SEPTEMBER 8, 2006

Haleakala Telescope

The National Science Foundation (NSF) has prepared a Draft Environmental Impact Statement (DEIS) for the proposed Advanced Technology Solar Telescope (ATST) at Haleakala High Altitude Observatory (HO) site. The ATST will have a 165-inch aperture, advanced optical technology, and state-of-the-art instrumentation. The telescope enclosure and a support facility would be placed at one of two identified sites within the existing observatory boundaries. The DEIS addresses both of these sites and the potential environmental impacts of on-site construction, installation, and operation of this proposed new solar telescope.

Public meetings will take place on Maui Wednesday, Sept. 27, 2006, 6 – 10 p.m. at the Cameron Center Auditorium; Thursday, September 28, 2006, 6 - 10 p.m. at the Hannibal Tavares Community Center, Multi-purpose Room; and Friday, September 29, 2006, 6 - 10 p.m. at the Kula Community Center. Times and locations will also be published in the local newspapers. The 45-day comment period begins September 8, 2006, and ends October 23, 2006. See page 7 for more details.

Kapa‘a Soccer Park

The Parks Division of Kauai Public Works is planning a new soccer field to be located on 11 ½ acres in Kapaa. This site is a triangle bordered by Mo‘ikeha Canal to the south, a cane haul road to the north, and existing residences and businesses to the east. It is a few blocks mauka of Kuhio Highway. It will also include a comfort station, jogging/walking path, and paved parking lot. Large shade trees will be used for shelter and shade. See page 10 for details.

Exemption List Review

The Honolulu Department of Design and Construction has submitted to the Environmental Council its Proposed Exemption List. Anyone wishing to obtain a copy can go to the OEQC FTP Site or contact OEQC at 586-4185; comment deadline is October 9, 2006.
We provide access to our activities without regard to race, color, national origin (including language), age, sex, religion, or disability. Write or call OEQC or our departmental Affirmative Action Officer at Box 3378, Honolulu, HI 96801-3378 or at (808) 586-4616 (voice/tty) within 180 days of a problem. OEQC intends to make the information in this bulletin accessible to everyone. Individuals that require this material in a different format (such as large type or braille), should contact our office for assistance.
Draft Environmental Assessment

A project or action that may affect the environment cannot be implemented until an Environmental Assessment (EA) is prepared in accordance with Chapter 343, Hawai‘i Revised Statutes (HRS). If the lead State or county agency (the proposing agency for agency actions, or the approving agency for applicant actions) anticipates that the project will have no significant environmental impact, then affected agencies, individuals, and organizations must be consulted and a Draft EA (DEA) is written and public notice is published in this periodic bulletin (see, section 343-3, HRS) known as the Environmental Notice. The public has 30 days to comment on the Draft EA from the date of the first notice.

Final Environmental Assessment and Finding of No Significant Impact

After the lead agency reviews the public comments, if it determines that the project will have no significant effect on the environment, and then it will prepare a Final EA (FEA) and issue a Finding of No Significant Impact (FONSI) formerly called a Negative Declaration. The Final EA must respond to all public comments. An Environmental Impact Statement will not be required and the project may now be implemented. The public has 30 days from the first notice of a FONSI in this periodic bulletin to ask a court to require the preparation of an EIS.

Final Environmental Assessment and Environmental Impact Statement

Preparation Notice

When a lead agency decides that a project may have a significant environmental impact, an Environmental Impact Statement (EIS) must be prepared prior to implementing the project. Like the DEA (see above), affected agencies, individuals and organizations must be consulted prior to preparation of the final EA (FEA) and issuance of a determination called an EIS preparation notice (EISPN). (The EA is called final, to distinguish it from the draft, above). After the FEA is written by the lead agency, and notice of the FEA and EISPN is published in the this periodic bulletin, any agency, group, or individual has 30 days from the first publication of the EISPN to request to become a consulted party and to make written comments regarding the environmental effects of the proposed action. The public (including an applicant) has 60 days from the first notice of an EISPN in this periodic bulletin to ask a court to not require the preparation of an EIS.

Draft Environmental Impact Statement

After receiving the comments on the FEA and EISPN (see above), the lead agency or private applicant must prepare a Draft Environmental Impact Statement (DEIS) prior to project implementation. This document must completely disclose the likely impacts of a project. Direct, indirect and cumulative impacts must be discussed along with measures proposed to mitigate them. The public has 45 days from the first publication date in this periodic bulletin to comment on a DEIS. The DEIS must respond to comments received during the FEA-EISPN comment period in a point-by-point manner.

Final Environmental Impact Statement

After considering all public comments filed during the DEIS stage, the agency or applicant must prepare a Final EIS (FEIS). The FEIS must respond in a point-by-point manner to all comments from the draft stage. Requisite deeper analyses must be included in the FEIS. For applicant projects, the approving agency is authorized to accept the FEIS. For agency project the Governor or the county mayor is the accepting authority. Only after the EIS is accepted may the project be implemented.

Acceptability

If the FEIS is accepted, the law requires that notice of this be published in this periodic bulletin. The public has 60 days from the date of first notice of acceptance to ask a court to vacate the acceptance of an EIS. In the case of applicant actions, the law requires that an approving agency must make a determination on acceptance within thirty-days of receipt of the FEIS or the FEIS is deemed accepted. Also, for applicant actions, the law provides for an administrative appeal of a non-acceptance to the Environmental Council.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires federal projects to prepare an EA or EIS. It many ways it is similar to Hawai‘i’s law. Some projects require both a state (and county) and federal EIS and the public comment procedure should be coordinated. Although not required by law, the OEQC publishes NEPA notices in this periodic bulletin to help keep the public informed of important federal actions.

Conservation District

Any use of land in the State Conservation District requires a Conservation District Use Application (CDUA). These applications are reviewed and approved by the Board of Land and Natural Resources (BLNR). Members of the public may intervene in the permit process. Notice of these permit applications is published in this periodic bulletin.

Special Management Area

The Special Management Area (SMA) is along the coastlines of all our islands and development in this area is generally regulated by Chapter 205A, HRS and county ordinance. A special subset of the SMA that is regulated by Chapter 343, HRS is the Shoreline Setback Area. Most development in this area requires a Special Management Permit (SMP). This periodic bulletin posts notice of these SMP applications to encourage public input.

Shoreline Certifications

State law requires that Hawai‘i shorelines be surveyed and certified when necessary to clearly establish the shoreline setback (an area contained between the certified shoreline and a prescribe distance inland (usually 40 feet) from the certified shoreline). The public may participate in the process to help assure accurate regulatory boundaries. Private land owners often petition to have their shoreline certified by the State surveyor prior to construction. This periodic bulletin publishes notice from the Department of Land and Natural Resources of both shoreline certification applicants and of final certifications or rejections.

Environmental Council

The Environmental Council is a fifteen-member citizen board appointed by the Governor to advise the State on environmental concerns. The council makes the rules that govern the Environmental Impact Statement process. The agendas of their regular meetings are published on the Internet at http://www.ehawaii.gov/calendar and the public is invited to attend.

Exemption Lists

Government agencies must keep a list describing the minor activities they regularly perform that are declared exempt from the environmental review process. These lists are reviewed and approved by the Environmental Council. This periodic bulletin will publish an agency’s draft exemption list for public comment prior to Council decision making, as well as notice of the Council’s decision on the list.

Endangered Species

This periodic bulletin is required by Section 343-3(c), HRS, to publish notice of public comment periods or public hearings for habitat conservation plans (HCP), safe harbor agreements (SHA), or incidental take licenses (ITL) under the federal Endangered Species Act, as well as availability for public inspection of a proposed HCP or SHA, or a proposed ITL (as a part of an HCP or SHA).
Capo Reinforced Concrete Seawall (HRS 343 DEA)

District: Mokule'ia
TMK: (1) 6-8-10:20
Applicant: Gary Capo
1948 Valley Park Road, Hermosa Beach, CA 90254
Approving Agency: Department of Planning and Permitting
650 S King St., 7th Flr. Honolulu, HI 96813
Contact Ann Matsumura (523-4077)
Consultant: Analytical Planning Consultants, Inc.
928 Nu'uanu Ave., Honolulu, HI 96817
Contact: Donald Clegg (536-5695)

Public Comment Deadline: October 9, 2006
Status: Draft environmental assessment (DEA) notice pending 30-day public comment. Address comments to the applicant with copies to the approving agency, consultant and OEQC.

Permits Required: Shoreline Setback Variance, Building

The applicant is seeking after-the-fact approval to retain a reinforced concrete seawall system with returns at the left and right property boundaries that connect with a stairway and concrete fill, and tile and concrete walls, within the shoreline setback area. The maximum height of the seawall is six feet and six inches high as measured along its exposed face from the existing beach sand. The concrete seawall forms the 61.21-foot makai boundary of the property and connects with existing seawalls on both sides of the property, for which Shoreline Setback Variance approvals are being sought for their retention.

The project site is located at 68-687 Farrington Highway and contains a single-family dwelling. The makai side of Farrington Highway along this stretch of Mokule’ia is developed with single-family homes. The sand beach along this portion of the Mokule’ia coastline has a history of erosion. The 9,906 square-foot lot has lost approximately 3,005 square feet of land to erosion.

The project proposal will require approval of a Shoreline Setback Variance and building permits.
Kaipapaʻu Well and Associated Facilities (HRS 343 FEA-FONSI)

(Draft previously titled "Kaipapaʻu Well, Breaker Reservoir, Central Station, Pipeline & Access Rd" in July 8, 1995 The Environmental Notice)

District: Koʻolauloa
TMK: (1) 5-4-04:04 (por.)
Proposing Agency: Honolulu Board of Water Supply
630 S Beretania St., Honolulu, HI 96843
Contact: Scot Muraoka (748-5942)

Determination Agency: Same as above.
Consultant: Geometrician Associates
HC 2 Box 9575, Keaʻau, HI 96749
Contact: Ron Terry (982-5831)

Status: Final environmental assessment (FEA) and Finding of No Significant Impact (FONSI).
Permits Required: DOH approval; Water Use, Well Construction, and Pump Installation Permits; Conservation District Use Permit; National Pollutant Discharge Elimination System (NPDES) Permit

The project would convert an existing exploratory well near Hauʻula, Oʻahu, to a production well. The site is a previously graded pad upslope of Kaipapaʻu Stream, at 205 feet elevation, about 4,000 feet from the shoreline. The project would assist in fulfilling the Board of Water Supply’s (BWS’s) plan of pump optimization in Punaluʻu by redistributing existing permitted uses among several wells instead of concentrating pumpage at a specific area. This will help minimize aquifer impacts by allowing pumpage reductions in Punaluʻu, which have experienced rising chloride levels during long-term drought.

The well extends 165 feet below sea level and taps the basal aquifer. It would be fitted with a pump with a capacity of 1.0 million gallons per day. The pad will also house a control building, pump building and a 10,000-gallon concrete breaker reservoir. The buildings and reservoir will be painted in an earth-colored tone and the area surrounding the building will be ringed with security fencing. The remaining area in the well pad, except for the access road and turnaround, will be landscaped to restore a vegetated cover. A 2,400-foot long unpaved road from the Hauʻula 180 reservoir that was graded for the test well will be improved and paved to provide access. Utilities and water interconnections will also be built. An integral part of the project will be Best Management Practices (BMPs) to minimize potential pollution of receiving waters that could arise from erosion and sedimentation and hydro-testing of the pipeline. These BMPs will be developed as part of a National Pollutant Discharge Elimination System permit. No sensitive flora or fauna are present, and the project will not dewater or otherwise affect Kaipapaʻu Stream, given proper implementation of BMPs. Kaipapaʻu Stream is intermittent in the middle valley reach and there is no hydraulic connection between the stream at approximately 140-foot elevation and the basal aquifer at 17-foot elevation in the vicinity of the well. Visual impacts will be minimal and mitigated by landscaping and project design, and there will be no effect to trails. No significant archaeological or cultural sites are present or will be affected, and in the unlikely event that archaeological resources are encountered, work in the immediate area of the discovery will be halted and DLNR-SHPD contacted.

Aerial of Project Location
Proposed Pool, Spa and Landscaping Improvements at 1391 Front Street, Lahaina, Maui (HRS 343 DEA)

District: Lahaina
TMK: (2) 4-5-013:01
Applicant: John Cook
1391 Front St., Lahaina, HI 96761
Contact: John Cook (667-2211 ext. 7460)

Approving Agency: Maui Planning Commission
250 S High St., Wailuku, HI 96793
Contact: Michael Foley (270-7735)

Consultant: Munekiyo & Hiraga, Inc.
305 High St., Ste. 104, Wailuku, HI 96793
Contact: Mich Hirano (244-2015)

Public Comment Deadline: October 9, 2006
Status: Draft environmental assessment (DEA) notice pending 30-day public comment. Address comments to the applicant with copies to the approving agency, consultant and OEQC.

Permits Required: Special Management Area Use Permit, Shoreline Setback Variance, Flood Hazard Permit and Building Permit

The project site is a single-family residential property located at 1391 Front Street in Lahaina, Maui, Hawai‘i and is identified as TMK (2) 4-5-13:01. The subject property is approximately 8,300 square feet in area and is a shore fronting lot. The subject property is designated single-family residential in the West Maui Community Plan and is County zoned R-1, Residential. Existing improvements on the subject property include a 3 bedroom single-story residence with an approximate floor area of 3,100 square feet, landscaping, 3.0-ft. high CMU boundary wall along the northern property boundary and a rock grouted seawall. A portion of the steps on the makai (seaward) side of the residence is within the shoreline setback. Based on review of a historical shoreline Mosaic photograph taken in 1949, the grouted rock seawall is a non-conforming structure built sometime prior to 1949. The CMU wall is an existing structure built sometime prior to 1988.

The applicant, John Cook, proposes to construct 30-feet by 11-feet swimming pool, with a surface area of 340 square feet, a spa and landscaping improvements within the shoreline setback area. The pool and spa are free-form in shape and will be constructed out of concrete (shot Crete method). Rock work amenities will be provided on portions of the pool and spa edges to create a “natural” appearance of the pool which will provide a positive visual feature to the property. Both the pool and spa will utilize a salt-chlorine generation system for sanitation. All water will be contained and re-circulated in the pool. The proposed pool, spa and related improvements are proposed for physical therapy purposes by the applicant.

A Shoreline Setback Variance (SSV) and Special Management Area Use Permit application will be made to the County of Maui, Planning Commission and Director of Planning, respectively, to complete the necessary permitting for the above action. The Shoreline Setback Variance will also include the portion of steps on the makai side of the house and an existing 3.0-ft. high CMU wall along the northern property boundary within the shoreline setback area. The steps encroach into the setback area by approximately 3 feet and the CMU wall encroaches into the setback area by approximately 20 feet.
Advanced Technology Solar Telescope (ATST) (HRS 343 DEIS)

District: Makawao
TMK: (2) 2-2-007-008

Proposing Agency: National Science Foundation, Div of Astronomical Sciences, 4201 Wilson Blvd., Rm. 1045, Arlington, VA 22230
Contact: Dr. Craig Foltz (703-292-4909)
Fax: 703-292-9034, email: cfoltz@nsf.gov

Accepting Authority: University of Hawai‘i Institute for Astronomy
2680 Woodlawn Dr., Honolulu, HI 96822-1897
Contact: Dr. Charlie Fein (573-1903)

Consultant: KC Environmental, Inc.
P.O. Box 1208, Makawao, HI 96768
Contact: Dr. Charlie Fein (573-1903)

Public Comment Deadline: October 23, 2006
Status: Draft environmental impact statement (DEIS) notice pending 45-day public comment. Address comments to the proposing agency with copies to the accepting authority, consultant and OEQC.

Permits Required: Conservation District Use Permit

The National Science Foundation (NSF) has prepared a Draft Environmental Impact Statement (DEIS) for the proposed Advanced Technology Solar Telescope (ATST) Project. This joint DEIS is prepared in compliance with the Federal National Environmental Policy Act (NEPA) and the State of Hawai‘i Chapter 343, Hawai‘i Revised Statutes (HRS).

The NSF, through an award to the National Solar Observatory (NSO), plans to fund construction of the proposed ATST at the University of Hawai‘i Institute for Astronomy (IfA), Haleakala High Altitude Observatory (HO) site, on the Island of Maui, Hawai‘i. An extensive campaign of worldwide site testing has identified Halekala Observatory as the optimal location for this next-generation solar observing facility. With its unprecedented 4.2-m (165-inch) aperture, advanced optical technology, and state-of-the-art instrumentation, the proposed ATST would be an indispensable tool for exploring and understanding physical processes on the sun that ultimately affect Earth. The telescope enclosure and a support facility would be placed at one of two identified sites within the existing observatory boundaries. The DEIS addresses both of these sites and the potential environmental impacts of on-site construction, installation, and operation of this proposed new solar telescope.

Public Comment Period: The NSF welcomes and invites Federal, state, and local agencies, and the public to participate in the 45-day comment period for the completion of this EIS. The 45-day public comment period begins September 8, 2006, and ends on October 23, 2006. Public comment meetings will take place on the island of Maui, Hawai‘i, with notification of the times and locations published in the local newspapers, as follows:

1. Cameron Center Auditorium
   Sept. 27, 2006, Wednesday, 6:00 to 10:00 pm.

2. Hannibal Tavares Community Center,
   Multi-purpose Room
   September 28, 2006, Thursday, 6:00 to 10:00 pm.

3. Kula Community Center
   September 29, 2006, Friday, 6:00 to 10:00 pm.

Aerial showing existing facilities
UH-Hilo Student Life Center (Phase I) (HRS 343 FEA-FONSI)

District: South Hilo
TMK: (3) 2-4-01:163, 167 (por.)
Applicant: University of Hawai‘i at Hilo, Facilities Planning & Construction, 200 West Kawili St., Hilo, HI 96720
Contact: LoLi Chih (974-7595)

Determination Agency: University of Hawai‘i, Office of Capital Improvements, 1951 East-West Rd., Honolulu, HI 96822
Contact: Maynard G.P. Young (956-4071)

Consultant: Group 70 International, Inc.
925 Bethel St., 5th Flr., Honolulu, HI 96813
Contact: George Atta (523-5866)

Status: Final environmental assessment (FEA) and Finding of No Significant Impact (FONSI).

Permits Required: NPDES, Building, Grading, Use

The Office of Capital Improvements, University of Hawai‘i, proposes to construct improvements at the University of Hawai‘i at Hilo located in Hilo, on the Island of Hawai‘i. The proposed UH-Hilo Student Life Center is a recreational complex that is intended to accommodate the needs of on-going daily campus life. The approximate 20-acre site is identified as Tax Map Key 2-4-01:163, 167 portion.

The general elements of the proposed project include a fitness center, outdoor swimming pool and pool equipment building, covered courts building, and human performance building.

No significant impacts are anticipated from the construction or operation of the proposed improvements associated with the University of Hawai‘i at Hilo Student Life Center. Construction-related traffic, air and noise impacts will be short-term in nature. The project will comply with government regulations during construction to mitigate potential impacts. A Finding of No Significant Impact (FONSI) has been determined.
West Hawai‘i Civic Center (HRS 343 FEA-FONSI)

District: North Kona
TMK: (3) 7-4-20:25
Proposing Agency: Department of Public Works, Aupuni Center, 101 Pau‘ahi St., Ste. 7, Hilo, HI 96720-4224
Contact: David Yamamoto (961-8321)

Determination Agency: Same as above.
Consultant: PBR Hawai‘i, Hilo Lagoon Center 101 Aupuni St., Suite 310, Hilo, HI 96720
Contact: Marissa Furfaro (961-3333)

Status: Final environmental assessment (FEA) and Finding of No Significant Impact (FONSI).
Permits Required: Plan Approval, Building & Grading Permits & NPDES

The County of Hawai‘i Department of Public Works seeks to construct a civic center in Kealakehe to better serve the West Hawai‘i community. The preliminary plans show that the following offices and facilities would be consolidated into a single structure in the proposed civic center: Department of Finance (Department of Motor Vehicles and Real Property Tax Division), Driver’s Licensing, Planning Department, Department of Public Works (Engineering and Building Divisions), State Department of Health (to expedite building permit processing), Mayor’s Office, County Council Offices, County Council conference and training room, Corporation Counsel, Department of Research and Development, Mass Transit Agency, Office of Liquor Control, Department of Parks and Recreation, and Data Systems. Additionally, the center will feature a heritage museum, a community library and meeting room, a café, a passive park, an open lawn and an amphitheater with a removable shade structure.

The proposed project will enhance convenience for residents and facilitation between the various County agencies. The departments and offices to be located in the proposed civic center will vacate their existing offices in Kailua, Kealakekua, and Captain Cook.

The County of Hawai‘i Department of Public Works has issued a Finding of No Significant Impact (FONSI) for the subject project. A Traffic Impact Analysis Report (TIAR) is being prepared and the recommendations will be included in the final design of the facility.

Conceptual Plan. View from Kealakehe Parkway/Ane Keohokalole Intersection
Kapa‘a Soccer Park (HRS 343 DEA)

District: Kawaihau
TMK: (4) 4-05-015:036
Proposing Agency: Department of Public Works-Parks Division
Mo‘ikeha Bldg., 4444 Rice St., Ste. 275, Lihue, HI 96766
Contact: Mel Nishihara (241-6649)

Determination Agency: Same as above.
Consultant: SSFM International Inc.
501 Sumner St., Ste. 620, Honolulu, HI 96817
Contact: Ronald Sato (531-1308)

Public Comment Deadline: October 9, 2006
Status: Draft environmental assessment (DEA) notice pending 30-day public comment. Address comments to the proposing agency with copies to the consultant and OEQC.

Permits Required: NPDES, Building, Grading & Use Permit

The County of Kaua‘i (County), Department of Public Works, Parks Division is proposing a new soccer field project to support and benefit the residents and visitors of the island of Kaua‘i. This project involves the development of a new soccer park and related amenities, and is referred to as the “Kapa‘a Soccer Park Project.”

The proposed site for this project will be situated on an approximately 11.5-acre parcel under the jurisdiction of the County of Kaua‘i, and identified as Tax Map Key (TMK): (4) 4-05-015:036. This property is a triangular-shaped site bordered by Mo‘ikeha Canal to the south, a cane haul road to the north, and existing residences and businesses to the east.

The proposed Kapa‘a Soccer Park Project will provide an additional recreational resource for the community centrally located within the Kapa‘a Town area. The primary purpose for this soccer park is to address the need for additional regulation sized soccer fields to support the existing and growing demands for such facilities in the Kapa‘a town area and surrounding communities.

This project will also provide a future home field for Kapa‘a High School’s soccer teams, and accommodate other recreational and community activities occurring within this community.

This soccer park is planned to have two regulation-sized soccer fields suitable for all adult, high school men’s, women’s, co-ed league games, and youth leagues. Additional practice areas will also be integrated into other open areas of the park. Development of this project will also include park related amenities such as a comfort station, jogging/walking path, and paved parking lot. Large shade trees will be used for shelter and shade. This new soccer park will be owned and operated by the County Department of Public Works, Parks Division.
Conservation District Use Permit

Persons interested in commenting on the following Conservation District Use Application (Department Permit) must submit comments to the Department of Land and Natural Resources. Also, anyone interested in receiving notification of determination on Conservation District Use Applications (Department Permits) must submit requests to DLNR that include the following information:

1. Name and address of the requestor.
2. The permit for which the requestor would like to receive notice, notice of determination; and
3. The date the notice was initially published in the Environmental Notice.

Both comments and requests for notification of determinations must be submitted to DLNR within thirty days from the initial date that the notice was published in the Environmental Notice. Please send comments and requests to:

State of Hawai‘i, Department of Land and Natural Resources
Office of Conservation and Coastal Lands, P.O. Box 621, Honolulu, Hawai‘i 96809

While DLNR will make every effort to notify those interested in the subject CDUA, it is not obligated to notify any person not strictly complying with the above requirements. For more information please contact Kimberly Mills at 587-0382.

Pu‘u Honua‘ula After the Fact Radio Repeater

File No.: CDUA HA-3370
Applicant: Kona Amateur Radio Society (KARS)
Contact: Van Malan (325-5223)
Location: Pu‘u Honua‘ula, Kaupulehua
TMK: (3) 7-2-001:001
Determination: Exempt
Proposed Action:

The After-the-Fact Radio Repeater occupies an area of 36 square feet and consists of a gray shaded wooden cabinet with an antenna mast approximately 12 ft. in height. The system is solar powered and is self sufficient with minimal maintenance. The radio repeater was erected in the early 90’s and has been utilized in statewide exercise to prepare for catastrophic events through coordination with the Hawai‘i State Civil Defense and Radio Amateur Civil Emergency Service (RACES). The repeater will allow communications for other emergency services such as American Red Cross, Hawai‘i County Police and other services.

There are no trails or public access to the site. The site is not visible from the surrounding public and private properties. No grading or landscaping has taken place. There are no lights on the structure. The subject site is barren cinder covered ground with scattered pukeawe, naio, eucalyptus and a‘ali'i.
Department of Health Permits

The following three pages contain a list of some pollution control permits currently before the State Department of Health. For more information about any of the listed permits, please contact the appropriate branch or office of the Environmental Management Division at 919 Ala Moana Boulevard, Honolulu. Abbreviations are as follows: CAB - Clean Air Branch; CD - comments due; CSP - Covered Source Permit; CWB - Clean Water Branch; I - issued; SHWB - Solid and Hazardous Waste Branch; SDWB - Safe Drinking Water Branch; N - none; NSP - Noncovered Source Permit; NPDES - National Pollutant Discharge Elimination System under the Federal Clean Water Act; R - received; T - temporary; UIC - Underground Injection Control; NA - not applicable.

Clean Air Branch

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<th>Branch Permit Type</th>
<th>Applicant &amp; Permit Number</th>
<th>Project Location</th>
<th>Pertinent Date</th>
<th>Proposed Use</th>
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<td>CAB, T-CSP</td>
<td>Grace Pacific Corporation CSP 0045-02-CT (Minor Modification)</td>
<td>91-920 Farrington Highway, Kapolei, O'ahu</td>
<td>Issued: 8/7/06</td>
<td>334 TPH Asphalt Plant</td>
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<tr>
<td>CAB, CSP</td>
<td>Grace Pacific Corp., CSP 0522-01-C (Minor Modification)</td>
<td>Kappa Quarry, Kailua, O'ahu</td>
<td>Issued: 8/8/06</td>
<td>300 TPH Asphalt Plant</td>
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<tr>
<td>CAB, NSP</td>
<td>WB-LCP Orchid Operator, LLC, dba The Fairmont Orchid NSP 0458-01-N (Renewal)</td>
<td>One North Kaniku Drive, Kohala Coast, Hawai‘i</td>
<td>Issued: 8/16/06</td>
<td>Two (2) 2.52 MMBtu/hr Boilers</td>
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<tr>
<td>CAB, T-CSP</td>
<td>P. B. Sullivan Construction, Inc. CSP 00627-01-CT (Initial Application)</td>
<td>1777 P'ililani Highway, Kihei, Maui</td>
<td>Comments Due 10/2/06</td>
<td>507 tph Mobile Crusher and 400 tph Power Screen</td>
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</table>

Coastal Zone News

Special Management Area (SMA) Minor Permits

Pursuant to Hawai‘i Revised Statute (HRS) 205A-30, the following is a list of SMA Minor permits that have been approved or are pending by the respective county/state agency. For more information about any of the listed permits, please contact the appropriate county/state Planning Department. City & County of Honolulu (523-4131); Hawai‘i County (961-8288); Kaua‘i County (241-6677); Maui County (270-7735); Kaka‘ako Special Design District (587-2878).

<table>
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<th>Location (TMK)</th>
<th>Description</th>
<th>Applicant/Agent</th>
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<td>Maui: Hana</td>
<td>Wastewater treatment facility improvements (SM2 20060068)</td>
<td>County Dept. of Parks &amp; Recreation</td>
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<td>Maui: Kula (1-9-1-6)</td>
<td>Install monitoring towers (SM2 20060069)</td>
<td>Shell WindEnergy Inc.</td>
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<td>Honolulu: Hale‘iwa (6-6-8-32)</td>
<td>460 cubic yards of fill material (2006/SMA-38)</td>
<td>Carlos Tantog</td>
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<tr>
<td>Hawaii: Wai‘akea (2-1-5-18)</td>
<td>Demo existing structure adjacent to the Banyan Broiler building (SMM 06-36)</td>
<td>Hawai‘i Outdoor Tours, Inc., dba Naniloa Volcanoes Resort</td>
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<tr>
<td>Hawaii: Wai‘akea (2-2-30-17)</td>
<td>After-the-fact land clearing &amp; periodic grounds maintenance (SMM 159)</td>
<td>Kail‘ulani 4, LLC</td>
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<tr>
<td>Honolulu: Kaka‘ako (1-2-1-60:4, 5, 6, &amp; 7)</td>
<td>Installation of fences and gates (SMA/06-3)</td>
<td>HCDA</td>
</tr>
<tr>
<td>Honolulu: Kaka‘ako (1-2-1-60:5)</td>
<td>Temporary tents &amp; assembly of floats (SMA/06-4)</td>
<td>Aloha Festivals</td>
</tr>
</tbody>
</table>
Federal Consistency Reviews

The Hawai‘i Coastal Zone Management (CZM) Program has received the following federal actions to review for consistency with the CZM objectives and policies in Chapter 205A, Hawai‘i Revised Statutes. This public notice is being provided in accordance with section 306(d) (14) of the National Coastal Zone Management Act of 1972, as amended. For general information about CZM federal consistency please call John Nakagawa with the Hawai‘i CZM Program at 587-2878. For neighboring islands use the following toll free numbers: Lana‘i & Moloka‘i: 468-4644 x72878, Kaua‘i: 274-3141 x72878, Maui: 984-2400 x72878 or Hawai‘i: 974-4000 x72878.

For specific information or questions about an action listed below please contact the CZM staff person identified for each action. Federally mandated deadlines require that comments be received by the date specified for each CZM consistency review and can be mailed to:

Office of Planning, Department of Business, Economic Development and Tourism
P.O. Box 2359, Honolulu, Hawai‘i 96804
Or, fax comments to the Hawai‘i CZM Program at 587-2899.

Nimitz Hwy. & Ala Moana Blvd. Resurfacing and Highway Lighting Replacement - Fort St. to Kalakaua Ave., Honolulu, O‘ahu

Applicant: State of Hawai‘i Department of Transportation
Contact: Li Nah Okita, 692-7581
Federal Action: Federal Funding
Federal Agency: Federal Highway Administration
Location: Nimitz Hwy. & Ala Moana Blvd., between Fort St. and Kalakaua Ave.
Contact: John Nakagawa, 587-2878
Comments Due: September 22, 2006

Proposed Action:
Federal funding is being requested to resurface Nimitz Highway and Ala Moana Boulevard between Fort Street and Kalakaua Avenue and also, replace the highway lighting. The project consists of cold planing, resurfacing, reconstructing weakened pavement areas, replacing damaged curb and gutter, installing concrete bus pads, drainage improvements, reconstructing sidewalks, adjusting utility manholes, installing loop detectors, striping and pavement markings, transverse duct crossings and traffic signal interconnect cable, and replacing highway lighting conduit, foundations and poles. Project funding is 80% federal and 20% state.
Shoreline Certifications and Rejections

Pursuant to §§13-222-26, HAR the following shorelines have been proposed for certification or rejection by the DLNR. Any person or agency wishing to appeal a proposed shoreline certification or rejection shall file a notice of appeal in writing with the department no later than 20 calendar days from the date of the public notice of the proposed shoreline certification or rejection. The Notice of appeal shall be sent to the Board of Land and Natural Resources, 1151 Punchbowl Street, Room 220, Honolulu, Hawai‘i 96813.

<table>
<thead>
<tr>
<th>File No.</th>
<th>Date</th>
<th>Location</th>
<th>Applicant/Owner</th>
<th>TMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA-1110</td>
<td>8/25/06</td>
<td>Parcel 14 being a portion of Royal Patent 129, land situated at Opa‘apa‘a, Puahu‘ula, Ko‘o‘ula, Island of O‘ahu, HI Address: 44-453 Ko‘o‘ula Bay Drive</td>
<td>Wesley Tengan/ Wilfred &amp; Renee Horie</td>
<td>4-4-6:14</td>
</tr>
<tr>
<td>MA-352</td>
<td>8/25/06</td>
<td>Lot 60 of the Makena Beach Lots, land situated at Honua‘ula, Makawao, Island of Maui, HI Address: 4450 Makena Road</td>
<td>Akamai Land Surveying, Inc./ Stephen A. Finn</td>
<td>2-1-1:08</td>
</tr>
<tr>
<td>MA-353</td>
<td>8/25/06</td>
<td>Lots 78 and 85, Land Court Application 1804, land situated at Honua‘ula, Island of Maui, HI Address: 3600 Wailea Alanui</td>
<td>Tanaka Engineers, Inc./ AOAO Wailea Elua</td>
<td>2-1-8:69 &amp; 70</td>
</tr>
<tr>
<td>OA-1111</td>
<td>8/25/06</td>
<td>Lot 84-A Maunalua Beach Subdivision Extension No. 2 Block 1, land situated at Maunalua, Honolulu, Island of O‘ahu, HI Address: 487-A Portlock Road</td>
<td>Sam O. Hirota, Inc./ Katsumi Tada</td>
<td>3-9-6:36</td>
</tr>
<tr>
<td>MA-354</td>
<td>8/25/06</td>
<td>Lot 1 of H.S.W Property, land situated at Honua‘ula, Makawao, Island of Maui, HI Address: 4670 Old Makena Road</td>
<td>Akamai Land Surveying, Inc./ Lawrence &amp; Mary Ellen Hughes</td>
<td>2-1-2:12</td>
</tr>
<tr>
<td>KA-199</td>
<td>8/25/06</td>
<td>Lot 11 of the Wainiha Hui Land, land situated at Wainiha, Hanalei, Island of Kaua‘i, HI Address: 7276 Alamo‘o Road</td>
<td>Wagner Engineering Services, Inc./Rod &amp; Susan G. Fisher</td>
<td>5-8-8:27</td>
</tr>
<tr>
<td>HA-325</td>
<td>8/25/06</td>
<td>Lot 4 of the Lanihau Point Subdivision, land situated at Lanihau Nui, North Kona, Island of Hawai‘i, HI Address: None Assigned</td>
<td>Wes Thomas Associates/ Peter &amp; Sissie Pittullo</td>
<td>7-5-5:96</td>
</tr>
<tr>
<td>OA-1112</td>
<td>8/25/06</td>
<td>Parcel 6 of Land Court Application 1100 (Map 21), land situated at He‘eia, Ko‘o‘ula, Island of O‘ahu, HI Address: 46-109 Lilipuna Road</td>
<td>Wesley Tengan/ Kenneth D. Simon</td>
<td>4-6-1:06</td>
</tr>
<tr>
<td>OA-1114</td>
<td>8/25/06</td>
<td>Lot 289 of the Kawela Beach Lots, Land Court Application 1095 (Map 24), land situated at Ko‘o‘ula, Island of O‘ahu, HI Address: 57-330 A Punalu‘u Place</td>
<td>Towill, Shigeoka &amp; Associates, Inc./Peter Vincent</td>
<td>5-7-3:48</td>
</tr>
<tr>
<td>OA-1115</td>
<td>8/25/06</td>
<td>Kewalo Basin, land situated at Kukulue‘o, Honolulu, Island of O‘ahu, HI Address: 677 Ala Moana Boulevard</td>
<td>ParEn, Inc/State of Hawai‘i, Hawai‘i Community Development Authority</td>
<td>2-1-58-60</td>
</tr>
<tr>
<td>HA-326</td>
<td>8/25/06</td>
<td>The Whole of Grant 10,644, land situated at Lalamilo, South Kohala, Island of Hawai‘i, HI Address: None Assigned</td>
<td>Wes Thomas Associates/ Teikyo Loretto Heights University</td>
<td>6-9-2:01, 02 &amp; 26</td>
</tr>
</tbody>
</table>
Shoreline Certification Applications

Pursuant to § 13-222-12, HAR the following shoreline certification applications are available for inspection at the DLNR District Land Offices on Kaua‘i, Hawai‘i and Maui and at Room 220, 1151 Punchbowl St., Honolulu, O‘ahu (Tel: 587-0414). All comments shall be submitted in writing to the State Land Surveyor, 1151 Punchbowl Street, Room 210, Honolulu, Hawai‘i 96813 and postmarked no later than fifteen (15) calendar days from the date of the public notice of the application. If there are any questions, please call Nick Vaccaro at (808) 587-0384.

<table>
<thead>
<tr>
<th>File No.</th>
<th>Proposed Shoreline Certification</th>
<th>Location</th>
<th>Applicant/Owner</th>
<th>TMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA-323</td>
<td>Proposed Shoreline Certification</td>
<td>Lot 41, portion of a consolidation of Grant 3687, land situated at Wa‘awa’a, Puna, Wa‘awa’a Subdivision, Island of Hawai‘i, Hawai‘i Address: Vacant Lot Purpose: Determine Setback</td>
<td>The Independent Hawaii Surveyors, LLC/Diana Schommer</td>
<td>1-4-28: 10</td>
</tr>
<tr>
<td>HA-128-3</td>
<td>Proposed Shoreline Certification</td>
<td>Lot 5 of the Keawaiki Beach Lots, land situated at Kahauleoa 2nd, South Kona, Island of Hawai‘i, Hawai‘i Address: 83-502 Keawaiki Road Purpose: Building Permit</td>
<td>Wes Thomas Associates/ Peter &amp; Ellen Durst</td>
<td>8-3-05: 06</td>
</tr>
<tr>
<td>MA-351</td>
<td>Proposed Shoreline Certification</td>
<td>Hana Boat Launching Ramp Site, situated at Wananalua, Hana, Island of Maui, Hawai‘i Purpose: SMA Permit</td>
<td>ParEn, Inc/State of Hawai‘i Department of Land &amp; Natural Resources</td>
<td>1-4-04: 36</td>
</tr>
</tbody>
</table>

Environmental Council Notices

September 13, 2006, Meetings at Various Times in Leiopapa A Kamehameha

The Environmental Council of the Department of Health and its various standing and ad hoc committees are scheduled to meet on Wednesday, September 13, 2006, at various times and in various rooms in Leiopapa A Kamehameha, located at 235 South Beretania Street, Honolulu, O‘ahu. For more information, please call the Office of Environmental Quality Control at (808) 586-4185. To be placed on an electronic mail notification list of Environmental Council meetings, please send an electronic mail to Office of Environmental Quality Control at oeqc@doh.hawaii.gov. The meeting notices and agenda of the Environmental Council are also available on the State’s Calendar Meeting Announcements Internet Website at the following Uniform Resource Locator (URL):


2006 Environmental Council Members.

Front row: James Rodrigues, Faith Caplan, Genevieve Salmonson (Ex-Officio), Denise Antolini, Michael Faye and Eileen O’Hara Weir. Back row: David Bylund, Robert King, Gail Grabowsky, Chester Saito
Proposed Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) for a Proposal To Enhance Training, Testing, and Operational Capability Within the Hawai‘i Range Complex

Pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969, as implemented by the Council on Environmental Quality regulations (40 CFR parts 1500–1508), and Executive Order 12114 (Environmental Effects Abroad of Major Federal Actions), the Department of the Navy (DoN) announces its intent to prepare an EIS/OEIS. This EIS/OEIS will evaluate the potential environmental effects of increasing usage and enhancing the capability of the Hawai‘i Range Complex (HRC) to achieve and maintain Fleet readiness and to conduct current, emerging, and future training and research, development, test, and evaluation (RDT&E) operations.

The EIS/OEIS will consider two action Alternatives to accomplish these objectives, in addition to the No Action Alternative. The following will be invited to be cooperating agencies: Department of Energy, Missile Defense Agency, U.S. Army, U.S. Fish and Wildlife Service, and National Marine Fisheries Service. Public scoping meetings will be held in Hawai‘i to receive oral and/or written comments on environmental concerns that should be addressed in the EIS/OEIS. The public scoping meetings will be held on:

1. Wednesday, September 13, 2006, 4 p.m.–8 p.m., Maui Arts and Cultural Center, One Cameron Way, Kahului, Maui, Hawai‘i.
2. Thursday, September 14, 2006, 4 p.m.–8 p.m., Disabled American Veterans Hall, 2685 North Nimitz Highway, Honolulu, O‘ahu, Hawai‘i.
3. Saturday, September 16, 2006, 4 p.m.–8 p.m., Hilo Hawaiian Hotel, 71 Banyan Drive, Hilo, Hawai‘i, Hawai‘i.
4. Monday, September 18, 2006, 4 p.m.–8 p.m., Kaua‘i Civil Defense Agency, Suite 100, 3990 Ka‘ana Street, Kaua‘i, Lihue, Hawai‘i.

Each of the four scoping meetings will consist of an informal, open house session with information stations staffed by DoN Representatives. Additional information concerning the meetings will be available on the EIS/OEIS Web page located at: [http://www.govsupport.us/navynepahawaii](http://www.govsupport.us/navynepahawaii).

For further information contact or comment: Mr. Tom Clements, Pacific Missile Range Facility, P.O. Box 128, Kekaha, Kaua‘i, Hawai‘i 96752–0128, telephone 1–866–767–3347. Written comments on the scope of the EIS/OEIS should be postmarked no later than October 13, 2006.

The HRC geographically encompasses offshore, near shore, and onshore areas located on or around the major islands of the Hawaiian Island chain. The geographic scope of this EIS/OEIS (Study Area) includes the Hawai‘i Offshore Operation Areas, consisting of 170,000 square nautical miles of ocean, generally from 17 to 26 degrees north latitude and from 154 to 162 degrees west longitude, land areas used by the DoN within these Operation Areas, and the Pacific Missile Range Facility (PMRF) Temporary Operating Area, consisting of 2.1 million square nautical miles to the north and west of Kaua‘i. These ranges and Operation Areas are used to conduct operations and training involving military hardware, personnel, tactics, munitions, explosives, and electronic combat systems. Several of the areas are also used for RDT&E, including missile defense testing.

The DoN is initiating the scoping process to identify community concerns and local issues that will be addressed in the EIS/OEIS. Federal, state, and local agencies, the public and interested persons are encouraged to provide oral and/or written comments to the DoN to identify specific environmental issues or topics of environmental concern that the commenter believes the DoN should consider. All comments, written or provided orally at the scoping meetings, will receive the same consideration during EIS/OEIS preparation.

Excerpt from UH News. Posted August 28, 2006

UH professors recognized by Board of Regents for excellence in teaching

- Denise Antolini, an associate professor and director of the environmental law program at the William S. Richardson School of Law, UH Manoa. Her philosophy of teaching law is grounded in experience as a practitioner in high-profile public interest litigation and a clerkship with a federal judge. She helped turn the Environmental Law Program into a national model through her interactions and supportive roles with the law students. A college observed, “Denise is an absolutely first-rate teacher, mentor, colleague, administrator and inspiration to those who are fortunate to know her.” [FR Doc. E6–14324 Filed 8–28–06; 8:45 am]
Northwestern Hawaiian Islands Marine National Monument

NOAA and the USFWS are issuing final regulations for the Northwestern Hawaiian Islands Marine National Monument. On June 15, 2006, President Bush established the Northwestern Hawaiian Islands Marine National Monument by issuing Presidential Proclamation 8031 (71 FR 36443, June 26, 2006) under the authority of the Antiquities Act (Act) (16 U.S.C. 431). The Proclamation reserves all lands and interests in lands owned or controlled by the Government of the United States in the Northwestern Hawaiian Islands (NWHI), including emergent and submerged lands and waters, out to a distance of approximately 50 nautical miles (nmi) from the islands. The outer boundary of the Monument is approximately 100 nmi wide and extends approximately 1200 nmi around coral islands, seamounts, banks, and shoals. The area includes the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, the Midway Atoll National Wildlife Refuge/Battle of Midway National Memorial, and the Hawaiian Islands National Wildlife Refuge. These regulations are effective August 25, 2006.

The Proclamation appropriated and withdrew the area from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws, including, but not limited to, withdrawal from location, entry, and patent under mining laws, and from disposition under all laws relating to mineral and geothermal leasing.

Also provides that the Secretary of Commerce, through NOAA, has primary responsibility regarding the management of the marine areas of the Monument, in consultation with the Secretary of the Interior. The Secretary of the Interior, through the USFWS, has sole responsibility for management of the areas of the Monument that overlay the Midway Atoll National Wildlife Refuge, the Battle of Midway National Memorial, and the Hawaiian Islands National Wildlife Refuge, in consultation with the Secretary of Commerce. Further, the Proclamation provides that nothing in the Proclamation diminishes or enlarges the jurisdiction of the State of Hawai`i. The Monument includes state waters, including the Northwestern Hawaiian Islands State Marine Refuge and Kure Atoll Wildlife Sanctuary. The State currently holds the submerged and ceded lands of the NWRI in trust. This public trust is overseen by the Office of Hawaiian Affairs through an amendment to the Constitution of the State.

These regulations address the requirement in the Proclamation that the Secretaries shall ensure, in addition to other things that commercial fishing for bottomfish and other associated pelagic species may continue in the Monument for no more than 5 years. Section 404.10 sets out the conditions under which such fishing may continue to be conducted. However, commercial fishing remains prohibited in areas of the Monument not open to such fishing prior to issuance of the Proclamation.

Submit written comments regarding the burden-hour estimates or other aspects of the information collection requirements contained in this proposed rule by e-mail to Diana Hynek at dhynek@noaa.gov. Coordinates for the outer boundary of the Monument, the Special Preservation Areas, the Ecological Reserves, and the Midway Atoll Special Management Area can be found at: http://hawaiireef.noaa.gov/management/. Written comments on the information collection requirement must be received by October 30, 2006.

For further information contact: NOAA contact: T. Aulani Wilhelm, Monument Superintendent (NOAA); 6600 Kalanianaole Highway, 300, Honolulu, HI 96825; (808) 397-2657. FWS contact: Barry Stiegitz, Monument Project Leader (USFWS); Hawaiian and Pacific Islands NWR Complex, 300 Ala Moana Boulevard, Box 50167, Honolulu, HI 96850-5000; 808-792-9540. State of Hawai`i contact: Athline Stieglitz, Monument Project Leader (USFWS); Hawaiian and Pacific Islands NWR Complex, 300 Ala Moana Boulevard, Box 50167, Honolulu, HI 96813; (808) 587-0099. [FR Doc. 06-7235 Filed 8-25-06; 12:24 pm]
Maui Lu Small-Scale Beach Nourishment Application

Persons interested in commenting on the following Application for Beach Nourishment (Board Permit) must submit comments to the Department of Land and Natural Resources. Please submit requests to DLNR that include the following information:

1. Name and address of the requestor;
2. The permit for which the requestor would like to receive notice of determination; and
3. The date the notice was initially published in the Environmental Notice.

Both comments and requests for notification of determinations must be submitted to DLNR within thirty days from the initial date that the notice was published in the Environmental Notice.

Please send comments and requests to:
State of Hawai‘i, Department of Land and Natural Resources, Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131, Honolulu, Hawai‘i 96813

DLNR will make every effort to notify those interested in the subject application, it is not obligated to notify any person not strictly complying with the above requirements. For more information, please contact Dolan Eversole of our Office of Conservation and Coastal Lands staff at 587-0321.

The Department is in the process of reviewing the submitted documentation for the proposed beach nourishment project. The project will be evaluated for potential impact(s) to the local near shore ecosystem before a determination can be made.

The applicant plans to place approximately 6540 cubic yards (cy) of beach-quality sand on the shoreline fronting the subject property in Kihei, Island of Maui. The proposed project entails delivery and distribution of the sand to 3 separate fill sites at the property and will consist of delivery of sand landward of the MLLW line at a slope of 1V:3H to a crest elevation of +4 to +8 feet. The proposed sand source is from the Ameron commercial sand quarry in Maui and matches the existing beach sand within state specifications.

It is the Department’s understanding that extensive care has been taken in designing the project, choosing the location of the sand placement and quality in order to minimize user conflicts and environmental impacts, including impacts on water quality and local flora and fauna including coral reefs.

1. The proposed use (Beach Nourishment) is an identified land use within the Resource sub-zone of the Conservation District, according to Section 13-5-24, Hawaii Administrative Rules (HAR); please be advised, however, that this does not constitute approval;
2. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, a Final EIS (FONSI) was published in the June 8, 2000 edition of OEQC’s Environmental Notice for blanket review of beach nourishment projects authorized under the SSBN.
Global warming and Natural Phenomena

The term ‘global warming’ is a specific case of the more general term ‘climate change’ (which can also refer to ‘global cooling’, or such as occurring during ice ages). In principle, ‘global warming’ is neutral as to the causes, but in common usage ‘global warming’ generally implies a human influence.

A small minority of climate scientists attribute people’s actions as having played a role in recent warming. However, the uncertainty is more significant regarding how much climate change should be expected in the future. There has been political and public debates over what, if anything, should be done to reduce or reverse future warming, and how to deal with the predicted consequences.

Can you find the natural phenomena listed below then ask yourself if global warming's role could have increased or decreased the intensity of the event.