Destination of choice

Leading, global research university

Respectful inclusive community
Important Attributes to Retain and Strengthen

- A critically important institution for Hawaiʻi – education of its future (our undergraduate, graduate, and professional students), especially advancing opportunities for Native Hawaiians and underserved populations.
- A multicultural global learning experience for our students
- A robust research enterprise that leads to career opportunities for our graduates and retains our excellent faculty.
- A supportive partner for UH sister campuses in articulation and continued educational opportunities for students
Challenges and Opportunities

Repair, Renewal and Replacement
- Critical for Manoa’s ability to serve Hawai‘i

Retention
- Native Hawaiian Educational Attainment
- Hawai‘i’s Educational Capital

Workforce Development
- Globally Competent Workforce

Economic Diversification
- Economic Contribution
Mānoa is a jewel in many ways, particularly intellectually, but is badly tarnished physically.
Deferred Maintenance Backlog (GSF)

<table>
<thead>
<tr>
<th>Fiscal Years</th>
<th>Total Projected Maintenance</th>
<th>Total Actual Maintenance</th>
<th>Total Deferred Maintenance Backlog</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY00</td>
<td>Approximately 50,000,000</td>
<td>大约 50,000,000</td>
<td>括号内 50,000,000</td>
</tr>
<tr>
<td>FY01</td>
<td>Approximately 50,000,000</td>
<td>约 50,000,000</td>
<td>括号内 50,000,000</td>
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<td>FY02</td>
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<td>括号内 50,000,000</td>
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<td>FY03</td>
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<td>括号内 50,000,000</td>
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<td>括号内 50,000,000</td>
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<tr>
<td>FY05</td>
<td>Approximately 50,000,000</td>
<td>约 50,000,000</td>
<td>括号内 50,000,000</td>
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<td>FY06</td>
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<td>FY07</td>
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<td>约 50,000,000</td>
<td>括号内 50,000,000</td>
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<tr>
<td>FY08</td>
<td>Approximately 50,000,000</td>
<td>约 50,000,000</td>
<td>括号内 50,000,000</td>
</tr>
</tbody>
</table>
Driving Factors

- Age of buildings (Mean Age 33 years)
- CRV inflation at >10% year$^{-1}$ increases Cost ft$^{-2}$
- Insufficient Maintenance and Renewal Investment
  - High Utilization factors

Distribution of Buildings by Age

Scatter plot of Buildings Age by GSF
## UHM Facilities Outlook

<table>
<thead>
<tr>
<th></th>
<th>Allocation</th>
<th>FY08Q1 Results</th>
<th>Projected Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor</strong></td>
<td>13,848,992</td>
<td>3,321,119</td>
<td>(107,315)</td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td>2,072,738</td>
<td>442,972</td>
<td>0</td>
</tr>
<tr>
<td><strong>R&amp;M</strong></td>
<td>1,900,000</td>
<td>665,000</td>
<td>0</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>19,481,710</td>
<td>3,223,295</td>
<td>(3,777,194)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>37,303,440</td>
<td>7,652,386</td>
<td>(3,884,509)</td>
</tr>
</tbody>
</table>

| **Major Utilities**    |            |                |                    |
| **Electricity**        | 17,118,755 | 2,771,229      | (2,503,063)        |
| **Water/Sewer**        | 1,488,587  | 332,685        | (1,199,800)        |
| **TOTAL**              | 18,607,342 | 3,103,914      | (3,702,863)        |

- Labor variance is expected to remain steady due to selected (under and un-funded) vacancy freeze.
- Sewage Expenses have increased 81.87% effective 7/1/2007
- Expense per kWh has increased from 0.158/kWh to 0.185/kWh
- Electricity usage is down 6.45% from prior year period due to R&M upgrades saving $1,336,320 annually at current rates.
RRR: What We’ve Done

Energy Usage & Expense Trends

- Annual Net Usage kWh
- Annual Expense
- Average Cost/kWh
Energy Footprint Reduction

• Current Energy Reduction Programs
  – “Energy Scout” Interruptible Power
  – Scheduled HVAC Shutdowns (Time of Day Reductions)
  – Mechanical Engineering Upgrades
  – Chill Water Distribution Optimization
  – Landscape Reductions (Water Use)
  – Total Building Closures (Edmondson)
  – Re-Prioritization of available CIP to:
    • “Stop the Leaks” – focus on Building Envelopes
    • Focus on maintenance and breakdown, rather than renovations
  – 12,200,000 kWh annual reduction in FY2008
Energy Footprint Reduction

- Planned FY2009-FY2015 Projects
  - Mānoa Core Buildings (Large Scale Public-Private agreement multi-building energy management projects)
  - Intelligent Metering Project
  - Campus Lighting Upgrades (De-lamping) Project
  - Phase II Building Scheduling (demand response)
  - Alternative Energy and Power Purchasing Agreements
  - Energy Reduction objective of 48% kWh sqft⁻¹ by 2015

- Requesting $2.5M base increase for Utilities
Repair, Renewal, and Replacement

- Routine Maintenance - $6M/year
- Capital Renewal - $112M and $25M
- Renovation for Modernization $3.1M/year
  - Classroom and Auditorium Upgrades
  - Lighting Retrofits
- Major Renovations $8.4M, $15.4M
  - Gartley
  - Edmondson
  - Keller (later biennium)
  - Kuykendall (later biennium)
- Backlog of Renewal $58.3M, $41.3M
  - 100% reduction of estimated backlog by 2015
Capital Improvements Projects

- Proposing 5 Critical CIP Projects
- Swing Space
- Most are replacements for existing, failing structures
- Removes obstacles for timing of future projects
- We must attract and retain students for tuition revenues
- We must attract new faculty to confront retirements
CIP: Centennial Classroom Building

- Serve as surge space during needed renovations and also replace Henke, Portables, East/West Center space
- State of the Art Classrooms
- Develop a new 9 story 220,000 GSF classroom and general purpose building
- Proposed for $135 million ($13 million design, $102 million Commissioning and Construction, and $19 million equipment).
CIP: Klum Gym

- Klum Gym 50 years old and long overdue for replacement
- The walls, windows, and roof allow moisture penetration, which creates a hazardous playing condition
- Essential to new parking development
- $21.23 million ($271 Design, $18,647 Commissioning and Construction).
CIP: Kennedy Theatre

• Significant facility in serving as a “destination of choice” $63M

• Expansion
  – Opens Kennedy for appropriate use for the campus and the community
  – Consolidates academic programs
  – Eliminates temporary building on makai campus
  – Provides 400 parking spaces
CIP: College of Education

• Provide suitable workspace for faculty, including those who currently have no place to work on campus
• Increase space for additional teacher education students
• Replace facility destroyed by fire $49.5M
Biomed Expansion

• Supports research excellence in microbial oceanography
• Serve as laboratory space for displaced faculty and recruitment for impending retirements
• Borrowing and paying for debt service $25.7M
2008-2009 Supplemental Augmentations

• Capital Improvements
  – Health and Safety Items ($1,245,000)
  – Repairs and Maintenance ($29,000,000 approx.)
  – Women’s Locker Rooms – Title IX ($2,595,000)
  – Energy Conservation Modifications ($2,500,000)
  – New Classroom Building ($7,518,000)
  – Campus Center Renovation ($7,881,000)
  – Cooke Field ($1,225,000)
  – Murakami Stadium ($386,000)
  – RBL ($2,500,000 new)
2008-2009 Supplemental Augmentations

- Supplemental 2007-2009
  - Operating increases notable for Library, Security, Counseling
  - Line item increases = 1% to base

<table>
<thead>
<tr>
<th>Budget Line Item</th>
<th>FTE</th>
<th>General Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Security Student Patrol Program</td>
<td></td>
<td>25,000</td>
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<tr>
<td>Childrens Center Staffing</td>
<td>1.00</td>
<td>32,250</td>
</tr>
<tr>
<td>Law Library Accreditation/Infrastructure, Law</td>
<td>1.00</td>
<td>33,750</td>
</tr>
<tr>
<td>Additional Clinical Psychologists</td>
<td>1.00</td>
<td>60,000</td>
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<tr>
<td>Repairs and Maintenance to Waikiki Aquarium</td>
<td></td>
<td>85,000</td>
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<tr>
<td>Additional Campus Security Personnel</td>
<td>25.00</td>
<td>580,024</td>
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<tr>
<td>Hyperbaric Treatment Center</td>
<td></td>
<td>650,000</td>
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<tr>
<td>Maintain Library Collections and Services</td>
<td>8.00</td>
<td>2,160,875</td>
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<tr>
<td>Reduction for &quot;Vacancy Savings&quot;</td>
<td></td>
<td>(852,000)</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td>2,774,899</td>
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<tr>
<td>Percentage Increase to Base Budget</td>
<td></td>
<td>1%</td>
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</table>
Historical GF Expenditures

Historical Expenditures by Fund Type

98% Salaries
Historical Tuition Expenditures

Historical Expenditures by Fund Type


$40.7 $50.8 $66.4 $71.2 $65.0 $73.0 $76.2

$19.7 $10.0 $27.6 $24.1 $21.0 $19.4 $24.7

$9.8 $18.8 $13.4 $18.4 $17.0 $19.4 $23.5

$10.2 $3.2 $5.7 $12.7 $13.4 $12.5 $13.4

$1.0 $4.2 $7.9 $21.0 $13.4 $8.9 $18%

$8.1 $25.2 $7.4 $7.8 $5.7 $5.7 $31%

$24.7 $13.4 $18% $8.9

System Adjustments
Equipment, Supplies
Util and Comm
Others
Salaries and Wages

12%
## Projected Tuition Expenditures

### Planned Use of Net Tuition and Fee Revenue (After Financial Aid)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>FACULTY COLLECTIVE BARGAINING</td>
<td>3,303,900</td>
<td>3,753,000</td>
<td>2,500,000</td>
<td>1,348,000</td>
<td>2,250,000</td>
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<tr>
<td>UTILITY SHORTFALLS</td>
<td>3,524,000</td>
<td>4,400,000</td>
<td>2,500,000</td>
<td>1,348,000</td>
<td>2,250,000</td>
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<tr>
<td>CAMPUS SECURITY</td>
<td>754,300</td>
<td>100,000</td>
<td>1,600,000</td>
<td>1,788,300</td>
<td>2,018,800</td>
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<tr>
<td>PROFESSIONAL SCHOOL DIFF TUITION</td>
<td>1,237,900</td>
<td>1,398,900</td>
<td>1,600,000</td>
<td>1,788,300</td>
<td>2,018,800</td>
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<tr>
<td>ATHLETICS SCHOLARSHIPS</td>
<td>810,900</td>
<td>126,500</td>
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<td>126,600</td>
<td>126,800</td>
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<td>BIOMED BUILD-OUT DEBT SERVICE</td>
<td>500,000</td>
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<td>500,000</td>
<td>500,000</td>
<td>500,000</td>
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<td>ATHLETICS OPERATING</td>
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<tr>
<td>A&amp;S INFRASTRUCTURE</td>
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<td></td>
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<tr>
<td>TA SALARY ADJUSTMENTS</td>
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<tr>
<td>LECTURER AUGMENTATIONS</td>
<td>670,000</td>
<td>492,000</td>
<td></td>
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<td>400,000</td>
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<td>NEW DEAN COMMITMENTS</td>
<td>250,000</td>
<td>350,000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CHANCELLORS OPPORTUNITY FUND</td>
<td>637,000</td>
<td>1,398,200</td>
<td>1,175,600</td>
<td>1,091,000</td>
<td></td>
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<tr>
<td>INCREASE ROUTINE R&amp;M BASE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,000,000</td>
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<tr>
<td>STUDENT SUCCESS</td>
<td>203,000</td>
<td>350,000</td>
<td>250,000</td>
<td>250,000</td>
<td>250,000</td>
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<tr>
<td>INCREASE SCHOLARSHIP</td>
<td>1,276,500</td>
<td>1,431,200</td>
<td>1,806,200</td>
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<td></td>
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<td>RETURN OF TUITION TO UNITS</td>
<td>3,037,400</td>
<td>4,511,700</td>
<td>4,895,100</td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>10,754,000</td>
<td>11,757,400</td>
<td>11,791,600</td>
<td>12,529,400</td>
<td>12,237,900</td>
</tr>
</tbody>
</table>
Retention: Student Academic Success Initiative

Provide academic support services for students to increase their success rate in our courses and lead to an increase in the number of students who successfully complete our graduation
Graduation Rates

Average Six-Year Graduation Rate
Fall 1990 to Fall 2004 Cohorts, As of 2005

<table>
<thead>
<tr>
<th></th>
<th>UHM</th>
<th>Benchmark</th>
<th>Peer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Graduation Rate</td>
<td>54%</td>
<td>70%</td>
<td>66%</td>
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</tbody>
</table>
Rate of first year retention has been on the decline
Total first time freshmen admits in and out of state

Fall 2007 First-time Freshmen Admissions

- **TOTALS**: 6,255
  - Applied: 1,851
  - Accepted: 4,312
  - Enrolled: 1,701
- **HAWAI‘I**: 1,305
  - Applied: 1,305
  - Accepted: 2,462
  - Enrolled: 479
- **OTHER UNITED STATES**: 2,690
  - Applied: 2,690
  - Accepted: 1,701
  - Enrolled: 47
- **FOREIGN COUNTRIES**: 102
- **US RELATED AREAS**: 8
- **NO DATA**: 12

Data Source: Recruitment and Retention Data
Source of Mānoa Students from Hawaiʻi

Fall 2007 First-time Freshmen Admissions

Recruitment and Retention Data
Retention of Students

Percentage of 2003 Freshmen Retained

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>2003</td>
<td>100%</td>
</tr>
<tr>
<td>2003-04</td>
<td>81%</td>
</tr>
<tr>
<td>2003-05</td>
<td>70%</td>
</tr>
<tr>
<td>2003-06</td>
<td>62%</td>
</tr>
</tbody>
</table>

Recruitment and Retention Data
‘03 cohort attrition by GPA cum. over three years
First Year Retention Rates by Ethnicity Fall 1990 to Fall 2004 Cohorts, (as of 2005)

- UHM: 79%
- Asian/Pacific: 83%
- Chinese: 89%
- Japanese: 86%
- Filipino: 82%
- Hawaiian: 73%
- Caucasian: 65%
Retention Actions To Date

Policy:
- Academic Engagement Policies
- Financial Aid/Percent of Grant Aid

Programs:
- Student Success Center
- Health Career Opportunity Program
- First Year Programs
- Living/Learning Residential Programs
- STAR
- Foundation Courses
- Student Academic Athletic Services
- Professions Advising Center
- Career Services Graduate/Professional Assistance Program
Academic Success Initiative

Plan:
• Early intervention for students
• Focus support services and financial aid on first two years
• Improve instructional experience
• Improve quality student services
• Increase financial assistance
• Improve campus co-curriculars

Outcomes for the 2009-2011 Biennium:
• Increase the enrollment of the College Opportunities Program by 150 by summer 2010
• Increase the enrollment in the Summer Academy by 200 students by summer 2011
• Provide intensive college-planning advising for an additional 200 community college students in Fall 2009
• Provide one-on-one tutoring for 350 additional students during 2009-2010
• Provide online tutoring for 500 students by summer 2010
• Increase the number of students in research internships by 200 by summer 2011
Support Requested

- College Opportunities Program $204K
- Summer Academy $320K
- Native Hawaiian Success $250K
- Student Success Center $320K
- Admissions and Advising $690K
- College Awareness Program $300K
- Online tutoring $175K

TOTAL $2.5M
Economic Diversification

We have a kuleana to move the advances of our successful Research enterprise into the public domain = economic engine for the state and nation.
Research Revenues

PCR: Economic Diversification

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-2005</td>
<td>354,127,142</td>
</tr>
<tr>
<td>2005-2006</td>
<td>433,360,395</td>
</tr>
<tr>
<td>2006-2007</td>
<td>354,031,666</td>
</tr>
</tbody>
</table>
Research Overhead Revenues

RTRF is expended in support of Research for facilities and equipment, start-up, matching external resources, and research support.
Technology Transfer = Economic Diversification

• UHM Research spins off patents, start-ups and licensing agreements
• Flash Carbonization™
• MicroNose™
Technology Transfer Activity

UH Invention Disclosures, Patents, and Licenses
GOAL: INCREASE 5–15% PER YEAR

Invention Disclosures

U.S. Patents Issued

License/Option Agreements

Fiscal Year

Notes: Projections: Invention disclosures received = 5%, U.S. patents issued = 10%, license/option agreements executed = 15%
Source: Office of Technology Transfer and Economic Development (OTTED)
Economic Diversification

• Plan:
  – Increase the staffing available to support technology transfer and reorganize resources closer to faculty.

• Outcomes:
  – 15% increase in Invention Disclosures per year
  – 10% increase in Patents issued per year
  – 10% increase in Licensing Agreements
  – 5% increase Incubated companies per year
  – Economic Partner to the State
  – Career opportunities for our graduates
Support Requested

- Director $200K
- Discipline Specialists (3) $250K
- Innovation Fund $400K
- Entrepreneur in Residence $100K
- Operational Support $50K

$1M
Workforce Development

- UH Manoa alumni are key to the workforce in Hawai‘i and beyond.
Workforce Development

Build the leadership for Hawaii’s workforce in Medicine, Engineering, Travel, and Architecture.
Workforce Development: Travel

- **Plan:**
  - Add faculty, lecturers, and student support over 3 years to double the number of TIM graduates

- **Outcomes:**
  - Increase the number of TIM graduates by 90% (from 137 to 260 in 5 years)
  - Continue to have 90% of graduates in management positions in Hawai‘i

-$930K$
Workforce Development: Medicine

• **Plan:**
  – Increase medical school class size
  – Bolster the Imi Ho’ola Program
  – Provide student training on the Big Island
  – Enhance cultural competency

• **Outcomes:**
  – Expand class size from 62 to 68 students (59 resident, 9 non-resident)
  – Expand post-baccalaureate program from 10 to 12 students
  – Increase students enrolling in Native Hawaiian Health
  – Increase students training on the Big Island from 14 to 18
  – Increase students in the Global Health Program from 8 to 10
  – Double students enrolling in the cultural competence elective from 24 to 48

$1M
Workforce Development: Engineering

• Plan:
  – Provide focus areas in Sustainability, Homeland Security, Dual-use Technologies, Biomedical Engineering and Planetary and Ocean Exploration

• Outcomes:
  – Increase enrollment by 5% per year (from 777 to 815)
  – Increase graduation rate by 5% in 3 years
  – Generate external support for outreach, recruitment, and retention programs from $75,000 to $175,000 in 3 years.

$600K
Workforce Development: Architecture

**Plan:**
- Create a *UHM Center for Design and Sustainable Research* to form partnerships, seek world class solutions specific to Hawai‘i, imbed knowledge and action plans within the community and monitor results.

**Outcomes:**
- Increase research funding partnerships from 2 to 12 by 2013.
- Increase partnerships with industry and non-profits from 4 to 16 by 2013.
- Establish MOUs with 3 non-US Schools of Architecture emphasizing creating global partnerships by fall, 2011.
- Contribute .5FTE to the UH Center for Smart Building and Community Design by fall 2009.
- Increase Native Hawaiian student population from 5 in 2007 to 15 by 2011.
- Increase contractual partnerships with industry to provide $250,000 amount of annual support by 2012.
- Assist UHM administration in developing sustainable design and energy solutions for campus.

$1.02M
Academic Planning for Internal Reallocation and Investment

Evaluate academic/research excellence of existing programs and identify academic directions for support

Determine most impacting distance education opportunities

Define appropriate facilities needed to support academic endeavors
Communicate and Coordinate
Attract New Resources

The Legislature is our major donor, but they will not be able to solve all of our resource challenges.
Communicate to Attract Private Resources

![Bar Chart]

- **FY03**: In Millions
- **FY04**: In Millions
- **FY05**: In Millions
- **FY06**: In Millions
- **FY07**: In Millions

The chart shows the trend from FY03 to FY07, with a significant increase in FY07.
Mānoa Makeover in Progress

Our Second Century of Greatness
Biennium Budget Proposal 2009-2011