Framework for Climate Change Adaptation

1. **Build Climate Change Adaptation Team**
   - Develop & Adopt a Long-Term Vision
   - Identify Planning Areas Relevant to Climate Change
   - Scope Climate Change Impacts to Major Sectors
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   - Conduct a Risk Assessment
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Monitor Progress and Update Plan as Appropriate
Draft Vision for Hawai‘i

- Safe
  - Emergency Management
  - Fire
  - Flood Control
  - Public Health & Safety

- Resilient
  - Coastal Zone Management
  - Parks & Recreation
  - Planning & Zoning
  - Port & Harbor Management
  - Water Supply
  - Transportation

- Healthy
  - Storm Water & Wastewater Management
  - Natural Resources

- Productive
  - Agriculture
  - Economic Development
  - Forestry & Forest Resources
<table>
<thead>
<tr>
<th>Assessments/Studies</th>
<th>Initial phase completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future climate impacts on freshwater sustainability in Hawaii</td>
<td>WRRC- UH, USGS, Pacific RISA starting up, waiting for downscaling from IPRC</td>
</tr>
<tr>
<td>Input downscaled climate information for future scenarios into hydrological models, evaluate future climate effects on groundwater pumping and freshwater sustainability.</td>
<td></td>
</tr>
<tr>
<td>Study: Climate Change Impacts to Coastal Resources</td>
<td>UHSG; ICAP; Oahu MPO DOT, ongoing; to be completed by fall 2011(?)</td>
</tr>
<tr>
<td>Workshop to compile transportation assets- complete; Data fed to consultant to conduct vulnerability assessment in planning/exploratory stages; OP meeting with USACE April 29, 2011</td>
<td></td>
</tr>
<tr>
<td>Pilot Study: Vulnerability Assessment of Transportation Assets of O‘ahu</td>
<td>OP/CZM USACE; ORMP Working Group in stage; OP meeting with USACE April 29, 2011</td>
</tr>
<tr>
<td>Find gaps in other efforts; develop scope of effort (potentially a phased approach); Identify necessary match; submit proposal; implement depends on scope and potential in-kind</td>
<td></td>
</tr>
<tr>
<td>Statewide Risk and Vulnerability Assessment</td>
<td></td>
</tr>
<tr>
<td>Review of SLR with planners, decision makers</td>
<td>ICAP UH DURP initial review complete, conversation ongoing; project development</td>
</tr>
<tr>
<td>Ala Wai Watershed Project 50-yr Hydrology and Hydraulic Climate Change Scenarios</td>
<td>USACE DLNR/C&amp;C ENV preliminary final document complete; awaiting final approval from HQUUSACE</td>
</tr>
<tr>
<td>This analysis was developed to define the “future without project condition” as part of the Ala Wai Watershed Feasibility Scoping Meeting (aka Baseline Conditions) Report and Feasibility Plan.</td>
<td></td>
</tr>
<tr>
<td>Regional Assessment of Potential Climate</td>
<td>USACE under development. Draft scheduled to be completed by end of June 2011</td>
</tr>
</tbody>
</table>
# Developing Hawaii Climate Change Policy

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Key Steps</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, Aug 22, 2011</td>
<td><strong>Day 1: Alternative Futures Exercise</strong></td>
<td>ORMP groups; Lt. Gov.; local PRiMO(^2), PaCIS(^3) and PICCC(^4) partners; invited stakeholder reps.</td>
</tr>
<tr>
<td></td>
<td>Outcome: Facilitated 'experience' and discussion of alternative futures of Hawaii in a changing climate</td>
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<tr>
<td>Tuesday, Aug 23, 2011</td>
<td><strong>Day 2: Preferred Future Visioning &amp; Drafting Climate Change Policy</strong></td>
<td>ORMP groups; local PRiMO, PaCIS and PICCC partners</td>
</tr>
<tr>
<td></td>
<td>Outcome: Vision of preferred future and foundation for statewide climate change policy</td>
<td></td>
</tr>
<tr>
<td>End of August</td>
<td><strong>Core Group Wordsmith Draft Climate Change Policy</strong></td>
<td>ORMP groups; local PRiMO, PaCIS and PICCC partners</td>
</tr>
<tr>
<td></td>
<td>Outcome: Draft new Statewide Climate Change Priority Guideline for Part III of Chapter 226, HRS</td>
<td></td>
</tr>
<tr>
<td>Early-Sept 2011</td>
<td><strong>Circulate Policy for Comment</strong></td>
<td>ORMP groups; public stakeholders (business, scientists, community, NGOs)</td>
</tr>
<tr>
<td></td>
<td>Outcome: Broad stakeholder input on draft policy</td>
<td></td>
</tr>
<tr>
<td>Mid Sept 2011</td>
<td><strong>Synthesize Comments</strong></td>
<td>CZM; ORMP working group members</td>
</tr>
<tr>
<td></td>
<td>Outcome: Compilation of Stakeholder input</td>
<td></td>
</tr>
<tr>
<td>Late Sept 2011</td>
<td><strong>Review Synthesized Input and Approve Final Policy</strong></td>
<td>ORMP policy group</td>
</tr>
<tr>
<td></td>
<td>Outcome: Final Statewide Climate Change Policy to be added as new priority guideline in Chapter 226, HRS</td>
<td></td>
</tr>
<tr>
<td>Late Sept 2011</td>
<td><strong>Submit Policy as part of Governor's Legislative Packet</strong></td>
<td>Lieutenant Governor’s Office, interested Legislators; Office of</td>
</tr>
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<td></td>
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</tbody>
</table>
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Values & Planning Sectors for a Long-Term Vision for Hawaii

- Storm Water & Wastewater Management
- Natural Resources
- Agriculture
- Economic Development
- Forestry & Forest Resources

- Emergency Management
- Fire
- Flood Control
- Public Health & Safety

- Coastal Zone Management
- Parks & Recreation
- Planning & Zoning
- Port & Harbor Management
- Water Supply
- Transportation

Safe

Healthy

Resilient

Productive

Healthy, Safe, Resilient, Productive
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11. Monitor Progress and Update Plan as Appropriate
Moving forward

Competitive Funding Opportunities

- US Army Corps of Engineers, Planning Assistance for the States
  - ~$200K
  - Need match for CZM funds

- NOAA Projects of Special Merit funding for CZM Programs
  - Proposals due September 2, 2011
  - Start date July 1, 2012 at earliest
  - Max $200K
  - No Match required

- Others
Framework for Climate Change Adaptation: Status Update

- Adaptation Team
  - Draft Complete
  - Long-Term Vision
  - Draft Complete
  - Identify Planning Areas
  - In Progress
  - Scope Climate Change Impacts
  - In Progress
  - Vulnerability Assessment
  - In Progress
  - Risk Assessment
  - In Progress
  - Prioritize Areas for Adaptation
  - Draft Complete
  - Set Preparedness Goals
  - In Progress
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  - Draft Complete
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  - Monitor & Update Plan