



# UNIVERSITY of HAWAI'I®

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## MĀNOA

In addition to the description of our budget request, which follows as our official testimony, the following is to respond to the request that we provide highlights on our achievements, challenges, and needs, our efforts to prevent violence and promote safety, and our efforts to address worker shortages.

### Highlights of Achievements, Challenges, and Needs

*The University of Hawai'i at Mānoa is a jewel in many ways, particularly intellectually, but it is badly tarnished physically.*

The facilities deterioration on Mānoa campus has happened over several decades, and is not something that has emerged overnight. We hope that we can all seize this moment and work together for the future and fulfill the potential of our University. The University offers the best return on investment you can provide for the state, and will serve the students and the future of Hawai'i well.

We wish for Mānoa to become:

- A destination of choice for students, faculty and staff, the citizens of Hawai'i and beyond;
- A leading, global research university performing at the highest levels and solving society's problems; and
- A respectful, inclusive community that welcomes and nurtures diversity

We have made progress in these areas:

### *A destination of choice for students, faculty and staff, the citizens of Hawai'i and beyond*

This our top priority and the biggest challenge – to attract world class students, faculty, staff, community members, coaches, and athletes to join our campus ohana and form a community. Facilities are key to that. Recently we have conducted a methodical review and has been methodical and has some chilling assessments:

- The current replacement value for our infrastructure is approximately \$3 billion.
- Our deferred maintenance backlog has been chronically underestimated, our new estimate using business standard analyses indicate upwards of \$400,000,000.
- Our current facilities workforce is only able to react to breakdowns on campus, about 950 work orders a come in a month, and we have a backlog of 4,607 work orders.
- Less than 5% of our efforts are expended on preventive maintenance, 25 buildings currently have major system breakdowns and 37 of them have leak issues.
- Costs are increasing – sewage up 82% in 6 months; construction costs 10% inflation rate, which makes delays vastly expensive.



We also have improvements we want to report in how we manage our facilities:

- Our electricity usage is down by 6 and ½ % from last year due to R&M upgrades, which saves us \$1.3 million annually at current rates.
- Facilities is participating for the first time in a process which serves as a nation-wide benchmark for campus facilities performance and allows comparison with peer institutions.
- Facilities is changing its mode of operation to meet our needs.
- We have initiated a Design Review to determine the future of Edmondson and Snyder Halls

Becoming a destination of choice also means we have to do more to attract people to our campus, and we have good news on that front as well:

- The Frear Hall project is on time and on budget as of this week. We expect to come to you this spring for approvals of contracts to move forward with the renovation of the four residential towers, to result in more dorm rooms that present an attractive experience for our students.
- Plans are moving forward for the renovation of the Campus Center. It will provide facilities for all students to study, relax, and exercise as a part of their student experience.
- Entering MBA students have raised the bar at the Shidler College of Business by breaking school records for the highest average score on the Graduate Management Admissions Test (GMAT: 632 out of 800), highest Grade Point Average (GPA: 3.4 out of 4.0) and the highest average years of professional work experience (5 years).
- UH Mānoa has seen an increase of 16% in the number of international students who attend our University since 2002, we host 1/3 of all the international students who study in Hawai'i.
- We have increased participation of our students in Study Abroad and Exchange Programs by 30% since 2002.
- I have commissioned students to begin a signage project to give an identity of University of Hawaii at Manoa as an international place of learning, guide the visitors, students and faculty members to their destinations in the campus and develop consistent, uniform and harmonious signs while furthering a sense of Hawaiian place.

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### **A leading, global research university performing at the highest levels and solving society's problems**

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Our role is to also help the state of Hawai'i and the world solve society's problems and perform research that can spur economic development. This year we have much to report:

- We are becoming the first university in the world with the capability to design, build, launch, and control our own satellites. The Hawai'i Space Flight Laboratory combines researchers from the College of Engineering and the School of Ocean and Earth Sciences and Technology with the goal of launching its first space mission by Fall 2009.
- The John A. Burns School of Medicine will be involved in the largest study of child and human health ever conducted in the United States. The National Children's Study will track children and sample the air and chemicals around them for over two decades, from before birth until they turn 21. One thousand O'ahu families will take part.
- Researchers at Manoa's plant and environmental protection sciences department are producing and distributing tissue-cultured banana plants to help Hawai'i banana growers fight banana bunchy top virus. Plants infected early with BBTv do not bare fruit, and fruits of later infected plants are typically stunted, unattractive and not saleable. The disease is transmitted by a small soft-bodied insect known as the banana aphid.
- The John A. Burns School of Medicine has been recognized as one of the country's leading medical centers in diabetes research.



- Technology developed by a UH Mānoa researcher to produce charcoal from green waste is generating revenue for UH and holds promise for wide commercial use. Not only does the charcoal carry potential use as a fuel, it also has applications in improving soil fertility. I'll have a gift for you Wednesday of this charcoal being used to grow ornamental plants.
- A UH Mānoa professor has been part of a team whose 'ultrasound' of the Earth's crust reveals inner workings of a 'tsunami factory' and may help explain why part of the seafloor near the southwest coast of Japan is particularly good at generating devastating tsunamis. A University of Hawai'i Sea Grant College Program funded researcher has been looking into ways to forecast tsunami impacts during the early stage of the event.
- UH Mānoa has been awarded a grant to assess the potential risk to human health and the environment of an historic chemical warfare material disposal site about 5 miles south of the entrance to Pearl Harbor in waters greater than 1,000 feet deep. A full array of state-of-the-art technologies owned and operated by the School of Ocean Earth Science and Technology (SOEST) will be employed to assess the location and condition of the disposal site.
- A School of Ocean and Earth Science and Technology professor is the lead author of a paper that reveals that Helium in lavas from ocean islands, such as Hawai'i, may be derived from a part of the Earth's mantle that has retained most of the gases originally incorporated into the Earth during its accretion, 4.5 billion years ago.
- During a 4-week expedition to the Northern Hawaiian Islands aboard the UH research ship Kilo Moana, an international team of research scientists mapped a large area of the seafloor around the northern Hawaiian Islands and located and sampled numerous previously unknown volcanoes using the Jason2 robotic submarine.
- A collaborative effort among the Curriculum Research and Development Group (CRDG) in the College of Education, the Hawai'i Department of Education, and Texas Instruments, will investigate the use of formative assessment in a networked classroom as it affects middle school students' learning of algebra concepts and will involve middle school teachers throughout Hawai'i.
- A senior professor of meteorology co-authored a study that introduces a new way of detecting lightning outbreaks within a hurricane over the ocean in real time from thousands of miles away, giving forecasters new insight into just how powerful an oncoming storm may be.
- Researchers at the University of Hawai'i and the Hawai'i Agriculture Research Center have been working with a range of crops to determine the best-suited options and production methods for biodiesel crops for Hawai'i farmers.
- Two UH astronomers using the Hubble Space Telescope believe they have identified what makes at least some quasars shine: the black hole at the center of a massive galaxy with little gas of its own is gobbling up material from a colliding gas-rich galaxy.
- UH researchers and geology students traveled to New Zealand to observe a unique volcanic mudflow event and document the effects when a volcanic mudflow broke through the banks of a volcanic lake.
- A team of researchers in the College of Tropical Agriculture and Human Resources conducted research on fountain grass (*Pennisetum setaceum*), which is highly invasive in Hawai'i and variably invasive in other parts of the world, and addressed whether genetic variation in the species allow it to adapt to new environments globally. The findings show that the species is pre-adapted to thrive under a broad range of ecological conditions and suggest important implications for management of fountain grass where it is invasive.



We have a duty to create a community and programs that are accessible to all those in need of the opportunity to better themselves, and your University has done that this year in many ways:

- The William S. Richardson School of Law's 'Ahahui o Hawai'i conducts outreach and efforts to increase the number of Native Hawaiians admitted to law school.
- The Center for Disability Studies (CDS) received the 2007 Multicultural Council Award for Leadership in Diversity from the Association of University Centers on Disabilities (AUCD). The award specifically honors CDS as the sponsor of the Pacific Rim Conference, an event that furthers cultural diversity.
- The Na'au Pono Initiative at the William S. Richardson School of Law Center for Excellence in Native Hawaiian Law promotes education, scholarships, community outreach, and collaboration on issues of law, culture, and justice for Native Hawaiians and other Pacific and Indigenous peoples.
- The Ka'imi'ike Program is engaged in an initiative to increase the number of Native Hawaiian and Pacific Islander undergraduate students in geoscience degree programs and careers.
- The Osher Reentry Scholars program funds adult students aged 25-50 who are either starting their college education or returning after more than 5 years to complete their college studies.
- UH Mānoa recently hosted a world conference on Filipino language.
- Of the 952 students at UH Mānoa's College of Engineering, females now represent nearly 20 percent of the undergraduates, and 23 percent of graduate students. In 1975 it was 7 percent of undergraduates and 4 percent of graduate students.
- According to Dr. Lynnae Sauvage of JABSOM's OB-GYN & Women's Health department, women have begun to play a much more significant leadership role at the JABSOM over the past 15 years, and JABSOM may "have the most women chairs, department chair level of any medical school in the United States."
- The John A. Burns School of Medicine will begin training primary-care physicians on islands other than Oahu. Its new three-year Neighbor Island residency program, scheduled to launch next year, is based on the theory that doctors trained in a certain community will tend to remain there.

### Preventing Violence and Promoting Safety

Last April's mass shootings at Virginia Tech provided a tragic "wake-up call" for college campuses across the nation to step up their security policies. Crime statistics at the UH Manoa campus reflect those of the community – ongoing petty theft problems but very low incidents of violent crime. UHM campus crime has been declining over the past 3 years: [http://www.hawaii.edu/security/crime\\_stats2.html](http://www.hawaii.edu/security/crime_stats2.html)

Among the security improvements this year (2007) are:

- UHM initiated the first campus bike patrols by certified security officers in Hawaii. The 24/7 patrols provide roving coverage in a student-friendly manner.
- Eight additional campus security officers have been added.
- Lighting is being upgraded and added throughout the 300-acre campus.
- A \$500,000 project will be completed in February 2008; a second project costing \$582,000 is to be awarded in January 2008 – both projects entail adding security lighting to walkways, parking lots and between buildings. Existing fixtures are being upgraded with energy-efficient and longer-lasting lamps.
- Incoming students are given a safety and security awareness briefing as part of New Student Orientation.
- Freshmen dormitory lobbies (the Hale Aloha complex) will be staffed 24/7 and Resident Assistants in the dormitories have been given additional safety and security training.



- Our Supplemental Budget request includes \$933,632 for additional security officers and personnel will address security staffing shortages and as such improve campus safety. Funds will also supply the additional resources and equipment (e.g., uniforms, radios, rain gear, etc.) necessary for the new officers to effectively perform their duties. Meanwhile, Mānoa is actively researching the best model for Campus Security's future organizational structure, which might eventually include an on-campus HPD or Sheriff substation or the establishment of a Campus Police Force.

### Efforts to Address Worker Shortages

We have worked diligently to improve access to all kinds of professions through UH Mānoa. Here are some examples from this year:

- Given Hawai'i's lack of enough baccalaureate graduates, UHM's enrollment holding steady at 20,000 is cause for celebration for the state workforce.
- Enrollments for entering MSW and BSW in the School of Social Work are at an all-time high, with 130 MSW students and 30 BSW students. The BSW enrollments are twice what they were last year.
- With its newly established Master's Entry Program in Nursing (MEPN), UH Mānoa has joined 60 leading national nursing programs in providing fast track entry to a nursing career. The MEPN was designed for adult learners with no prior nursing experience/education, who have a baccalaureate degree or beyond in another field, and are leadership-bound with a focus on advanced practice nursing.
- New scholarships are available for preparation to be Nurse Practitioners through the School of Nursing and Dental Hygiene.
- The William S. Richardson School of Law at the University of Hawai'i at Manoa is expected to offer a part-time program as early as next fall semester. The Law School has applied to the American Bar Association and the Association of American Law Schools for approval to begin a small evening law program with a target of 24 students in each entering class. The Law School expects to receive approval by accreditors in early spring.
- The College of Education offers the only nationally accredited teacher education, rehabilitation counseling, school counseling, community services counseling, and athletic training programs in Hawai'i, and is nationally ranked among the top teacher education programs in U.S. News and World Report. The College of Education produces more teachers, school administrators, and school counselors than all other teacher education
- Over 1,500 students, more than two-thirds of whom are graduate students, are enrolled in COE programs. Statewide cohort programs that specifically target neighbor island students enroll approximately two hundred fifty students. Over five hundred degrees are awarded annually, approximately 50 percent of which are graduate degrees.
- Approximately one hundred post-baccalaureate certificates in secondary and special education are awarded annually.
- programs in the state of Hawai'i combined. One of our engineering students, Monte Watanabe, was identified as one of the three most outstanding electrical or computer engineering students in the nation.
- Nearly 900 students are in the College of Engineering pursuing B.S., M.S., and Ph.D.'s in three disciplines: Civil and Environmental Engineering, Electrical Engineering, and Mechanical Engineering. The school also has an all-time high enrollment of women.