

**MINUTES FOR THE
MEETING OF THE
BOARD OF LAND AND NATURAL RESOURCES**

DATE: FRIDAY, JUNE 8, 2007
TIME: 9:00 A.M.
PLACE: KALANIMOKU BUILDING
LAND BOARD CONFERENCE ROOM 132
1151 PUNCHBOWL STREET
HONOLULU, HI 96813

Interim Chairperson Allan Smith called the meeting of the Board of Land and Natural Resources to order at 9:05 a.m. The following were in attendance:

MEMBERS

Mr. Allan Smith	Mr. Rob Pacheco
Ms. Taryn Schuman	Mr. Jerry Edlao
Mr. Ron Agor	Mr. Samuel Gon III

STAFF

Ms. Charlene Unoki, LD	Mr. Paul Conry, DOFAW
Mr. Dan Quinn, SP	Mr. Dan Polhemus, DAR
Mr. Wayne Haight, DAR	Mr. Duane Rogers, DAR
Mr. Jeff Walters, DAR	

OTHERS

Mr. Colin Lau, A.G.'s Office	Mr. Dale Bonar, C-3
Senator Russell Kokubun, C-3	Senator Colleen Hanabusa, C-3
Mr. Alfredo Lee, C-3	Mr. Harry Yada, C-3
Ms. Stephanie Wayland, C-3	Mr. Dean Okimoto, C-3
Mr. Larry Yamamoto, C-3	Ms. Jill Olson, C-3
Ms. Frieda Fujita, C-3	Mr. Duane Okamoto, C-3
Ms. Sandra Kunimoto, C-3	Mr. Ivan Lui-Kwan, C-3
Mr. Joseph Phillips, D-4	Ms. Marti Townsend, F-2
Ms. Malia Nobriga, F-2	Mr. Wayne Kahooleipanoki, F-2
Ms. Heidi Guth, OHA	Mr. Curt Trafega,
Mr. Paul Jokiel, F-4	Mr. Robert Toonen, F-5
Mr. Carl Meyer, F-6	Mr. Matthew Craig, F-7
Mr. Brian Bowen, F-8	Ms. Keeley Belva, F-9
Mr. Shawn Corson, F-3	Mr. Michael Tosato, NOAA
Mr. William Aida, F-3	Mr. Dennis Niles, F-11
Mr. Don Pollaski, F-3	Mr. Carl Jellings, F-11

Mr. Jeff Walters, F-1

{Note: language for deletion is [bracketed], new/added is underlined}

Item A-1 Minutes of May 25, 2007

Recused: Member Agor and Schuman. Member Gon missed the last 20 minutes. Attorney General's representative, Pam, stated he has to recuse.

Deferred due to lack of quorum (Gon, Pacheco)

Item D-2 Grant to Four (4) Perpetual, Non-Exclusive Easements; Issuance of Management and Construction Right-of-Entry to Kaloko Heights Associates for Access and Utility Purposes Over the Road To The Sea Trail at Kaloko and Kohanaiki, North Kona, Hawaii, Tax Map Key: 3rd/ 7-3-09: portions of 32, 57, 58, 59, 61 and 62

Member Schuman recused herself.

Ms. Charlene Unoki representing Land Division (LD) reported Kaloko Heights Associates had worked with the community to look realigning a portion of the road to the sea. As a result there are community agreements, members have a copy of a letter dated November 17, 2006 to Mr. Chris Yuen. Staff would like to grant an easement with construction right of entry and would like to add a condition to the easement document where the 11/17/06 letter is used for the grantee to comply with. Member Pacheco asked conditions stated in the letter will become the conditions? Ms. Unoki replied yes.

Unanimously approved as amended (Pacheco, Gon)

Add letter dated November 17, 2006 from Mr. Paul Kay, Vice President and Sr. Development Manager of Stanford Carr Development, LLC to Mr. Christopher Yuen, Planning Director for the County of Hawaii as a condition in the new easement document.

Item C-3 Review of the Legacy Land Conservation Commission Recommendations and Approval of Projects for Funding under the Fiscal Year 2007 Legacy Land Conservation Program (Land Conservation Fund)

Mr. Paul Conry, Administrator for Division of Forestry & Wildlife (DOFAW), reported this is the first fiscal year for the Department to implement this program. It is a conservation land acquisition program with a rough budget of 7.4 million dollars. This program established by the Legislature in 2006 and this year seeded the Commission. The Commission's duty is to review applications submitted by conservation

organizations and government agencies for conservation land acquisitions that would value the State. Started October 2006 with solicitations of proposal, about eleven projects were put before the Commission during the month of May. The Commission made a list of priority projects to fund. Also as part of the process they consulted the Legislature, the Department met with the Speaker of the House, Senate President and land chairs of the legislature. They provided their recommendations. Staff is asking to approve those recommendations. The Commission ranked the proposals and he explained those projects. Funding from the Agribusiness Development Corporation (ADC) for 1.1 million to acquire 108 acre agricultural easement at Kunia, Oahu for Hawaii Agricultural Research Corporation (HARC). The Commission had concerns with the project supporting genetically modified crops and research geared toward large industrial agricultural uses therefore recommended against funding this project. The Legislature agreed on the first five priorities, but did not concur with the recommendation of not funding the ADC request on the agricultural easement in Kunia. They recognize the enormous pressure on agricultural lands. The 1.1 million is specifically earmarked for funding these agricultural conservation easements under the Farm & Ranch Land Protection Program. Staff recommends the Board fund this project.

Member Pacheco recused himself.

Mr. Dale Banard, Chair of the Legacy Land Commission reported he is here to explain the Commission's reasoning. Member Gon asked for clarification on the agricultural reversal, was the main objection potential development of potential GMO? Mr. Banard replied it was one of them. Members of the Commission was concerned with GMOs particularly taro. Three of the commissioners were concerned with the way the lands were laid out, presented with development right across the street (Wal-Mart) and were concerned HARC was going to be an industrial agricultural research center. The Commission was not provided with information on what HARC does and based on that is what the Commission came up with. Concerned with toxic levels of chemicals in the ground water and felt other projects were better suited. Much of the questions the Commission had did not have adequate answers therefore they chose to go against this project.

Member Edlao asked if one of the projects should fail would there be adequate funding to cover? Mr. Conry replied that is the fall back approach. If we go forward with one of the grants a participant can't commit and project fell through and there was enough money then another project would be considered and would shift over. Member Edlao asked if project five does not go through would the funding be enough to cover project six? Mr. Conry replied they would have Federal Grants make up the difference, but in such a short time it would be difficult. What would happen is staff would encumber the funds and take a year to make up the difference.

Senator Russell Kokubun represents Big Island District 2 which covers Puna, Ka'u and part of Hilo. He was asked by the Senate President to be a member to meet with the Legacy Lands Commission and DLNR staff to provide input to the recommendations.

The Legislature concur the amended recommendation from staff particularly the 1.1 million would be used for the Kunia lands. When they put this legislation together it was not only for conservation lands, but they felt agriculture lands are very important to Hawaii. Not only did the Legislature appropriate the 1.1 million specifically for this purpose there was support from HARC and the Hawaii Farm Bureau Federation who want to see this accomplished. They request the Board consider this recommendation. After meeting with the Commission Chairman and DLNR staff it appears some of the policy directions from the Legislature were not clear to the Legacy Lands Commission. It may have been their fault for not being there. But this is their opportunity and wishes the Board to consider it.

Senator Colleen Hanabusa clarified Member Gon's inquiry. She represents Leeward Coast. Kunia lands on the left should be preserved for agriculture. The lands on the right are development. This Legislature has equal use of money for agriculture. They are still struggling with the GMO issue. The Senate passed the bill to prohibit GMO of taro alone with much dispute. The Legislature wanted to make clear with how the statute is now written with the importance of preserving agriculture. There is very little agriculture lands left on Oahu. This is why the State should hold title to this land because if the State doesn't we do not know how agriculture will be preserved. Agriculture as a use is critical for the State. They are here to ask the Board to support the recommendations of the Legacy Lands Commission and reverse on the issue of the 1.1 million which has Federal matching funds. If it does not approve the State loses those funds. We should not pass up this opportunity.

Mr. Alfredo Lee, Executive Director of Agribusiness Development Corporation (ADC), reported their mission is to preserve and protect agriculture land and infrastructure. This is a very appropriate and important project for them. They want to supply water to these lands and believe Kunia is the best lands. The economic value is a considerable amount which is over 50% of Oahu's total production. Passed out an outline and went over the map. They have the Federal funds and request to approve project.

Mr. Harry Yada, Property Manager, representing County of Hawaii reported a letter was previously submitted on behalf of Mayor Harry Kim in support of the recommendations and asks the Board's support. Look forward to having State and County control to preserve their coastline for future generations.

Ms. Stephanie Wayland, President and Research Director for the Waianae Cultural Research Park reported on testimony submitted. These are the best agricultural lands on Oahu if not the State and closest to the market. This area has all the infrastructure and developers would want this land. The owner must keep it in agriculture, manage it, and report to the Federal agencies every year. She wants to avoid creating a gentlemen's estate. Prevent development of ag. land by putting it away for perpetuity.

Mr. Dean Okimoto, President of Hawaii Farm Bureau Federation and Nalo Farms owner. He is looking for more land to create organic farming. They support the amended version of the Legacy Land Commission's recommendations and they support HARC's request.

As farmers Kunia is key for the sustainability of ag on Oahu. A good example on how it can be done. His family owns 7 acres in Waimanalo and they are looking to put in ag easements there also. HARC is very crucial to sustainability of ag. They're research not only helps the big land owners, but has helped him and other farmers. They do research across the board on everything. They are vital to the industry.

Mr. Larry Yamamoto, Head of the Natural Resources Conservation Service, reported they're the Federal agency which the Farm and Ranch Land Program is under. It is their goal to protect both conservation and agriculture lands which is a valuable program for the State. Hawaii has the most pressure to develop agriculture lands. This program was underutilized because of people's hesitancy to commit agricultural lands in perpetuity. They feel it is in the best interest of the State.

Ms. Jill Olson and Ms. Elfrieda Fujita representing the Kona Historical Society. Ms. Olson Executive Director reported they are here in support of the Kona Coffee Living History Museum, Uchida Farm.

Mr. Duane Okamoto, Deputy Director for Department of Agriculture on behalf of Sandra Kunimoto. Reported the Dept. is in strong support for funding of ADC to acquire this easement. All parties concluded it is worth their support and HARC is beneficial to the State. HARC will stabilize agriculture in the area. Because of the ongoing pressure to agriculture lands he urges the Board's support.

Mr. Ivan Lui-Kwan, one of the owners of one of the properties recommended by the Legacy Land Commission. He supports the recommendation. This is an opportunity to protect these lands.

**Unanimously approved as amended (Edlao, Schuman)
Recommendations 2, 3, and 4 should be stricken and replaced by the following:**

2) Approve the Commission's recommendation to award funds to acquire the following property and encumber funds, under the FY07 LLCP ceiling, from the LCF for the following project:

Project 1. DOFAW, DLNR, at \$430,250, for the acquisition of a fee simple interest in the 1,335.98-acre Carlsmith property near Hilo, on the Big Island of Hawai'i;

subject to the normal process and procedures for the acquisition of lands by the State.

3) Approve as a contingency the Commission's recommendation to award funds to acquire the following property and encumber funds, under the FY07 LLCP ceiling, from the LCF for the following project:

Project 6. SP, DLNR, as an alternate, for the acquisition of a fee simple interest in 17 acres near Lapakahi State Historical Park, North Kohala, on the Big Island of Hawai'i;

subject to the normal process and procedures for the acquisition of lands by the State.

4) On behalf of the Agribusiness Development Corporation (ADC), approve the Division's recommendation to award funds to acquire the following property and encumber funds, under the FY07 LLC ceiling, from the LCF for the following project:

Project 7. Agribusiness Development Corporation (ADC), for \$1.1 million, to acquire a 108.217-acre agricultural easement across land in Kunia, on the Island of Oahu, from the Hawai'i Agricultural Research Center (HARC);

subject to the normal process and procedures for the acquisition of lands by the State.

Item C-2 Recommendation to Establish Visiting hours of 5:30 am to 7:30 pm for 'Ahihi-Kina'u Natural Area Reserve, Maui

Mr. Paul Conry, Administrator for Division of Forestry & Wildlife, reported the intent is to provide enforcement flexibility, to allow the public set hours, and flexibility to close the reserve at night when there were some enforcement issues. Imbedded through NARS Commission and supports the restriction. Staff urges approval.

Member Gon asked was there much public feedback during the 'Ahihi-Kina'u Advisory Council meetings? Mr. Dale Banard, Chair of the Advisory Commission, replied yes there was at many meetings. The overwhelming response from the public was an understanding for a need to control it. This Natural Area Reserve is heavily visited by tourists and the public support was to overwhelmingly control this resource.

Unanimously approved as submitted (Edlao, Gon)

Item D-4 Sale of Reclaimed Lands to Joseph J. Phillips Jr., as Trustee of the Joseph J. Phillips Jr. Living Trust dated October 5, 1987, and Stephanie J. Phillips, as Trustee of the Stephanie J. Phillips Living Trust dated October 5, 1987, and Cancellation of Grant of Non-Exclusive Easement S-5715 for Seawall Purposes, Kaalaea, (Kaneohe Bay), Koolaupoko, Oahu, TMK (1) 4-7-024:029 seaward.

Ms. Charlene Unoki representing Land Division reported in 2001 the Land Board approved issuing an easement and now Phillips has come forward to buy the reclaimed land area. Staff recommends cancelling the easement and sell the reclaimed land to the Phillips.

Member Gon asked is this a coastal piece? Are the Phillips appraised of all the issues that come with coastal lands and requirements? Mr. Joseph Phillips replied the 156 sq. ft. encroachment occurred when they obtained lease approval of their pier which they received under the amnesty program in 2004. When they did the shoreline survey that was when they found the encroachment. He received this property from his father and wants his children not to contend with this encroachment. He didn't know about the liability policy, but has it now. The rates are too expensive. He can't build there. Ms. Unoki stated he is a good tenant.

Unanimously approved as submitted (Schuman, Gon)

Item D-5 Grant of Term, Non-Exclusive Easement to Richard H. and Corintha B. Pohle for Boat Ramp Purposes, Kaneohe, Koolaupoko, Oahu, Tax Map Key: (1) 4-4-21:23 seaward.

Ms. Charlene Unoki of Land Division reported no changes to submittal.

Unanimously approved as submitted (Schuman, Pacheco)

Item D-1 Consent to Assign General Lease No. S-5397, Richard Corr, Assignor, to Corrine Murata and Wanda Corr, Assignees, Hanapepe, Waimea, Kauai, Tax Map Key: (4) 1-9-12:28.

Item D-3 Consent to Assign General Lease No. S-3155, Jesse C. Wolf, Assignor, to Pacific Island Investments LLC, Assignee, Waiakea, South Hilo, Hawaii, Tax Map Key: 3rd/ 2-1-07:21.

Ms. Charlene Unoki of Land Division reported no changes and tenants are in good standing.

Unanimously approved as submitted (Pacheco, Edlao)

Item M-1 Acquisition of Private Lands and Set Aside to Department of Transportation, Harbors Division, for Maritime Purposes, Kahului, Wailuku, Island of Maui, Tax Map Key: 2nd Division, 3-7-10: 1 and 36.

Ms. Charlene Unoki of Land Division reported Department of Transportation (DOT) is looking for additional lands for harbor. If staff proceeds with acquisition they request recommending to the Governor transfer of these lands to DOT – Harbors Division. Acquisition cost is \$9,820,000.

Unanimously approved as submitted (Edlao, Pacheco)

Item M-2 Consent to Assignment of State Lease No. DOT-A-06-0001 Offshore Flight School, Inc. to Resort Air, LLC Honolulu International Airport

Ms. Charlene Unoki of Land Division reported SNE appears in good standing.

Unanimously approved as submitted (Schuman, Gon)

Item C-1 Acceptance of Hearing Officer's Report on a Public Hearing for Two Proposed Additions to the Forest Reserve System on O'ahu, and Approval and Recommendation to Governor for the issuance of two Executive Orders; Addition of approximately 3,716 acres to Honolulu Watershed Forest Reserve, Honolulu District, O'ahu; and Addition of approximately 0.298 acres to Mokule'ia Forest Reserve, Mokule'ia District, O'ahu.

Mr. Paul Conry of DOFAW reported additions to a portion of Moanalua and Mokule'ia. No changes to submittal and request approval.

Unanimously approved as submitted (Schuman, Gon)

Item E-1 Request for a Six-Month Holdover of Concession Lease No. SP-0039 for the Kokee Concession, Kokee State Park, Kauai

Mr. Dan Quinn, Administrator for State Parks, reported the Board entertained this about six months ago. Initial discussion was for 1 year extension, but was approved a six month extension to carry it through this calendar year. Staff hopes to have a bigger lease out to bid. This was to go out the same time as a potential overall cabin lease which did not pass and likely will not. Staff is in the process of wrapping up the master plan which will help the next bidder plan, change or alter facilities.

Unanimously approved as submitted (Agor, Gon)

Item E-2 Request for Approval to Execute a Contract with the Hawaii Tourism Authority for Improvements to Akaka Falls State Park, Hawaii and Resource Protection Implementation for Haena State Park, Kauai, and Kekaha Kai State Park, Hawaii

Mr. Dan Quinn of State Parks reported the Akaka Falls improvement is a continuation of repair to hand rails, \$800,000. \$200,000 goes to a ranger program which is in place at Haena, Kauai and Kekaha Kai on Big Island. It's to continue this program until staff can establish positions approved by the Legislature. Any leftover funds will be used to supplement the State wide ranger program where 12 positions have been approved.

Unanimously approved as submitted (Pacheco, Edlao)

Item E-3 Request to Approve the Master Plan and Final EIS Waianapanapa State Park in the District of Hana, Maui

Mr. Dan Quinn representing State Parks reported an executive summary was passed out and went over the map. Plan has gone through EUC process and has been accepted by the Governor. Request Board to accept plan.

Unanimously approved as submitted (Edlao, Gon)

10:20am: Adjourned for Executive Session (Gon, Pacheco)

10:55am: Reconvened

Item F-2 Request Approval on Revisions to the Joint Permit Form, and Approval of Special Terms and Conditions, for Permitted Activities within the Northwest Hawaiian Islands - Papahānaumokuākea Marine National Monument

Mr. Dan Polhemus representing Division of Aquatic Resources (DAR) reported this was item was deferred from the May 25, 2007 Land Board Meeting. There are three parts which the Board took action on the first part and deferred the second and third parts. At the April 27, 2007 the Board approved and adopted a Joint Permit Form for permitted activities within the Northwest Hawaiian Islands. This form was developed collaboratively with DAR working in concert with the State of Hawaii's Co-Trustees to the Papahānaumokuākea Marine National Monument. The Joint Permit Form Template replaces the previous State Permit Form Template issued for permitted activities within the Northwest Hawaiian Islands State Marine Refuge. While the Board approved the new Joint Permit Form it directed the DAR to review all permit conditions that had been applied to the NOAA (National Oceanic Atmospheric Administration) application for a permit for a management permit approved at the January 26, 2007 Land Board Meeting. The Board requested DAR ensure that all these permit conditions were consistent with the Joint Permit Form General and Special Conditions. At its May 25, 2007 Land Board Meeting the Board approved the revised Monument Joint Permit Form.

The Joint Permit Form Terms and Conditions have undergone intense scrutiny and an extensive process of review over the past five months in consultation with staff and council from the White House Council of Environmental Quality, the U.S. Departments of Commerce, Interior and Justice, the Office of Hawaiian Affairs, the Department of the Attorney General for the State of Hawaii, and representatives from the Co-Trustee Agencies locally. A comparison of specific Terms and Conditions contained in prior State Northwestern Hawaiian Islands permits was undertaken to ensure all these Terms and Conditions were incorporated into the General Conditions contained in the Joint Permit Form or were revised with Special Conditions. A composition matrix of the former State Conditions and the Joint Permit Conditions was provided to the Board at the April 27, 2007 Land Board Meeting. Many similar concerns addressed in prior State

Permits, such as documenting activities while in the Monument, curtailing commercial exploitation of resources were revised and incorporated into the joint permit conditions. Upon further review of these former State conditions, certain changes were made to the previously approved joint permit form (Attachment 1). The Board took action in the previous Land Board Meeting. In addition, a revised set of special conditions, which were based on the former State permit conditions has been further vetted and reviewed by the Office of the Attorney General and other agencies and are contained as Attachment 2. He requested to amend Clause 3 in Attachment 2 to read: To prevent introduction of disease or the unintended transport of live organisms the permittee must comply with the disease and transport protocol as previously submitted. It was attached to the 5/25/2007 submittal, but was not attached to this submittal. He had copies available. The Special Terms and Conditions are consistent with former conditions applied to previous State permits. Staff has shown it to the Office of the Attorney General and they concur with it. As is summarized in Attachment 3, these Special Terms and Conditions are to be applied base on the type of activity proposed in any given permit application for a specific class of permits.

Ms. Marty Townsend representing KAHEA the Hawaiian Environmental Alliance, passed out a petition of 300 signatures detailing concerns with the Board's decision at the last meeting. She explained the petition asks the Board to enforce the 45 day public comment period which this Board has not met, asks before a permit is granted a Natural Plan and Environmental Impact Statement is completed and a State policy on bioprospecting is drafted. A State Commission is currently considering language on bioprospecting. She recommends the Board take cautionary action and ban it. She went over testimony e-mailed to the Board. The easiest way is to apply the conditions approved by the Board at the January 26, 2007 Land Board Meeting to all permits. She presented to the Board what the Board changed since then and proceeded with the list of eliminated conditions. Freeze things on bioprospecting and wait for the Commission to come up with a policy.

Member Pacheco asked to clarify "for profit" is it like giving away our property rights? Ms. Townsend replied #21 is good language because it does not distinguish a for profit motive and not for profit motive. Mr. Pacheco explained in the General Conditions it states we hold all natural resources in trust to the State of Hawaii. For profit or non profit the State still owns it. Ms. Nobriga asked then why the language? Don't need that language. Ms. Townsend gave an example with mineral rights and relayed her opinion. Expressed how a third party, like the University of Hawaii could take it and use it for profit.

Ms. Malia Nobriga, President of Waikiki Hawaiian Civic Club, the Chair of the Association of Hawaiian Civic Club's Bioprospecting Task Force and a Native Hawaiian originally from Kauai. She passed out handouts and reported the Waikiki Hawaiian Civic Club helped to organize and participated in three Ka'Aha Pono - Native Hawaiian Intellectual Rights Conference. These conferences produced the Paoakalani Declaration which addresses the issue of bioprospecting and states:

- We have the right to free, prior and informed consent before research relating to our biological resources commences. Researchers, corporations, educational institutions, government or others conducting such research must fully and entirely inform Kanaka Maoli regarding the purposes of their research and recognize our right to refuse to participate.
- Biological samples are being transferred, traded, bought, and sold without the agreement or consent of our peoples, in violation of our inherent human rights.
- Although biological and genetic samples have been transferred, sold, patented or licensed, Kanaka Maoli never relinquished our rights to our biological and genetic materials and therefore, call for the rightful repatriation of such samples and due compensation.
- Kanaka Maoli human genetic material is sacred and inalienable. Therefore, we support a moratorium on patenting, licensing, sale or transfer of our human genetic material.
- We further support a moratorium on patenting, licensing, sale or transfer of any of our plants, animals and other biological resources derived from the natural resources of our lands, submerged lands, waters, and oceans until indigenous communities have developed appropriate protection and conservation mechanisms.

She explained how her organization(s) brought about resolutions and legislation on collective intellectual property rights of Native Hawaiians, protection of Hawaii's flora and fauna and bioprospecting. They recommend that the Board defer permitting the research mission of UH's HIMB to Papahānaumokuākea until:

- a policy on bioprospecting is drafted and circulated to all rights holders and stakeholders.
- a thorough and public environmental review is conducted, including an assessment of the cumulative impacts of taking thousands of samples of living material every year for the last several years.
- a Monument management plan is developed with meaningful public input. By law, research in the NWHI must further the management and conservation goals of the Monument and the State Refuge. it is impossible to know what those goals are without a management plan in place.
- the public has a meaningful opportunity to comment on all research permits. The Board adopted a 45-day public review and comment policy. DLNR staff refuse to implement that policy by restricting release of the permit applications until 4 working days before the permit hearing.

Mr. Wayne Kaho'oleipanoki representing Ilioulaokalani Coalition reported they have been involved with the Northwest Hawaiian Islands - Papahānaumokuākea for the past 10 years. Bioprospecting is theft of natural resources from native peoples and should not happen in the Northwest Hawaiian Islands or in the State of Hawaii. He expressed how appalled of what happened at the April Board Meeting while the Commission on Bioprospecting is still meeting. He recommends waiting for the policy on bioprospecting comes out before any permits are issued. Until a thorough public environmental review

is conducted including an assessment of the cumulative impacts of taking thousands of samples of living material every year for the past several years. It is a violation of Hawaiian people's rights. The Board's approval is contradictory to acknowledging the fact we are the host culture. He recommends developing a Monument plan and asks to give the Bioprospecting Commission time to draft a policy.

Mr. Dan Polhemus of DAR explained the part that says no bioprospecting was written by his staff as a guideline for the initial State permits when it was first set-up. That was an interim instrument it wasn't imbedded past the Attorney General, but at the time it was the most precautionary policy. It was made a permit condition. The AG stated we don't have legal authority under current rules and statute. What we have here is what was advised by the Office of the Attorney General. The alternative is to remain silent on the issue by deleting the parts that say including work involving bioassay or bioprospecting and retain the rest of Clause One and Attachment Two. Of the Co-Trustees, OHA was the only agency requiring a clause addressing bioprospecting. How he reads the AG's opinion if you grant a license, a permit to collect specimens in the State and don't work within the context of that permit, assert your underlying title, you cannot come back later to claim it. If you do so up front you've covered it. Everything is forbidden except what you're allowed in the terms of the permit and the permit doesn't have to restate everything you're forbidden to do. The permit tells you what you are allowed to do and if it is not stated in the permit then it is forbidden. The letter received from the White House Council on Environmental Quality signed off by general council's office of the Departments of Commerce and Interior and by our AG's office made it very clear you don't need to re-write, re-state all applicable laws in the context of a permit. Permit allows you what you can do that you would otherwise would not be able to do in the context of those laws and everything still applies.

Ms. Heidi Guth, Lead Advocate for Native Rights at Office of Hawaiian Affairs apologized for the language in this condition. She agreed with Mr. Polhemus with the initial language that there must be no bioprospecting in the Monument. When working with Federal and attorneys, there is no internationally, federal or state agreed definition for bioprospecting nor any law. She brought to their attention this Bioprospecting Commission and they decided to build a stop gap until the Commission came up with language thinking to insert in place. After this morning's comments it was not a good idea. It says "under this permit the authorized research activity including work involving a bioassay or bioprospecting" tells the permittee you are authorized to do these. Because there is no known definition for bioprospecting the attorneys decided to leave in bioassay with the knowledge that Hawaiians are not against research. The State AG added the words "for profit" which she feels is unnecessary. Take out bioprospecting and for profit and leave in bioassay would make OHA's beneficiary happy. Please do not defer this because there are permits before the Board.

Member Pacheco asked if an entity takes resources out of the Monument like at the University of Hawaii, how is it set-up to protect it? Mr. Polhemus replied at U.H. it is still under the State because it states you can't do this they will be in violation. Will staff have to catch them doing it? Yes.

Chairperson Smith asked what if we deferred this matter to study the language, but would put the other permits on hold? Mr. Polhemus replied the Board hasn't approved the special conditions and will not be a part of the permit until they are approved. He suggested amending and defer action on clause 1 and approves clauses 2-6. We have the General Conditions which are extremely restrictive. Chairperson Smith explained we need to have something in the interim in regards to bioprospecting until the Commission makes a consensus. Mr. Polhemus replied as Member Pacheco pointed out in the General Conditions "the State retains underlying title" which means not anyone can take this, patent and lay claim to it. In the context of this permit document, right up front, we claim underlying title. Member Pacheco stated we should wait until the Commission comes up with a direction for the State policy. Chairperson Smith replied we should limit its activities and build existing fail safes. Mr. Polhemus reiterated or we keep clause 1 and eliminate the including work involving bioassay or bioprospecting. Say instead "does not authorize the sale of collected organisms, authorized research activity must be for non-commercial not involving sale use bio-products material collected in the Monument pertaining patents or intellectual property." Note there is an Intellectual Property Clause in the General Conditions that are very restrictive. Member Gon asked OHA and those who testified would this phrasing, as a stop gap, be satisfactory? Ms. Guth and those who testified replied if they could have time to discuss.

Chairperson Smith called for a Recess, 11:53am for 5 minutes
Reconvened: 12:05pm

Ms. Heidi Guth of OHA met with parties and she presented the following: 1. This permit is not to be used for nor does it authorize for the sale of collected organisms under this permit the authorized research activity must be for non-commercial purposes not involving the use of sale of any organisms, by products or materials collected within the Monument for obtaining patent or intellectual property rights. Chairperson Smith asked the AG this is good? She replied it is clearer. Ms. Guth stated they would like this to go through as a stop gap measure until the Bioprospecting Commission comes up with a State Policy.

Member Gon moved to approve the legally imbedded special terms and conditions as amended, in particular to item one and item three.

**Unanimously approved as amended (Gon, Edlao)
Amend Item 1 and Item 3.**

Member Gon departed 12:08 pm.

- Item F-3** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to C.O. Jon D. Swallow, National Oceanic and Atmospheric Association (NOAA) Ship Hi‘ialakai, for Access to State Waters to Support Marine Research Activities.
- Item F-4** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Paul L. Jokiel, University of Hawai‘i, Hawai‘i Institute of Marine Biology (HIMB) for Access to State Waters to Conduct Benthic Habitat Mapping Activities.
- Item F-5** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Robert Toonen, University of Hawai‘i, Hawai‘i Institute of Marine Biology (HIMB) for Access to State Waters to Conduct Coral Reef Invertebrate Genetics Research Activities
- Item F-6** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Joint Research Permit to Dr. Carl Meyer, University of Hawai‘i, Hawai‘i Institute of Marine Biology (HIMB) for Access to State Waters to Conduct Top Predator Population Research Activities
- Item F-7** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Matthew Craig, University of Hawai‘i, Hawai‘i Institute of Marine Biology (HIMB) for Access to State Waters to Conduct Reef Fish Life History Research Activities
- Item F-8** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Brian Bowen, University of Hawai‘i, Hawai‘i Institute of Marine Biology (HIMB), for Access to State Waters to Conduct Reef-Fish Genetics Research Activities
- Item F-9** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Education Permit to Keeley Belva, Papahānaumokuākea Marine National Monument (PMN Monument) for Access to State Waters to Conduct Education and Outreach Activities
- Item F-10** Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Isabella Abbott, University of Hawaii (UH), Department of Botany, for Access to State

Mr. Dan Polhemus of Division of Aquatic Resources reported F-3 through F-10 is all referable to a research cruise proposed for the Northwest Hawaiian Islands in early July 2007. He reminded the Board the language in the Hawaii Administrative Rules Chapter 60.5 pertaining to research in the Monument. It says "The intent and purpose is to manage, preserve, protect, and conserve the unique resources in the Marine Refuge using the best available science. Part 13-60.5-1, Clause 2. In Clause 4 of that same section "To support, promote, and coordinate appropriate scientific research and assessment and long term monitoring of the Refuge resources and the impacts or threats from human or other activities and to help better understand, protect, manage and conserve consistent with applicable law." In the definition section as far as scientific purposes, it means observing, identifying, describing, investigating, collecting marine life and a biotic samples for analysis and study and theoretically explaining natural phenomenon including the principals and processes necessary to form concepts to conduct observations or experiments and to validate hypothesis by observation or experiment. Finally, the Board may determine the production of conservation of resources might require the cessation of some activities allowed by a permit. In particularly, if there were considerations of damage to the ecosystem integrity such as direct harm to habitat or reduction. He explained each of the permits.

Testimony was heard from each of the applicants.

Member Edlao asked when will the upgrade for discharge be done and how long will it take? Mr. Curt Trafeca representing C.O. John Swallow of the NOAA ship, Hi'ialakai, replied the ship will not discharge anything into State waters or SPA water zone. The ship has made upgrades to its ship board systems this year with low flow toilets and washing machines to reduce the amount of gray water. The gray water, staff is asking to discharge within the Monument, but no black water. The earliest retrofit will be this winter. Member Pacheco asked how does this happen? If you come up to State waters and need to dump, would you then move out of State waters? Mr. Curt Trafeca explained correct, the ship conducts operations during the day in State waters then at night move offshore. The holding capacity of the tank isn't very much. The ship would go out past the SPA which is about 7 miles out. He reiterated the Hi'ialakai wants to minimize any impact they have and are doing all they can.

Member Edlao asked how often does the mapping have to be done on Item F-4? Mr. Polhemus replied it is not complete. The Monument is 1200 miles long by 50 miles wide. The bathometric mapping is incomplete and shows lots of white gaps. Staff doesn't know what its showing is what is really there. Interested in how much reef we have and remote sensing shows there is coral in a place and need to go back to ground truth it. Even the main Hawaiian Islands are not completely mapped out. Dr. Paul Jokiel of U.H., Hawaii Institute of Marine Biology (HIMB) replied the work is focused on the living resources and there is a lot of area to cover. They were there in 2001 to do the ground truthing. Changes in climate will affect the results in the Monument which will affect globally. Member Edlao was concerned with touching coral. Dr. Jokiel replied staff was covering their bases, but they are not touching intentionally.

Member Schuman asked regarding F-5, how would you know what the population size would be? Dr. Robert Toonen of U.H., HIMB replied staff estimates the population size by the number of individuals of a given area as you are surveying across a number of locations. Staff has dropped the number of samples per State's direction.

Member Edlao asked about the shark and monk seal interaction study in F-6? Concerned with the hooks? Dr. Carl Meyer of U.H., HIMB explained the set-up will be constantly monitored and operations will only occur during daylight hours. It will be directed to Galapagos sharks that target monk seal pups. Member Edlao asked what kind of bait used? Dr. Meyer replied either large pieces of tuna or shark.

Member Edlao asked (F-7) how many species of fish will be gathered? Dr. Matthew Craig of U.H., HIMB explained the sampling for this project is being collected for another project. About 20 different species and if it is not abundant in an area they will not take from it. He explained fork length. Mr. Polhemus stated that F-7 & F-8 are sharing the same fishes because 1. It's very expensive to go there and 2. Don't want to take out more than necessary.

Member Edlao asked about the tissue plug? Dr. Brian Bowen of U.H., HIMB replied staff takes a tissue plug the size of a grain of rice. Staff only takes fishes that occur in the millions. Member Edlao concerned with the large number of specimens. Dr. Bowen replied staff does not get everything. Staff takes about 30 specimens in an area the size of Oahu from each atoll island. They are taking only what is needed for statistical validity which is 30-50 samples. Dr. Bowen commented the scientists at U.H., HIMB are in agreement with KAHEA and others about bioprospecting. Before the scientists requested these permits they relinquish all rights to profit, to patent and automatically defer to the State.

Member Edlao asked on F-9 what about privately funded? Mr. Polhemus replied in the Monument the standard permit conditions say we retain rights to copies of all images that are taken. People will not have exclusive rights to their images. The only way to commercialize it is to get a special ocean use permit which goes through the Monument Board and the Land Board.

Mr. Curt Trafega of the Hi'ialakai asked for a change to F-3, condition #3 on the permit regarding a safety issue with the divers who must dive in pairs.

Mr. Edlao asked about OHA's recommendation on cultural protocols. Mr. Polhemus replied staff, OHA and scientists are meeting to work out an acceptable agreement mutually. Ms. Guth of OHA explained when they read staff's report they were upset because it put it right back on their shoulders. At the last meeting, Moani Pye felt people understood and respected the cultural side. She is glad that management is willing to work with OHA and understand they have to address the cultural issues.

Mr. Wayne Kaho'oleipanoki of Ilioulaokalani asked if there is no cultural monitor on the ship what happens? Does the ship go out or does it wait for a cultural monitor on board?

Mr. Polhemus replied there is a briefing. In the future, there will be a requirement for cultural observer, but has not been built into the system. Ms. Guth explained there is a Hawaiian cultural working group associated with Papahānaumokuākea Marine Monument. This group met recently and their main issue is the permitting process. OHA will meet with this group in July and this issue will be addressed by native Hawaiians then. Mr. Kaho'oleipanoki asked for the July 7th sail, what assurance do we have that cultural protocols will be observed? Is it because a briefing will be held? He thinks not. Ms. Guth replied this is all we have right now although she doesn't agree with it.

Mr. Shaun Corson, Acting Superintendent with NOS/NOAA Monument, clarified the permit itself identifies the need to dive in these closed areas. #3 in the staff recommendation list to limit it to Midway Special Preservation Area. The permit does not need to be modified. Member Pacheco explained the Board is only amending the Special Conditions.

Ms. Marty Townsend of KAHEA, Hawaiian Environmental Alliance, passed out handouts and recommended a moratorium on all permits to the Northwest Hawaiian Islands. She recommended conducting an Environmental Impact Statement Review which the Environmental Policy Act requires it be a public review process. She referred to when you cannot use categorical exclusions. She expressed none of these have been done and would violate Federal Law and explained how permits have been done piecemeal. She reported concern about the gray water issue and other items.

Mr. Wayne Kaho'oleipanoki expressed his concerns with a possibility of a cultural monitor on board which had started a year ago and this issue has not been settled. It troubles him that DAR understood a year ago about the cultural monitor. He recommends if these scientists/applicants want to continue exploring Papahānaumokuākea then they need to make the effort to learn the proper cultural protocols and to assure the Hawaiian community that they understand it. It is the applicant's responsibility to come to them.

A female speaker gave testimony concerned with even asking to dump sewage in the Monument. It's unheard of.

Mr. Michael Tossato, Deputy Regional Administrator for NOAA Fisheries, explained he doesn't understand where the mis-conception that Hi'ialakai is requesting to dump in the State waters. It is explicitly stated "no discharges is allowed in State waters" and Hi'ialakai is not requesting to approve any. The request to discharge within the Monument is an authorized activity the proclamation allows the operation of ships to support conservation activities. Hi'ialakai is asking to discharge gray water within the Monument where it is authorized to do so and the managers will make that decision. A group is looking at what discharges are authorized and putting in place a monitoring system. All research is closely coordinated with the Fisheries Science Center. The reason why permits were presented separately is it was the most logical. Member Pacheco asked about EIS comments? Mr. Tossato replied as we make Federal decisions all applicants are required to follow NIPA. NIPA provides three options and categorical

exclusions are one of those options. Environmental Assessments are not EIS's and EIS's are not required to comply with NIPA. They're one of the ways to comply with NIPA. Staff is considering what needs that level of analysis. Public ability is not just having an EA when it's done which NIPA requires. That information must be made available to the public when it's done. Staff is forming a Conservation Science Plan and we'll see the EIS or EA.

Mr. William Aida, DLNR employee but here as individual, reported the discharge is not a negative intent. Sewage treatment plants put out millions of gallons a day compared to 3000 gallons 50 miles off shore which is nutrients. It will be recycled. Sometimes we need to do what is in front of you because there is no time to lay out the best plans. The science is critical because what is happening at the Monument like the sharks might be coming down to the main Hawaiian Islands and vice-a-versa. The taking of sharks is pono because of the monk seal issue. He urges support for the permits and he urges desire to have a better plan.

Mr. Don Pollaski of Fish and Wildlife Service for the Monument reported this is not a new project. HIMB placed in safe guards and have been very successful. Mr. Polhemus explained staff cannot approve things projected in the future. Only things in front of us now. In regards to the 45 days, it will go back and forth with comments. The public must realize what you get after the 45 days is different from the final application that the submittal is based. Public will object because things would be worked out in the interim. Staff has honored every request and he has a written track. Per Wayne Haight there were 500 pages of documents requested and OIP said when you have something that big do an incremental release which they are doing. Submittals come right up to the deadline and he and Member Edlao commented the 5-6 days they have to review everything is difficult. Ten days would be better.

Member Pacheco commented on the negative connotation with the changes in leadership and stated we are all here to do the best job we can. He moved to approve F-3 to F-10 with an amendment to Item F-3, recommendation #3 to include swimming, scuba, snorkeling activity allowed only for vessel maintenance and emergency operations and other non-recreational activities in support of ship and research activities.

**Unanimously approved as amended (Pacheco, Agor)
Amend Item F-3, recommendation #3. All voted yes.**

Item F-11 Enforcement Action against Crystal Seahorse, Ltd. and Captain Peter Wood Involving Prohibited Activities at 'Ahihi-Kina'u Natural Area Reserve, Maui

Mr. Blaine Rogers representing Department of Aquatic Resources, reported the vessel Shangri-La commanded by Captain Peter Wood entered the State Natural Area Reserve, 'Ahihi-Kina'u, related the situation background and violation(s). Staff's

recommendation is to fine Crystal Seahorse (holder of the commercial use permit) \$2,500 for conducting a commercial tour within a Natural Area Reserve, fine Peter Wood \$2,500 for operating a motorized vehicle within 'Ahihi-Kina'u Natural Area Reserve, fine Peter Wood \$5,000 for unlawfully anchoring a vessel within marine waters, fine Peter Wood \$1,000 for damaging stony coral, fine Peter Wood \$2,750 for damaging 11 specimen of stony coral, and assess Administrative Fees and Costs against Peter Wood totaling \$3,554 expenses incurred by DLNR investigating and remediation damages. Grand Total of \$17,304.

Member Pacheco asked 31 meters deep how does it happen? Were they there under an hour or half-hour? Mr. Rogers replied after talking to the biologists who did the investigation they explained on a windy day, the large size of the vessel and with an anchor chain that's slack a swath could cut in the coral. Member Pacheco were the biologists able to see forensically when that coral was broken by the nature of the break? Protocols have been established on how staff investigates coral damage. A Natural Area Reserve ranger and a private volunteer were present in the area when the vessel came in. The volunteer swam out to the vessel and told crew they were there inappropriately. The pictures of the anchor and anchor chain were taken by the volunteer. Subsequent investigation was taken by DAR staff.

Member Pacheco asked this is a pretty serious fine for the operator was way out of area where his permit allowed, in fact a whole different part of the island. Staff is not asking to revoke the permit? Mr. Rogers answered it was not part of the discussion. DOCARE assigned him to handle this. This is a test case for all the divisions (or for Department). Staff felt it wouldn't be fair to Mr. Wood and too much for the Department.

Member Pacheco asked then why DAR instead of DOCARE handling this? Mr. Rogers replied Divisions have the ability to bring enforcement actions.

Mr. Dennis Niles attorney representing Crystal Seahorse, reported Mr. Peter Wood has operated on Maui for over 20 years and this is a first time episode. He responded immediately and professionally, but was charged with a crime. The Department was not satisfied with the outcome of the criminal prosecution therefore they found it necessary to punish Mr. Wood more, than the humility of being charged with a crime. He was operating within the limits of his permit and he alleged crossed the line by entering these waters. Mr. Wood knows you don't anchor on coral, there is sand in the area and what happened, apparently alleged, the chain draped over some pieces of coral and some coral broke. He explained the plea agreement with the State. This is the second time Mr. Wood is before a State Board (entity). Then explained civil legal action as compared to an administrative contested case. He recommended not to take further action against Mr. Wood. Also reported there were no signs around the Natural Area Reserve to state it was a closed area. Requested a contested case hearing in respect to Crystal Seahorse.

2:00 pm: Adjourned for Executive Session (Pacheco, Agor)

2:14 pm: Reconvened

Chairman Smith asked Mr. Niles would he and his client be amiable to a negotiated settlement? Mr. Niles replied yes. Chairman Smith asked if they found common ground would he drop the contested case hearing? Mr. Niles replied certainly. Reported what happened previously with proposals from both sides and no counter. Mr. Smith asked would you like to counter? Mr. Niles replied his client is not here.

Member Pacheco suggested striking items 1,2,3 and approving items 4-6 for a total of \$7,304. Mr. Niles explained there is no obvious landmarks in the area or buoys. Member Pacheco asked are you suggesting we place buoys? Mr. Niles replied on an enforcement perspective it would be helpful. Mr. Rogers interrupted to say that DOFAW has an environmental assessment to install buoys. And explained on the map and boating rules which any mariner should already know. Mr. Niles replied he needs to reach his client.

Member Pacheco moved to apply items 4,5, 6 and strike 1, 2, 3. Member Edlao second. Mr. Rogers suggested an alternative. Instead of striking 1,2,3 which DOFAW and DOBOR has an interest in and the allocation be worked out between him, Mr. Niles and his client. Mr. Niles stated with one exception, the claim for Crystal Seahorse is dropped and the sanction changed to Mr. Wood. Discussed Hanalei issue and navigable waters. Mr. Niles and Mr. Rogers took a break to discuss with Mr. Wood.

Mr. Niles reported Mr. Wood accepts the proposal suggested by the Board. Mr. Rogers amended 1. to replace Crystal Seahorse with Mr. Peter Wood. Mr. Niles suggested changing other items. Mr. Rogers did not feel comfortable dismissing count 1 because he can't represent DOFAW.

Member Edlao deferred to next meeting. Mr. Rogers replied he will be absent.

Member Edlao asked in your previous settlement offer was it to strike the conduct commercial? Mr. Niles replied he only remembers the amount of \$2500, but he doesn't remember the specifics. He is certain it involves eliminating Crystal Seahorse and throwing Mr. Wood in. They felt Crystal Seahorse is not the proper party and the captain should bear the responsibility. Member Pacheco asked then why won't you allow the Board to insert Peter Wood for commercial tour? Mr. Niles answered Peter Wood was not conducting the tour; he doesn't have a commercial license. He is not a commercial operator; he is an employee of the company. The permit to conduct the tour is held by Crystal Seahorse. Member Edlao decided to support.

Member Pacheco moved to fine \$7,304 as noted for items 2-6 paid lump sum and strike item 1 and withdraw motion for a contested case hearing.

**Unanimously approved as amended (Pacheco, Schuman)
Amend fine to \$7304 for items 2-6, strike #1, and withdraw request for a contested case hearing.**

Item F-1 Request for Final Approval to Amend Hawaii Administrative Rules Chapter 13-75, Rules Regulating the Possession and Use of Certain Fishing Gear to Include Rule Amendments for Board-Authorized Area Closures for Lay Nets, and a Correction of the Section's Number.

Mr. Dan Polhemus of DAR reported the Board could close certain areas to lay gill netting effective with the filing of coordinates and maps at the Lieutenant Governor's office. Public hearing and testimony had opposition, but recent deaths of monk seals by lay gill nets expedited this. There is exposure to the endangered species act and the State could be sued at anytime. The result could shut down all near shore activities that could affect protected species which is all pole & line fishing and all net fishing at all near shore waters of all Hawaiian Islands for 2-3 years as an extreme outcome. Our Federal partners recommend the State address this problem while engaging Section 7. The Legislature gave DLNR 2 positions to deal with incidental take problems which would help mitigate the exposure. 1. If a monk seal is in an area and in consultation with NOAA to close an area from all net fishing until the seal has left an area. 2. Refers to Molokai.

Mr. Jeff Walters of Co-Manager of the Hawaiian Islands Humpback Whale National Marine Sanctuary and DAR staff specializing in protected species, reported this measure is important in protecting the Hawaiian monk seal from lay gill nets. Explained the behavior of monk seals and where they would feed.

Mr. William Aida testified in support with the request that the surround kule is not part of the motion. Direct DAR to work with fishermen to develop a DVD for DOCARE statewide to educate them on the difference between surround kule fishing and reef gill net fishing. Ask DOCARE to be more pro-active by checking for a net on three day weekends. Staff investigate the effectiveness of requiring monofilament line of a net be a smaller size like 12lbs. Enough for seals to break through, but not for fishes.

Mr. Carl Jellings, a Waianae fisherman expressed concern over events in Waianae. Kule fishermen have to have a license and another license for gill net fishing. Clarify that the type of gear used at the Makua case was incorrect for kule fishing. But the officer wouldn't know that. Mr. Polhemus replied he would seek AG's authority on this matter.

Mr. Tossato of NOAA Fisheries reported they fully support responsible fisheries. Attorney General's representative reported these rules have not been approved.

Unanimously approved as submitted (Edlao, Schuman)

There being no further business, Interim Chairperson Smith adjourned the meeting at 3:05 p.m. Tapes of the meeting and all written testimony submitted at the meeting are filed in the Chairperson's Office and are available for review. Certain items on the agenda were taken out of sequence to accommodate applicants or interested parties present.

Respectfully submitted,



Adaline Cummings
Land Board Secretary

Approved for submittal:



ALLAN SMITH
Interim Chairperson
Department of Land and Natural Resources