Issues and opportunities for Central O‘ahu include:

1. Protection of Agricultural Lands and Open Space
2. Transportation Capacity
3. Revitalization of Waipahu & Wahiawa/Job Creation/Economic Development
4. Schools Capacity
5. Capacity of Other Public Facilities and Infrastructure
6. Management and Mitigation of Development
   - Master Planned Communities
   - Place Making
   - Complete Streets
   - Affordable Housing
   - Concurrent Development of Infrastructure with Housing
   - Sustainability
7. Protection of Historic, Cultural, and Natural Resources
   - OR&L Historic Train Operations
   - Historic Plantation Villages
   - Watershed Protection
   - Reduction of Light Pollution
8. Hazards Planning
   - Hurricane Shelter Shortfall
   - Risk of Sea Level Rise

We would appreciate your comments, corrections, and suggestions regarding these issues, and will seriously consider them in the preparation of our Review Report and our recommendations on how either the Plan or the Plan's implementation could be improved.
1. Protection of Agricultural Lands and Open Space

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<th>ISSUE</th>
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<tr>
<td>1.1 Gulches as flood water drainage and retention and as</td>
<td>• The CO SCP calls for the gulches to be retained as natural flood water drainage and retention resources and as potential areas for recreation (mountain biking, hiking).</td>
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<td>recreation areas</td>
<td>• A candidate for recreational use is the stream right of way between Wahiawā Botanical Garden and the Wahiawā State Freshwater Park,</td>
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<td>• Upper Kaukonahua Stream has flooded repeatedly in Wahiawā, destroying part of the Botanical Garden.</td>
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<td>• Flooding in Waikele has blocked access to parts of the gulch used for storage.</td>
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<td>1.2 Protection of Agricultural lands</td>
<td>• Acquisition of land (South Range) by US Army</td>
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<td>• Acquisition of land by Army Hawaii Family Housing (joint venture, Actus Lend Lease and US Army): land still available for agriculture, but could be converted in future to other uses</td>
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<td>• Hawai‘i Agricultural Foundation, with cooperation of Monsanto and Island Palm Communities, established a Kunia Agricultural Park on 182 acres of the Army Hawaii Family Housing Land</td>
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<td>• 150 acres of land for Royal Kunia Agricultural Park has been transferred to the State Department of Agriculture</td>
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<td>• Navy’s Waikele Gulch area is being used for storage operations under lease (One tunnel was the site of explosion in 2011). US Navy holds that federal immunity continues despite civilian use</td>
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1.3 Agricultural use of Agricultural lands

- Del Monte withdrew and Dole has cut back operations, so pineapple is no longer grown in CO
- Seed farms: Monsanto, Syngenta are well established
- Campbell Estate has sold its Kunia lands
- Relocation of Hawaii Agricultural Research Center to Kunia (new facility at Kunia Road and H-1; management of Kunia Village residential and agricultural industrial areas)
- New uses for Kunia lands: Phycal pilot facility to produce biofuel from algae.
- Pa’ina Hawaii has gained federal approval to locate an irradiator for fruit for export at Kunia; construction began in 2012
- Proposed 4 solar farms, Mililani South (total of 120 acres for 20 MW output)
- Waipi’o Peninsula lands not farmed, partly used for dredge materials by the Navy
- Sale of Galbraith Trust lands north of Wahiawā; conservation and agricultural dedication; appointment of Agribusiness Development Corporation as state agency overseeing farm development; State and City seek to increase island food security
- Potential DHHL use of lands near Whitmore for housing for beneficiaries has been rumored
- With sale of Galbraith lands, less opportunity exists for “gentlemen’s estates”

1.4 Military use of agricultural lands and open space areas

- Schofield Barracks land area has expanded to provide for new training and housing areas. For the moment, the potential housing area remains in agricultural use.
## 2. Transportation Capacity

| 2.1 Transportation Systems Capacity | • Commuting between Central O'ahu and Downtown Honolulu is characterized by a lack of choice of alternative modes or routes, high levels of congestion, and uncertainty.  
• Congested conditions for single occupant autos traveling between Central O'ahu and Downtown Honolulu are not likely to significantly improve, even with major roadway improvements.  
• Zipper lane on H-1 and widening between CO and Honolulu have helped move more vehicles but congestion remains a serious problem  
• Completion of the first increment of the elevated fixed guideway rapid transit system from East Kapolei to Ala Moana Shopping Center will provide an effective alternative to commuting by auto for a significant number of commuters by 2020  
• A “Flyover” from H-2 to the Pearl Highlands transit station will provide easy access for HOV buses and autos to and from Central O'ahu.  
• Bike Plan O'ahu has been updated  
• Complete Streets ordinance passed, calling for new streets to be designed and existing streets retrofitted for pedestrian and bicycle use, and for transit access, as well as for automobiles |

## 3. Revitalization of Waipahu & Wahiawa/Job Creation/Economic Development

| 3.1 Revitalization of Waipahu | • Redevelopment around the mill has integrated the mill smoke stack and offices with new YMCA  
• Business/industrial parks near the mill site provide new jobs  
• Festival Marketplace provides space for farmers, food vendors  
• Waipahu Neighborhood TOD Plan finalized; Planning Commission and Council approval being sought  
• Waipahu Transit Center was completed and serves the town and region |
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| 3.2 Revitalization of Wahiawā | • Wahiawā community has applied for status as Neighborhood Revitalization Strategy Area and has established a Community Based Development Organization  
                              | • Wahiawā Transit Center opened; art work to be added                                 |
| 3.3 Mililani Tech Park       | • No significant new development has occurred since 2002                             |
| 4. Schools Capacity          |                                                                                      |
| 4.1 Schools                  | • No new school construction has occurred in CO since 2004 (Mililani Ike);            
                              | • No funds to build a new CO school budgeted in next few years by DOE                
                              | • Planned high school at Waiawa Ridge delayed by lack of progress on the project, affecting students from Koa Ridge Mauka project who will need to go elsewhere until Waiawa Ridge developed.  
                              | • Royal Kunia Elementary planned, to be built by developer and leased back to DOE     |
| 5. Capacity of Other Public Facilities and Infrastructure |                                                                                      |
| 5.1 Park development         | • At Patsy T. Mink Central Oahu Regional Park, baseball, softball, tennis and aquatic complexes have been built; fields for sports and passive recreation areas are developed. Archery area has been cleared and can be used.  
                              | • Wahiawā Botanical Garden has renovated much of the facility. New buildings, entry and parking are in place.  
                              | • The CO SCP calls for creating the Waipahū Shoreline Park linking together the Pearl Harbor Historic Trail, Pouhala Marsh and the Waipio Peninsula Soccer Park. A 19 acre parcel between Waipahū High School and Leeward Community College has been proposed for a passive recreation park as part of this complex.  
                              | • While access to Pearl Harbor is possible along Waipi’o Point Access Road and from parts of the Pearl Harbor Historic Trail, no permission has been requested from US Navy. |
| 5.2 Electrical Infrastructure Capacity | • Renewable energy solutions, including extensive use of rooftop solar panels, are being advanced.  
<pre><code>                          | • Solar farms are being proposed for CO sites.                                       |
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| 5.3 Wastewater Capacity and Water Recycling | • With renovations, Wahiawā WWTP now produces water of R-1 quality, suitable for landscape and some agricultural irrigation. However, Dept. of Health clearance has not been obtained. The WWTP processes approximately 1.46 million gallons per day (mgd) and is designed to handle an average daily load of 2.49 mgd. Solids are trucked to Honouliuli WWTP for further processing. Final effluent disposal is through a 24-inch outfall with diffusers at a depth of 44 feet at the bottom of the reservoir.  
• The Honouliuli WWTP, which was strictly a primary treatment at first, has a design capacity of 51 million gallons per day (mgd), provides both primary and secondary treatment. In January 1996, the completion of a secondary treatment facility allows treatment of up to 13 mgd of wastewater. Secondary treated wastewater receives tertiary treatment via the Board of Water Supply's Ewa Reclamation Facility, for beneficial reuse in the Kapolei and Ewa areas. The plant currently processes approximately 26 mgd daily. |
| 5.4 Solid Waste Capacity | • Proposals to establish solid waste disposal sites in Central O'ahu have been successfully opposed due to the hazard they pose to the Pearl Harbor Aquifer. |
| 5.5 Drainage Capacity | • The City adopted new Storm Water Quality Rules.  
• City is requiring storm water retention on all new development and on renovations and expansion projects at many existing facilities.  
• New flood maps and inundation/evacuation maps have been issued. Sea level rise may require revision of flood maps in coastal areas to reflect water table rise, and elevated tsunami and storm surge risks.  
• Drainage problems in Waipahū remain, and must be addressed if TOD plans for the Waipahū station area are to be realized. |
### ISSUE PRELIMINARY FINDINGS

#### 6. Management and Mitigation of Development

| 6.1 Master-Planned Communities | • Mililani Mauka residential areas have built out  
| | • Koa Ridge has State Land Use Urban District approval; a zone change application is being processed by DPP.  
| | • Royal Kunia II has submitted requests for subdivision permits  
| | • Waiawa Ridge partnerships have lapsed; landowner Kamehameha Schools is reviewing plans for the site.  
| | • Few new housing units built since the 2008 recession (215 in CO from 2008 through 2011)  
| | • Wahiawā community had emphasized that no further urban development is appropriate north of Wahiawā/Whitmore which is consistent with CO SCP vision. Transfer of Galbraith Trust lands, state plans for farming, and support by US Army and Navy should assure this. |

#### 7. Protection of Historic, Cultural, and Natural Resources

| 7.1 Historic and cultural resources | • Kūkaniloko is recognized as a State Historic Site, and maintained by volunteers from Friends organization and Wahiawā Hawaiian Civic Club; surrounding land is being transferred to Office of Hawaiian Affairs  
| | • OR&L Historic Train operations between ‘Ewa Villages and Waipahu Cultural Gardens are not feasible because energy companies have pipes buried in the railbed under long term leases and are not willing to allow train operations to run on rails over those pipelines. |

| 7.2 Scenic Views and Vistas | • Urban development and trees have obscured some views identified as important in the CO SCP, but most of the significant views and vistas, particularly those of the mountains and ocean from the major roadways and towns, remain unobstructed.  
| | • Photo records documenting the condition of the scenic views and vistas identified in CO SCP are being maintained by DPP |

| 7.3 Historic Plantation Villages | • Plantation villages at Poamoho and Kunia continue with new ownership structures evolving to protect resident owners (Poamoho) and farm workers (Kunia).  
| | • At Kunia, Hawaii Agricultural Research Center is promoting new agricultural uses for existing structures. |
### 7.4 Watershed protection
- BWS testified at the Land Use Commission that Koa Ridge Mauka is important for recharge of the Pearl Harbor Aquifer.
- DPP also testified that Koa Ridge Mauka is outside the Urban Community Boundary. The Commission decided that Koa Ridge Mauka should remain in the Agricultural District.
- The *Central O‘ahu Watershed Study* was published by the BWS in 2007. It assesses water resources, demand, and issues. Adoption of a Watershed Management Plan for the region is scheduled for 2013 to 2017.

### 7.5 Light Pollution
- Light pollution harms endangered wildlife and wastes energy.
- 300 to 500 birds downed due to light interference are brought to Sea Life Park for rehabilitation every year.
- Federal fines for taking of protected birds can be substantial. Kauai County has entered into a plea agreement with the U.S. Department of Justice to minimize harm to seabirds from lighting.
- The State passed Act 161 (2009) which calls for a statewide intelligent lighting and light pollution law.
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| 8.1 Hurricane Shelter Capacity | - Islandwide, most public emergency shelters could not withstand a Category 3 Hurricane  
- The standard used by the State and County emergency shelter planners is that they must provide a minimum of 10 sq. ft. per person, and that only about 30% of the population will seek public shelter.  
- New State building codes require all new homes to either have hurricane resistant glass or a "safe room" and for new State and County buildings which could serve as a public shelter to be built to withstand a Category 3 Hurricane. |
| 8.2 Sea level rise | - The US Corps of Engineers is now requiring that all new COE projects be designed, built, and operated in ways that take into account a possible future rise in sea levels between 1.6 feet and 4.9 feet by 2100.  
- The UH Sea Grant Program has received funding from NOAA to prepare sea level rise risk mappings for all islands of the State of Hawaii. |