retention structures are proposed, the potential for seaweed deposits will be evaluated. Removal of such deposits, should they occur, would be the responsibility of the permittee not the State.

Parceling

The EA sets a limit on the amount of sand at 10,000 cubic yards (CY) per project. We would discourage the potential practice of parceling, since it could be viewed as a way to do larger nourishment projects through segmentation, in order to circumvent the individual permit process.

It is possible that small-scale beach nourishment projects could be planned in phases - e.g., one 10,000 CY project at Halama Beach every year for 10 years. This could create cumulative impacts in the area beyond that anticipated in the programmatic EA. This situation would need to be monitored to determine what additional steps would be required under the State environmental laws, consultation with resource agencies, and the CDUA process. The EA has been amended to include a statement on parceling.

Channel Sand Plug Clearing

This is a routine management/pubic works function, which this program should not affect. However, should the County desire to nourish nearby beaches with sand dredged from stream mouths or channels, we would like to be consulted.

Extraction of Sand From Upland Sources

The EA has been amended to clarify that inland sand extraction is subject to the respective County regulatory requirements.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
Pacific Islands Area Office
1601 Kapiolani Boulevard, Suite 1110
Honolulu, Hawaii 96814-0047

Mr. Dean Y. Uchida
Administrator, Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

MAR 23 2000

Dear Mr. Uchida:

The National Marine Fisheries Service (NMFS) has reviewed the draft Environmental Assessment (EA) to support a Statewide Conservation District Use Application and State Program General Permit (SPGP) for Small-Scale Beach Nourishment Projects in Hawaii. The SPGP will authorize the placement of up to 10,000 cubic yards of sand for the purposes of restoring and nourishing an eroded beach. Important precautions have been built into the SPGP, as outlined in the draft EA. These include stipulations that all sand placed on the beach must comply with Department of Health regulations adopted pursuant to the Clean Water Act, grain size distribution of the sand used must be compatible with that of the native beach and contain not more than 9% fines, and that all individual projects are reviewed by a panel of technical experts.

Two categories of projects have been identified in the draft EA. Category I projects involve the placement of up to 500 cubic yards of sand within the shoreline area and would not require panel review or concurrence from the U.S. Army Corps of Engineers, Department of Health, or the various resource agencies, including NMFS. Category II projects involve the placement of more than 500 and up to 10,000 cubic yards of sand within the shoreline area and require full panel and agency review. We offer the following comments on the draft EA.

The EA states that projects determined to be Category I will be processed by the DLNR and that other agencies may also review Category I applications when requested or required. All projects authorized under the proposed SPGP, regardless of the amount of sand that will be placed under an individual authorization have the potential to impact coral reef resources, essential fish habitat, and endangered/threatened species managed by NMFS. For this reason, we request the opportunity to review all applications processed under the beach nourishment SPGP.

Although the EA states that a written compliance report must be submitted within two months of completion of a project, there are no specific requirements (other then photographs) for post-construction monitoring. We recommend that some type of beach profiling or other method of monitoring sand movement be required for at least the larger scale projects. This information will help increase our understanding of the potential effects of sand movement on adjacent coral reefs or essential fish habitat.

The pumping of significant amounts of sand from offshore borrow sites to nourish a beach could potentially alter habitat or coastal processes. We recommend that the panel of technical experts review all nourishment projects that involve the pumping of sand from offshore sources.

An EFH assessment may be required once the SPGP is distributed for public review. This assessment should be prepared by the Corps of Engineers during the Department of the Army permit process. At that time, EFH Conservation Recommendations may be necessary. Also during the public comment period, further comments regarding endangered/threatened species may be provided.

If you have any questions regarding these comments please contact John Naughton at 973-2935, extension 211, or Alan Everson at 973-2935, extension 212.

Sincerely,

C. Karnella

Charles Karnella
Administrator
Pacific Islands Area Office

Copies Furnished:

Mr. James Slawson, Southwest Region, NMFS, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802-4213
U.S Army Corps of Engineers, Regulatory Branch, Building 230, Fort Shafter, HI 96858-5440

U.S. Environmental Protection Agency, P.O. Box 5003, Honolulu, Hawaii 96850

U.S. Fish and Wildlife Service, Environmental Services, P.O. Box 50088, Honolulu, HI 96850

Clean Water Branch, Environmental Management Division, Hawaii State Department of Health, P.O. Box 3378, Honolulu, HI 96801-3386

Hawaii State Department of Business, Economic Development and Tourism, Office of Planning, Coastal Zone Management Program, P.O. Box 2359, Honolulu, HI 96804

State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, P.O. Box 621, Honolulu, HI 96809

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

Ref: PB: SL

Mr. Charles Karnella, Administrator
United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Pacific Islands Area Office
1601 Kapiolani Boulevard, Suite 1110
Honolulu, Hawaii 96814-0047

Dear Mr. Karnella:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Categories of Projects

We will amend the EA to stipulate that the National Marine Fisheries Service shall review all applications.

Post Project Monitoring

The DLNR Coastal Lands Program (CLP) must balance its desire for information with the potential for impacts and the economic capabilities of applicants. In this regard, we will amend the EA to stipulate post project profiling for larger scale sand placement projects that occur in the vicinity of coral reefs or fish habitat. We will request your input as to what projects should be required to conduct post project profiling or post dredging surveys.

Sand Pumping

The Panel of Technical Experts (PTE) will review all projects that involve offshore sand pumping, even if it involves volumes less than 500 cubic yards.

EFH Assessment

We acknowledge the fact that an Essential Fish Habitat (EFH) assessment could be required as a pre-requisite for the proposed State Program General Permit (SPGP). Apparently, this is a requirement that the U.S. Army Corps of Engineers must fulfill. As an additional precaution, the National Marine Fisheries Service will be asked to comment on all applications for beach nourishment projects processed through the Coastal Lands Program.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact Sam Lemmo of the Land Division, Planning Branch at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

STATE OF HAWAII
Department of Land and Natural Resources
Division of Aquatic Resources

SUSPENSE DATE: March 23, 2000

MEMORANDUM

To: William Devick, Administrator WD
From: Richard Sixberry, Aquatic Biologist
Subject: Comments on Draft Environmental Assessment

Comments Requested By: Dean Uchida, Land Division

Date of Request: 10/15/99 Date Received: 11/5/99

Summary of Project

Title: Small-Scale Beach Nourishment Project

Proj. By: DLNR

Location: Various, State of Hawaii

Brief Description:

This DEA encompasses three types of activities that individually or collectively could have some effect aquatic resource values. a) pumping sand for the beach or sandbags; b) sand distribution on shoreline; c) sand retention and erosion control system, i.e. sandbags.

Beach nourishment has been determined by DLNR as the best alternative for preserving and protecting the state-owned shoreline.

Comments:

Significant long-term impacts adverse to aquatic resource values is not expected from the proposed small-scale beach nourishment project although the temporary displacement of some fish and invertebrates could occur during these activities.

The potential for State liability would be reduced if liability insurance was in place should accidents result from obstacles (sandbags) placed on public land for sand retention.

The pumping of or shoreline removal of sand would cause some turbidity and disturbance in the area, although any adverse impacts to the resident aquatic population should be minimal and temporary.

Long-term benefits will result from this activity which would expand and enhance the recreational opportunities for the public along the shoreline.

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

Ref: PB: SL

Memorandum:

To: William Devick, Administrator
Division of Aquatic Resources

From: Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Long-term Impacts

The project has been conceived and designed to minimize impacts to aquatic resource values. This would be accomplished by imposing limitations on the amount of sand, exclusion of sensitive areas, consultation will resource agencies, imposition of BMP's, pre-project sand quality analysis, and post project monitoring for larger projects. In addition, a division biologist is on the application review panel.

Liability

The EA will be revised to stipulate that liability insurance will be required for the placement of sand retention structures.

Sand Pumping

As the Waikiki Beach sand pumping demonstration project proved, sand could be dredged hydraulically, without the creation of large turbidity plumes. This project was conducted over several weeks in and around popular surfing sites. There were very little if any disturbances of recreational activities. Because turbidity can be reasonably contained, there is little concern for impacts on nearby marine life. In fact, the dredging of sand from these areas may improve the habitat for dwelling sea creatures seeking areas of vertical relief in the marine substrate.

For dredging in streams, channels and harbors, applicable federal and state requirements must be followed to protect marine resources. The SPGP would not relax these regulations. The program has been developed with restrictions and limitations to protect sensitive areas such as coral reefs. Appendix B of the EA lists special conditions, which if properly observed, should minimize impacts to marine resources.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

MARYANNE W. KUSAKA
MAYOR

WALLACE G. REZENTES, SR.
ADMINISTRATIVE ASSISTANT

CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6500

IAN K. COSTA
DEPUTY COUNTY ENGINEER
TELEPHONE 241-6640

AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUA'I
DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKEHA BUILDING, SUITE 275
LIHU'E, KAUA'I, HAWAI'I 96766

March 8, 2000

Mr. Dean Uchida, Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

SUBJECT: REQUEST FOR COMMENTS, DRAFT EA FOR SMALL SCALE BEACH NOURISHMENT PROJECTS IN HAWAII

Reference is made to your letter dated March 1, 2000 which requests our comments on the draft environmental assessment included in the letter. The draft environmental assessment is to support a statewide conservation district use application and state program general permit for small scale beach nourishment projects in Hawaii. We are offering the following comments on the environmental assessment.

1. We recommend circulating the environmental assessment for comments from the community and especially coastal engineering firms that specialize and have the technical expertise on the environmental consequences of the project. We believe that this early consultation with citizens and firms with specialized knowledge will help to identify the potential impact of the project.
2. We have no objections to beach nourishment by replenishing the beach with acceptable sand. However, our concern is the project often times will not permanently solve the loss of coastal lands especially if erosion has been occurring for a long period of time. The cost to replenish the shoreline with beach sand could exceed the cost of structures or infrastructure that needs to be protected. An owner and even the government may not have the financial ability to undertake a project that requires a constant effort to nourish the beach.

Thank you for the opportunity to offer our comments. Should you have questions on our comments, please do not hesitate to contact Kenneth Kitabayashi of my staff at (808) 241-6622.

Very truly yours,

César Portugal
County Engineer

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

The Honorable Cesar Portugal, County Engineer
County of Kauai
Department of Public Works
4444 Rice Street, Suite 275
Lihue, Hawaii 96766

Dear Mr. Portugal:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Circulation of EA Through Coastal Engineering Firms

This is a good suggestion but was not done. Most of the concerns with respect to a program of this type result from water quality issues. We have been working very closely with the Department of Health, Clean Water Branch, the U.S. Army Corps of Engineers, and the National Marine Fisheries Service to ensure that water quality and marine resource would not be adversely impacted as a result of small-scale sand dredging and nourishment.

In addition, copies of the EA were circulated to most of the State's public libraries.

Sand Nourishment as a Temporary Solution

Sand nourishment is not a permanent solution to beach loss and coastal erosion. That is why, in addition to this program, we are trying to develop other strategies to manage coastal erosion and beach loss, without damaging beaches in the process. We have enclosed a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), which provides more

information on coastal erosion, beach loss and the State's proposed future actions.

We are not suggesting that sand nourishment be required or that it should be a replacement for hard shore protection. We agree with your assessment that beach nourishment is expensive and may not solve coastal erosion problems. However, there are situations when beach nourishment should be done to mitigate the potential loss of sand due to the presence of a reflective hardened structure, such as at Brennecke Beach, where there exists a strong beach user group.

Our sole purpose through this program is to make small-scale sand nourishment a readily available alternative, by streamlining the permit process. This would tend to make it as cost effective as possible, should you or others wish to do it.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

BENJAMIN J. CAYETANO
GOVERNOR

cc: Dean
Sam L
Janet (FYI)

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

COPY

GENEVIEVE SALMONSON
DIRECTOR

APR 14 1 16 PM '00

APR 10 PM 2:25

April 5, 2000

Mr. Tim Johns, Chair
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Johns:

Subject: Draft Environmental Assessment for Small Scale Beach Nourishment Projects in the Hawaiian Islands

Thank you for the opportunity to review the subject document. We have the following comments.

1. We support your proposal to establish a State Program General Permit and a statewide Conservation District Use Permit for small-scale beach nourishment projects.

2. We recommend that the proposed plan consider how the various activities may affect traditional and customary gathering rights of Native Hawaiians.

3. We recommend that the plan consider how placement of offshore submerged berms may affect surfing sites.

4. We support the requirement to publish "notice of" category II permits in the Environmental Notice. Please add the term "notice of" before the term "Category II permits will be published in the Office of Environmental Quality Control, Environmental Notice for public review." (Page 9) Publishing the entire permit could be too costly for OEQC.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson

Genevieve Salmonson
Director

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
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CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Memorandum:

To: Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control

From: Sam Lemmo, Senior Staff Planner
Land Division, Coastal lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We have considered your comments and provide the following response.

Traditional and Customary Gathering Rights of Native Hawaiians

The EA will be amended to discuss possible impacts to the traditional and customary gathering rights of native Hawaiians.

In general, we believe that the program would improve or enhance these values for native Hawaiians as beach access and use could be enhanced. There is a potential for negative impacts if natural resources are damaged which native Hawaii's use such as marine animals and plants. However, the program has been developed with limitations, controls and monitoring guidelines so that negative impacts can be minimized and avoided in most cases.

Affect of Berms on Surf Sites

Any sand retention structures proposed under this EA would be quite small and close to shore. Moreover, no such structures would be placed in the marine environment if they were suspected to impact surf sites.

Publication of Category II Projects

We will revise the EA with the language you have suggested so as to not give the impression that that entire document will be published in the environmental notice.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA, Ph.D.
DIRECTOR
PHILIP J. BOSSERT
DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

Telephone: (808) 587-2846
Fax: (808) 587-2824

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Ref. No. P-8524

March 22, 2000

To: Dean Y. Uchida, Administrator
Land Division
Department of Land and Natural Resources

Attention: Sam Lemmo

From: David W. Blane
Director, Office of Planning

Subject: Draft Environmental Assessment for Small-Scale Beach Nourishment Projects in the Hawaiian Islands

We fully support the establishment of a State Program General Permit (SPGP) and a statewide Conservation District Use Permit (CDUP) for small-scale beach nourishment projects. Our Coastal Zone Management Program has been working closely with Sam Lemmo of your Coastal Lands Program, as well as the U.S. Army Corps of Engineers and the Department of Health Clean Water Branch, to develop the SPGP. It is a State CZM policy, HRS Section 205A-2(c)(9)(B), to prohibit the construction of private erosion protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities. Therefore, the CZM Program favors beach nourishment and restoration as a viable alternative to shoreline armoring. The proposed SPGP/CDUP provides an incentive for landowners to seriously consider beach nourishment and restoration by making the permit process easier and faster.

The Anticipated Determination and Findings of No Significant Impact to the Environment (FONSI) is appropriate. If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

c: U.S. Army Corps of Engineers, Regulatory Branch
U.S. National Marine Fisheries Service, Pacific Area Office
U.S. Fish and Wildlife Service, Pacific Islands Ecoregion
Department of Health, Clean Water Branch
Office of Environmental Quality Control
Department of Planning and Permitting, City & County of Honolulu
County of Hawaii Planning Department
County of Kauai Planning Department
County of Maui Planning Department

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

Ref: PB: SL

Memorandum:

To: David Blane, Director
Office of Planning

From: Sam Lemmo, Senior Staff Planner
Land Division, Coastal lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. John Nakagawa of your staff has provided us with excellent guidance and advice throughout this effort to streamline the permit process for small-scale beach nourishment projects.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP) for your information and use.

Thank you for your comments on the draft EA. Please feel free to contact me at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.9442

March 6, 2000

TO: MR. DEAN Y. UCHIDA, LAND ADMINISTRATOR
LAND DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES

FROM: KAZU HAYASHIDA
DIRECTOR OF TRANSPORTATION

SUBJECT: SMALL SCALE BEACH NOURISHMENT PROJECTS
DRAFT ENVIRONMENTAL ASSESSMENT

Thank you for your transmittal requesting our review of the subject draft assessment.

The subject project will not impact our State transportation facilities.

We appreciate the opportunity to provide comments.

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

Ref: PB: SL

Memorandum:

To: The Honorable Kazu Hayashida, Director
Department of Transportation

From: Sam Lemmo, Senior Staff Planner
Department of Land and Natural Resources, Land Division, Coastal lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for your comments on the draft EA.

We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

March 21, 2000

Mr. Dean Uchida, Administrator
Land Division
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

RE: Draft Environmental Assessment for Small Scale Beach Nourishment Projects

The Maui Planning Department has reviewed the above-mentioned draft Environmental Assessment and applauds your efforts in promoting beach nourishment and restoration as a viable alternative to shoreline protection.

Thank you for the opportunity to comment. Should you have any questions, please contact Daren Suzuki, Staff Planner, of this office at 270-7735.

Very truly yours,

JOHN E. MIN
Planning Director

JEM:DMS:cmb
c: Clayton Yoshida, AICP, Deputy Planning Director
Daren Suzuki, Staff Planner
Project File
General File
S:\ALL\DAREN\BEACHPRO.WPD

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
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CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

The Honorable John Min, Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Maui 96793

Dear Mr. Min:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP) for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: 523-4054

JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

MICHAEL T. AMII
DEPUTY DIRECTOR

March 15, 2000

Mr. Dean Y. Uchida, Administrator
Land Division
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

Subject: REQUEST FOR COMMENTS Draft Environmental Assessment to Support a Statewide Conservation District Use Application and State Program General Permit for Small-Scale Beach Nourishment Projects in Hawaii

Thank you for the opportunity to review and comment on the above draft Environmental Assessment relating to beach nourishment projects in Hawaii.

The Department of Parks and Recreation supports the recommendation to promote small-scale beach nourishment and restoration as a viable alternative to shoreline armoring.

Should you have any questions, please contact Mr. John Reid, Planner, at 547-7396.

Sincerely,

WILLIAM D. BALFOUR, Jr.
Director

WDB:cu
(00-0546JR)

cc: Mr. Don Griffin, Department of Design and Construction

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

AQUACULTURE DEVELOPMENT PROGRAM
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

The Honorable William Balfour, Jr.
City and County of Honolulu
Department of Parks and Recreation
650 South King Street, 10th Floor
Honolulu, Hawaii 96813

Dear Mr. Balfour:

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We appreciate your support of these efforts to take care of Hawaii's great beaches.

We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Aloha,

Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISON OF STATE PARKS

MEMORANDUM

TO: Dean Y. Uchida, Administrator
Land Division

FROM: Ralston H. Nagata, Administrator

SUBJECT: Draft Environmental Assessment to Support a Statewide Conservation District Use Application and State Program General Permit for Small-Scale Beach Nourishment Projects in Hawaii.

This Draft EA supports a streamlined permitting process for small scale beach nourishment projects. The Draft EA should clearly state that this is all that is being proposed. No other actions are proposed, or required. Shoreline landowners are not required to nourish their beaches, but are instead encouraged to do so in place of shoreline armoring. The Division of State Parks supports the beach nourishment concept, and this effort to simplify the permit process.

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

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Memorandum:

To: Ralston Nagata, ~~Administrator~~
Division of State Parks

From: Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii. We appreciate your support of these efforts to take care of Hawaii's great beaches.

We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII

RAYNARD C. SOON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

March 13, 2000

To: Dean Uchida, Administrator
Department of Land and Natural Resources

From: Raynard C. Soon, Chairman
Hawaiian Homes Commission

Subject: Draft Environmental Assessment to Support a Statewide Conservation District Use Application and State Program General Permit for Small-Scale Beach Nourishment Projects in Hawaii

The Department of Hawaiian Home Lands (DHHL) has reviewed the subject draft Environmental Assessment (EA). The purpose of the EA is to evaluate the significance of potential environmental impacts that could result from small-scale beach nourishment projects and to determine whether an environmental impact statement (EIS) is required. The DHHL has no comments to offer at this time.

If you have any questions, please call me at 586-3801 or have your staff call Rebecca Alakai of my staff at 587-6423.

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

AQUACULTURE DEVELOPMENT PROGRAM
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CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Memorandum:

To: Honorable Raymond C. Soon, Chairman
Hawaiian Homes Commission

From: Sam Lemmo, Senior Staff Planner
Land Division, Coastal Lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the draft environmental assessment (DEA) for small-scale beach nourishment projects in Hawaii.

We appreciate your support of these efforts to take care of Hawaii's great beaches. We have enclosed a copy of the final EA, with revisions underlined, and a copy of the Hawaii Coastal Erosion Management Plan (COEMAP), for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

OFFICE OF HAWAIIAN AFFAIRS

APR 4 12 32 PM '00

March 31, 2000

PC #77

Mr. Dean Uchida, Administrator
Land Division
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawai'i 96809

Reference PB:SL

Aloha Mr. Uchida:

We are in receipt of the Draft Environmental Assessment to support a Statewide Conservation District Use Application and State Program General Permit for Small Scale Beach Nourishment Projects in Hawai'i. After review of the document the Office of Hawaiian Affairs agrees that the plan to encourage small-scale beach nourishment would go a long way, when implemented, to reduce shoreline armoring and enhance and protect Hawaii's beaches with a minimal amount of negative impacts to the environment.

Mahalo for the opportunity to comment. If there are any questions on any of this, please contact Ms. Pikake Pelekai at (808) 594-1954. She can also be reached by facsimile at (808) 594-1865 or by e-mail at pikakepelekai@oha.org.

Sincerely,

Colin C. Kippen, Jr.
Deputy Administrator

Cc: BOT

711 Kapi'olani Boulevard, Suite 500, Honolulu, Hawai'i 96813-5249
Phone 808 594-1888 • Fax 808 594-1865

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT PROGRAM
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref: PB: SL

Memorandum:

To: Mr. Colin Kippen. Jr., Deputy Administrator
Office of Hawaiian Affairs

From: Sam Lemmo, Senior Staff Planner
Department of Land and Natural Resources, Land Division, Coastal lands Program

Subject: Response to Comments Received on a Draft Environmental Assessment for Small Scale Beach Nourishment Projects in Hawaii

Thank you for reviewing the subject document. Thank you for your continued support of this important initiative. We have enclosed a copy of the final EA, with additions underlined. We have also enclosed a copy of the Hawaii Coastal Erosion Management Plan (COEMAP) for your information and use.

Please feel free to contact me at 587-0381, should you have any comments on this matter.

Attachments

Cc: Timothy Johns
Janet Kawelo
Dean Uchida

CHAPTER 7

REFERENCES

Fletcher, C.H., Mullane, R.A., and Richmond, B.M. 1997. Beach loss along armored shorelines of Oahu, Hawaiian Islands. *Journal of Coastal Research*, 13:209-215.

[2] Department of Land and Natural Resources, *Coastal Erosion Management Plan* 1999.

[3] Fletcher, C.H. Lemmo S.L., 1999. Hawaii's Emergent Coastal Erosion Management Program. *Shore and Beach*, pp. 15-20.

BEFORE
12/6/99

AFTER
2/15/2000

SOUTH LANIKAI BEACH
SMALL SCALE BEACH NOURISHMENT
3,000 Cubic Yards
of Sand

Figure 1, DLNR Coastal Lands Program