Neighborhood and Community Health and Well-Being

INDICATORS

17 Emergency food
18 Homelessness
19 Perception of neighborhood safety
20 Violent and property crime
21 Drug and alcohol arrests
22 Child abuse and neglect
23 Medical insurance coverage
24 Leading infectious diseases
25 Leading causes of death
26 Physical activity and body weight
27 Tobacco use
28 Drownings
29 Internet access
30 Aloha spirit

Purpose of this Section

Quality of life is an elusive term that reflects a sense of neighborhood and community, general well-being, health and public safety. In Hawai`i, it also reflects a sense of place and the presence of the aloha spirit, which is based on the values and traditions of our host culture. The aloha spirit provides a foundation for interacting with one another and with our environment. This section focuses on indicators that reflect various aspects of our quality of life.
Emergency Food

Description and Relevance

The number of Kaua‘i residents seeking emergency food assistance is one measure of how well our poorest residents are faring.

The Kaua‘i Independent Food Bank provides statistics on the number of requests for emergency food at the Food Bank, food pantries throughout the island, and through the Salvation Army.

How is Kaua‘i doing?

The average monthly emergency food requests has been rising sharply in recent years, from 4,775 in 2008 to 9,703 in 2010.

The requests during 2010 ranged from a high month of nearly 13,000 to a low month of under 8,400.

The rate of change in emergency food requests rose from 2008 by 40% in 2009 and again by 45% in 2010.

It should be noted that the Kaua‘i Independent Food Bank reported a rapid rise beginning in the final months of 2008 due to the slowing economy.
Homelessness fell slightly in 2010, still less than half are sheltered

Description and Relevance

The number of Kaua‘i residents who are homeless (at least temporarily) is one measure of how well our poorest residents are coping.

Kaua‘i Economic Opportunity, Inc. (KEO) provides statistics on the number of homeless people based on counts of those registered each year with their Care-A-Van staff. The State of Hawai‘i coordinates a point-in-time (PIT) count to provide a reliable accounting of persons and families who were experiencing homelessness during the day of the count. These counts are now done on an annual basis.

How is Kaua‘i doing?

As reported by KEO, the number of homeless individuals peaked at 966 in 2007 and then fell back to 704 in 2010. In 2010, this represents 1.1% of all Kaua‘i residents.

The decrease is partly due to an increase in the number of temporary and transitional housing opportunities.

These figures do not include the hidden homeless (living with friends or family) nor those who did not register with Care-A-Van staff.

The point-in-time counts have fluctuated, with a high of 336 in 2003, a low of 205 in 2009 and rising again to 273 in 2010. All but 60 of these (213 or 78%) in 2010 were unsheltered, i.e., not staying in temporary or transitional housing.
Perception of Neighborhood Safety

Four of five residents feel safe walking in their neighborhood at night

Description and Relevance

Community perceptions of neighborhood safety are one measure of overall well-being.

The KPAA telephone survey asked respondents whether they feel safe walking in their own neighborhood at night.

How is Kaua‘i doing?

Fully 80% of Kauaians feel safe walking at night in their neighborhoods, and this is up from 76% in 2006.

This measure tends to decrease with age and increase with income.

Residents in the South and West areas of the island feel less safe than elsewhere.

Among ethnic groups, Hawaiians tend to feel least safe while Mixed/Other and Filipinos tend to feel most safe.

DATA TABLE

<table>
<thead>
<tr>
<th>Indicator 19: Neighborhood Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
</tr>
<tr>
<td>Feel Safe</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Ethnicity:</td>
</tr>
<tr>
<td>Filipino</td>
</tr>
<tr>
<td>Income:</td>
</tr>
<tr>
<td>$&lt;$25k</td>
</tr>
<tr>
<td>$25k-$35k</td>
</tr>
<tr>
<td>$35k-$50k</td>
</tr>
<tr>
<td>$50k-$75k</td>
</tr>
<tr>
<td>$75k-$100k</td>
</tr>
<tr>
<td>$100k and over</td>
</tr>
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</table>

Source: KPAA telephone survey, 2011
Violent and Property Crime

Violent crime rates and arrests inch up while property-related arrests fall slightly

Description and Relevance

The incidence of major crimes is one measure of the level of security for Kaua`i residents and visitors.

The State provides annual statistics on the rate of violent crime (which includes murder, forcible rape, robbery, and aggravated assault) as well as the rate of property crime (which includes burglary, larceny-theft, motor vehicle theft, and arson).

These data are indexed to provide comparable measures for every 100,000 residents, and the number of arrests in each category is also provided.

How is Kaua`i doing?

The index of violent crime has been rising since 2007, reaching 336 in 2009, although it remains below the all-time high of 341 in 2004. Violent crime involved 95 arrests in 2009 versus 86 arrests in 2007. The increase in crime coincides with the economic downturn on the island.


Compared with the State, the 2009 Kaua`i violent crime index was slightly higher (336 vs. 276), and the property crime index was slightly higher (4,248 vs. 3,689).
21 Drug and Alcohol Arrests

Adult drug and alcohol arrests rise as youth arrests decline

Description and Relevance

The number of drug and alcohol-related arrests is one measure of the degree of drug and alcohol abuse on Kaua‘i.

The State provides statistics on drug and alcohol-related crime each year for both adults and youth as part of the Uniform Crime Report, and these are helpful in tracking changes over time.

How is Kaua‘i doing?

The number of adult drug-related arrests dropped significantly from 146 in 2007 to 119 in 2009, while the number of adult alcohol-related arrests fell from 315 to 309 in the same period.

The number of youth drug-related arrests fell from 71 in 2007 to 58 in 2009, while the number of youth alcohol-related arrests barely changed from 38 to 40 in the same period.

As a percent of all arrests, youth drug and alcohol-related arrests remained at 10% since 2005. Adult drug and alcohol-related arrests decreased from 21% to 17% over the same period.

Total youth arrests in 2009 (985) were down 9% from 2007 (1,081).
Child Abuse and Neglect

Child abuse and neglect cases fall slightly

Description and Relevance

The number of cases of child abuse and neglect is one measure of how well Kaua‘i households are coping. The State provides statistics on cases reported, investigated and confirmed in each year.

When a case of child abuse or neglect is reported, it is assessed to determine what action is needed. Since 2005, those that score low are referred to family strengthening services; on Kaua‘i, the nonprofit Child & Family Services (CFS) is contracted to offer that assistance. Cases assessed as moderate are designated for voluntary case management; CFS also provides that service. Any case assessed moderately-high or high is assigned to the Intake category for follow up and investigation by the State’s Child Welfare Services.

How is Kaua‘i doing?

In 2010, there were 271 reported cases of child abuse and neglect; of these, 145 (54%) were accepted for Intake and 50 (34%) of these were confirmed. This represents a decrease in all categories since 2008. Cases cover physical abuse, neglect, medical neglect, sexual abuse, psychological abuse, and threatened harm.

The share of confirmed cases of child abuse and neglect that were investigated through the Intake process was 33% in 2009 and 34% in 2010, a decrease from the 2008 rate of 36%.
Medical Insurance Coverage

**Number of medically uninsured jumps sharply in 2009**

**Description and Relevance**

The extent of medical insurance coverage is one measure of how well residents are protected.

The State Department of Health provides statistics on medical coverage as part of its annual Health Survey.

**How is Kaua‘i doing?**

The number of uninsured residents rose sharply from 3,743 in 2008 to 4,776 in 2009.

The percent of uninsured on Kaua‘i climbed from 6.0% in 2008 to 7.5% in 2009.

The percent without medical insurance coverage remains higher on Kaua‘i than the statewide average of 4.8%. This represents a ratio of 1.56, which is up from 1.3 in 2008.

**NOTE:** The Department of Health had not released 2010 figures at the time this report went to print in August 2011.

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**DATA TABLE**

<table>
<thead>
<tr>
<th>Indicator 23: Rate of Medically Uninsured</th>
<th>% of Kaua‘i</th>
<th>% of State</th>
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<tr>
<td>2000</td>
<td>5,084</td>
<td>9.0%</td>
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<td>2001</td>
<td>3,555</td>
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<td>4,359</td>
<td>7.4%</td>
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<tr>
<td>2003</td>
<td>4,214</td>
<td>7.0%</td>
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<td>2004</td>
<td>5,170</td>
<td>8.4%</td>
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<tr>
<td>2005</td>
<td>4,100</td>
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</tr>
<tr>
<td>2006</td>
<td>4,610</td>
<td>7.4%</td>
</tr>
<tr>
<td>2007</td>
<td>4,217</td>
<td>6.6%</td>
</tr>
<tr>
<td>2008</td>
<td>3,743</td>
<td>6.0%</td>
</tr>
<tr>
<td>2009</td>
<td>4,776</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Source: HI DOH, Health Survey

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**CHART 1**

**CHART 2**
Leading Infectious Diseases

Four of five reportable leading infectious diseases decrease in 2010

Description and Relevance

The number of cases of disease is one measure of the quality of life for Kaua`i residents.

The State Department of Health provides data on resident disease from its monitoring of vital statistics, including leading diseases that must be reported.

How is Kaua`i doing?

Chlamydia has been the perennial leading infectious disease and the rate has risen since 2008, when it was 180 per 100,000. In 2009, it reached a high of 225 per 100,000 before dropping to 198 in 2010. Most commonly, Chlamydia is a sexually transmitted disease.

Influenza is another perennial leading infectious disease. In 2009 it reached a rate of 273, a significant increase from the rate of 175 in 2008. This was due largely to the H1N1 pandemic. It fell back to 23 in 2010.

For Hepatitis B, a chronic virus infection, the rate was 12 in 2010 compared to 25 in 2008.

Campylobacteriosis is a common bacterial infection in humans and is often a food-borne illness, typically infecting the bowels. Rates decreased from 86 in 2008 to 61 in 2010.

Gonorrhea rates have decreased since 2007, reaching a low of 3 in 2009 and jumping to 14 in 2010.

Kaua`i leading infectious disease rates have been lower than State rates for all except Campylobacteriosis in 2008 through 2010 and Influenza in 2008.
Neighborhood and Community Health and Well-Being  
Measuring What Matters for Kaua‘i 2010

25 Leading Causes of Death

Death rate continues to climb as heart disease rate drops

Description and Relevance

The rate and cause of death is one measure of the quality of life for Kaua‘i residents.

The State Department of Health provides data on resident disease and death from its monitoring of vital statistics.

How is Kaua‘i doing?

The death rate from all causes was 811 per 100,000 residents in 2009, up from 790 in 2007. This is 9% higher than the State’s death rate of 747 in 2009.

Cancer is the leading cause of death and increased to 209 in 2009 from 199 per 100,000 in 2007. This is 23% higher than the State’s cancer rate of 169 in 2009. In 2008, the cancer rate on Kaua‘i was the lowest of the decade.

Death caused by heart disease decreased in 2009 to 174 from 194 per 100,000 in 2007.

The rate for Other Cardiovascular diseases was 83 per 100,000 deaths in 2009, and this was up from 68 in 2007.

These three leading causes accounted for nearly 60% of all deaths.

The rate of death from all diseases combined and from all causes has increased annually since 2000, with the exception of 2008. The category “All Causes” includes external causes, such as motor vehicle accidents.

DATA TABLE

<table>
<thead>
<tr>
<th>Indicator 25: Cause of Death Index *</th>
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<tbody>
<tr>
<td>Heart Disease</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
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<tr>
<td>2002</td>
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<td>2007</td>
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<tr>
<td>2008</td>
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<td>2009</td>
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</tbody>
</table>

Source: HI DOH, Vital Statistics

* Index = incidence per 100,000 residents

CHART 1

Leading Causes of Death

Per 100,000

- Heart Disease
- Other Cardiovascular
- Cancer
- All Other Diseases

CHART 2

Overall Death Rate Compared to State

Per 100,000

- Kaua‘i
- State
26 Physical Activity and Body Weight

More than half stay active at recommended levels, yet more than half weigh too much

Description and Relevance

The amount of physical activity and body weight are also measures of community health.

The State Department of Health maintains the Behavioral Risk Factor Surveillance System (BRFSS), which monitors weight and activity, among other behaviors.

Physical activity is benchmarked against the recommended level for all adults, and this measure is available for alternate years since 2005.

Body weight is compared with the recommended levels by gender and age, and this measure is only available for Kaua‘i residents since 2006.

How is Kaua‘i doing?

The share of residents meeting the recommended level of physical activity has been climbing slowly, from 55% in 2005 to 58% in 2009.

In 2009, only 7% of residents were classified as inactive, versus 11% in 2005.

More than 43% of residents were at or below their recommended weight level, while the share of those overweight was 32%; 23% were classified as obese in 2010.

<table>
<thead>
<tr>
<th>Indicator 26: Physical Activity and Weight*</th>
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<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>2006</td>
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<td>2007</td>
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<tr>
<td>2008</td>
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<tr>
<td>2009</td>
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<tr>
<td>2010</td>
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</table>

Source: Hawaii BRFSS - Kaua‘i
* Based on estimated body mass index (BMI) status

Data Table

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<thead>
<tr>
<th>CHART 1</th>
<th>CHART 2</th>
</tr>
</thead>
</table>

- Physical Activity
- Body Weight
Tobacco Use

Description and Relevance

The number of residents who smoke is one measure of community health.

The State Department of Health maintains the Behavioral Risk Factor Surveillance System (BRFSS), which monitors the number of smokers, among other behaviors.

How is Kaua‘i doing?

The share of Kaua‘i residents who smoke continues to decline, from 25% in 2001 to 13% in 2010, and there has been a corresponding increase in the share of former smokers (from 23% to 29% in the same period).

The share of residents who never smoked has increased slightly from 52% to 53% over the same period.

The share of youth who smoke has also been dropping fast, from 25% in 2000 to 9% in 2008, based on Kaua‘i Rural Health Association Surveys at Kapa‘a and Waimea High Schools in collaboration with the Kaua‘i District Health Office.

Compared to statewide smoking rates, Kaua‘i rates declined faster and ended lower in 2010, with 12.7% current smokers versus 14.5% for the State.
28

Drownings

Number of drowning victims declines in 2010 as does visitor share

Description and Relevance

The number of drownings in Kaua‘i’s ocean waters is one measure of overall community health and safety.

The County Fire Department began tracking drowning in 2004, and reports the number of victims by place of residence. It also tracks the number of ocean rescues.

How is Kaua‘i doing?

A total of 9 lives were lost by drowning in 2010, including 5 visitors, 3 Kaua‘i residents and 1 Hawai‘i resident, and this was down from 14 drownings in 2009, when 12 visitors and 2 Kaua‘i residents were lost.

Since 2004, a total of 24 Kaua‘i residents, 58 visitors, and 4 other Hawai‘i residents drowned in our ocean and rivers, for an overall visitor share of 67%.

Less publicized is the number of ocean rescues, which exceed drownings by eleven to thirty-three times. In 2010 there were 302 rescues and 9 drownings, for a ratio of 33.6-to-1.
Internet Access

Internet goes to all but 17% of homes and most have high-speed access

Description and Relevance

Community access to the Internet is one measure of overall well-being and access to information.

The KPAA telephone survey asked respondents whether they have computer access to the Internet at home, and whether access was by broadband (cable modem, DSL or other).

How is Kaua’i doing?

More than eight of ten respondents (83%) have Internet access at home, which is significantly above the U.S. average (74%) for 2010, and this is up from 72% in 2008.

Broadband access has grown to include 59% of Kaua’i households, with 39% using cable modems and another 20% using DSL phone lines.

Access is lowest (61%) among the oldest age group, and lowest in the South/West side (80%) of the island.
Aloha Spirit

Two-thirds say the aloha spirit is the same or stronger

Description and Relevance

The community perception of Kaua‘i’s Aloha Spirit is one measure of overall well-being.

The KPAA telephone survey asked respondents whether they thought the Aloha Spirit is getting stronger, is about the same as it ever was, or is getting weaker.

How is Kaua‘i doing?

Fully 51% of Kauaians see the Aloha Spirit the same as ever. Of the rest, three times more see it weakening (34%) than strengthening (11%), and this is largely unchanged since 2008.

More residents in the South and West see it growing stronger, while more residents in the East see it growing weaker. More men (36%) than women (33%) see it growing weaker.

The most strengthening is perceived among 35-44 year-olds, and the most weakening is perceived among the 25-34 age group.
# Neighborhood and Community Health and Well-Being

<table>
<thead>
<tr>
<th>NO.</th>
<th>INDICATOR</th>
<th>TREND STATEMENT</th>
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<th>RESPONSE</th>
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<td>17</td>
<td>Emergency food</td>
<td>Emergency food requests skyrocket as low month doubles</td>
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<tr>
<td>18</td>
<td>Homelessness</td>
<td>Homelessness fell slightly in 2010, still less than half are sheltered</td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td>Perception of neighborhood safety</td>
<td>Four of five residents feel safe walking in their neighborhood at night</td>
<td></td>
<td></td>
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<tr>
<td>20</td>
<td>Violent and property crime</td>
<td>Violent crime rates and arrests inch up while property-related arrests fall slightly</td>
<td></td>
<td></td>
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<tr>
<td>21</td>
<td>Drug and alcohol arrests</td>
<td>Adult drug and alcohol arrests rise as youth arrests decline</td>
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<td></td>
</tr>
<tr>
<td>22</td>
<td>Child abuse and neglect</td>
<td>Child abuse and neglect cases fall slightly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Medical insurance coverage</td>
<td>Number of medically uninsured jumps sharply since 2008</td>
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<td></td>
</tr>
<tr>
<td>24</td>
<td>Leading infectious diseases</td>
<td>Four of five reportable leading infectious diseases decrease in 2010</td>
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<tr>
<td>25</td>
<td>Leading causes of death</td>
<td>Death rate continues to climb as heart disease rate drops</td>
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<tr>
<td>26</td>
<td>Physical activity and body weight</td>
<td>More than half stay active at recommended levels, yet more than half weigh too much</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Tobacco use</td>
<td>Share of smokers continues to decline</td>
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<td></td>
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<tr>
<td>28</td>
<td>Drownings</td>
<td>Number of drowning victims declines in 2010 as does visitor share</td>
<td></td>
<td></td>
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<tr>
<td>29</td>
<td>Internet access</td>
<td>Internet goes to all but 17% of homes and most have high-speed access</td>
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<tr>
<td>30</td>
<td>Aloha spirit</td>
<td>Two-thirds say the aloha spirit is the same or stronger</td>
<td></td>
<td></td>
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</tbody>
</table>
Opportunities for Action – What You Can Do

Suggested actions for this group of indicators are listed below. These “opportunities for action” are designed to move the trend in a more desirable direction. Some of these opportunities focus on what individuals and families can do. Others focus on needed improvements in policies, initiatives, programs and investments by government, business or nonprofits. Consider where you can make a difference.

- Support programs that provide emergency food and temporary housing or shelter options for those needing assistance.
- Encourage individuals and families to establish home or community gardens to grow their own nutritious foods and become more self-sufficient.
- Support efforts to strengthen and promote public safety, and continue support for expanded funding and staffing for the Kaua`i Police Department.
- Continue to encourage neighborhood watch programs.
- Support programs aimed at reducing domestic violence and child abuse.
- Identify and promote options for those without medical insurance coverage.
- Expand public awareness related to the prevention of infectious diseases such as influenza and Chlamydia.
- Support community education and activities, such as Get Fit Kaua`i, that promote a healthy lifestyle, good nutrition and livable communities.
- Strengthen water safety education for visitors and residents to prevent drowning in streams, rivers and ocean waters.
Civic Engagement

INDICATORS

31    County government services
32    Community volunteerism
33    Community philanthropy
34    Voting participation

Purpose of this Section

Indicators in this section look at state and local government responsiveness to the needs of the community and how Kaua‘i residents participate in government and civic activities. Citizen engagement and support for community activities are indicative of strong, vibrant communities.
31 County Government Services

Satisfaction high for County services, while parks, police and recycling lag

Description and Relevance

Community perception of government’s responsiveness to community needs is one measure of overall well-being.

The KPAA telephone survey asked respondents how satisfied they were with specific services provided by the County of Kaua‘i including police, fire, parks, water, trash, recycling, and bus.

How is Kaua‘i doing?

Fire services are perceived most favorably, with 69% and 23% Very or Somewhat Satisfied, followed by Trash Pickup with 67% and 24%, respectively. Water, Recycling, Police and Parks are also perceived favorably.

At the same time, Parks, Police and Recycling also received relatively more unfavorable responses, with 15%, 14% and 13% Somewhat or Very Dissatisfied, respectively.

Many may not be familiar with bus service, as 32% responded Don’t Know or No Opinion, presumably because they have not ridden the bus.

DATA TABLE

<table>
<thead>
<tr>
<th>Indicator 31: County Government Services</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Somewhat Dissatisfied</th>
<th>Very Dissatisfied</th>
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<td>Fire</td>
<td>69%</td>
<td>23%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Police</td>
<td>41%</td>
<td>42%</td>
<td>9%</td>
<td>5%</td>
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<tr>
<td>Water</td>
<td>54%</td>
<td>33%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Trash</td>
<td>67%</td>
<td>24%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Bus</td>
<td>30%</td>
<td>29%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Parks</td>
<td>33%</td>
<td>47%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Recycling</td>
<td>45%</td>
<td>39%</td>
<td>7%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: KPAA telephone survey, 2011

CHART 1

Favorable Perceptions of County Services

CHART 2

Poor Perceptions of County Services
32 Community Volunteerism

Residents contributing volunteer time falls slightly, yet more than 60% volunteer

Description and Relevance
The level of community volunteerism is one measure of civic engagement.

The KPAA telephone survey asked respondents whether they volunteered time (without pay) to any charitable, religious, or community organization.

Respondents were also asked how much time they volunteered in a typical month.

How is Kaua‘i doing?
Overall, some 62% of residents report they volunteered with civic or nonprofit groups, and this is down from 68% in 2008.

The rate of volunteerism is fairly uniform geographically across the island. Mixed/Other residents tend to volunteer more than average, while Filipinos tend to volunteer less than average.

The highest rates of volunteerism are among 35-44 and 55-64 year olds and among those with incomes between $75,000 and $100,000.

Some 29% reported volunteering 3 hours per month or less, while 21% reported volunteering more than 16 hours each month.
Community Philanthropy

Fewer residents donated to church and community groups

Description and Relevance

The level of giving to charitable causes is one measure of civic engagement.

The KPAA telephone survey asked respondents whether they donated any cash or goods to a charitable or religious organization. The 2011 survey asked separately about nonprofit and church donations.

How is Kaua`i doing?

Eighty-four percent (84%) of Kaua`i households reported donating to nonprofit causes, and this is down from 92% in 2008.

Donations to nonprofits were uniformly high across all island areas and ethnic groups, and they tend to increase with age and income.

Likewise, 70% of respondents donated to a church in 2010, with Caucasians reporting the lowest rate (61%) and Japanese the highest (80%) in such giving.
34  Voting Participation

Fewer voters turned out as registered voters declined

Description and Relevance

Voter turnout is one measure of citizen participation in government.

The State Office of Elections provides statistics for the number of residents who are registered to vote and who actually voted in each election.

How is Kaua‘i doing?

The number of registered voters fell slightly from 40,323 in 2008 to 40,129 in the 2010 general election, while the number who voted dropped from 27,487 to 23,009 over the same period.

This represents a decline in the turnout rate from 68% in 2008 to 57% in 2010. The corresponding State voter turnout rates were 66% and 56%, respectively.

In the 2010 election, which was a non-presidential election year, less than half (44%) of Kaua‘i’s 51,868 adults voted. This is down from 2008, when 55% of the 50,129 residents over 18 voted.

It should be noted that 2000, 2004 and 2008 were presidential election years and voting rates were highest in these years.
CIVIC ENGAGEMENT

<table>
<thead>
<tr>
<th>NO.</th>
<th>INDICATOR</th>
<th>TREND STATEMENT</th>
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<td>31 *</td>
<td>County government services</td>
<td>Satisfaction high for County services, while bus and parks lag</td>
<td>![Go]</td>
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</tr>
<tr>
<td>32 *</td>
<td>Community volunteerism</td>
<td>Residents contributing volunteer time falls slightly, yet more than 60% volunteer</td>
<td>![Caution]</td>
<td></td>
</tr>
<tr>
<td>33 *</td>
<td>Community philanthropy</td>
<td>Fewer residents donated to church and community groups</td>
<td>![Caution]</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Voting participation</td>
<td>Fewer voters turned out as registered voters declined</td>
<td>![Stop]</td>
<td></td>
</tr>
</tbody>
</table>

Opportunities for Action – What You Can Do

Suggested actions for this group of indicators are listed below. These “opportunities for action” are designed to move the trend in a more desirable direction. Some of these opportunities focus on what individuals and families can do. Others focus on needed improvements in policies, initiatives, programs and investments by government, business or nonprofits. Consider where you can make a difference.

- Encourage County and State government to regularly solicit and consider diverse citizen input to clearly understand community needs and ensure that actions pursued provide public benefit. Convene stakeholders with divergent views at the same table for discussion and to establish areas of agreement.
- Expand use of technology such as webcasts and social media to better reach the community to share and gather information.
- Undertake activities that promote, recognize and celebrate community volunteerism and philanthropy among all age groups.
- Promote greater voter participation in elections through activities to increase public understanding of the electoral process, candidates and complex ballot issues.
Natural Environment

INDICATORS

35 Coastal water quality
36 Water service
37 Energy use and diversification
38 Renewable energy production
39 Solid waste disposition

Purpose of this Section

The sustainability of the island is reliant on the long-term overall health of our natural environment. The indicators included look at water, energy and waste issues as reflections of how resources are utilized and conserved on the island. Degradation of any one of these areas can lead to detrimental impacts on other areas and upset the fragility of the ecosystem.
Coastal Water Quality

**Description and Relevance**

The presence of contaminants along Kaua‘i beaches is one measure of the quality of the island’s coastal waters.

State Department of Health, Clean Water Branch provides statistics on the presence of contaminants, with a focus on enterococci, a human pathogen often found in sewage. Coastal water samples are collected throughout the year, and average values are reported annually.

**How is Kaua‘i doing?**

Until mid-2009, a level of more than 7 colony forming units (cfu) of enterococci per 100 ml in coastal water was considered substandard by the State DOH. On Kaua‘i, the average rating increased from 4.5 in 2008 to 7.1 in 2009. Also in 2009, the number of substandard beaches was 7, down from 16 in 2008.

Hawai‘i’s standard changed in 2009 to conform to U.S. EPA standards. The new measure is a single sample maximum of 104 cfu per 100 ml and a geometric mean of 35 cfu for beaches measured at least 5 times a month.

Using this new, less stringent criteria, in 2010 the average declined to 6.9 and the number of substandard beaches decreased to 4.

*Testing Our Waters 2011*, an NRDC report, monitored the percent of time in 2010 samples exceeded the state’s daily maximum standards. Overall, Kaua‘i beaches had the highest exceedance rates in the state – 8% compared to next highest, Maui and Hawai‘i, each at 2%.
Water Service

Connections and water main miles climb as daily consumption falls

Description and Relevance

The availability of water service is one measure of Kaua‘i’s infrastructure and growth.

The County and the Board of Water Supply provide statistics on local consumption, service connections, and capacity.

How is Kaua‘i doing?

The number of service connections has been rising again since 2008, with roughly the same number in 2010 (20,490) as there were in 2006 (20,580), and the water mains jumped up to 439.4 miles in 2010, an increase of 17.4 miles since 2008.

Total consumption continues to decrease, falling from 4.7 billion gallons in 2008 to 4.2 billion gallons in 2010.

Average daily consumption has remained in the 11 to 13 million gallon range, with 2010 demand falling to 11.6 from 12.8 million gallons in 2006. This is 8% below 2001 levels (12.6 million gallons), despite a population increase of 16% for the same period.

Maximum daily capacity continues to increase from 26.1 million gallons in 2008 to 27.4 in 2010. Note that surplus capacity is needed to allow for equipment maintenance and meet peak day demand which, in Hawai‘i, is 1.5 times the average daily demand or 46% of maximum daily capacity.

### DATA TABLE

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Main Miles</td>
<td>403.9</td>
<td>406.5</td>
<td>407.7</td>
<td>408.3</td>
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<td>416.9</td>
<td>420.3</td>
<td>422.0</td>
<td>422.0</td>
<td>439.4</td>
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<td>Service Connections</td>
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<td>18,092</td>
<td>18,400</td>
<td>18,453</td>
<td>19,633</td>
<td>20,580</td>
<td>20,102</td>
<td>19,531</td>
<td>20,102</td>
<td>20,490</td>
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<td>Fire Hydrants</td>
<td>2,297</td>
<td>2,331</td>
<td>2,327</td>
<td>2,334</td>
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<td>2,465</td>
<td>2,492</td>
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<tr>
<td>Consumption (bil. gal.)</td>
<td>4.6</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.0</td>
<td>4.5</td>
<td>4.5</td>
<td>4.7</td>
<td>4.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Max. Daily Capacity (mil. gal.)</td>
<td>15.8</td>
<td>15.8</td>
<td>15.8</td>
<td>15.8</td>
<td>22.1</td>
<td>22.1</td>
<td>20.6</td>
<td>26.1</td>
<td>27.0</td>
<td>27.4</td>
</tr>
</tbody>
</table>

Source: COK CAFR & DOW Water Consumption Report
Energy Use and Diversification

Electricity sales still falling as usage per residence declines

Description and Relevance

The amount of electricity used and its sources are measures of how well Kaua‘i is doing in reducing vulnerabilities.

The Kaua‘i Island Utility Cooperative (KIUC) provides annual statistics on energy uses and sources.

How is Kaua‘i doing?

Energy use decreased from nearly 467 giga-watt hours (gWh) sold in 2007 to just under 435 million gWh in 2010.

Per capita electricity usage continues to decrease from 5,700 kilowatt hours (kWh) in 2007 to 5,000 kWh in 2010, a 12% drop.

The residential share has remained fairly stable at around 35% of electricity sold.

The share of electricity produced by KIUC from renewable sources rose slightly from 8.6% in 2008 to 9.1% in 2010.

Most notably, solar photovoltaic generation rose sharply from 1.1 gWh in 2007 to 5.0 gWh in 2009 and 6.2 gWh in 2010.

(Note that renewables generated 18% of the total electricity in 1998, before the Lihu‘e Plantation sugar mill closed.)
Renewable Energy Production

One-third of residents have solar hot water, 3% have PV for electricity

Description and Relevance

The amount of renewable energy produced by households is one measure of the island’s energy self-sufficiency.

The KPAA telephone survey asked respondents whether they have any way to produce electrical energy that they don’t buy from the electric company, including alternate energy like solar, wind or hydropower.

How is Kaua’i doing?

Renewable energy production by households averaged 37% for the island, and this is up from 33% in 2006.

This includes more than one-third of homes with solar hot water, and now more than 3% with photovoltaic (PV) panels.

Much higher rates are found in the South/West (43%) and much lower rates in the Central/North (30%).

The share of households producing some of their own energy tends to increase with income, rising from 24% for the under $25,000 groups to 62% for the over $100,000 group.
### Solid Waste Disposition

**Waste stream and diversion rate drop as per capita waste trends down**

#### Description and Relevance

The volume of solid waste generated is one measure of how well residents and visitors are managing their resources.

The County provides statistics for the amount of solid waste generated, including the share of waste disposed in the landfill and the share diverted, such as through composting and recycling.

#### How is Kaua‘i doing?

The amount of solid waste has decreased by 16% over the last three years, from over 125,000 tons in 2007 to nearly 105,000 tons in 2009.

Per capita solid waste is estimated to have decreased from 1.5 tons to 1.3 tons over the same period.

The share of waste generated that is diverted (i.e., not disposed in the landfill) has increased from 23% in 2007 to 26% in 2009. Diverted waste includes paper, plastics, glass, cardboard, green waste, metals and hazardous materials, the majority of which is recycled.

### DATA TABLE

<table>
<thead>
<tr>
<th>Indicator 39: Solid Waste Tons</th>
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<tbody>
<tr>
<td>Generated</td>
</tr>
<tr>
<td>FY02</td>
</tr>
<tr>
<td>FY03</td>
</tr>
<tr>
<td>FY04</td>
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<td>FY05</td>
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<td>FY06</td>
</tr>
<tr>
<td>FY07</td>
</tr>
<tr>
<td>FY08</td>
</tr>
<tr>
<td>FY09</td>
</tr>
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</table>

Source: County of Kaua‘i, Solid Waste Division

### CHART 1

**Solid Waste Per Capita**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY02</td>
<td>1.3</td>
</tr>
<tr>
<td>FY04</td>
<td>1.3</td>
</tr>
<tr>
<td>FY06</td>
<td>1.6</td>
</tr>
<tr>
<td>FY08</td>
<td>1.5</td>
</tr>
</tbody>
</table>

### CHART 2

**Percent of Solid Waste Diverted**

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY02</td>
<td>22%</td>
</tr>
<tr>
<td>FY04</td>
<td>20%</td>
</tr>
<tr>
<td>FY06</td>
<td>28%</td>
</tr>
<tr>
<td>FY08</td>
<td>23%</td>
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</table>
### NATURAL ENVIRONMENT

<table>
<thead>
<tr>
<th>NO.</th>
<th>INDICATOR</th>
<th>TREND STATEMENT</th>
<th>TREND</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Coastal water quality</td>
<td>Monitoring standards loosen, as sub-standard beaches decrease</td>
<td></td>
<td>STOP</td>
</tr>
<tr>
<td>36</td>
<td>Water service</td>
<td>Connections and water main miles climb as daily consumption falls</td>
<td></td>
<td>GO</td>
</tr>
<tr>
<td>37</td>
<td>Energy use and diversification</td>
<td>Electricity sales still falling as usage per residence declines</td>
<td></td>
<td>GO</td>
</tr>
<tr>
<td>38</td>
<td>Renewable energy production</td>
<td>One-third of residents have solar hot water, 3% have PV for electricity</td>
<td></td>
<td>GO</td>
</tr>
<tr>
<td>39</td>
<td>Solid waste disposition</td>
<td>Waste stream and diversion rate drop as per capita waste trends down</td>
<td></td>
<td>CAUTION</td>
</tr>
</tbody>
</table>

### Opportunities for Action – What You Can Do

Suggested actions for this group of indicators are listed below. These “opportunities for action” are designed to move the trend in a more desirable direction. Some of these opportunities focus on what individuals and families can do. Others focus on needed improvements in policies, initiatives, programs and investments by government, business or nonprofits. Consider where you can make a difference.

- Prepare a comprehensive assessment of the island’s sustainability systems (such as ground and surface water, energy, transportation, lands, food, solid waste, wastewater, building stock, impacts of climate change, etc.), to serve as a baseline for future analysis and decision making.
- Measure and track the island's carbon footprint and initiate public and private efforts to minimize and mitigate carbon emissions.
- Direct sufficient funds and effort toward protecting rivers and coastal waters by requiring use of best practices and enforcing such practices for any development project that might result in discharge or runoff.
- With private, County and State cooperation, prepare a comprehensive water study for agricultural lands to determine sources, capacity, current distribution and distribution problems, including irrigation ditches and water reservoirs, then establish the cost and methods needed to restore, distribute and/or develop water sources to support expanded agricultural production.
- Strengthen the watershed management within each ahupua`a by encouraging partnerships, collaboration and cooperation among users and landowners, such as through watershed councils.
- Support the Department of Water in its efforts to invest in infrastructure improvements to increase drinking water reliability and capacity, especially in areas designated for development.

- Expedite the installation of energy-efficient technologies at Department of Water facilities.

- Support and expedite efforts by KIUC and local energy producers to generate safe, clean renewable energy as alternatives to fossil fuel in order to increase our self-sufficiency and reduce carbon emissions.

- Continue to update building codes to encourage more energy-efficient building materials and practices, along with more sustainable designs for homes, commercial buildings and communities; encourage practices that yield the highest levels of efficiency.

- Initiate a public education campaign designed to minimize unnecessary consumption and maximize the 3 R's (reduce, reuse, recycle) to conserve resources.

- Vigorously promote resource conservation programs for residents and businesses in areas such as water, energy and solid waste to reduce per capita use and encourage the reuse or recycling of resources whenever possible.

- Develop the infrastructure and support needed to sort and manage recycled resources, including a Materials Recovery Facility, and explore new economic opportunities from the recycled resources.
Land Use and Rural Character

INDICATORS

40 Vehicle miles traveled
41 Registered vehicles
42 Bus ridership
43 Alternative transport
44 Planning approvals
45 Residential building permits
46 Residential building type

Purpose of this Section

The desire to maintain Kaua‘i’s rural character is a central theme in the Kaua‘i General Plan 2000. Have we been successful? A frequent subject of community debate is the rate of growth and the capacity of the infrastructure to accommodate growth. Indicators are included to track several factors that impact land use, including the number of vehicles and use of alternative transportation, the status of our agricultural lands and development trends and location.
40 Vehicle Miles Traveled

Vehicle miles and gas demand still falling as traffic counts turn down

Description and Relevance

The amount of traffic is one measure of the demands placed on Kaua‘i’s infrastructure.

The State Department of Transportation (DOT) provides statistics on the number of vehicles, miles traveled, and fuel consumed each year on each island, as well as daily vehicle counts for each highway segment.

How is Kaua‘i doing?

Total vehicle miles traveled decreased from the peak of 818 million in 2007 to 774 million in 2009.

Highway fuel consumption fell from 41 million gallons to 30 million gallons over the same period.

Miles per vehicle continued to decrease from a high of 10,825 in 2007 to 10,269 in 2009.

The average miles per gallon jumped back up from 20.2 in 2007 to 25.5 in 2009.

As measured by DOT on highway segments to the east and west of Lihu‘e, total daily vehicle counts fell from 58,305 in 2007 to 53,349 in 2009.

DATA TABLE

<table>
<thead>
<tr>
<th>Indicator 40: Vehicle Miles Traveled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
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<td>2002</td>
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<td>2003</td>
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<td>2006</td>
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<tr>
<td>2007</td>
</tr>
<tr>
<td>2008</td>
</tr>
<tr>
<td>2009</td>
</tr>
</tbody>
</table>

Source: HI DOT, Motor Vehicle Safety Office
http://www.hawaii.gov/dbedt/info/economic/databook/
Total Traffic Counts = Vehicles to/from Lihuʻe per day
http://hwyppis.dot.hawaii.gov/infrastructure/index_files/Page326.htm
Registered Vehicles

Vehicle counts still falling as vehicles per capita drop further

Description and Relevance

The number of registered vehicles is one measure of the demand on Kaua‘i’s infrastructure.

The State provides statistics on the number and type of vehicles registered on each island, including rental vehicles.

How is Kaua‘i doing?

The number of passenger cars and light trucks fell from nearly 79,000 in 2007 to 77,606 in 2009.

Cars and light trucks comprise 90% of all vehicles, and there were also over 3,700 heavy trucks (more than 6,500 pounds) and nearly 1,800 motorcycles on island in 2009.

In 2009 there were 0.89 vehicles per person based on the island’s de facto population (residents and visitors). This was down from 0.93 vehicles per person in 2007.

The number of vehicles grew by 22% from 2000 to 2009, while the de facto population rose by only 12%.

<table>
<thead>
<tr>
<th>Indicator 41: Registered Motor Vehicles</th>
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</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
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<td>2002</td>
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<td>2007</td>
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<tr>
<td>2008</td>
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<tr>
<td>2009</td>
</tr>
</tbody>
</table>

Source: HI DOT, Motor Vehicle Safety Office
http://www.hawaii.gov/dbedt/info/economic/databook/

Chart 1

Chart 2

* Includes residents and visitors
Bus Ridership

Bus ridership still climbing yet growth rate slows

Description and Relevance

The annual ridership on the public bus system (Kaua`i Bus) is one measure of how well-served residents are with alternative modes of transport.

The County provides annual counts of the number of passenger trips for both the public and para-transit (door-to-door service for qualified individuals) system, and these are helpful in tracking the growth of bus ridership.

How is Kaua`i doing?

The number of passenger trips on the Kaua`i Bus increased from just over 187,000 in 2005 to well over 400,000 in 2009 and 2010.

During this same period, the number of para-transit trips has remained fairly constant at about 66,000.

The rate of increase in bus ridership reached double digits for three of the last four years, and was up another 4% in 2010.
Alternative Transport

**Few commuters use bus or carpool yet many more say it is practical**

**Description and Relevance**

The perception of alternative transport options is one measure that influences island land use and rural character.

The KPAA telephone survey asked respondents who work outside their home whether they drove their own car to work and whether they would (under certain conditions) find it practical to rideshare, carpool or ride the bus instead of always driving themselves.

The conditions included someone else organizing the rideshare or carpool, or having a bus within a five-minute walk from their house and their workplace.

**How is Kaua‘i doing?**

Fully 87% of adult residents work outside their home, and 89% of these drive their own car to work, compared to 93% in 2008.

Carpooling or ridesharing could be practical for 29% of all workers, while 32% would find riding the bus practical. Presently, only 8% carpool and 4% ride the bus to work.

According to the survey, carpooling or ride-sharing would be most practical in the South and West (38%), while riding the bus would be most practical in the East (33%).

Presently, commuting by bus or carpool is highest in the Central/North area, with 10% of workers reporting this choice for each mode in 2010.
Planning Approvals

General Plan and zoning amendments stay low as subdivision approvals and zoning permits drop

Description and Relevance

The number of zoning amendments to create new lots for development is one measure of whether the island's land use and rural character are being preserved.

The County provides statistics on zoning amendments by type for each geographic district each year.

How is Kaua‘i doing?

The number of subdivision applications dropped sharply from 24 in FY08 to 12 in FY10.

Of the 60 subdivision applications from FY08 to FY10, 72 received final approval, reflecting approval of a backlog from previous years. Over the same period, 2,389 zoning permits were granted, including 11 Class III and 75 Class IV permits.

In FY10, 774 zoning permits were granted, and this is down from 961 in FY08.

There was a total of 6 zoning amendments in FY08 and FY09 and none in FY10. No new General Plan amendments were approved in this period.

Note that the County of Kaua‘i Planning Department figures do not include variances and special use permits, which are sometimes used in place of zoning or General Plan amendments.
Residential Building Permits

Residential building permits fall sharply outside towns while share inside towns rises

Description and Relevance

The number and proportion of new residential building permits approved in Kaua‘i towns is one measure of how well the County is meeting General Plan policies that favor new building within town boundaries. It should be noted that these boundaries were not specifically defined in the 2000 General Plan.

The County Finance Department provided a special tabulation of residential building permits to show the number of permits issued both inside and outside of Kaua‘i towns, or “Designated Places” as defined by the U.S. Census.

NOTE: These numbers represent only a small sample of all permits, and the totals differ significantly from the data provided by the U.S. Census.

How is Kaua‘i doing?

The total number of building permits fell sharply over the last three years from 189 in 2008 to 138 in 2010.

The share of permits inside of towns jumped from 49% in 2008 to 93% in 2009, and 89% in 2010.

Based on the sample, a total of 297 and 29 permits were approved inside and outside of towns, respectively, during 2009 and 2010.

DATA TABLE

<table>
<thead>
<tr>
<th>Year</th>
<th>Inside Towns</th>
<th>Outside Towns</th>
<th>Total</th>
<th>% Inside Towns</th>
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<td>113</td>
<td>52</td>
<td>165</td>
<td>68%</td>
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<td>2001</td>
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<td>2002</td>
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<td>2003</td>
<td>166</td>
<td>37</td>
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<td>2004</td>
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<td>2005</td>
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<td>2008</td>
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<td>2009</td>
<td>174</td>
<td>14</td>
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<td>93%</td>
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<tr>
<td>2010</td>
<td>123</td>
<td>15</td>
<td>138</td>
<td>89%</td>
</tr>
</tbody>
</table>

Source: County of Kaua‘i, Finance Dept.

CHART 1

Homes Built Inside/Outside Towns

CHART 2

Share of Homes Built Inside Towns
Residential Building Type

Multi-family share drops sharply as residential construction hits bottom

Description and Relevance

The construction of new housing is one measure of how well Kaua`i’s housing market is meeting local needs.

The U.S. Census provides statistics on “new residential building permits,” which includes the dollar amount and number of units for both single-family and multi-family housing. In recent years, multi-family construction has included visitor units as well as affordable housing projects.

How is Kaua`i doing?

The pace of new home construction slowed considerably in 2010, following five “boom” years for island builders, as the number of new single-family homes fell from a record-high of 895 units in 2005 to 170 units in 2010.

The construction of multi-family units dropped to just two in 2010, compared to 297 in 2009.

The total cost of construction put in place in 2010 was $68 million, down from $271 million in 2008.

The average construction cost of single-family units built has remained fairly high at $400,000 in 2010, and this is up slightly from $387,000 in 2008. This cost does not include the cost of land and any developer profit.

It should be noted that the average cost of construction is skewed upward by the inclusion of multi-million dollar homes.
# Land Use and Rural Character

## Measuring What Matters for Kaua‘i 2010

<table>
<thead>
<tr>
<th>NO.</th>
<th>Indicator</th>
<th>Trend Statement</th>
<th>Trend</th>
<th>Response</th>
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<tr>
<td>40</td>
<td>Vehicle miles traveled</td>
<td>Vehicle miles and gas demand still falling as traffic counts turn down</td>
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<td>GO</td>
</tr>
<tr>
<td>41</td>
<td>Registered vehicles</td>
<td>Vehicle counts still falling as vehicles per capita drop further</td>
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<td>GO</td>
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<tr>
<td>42</td>
<td>Bus ridership</td>
<td>Bus ridership still climbing yet growth rate slows</td>
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<td>GO</td>
</tr>
<tr>
<td>43</td>
<td>Alternative transport</td>
<td>Few commuters use bus or carpool yet many more say it is practical</td>
<td></td>
<td>GO</td>
</tr>
<tr>
<td>44</td>
<td>Planning approvals</td>
<td>General Plan and zoning amendments stay low as subdivision approvals and zoning permits drop</td>
<td></td>
<td>CAUTION</td>
</tr>
<tr>
<td>45</td>
<td>Residential building permits</td>
<td>Residential building permits fall sharply outside towns while share inside towns rises</td>
<td></td>
<td>GO</td>
</tr>
<tr>
<td>46</td>
<td>Residential building type</td>
<td>Multi-family share drops sharply as residential construction hits bottom</td>
<td></td>
<td>STOP</td>
</tr>
</tbody>
</table>

### Opportunities for Action – What You Can Do

Suggested actions for this group of indicators are listed below. These “opportunities for action” are designed to move the trend in a more desirable direction. Some of these opportunities focus on what individuals and families can do. Others focus on needed improvements in policies, initiatives, programs and investments by government, business or nonprofits. Consider where you can make a difference.

- Support and strengthen efforts to increase Kaua‘i Bus ridership among residents and visitors by making the system more user-friendly through expanded routes, increased frequency, availability of route maps, more bike racks, adding luggage and surfboard racks, installing GPS on buses so people can track bus arrivals, creating more park and ride sites and building bus shelters at all stops.
- Determine the need for additional transportation alternatives, such as a shuttle feeder system and carpools, to augment the Kaua‘i Bus in order to save energy and reduce the number of vehicles on the road.
- Utilize land protection tools such as conservation easements and transfer of development rights to assure that an adequate number of acres are preserved for the island’s food security.
- Develop integrated, self-contained, closed loop food systems that utilize sustainable practices, maximize available resources and increase food self-sufficiency.

- Develop and promote methods to replenish agricultural soils for farming and biomass production, such as composting and use of sustainable methods and technologies for alternative fertilizers, pesticides and herbicides.

- Centralize and improve data collection and analysis related to the subdivision of all lands, including condominium property regimes (CPRs), and development of land in all zoning categories, to provide comprehensive information for forecasting, analysis, planning and decision making.

- Strengthen local controls to curb the conversion of agricultural lands to CPRs in order to prevent non-farm “gentlemen’s estates”.

- Define town boundaries then support development that utilizes land within these boundaries; limit expansion beyond town boundaries.
Cultures and Arts

INDICATORS

50 Hawaiian language students
51 Subsistence food gathering
52 Canoe paddling
53 Cultural dance and songs

Purpose of this Section

Practices and traditions of the host culture and of the many other cultures that have migrated to Kaua`i more recently have contributed to the diversity and richness of island life. This uniqueness is highly valued by both residents and visitors. Indicators look at a few key aspects of island life that offer a glimpse into whether these practices and traditions are being preserved and perpetuated.
Hawaiian Language Students

Enrollment in Hawaiian language classes still rising

Description and Relevance

The number of students learning the Hawaiian language is one measure of the preservation of native culture.

The State provides statistics on the number of students enrolled in Hawaiian language programs from kindergarten to grade 12 in public and charter schools, and Kaua‘i Community College (KCC) provides annual counts of their Hawaiian language students.

How is Kaua‘i doing?

The number of Hawaiian language immersion students and students in bi-lingual programs has climbed from 277 in 2008 to 316 in 2010.

The largest numbers of these students (137) in the 2010 school year were in bi-lingual programs at Kula Aupuni Ni‘ihau, Kawaikini PCS, and at Kapa‘a Elementary and Middle School.

Immersion programs at Kanuikapono and Ke Kula Ni‘ihau O Kekaha had another 87 students in 2010.

While there were only 6 Hawaiian language students at Kapa‘a High School, there were 86 at KCC.

The overall trend for Hawaiian language students is up 8% over 2009, and the growth rate has been positive since 2005.
48 Subsistence Food Sources

Large share of families gather or grow their own food

Description and Relevance

The reliance on subsistence practices for food is one measure of the preservation of island culture and island self-sufficiency.

The KPAA telephone survey asked respondents whether they engage in hunting, fishing or gathering or grow their own fruits or vegetables or raise their own eggs, meat or dairy products to provide food for their `ohana, and what percentage of their household’s food each month comes from these sources.

How is Kaua’i doing?

More than one-third of households (38%) either hunt, fish or gather food, while more than half (53%) grow or raise food.

From 25% to 29% of these households get more than 10% of their food from gathering or growing, respectively.

Central/North households tend to rely less on gathering (32%) than other areas, while East households tend to grow or raise more (61%).

Filipinos are more likely to grow or raise food (62%) than Japanese (44%), while the reverse is true for gathering food (30% versus 55% respectively).

<table>
<thead>
<tr>
<th>Indicator 48: Subsistence Food Gathering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunt, Fish or Gather</td>
</tr>
<tr>
<td>All</td>
</tr>
<tr>
<td>Ethnicity:</td>
</tr>
<tr>
<td>Caucasian</td>
</tr>
<tr>
<td>Filipino</td>
</tr>
<tr>
<td>Japanese</td>
</tr>
<tr>
<td>Hawaiian</td>
</tr>
<tr>
<td>Mixed/Other</td>
</tr>
</tbody>
</table>

| District: |
| Central/North | 32% | 40% | 51% | 40% |
| East | 35% | 25% | 61% | 32% |
| South/West | 46% | 16% | 47% | 14% |

Source: KPAA telephone survey, 2011
Canoe Paddling

Total canoe paddlers dips slightly

Description and Relevance

The number of paddlers in local canoe clubs is one measure of the vitality and preservation of island culture.

The Garden Island Canoe Racing Association provides statistics on the number of paddlers associated with each of the island’s nine canoe clubs.

How is Kaua‘i doing?

A total of 1,128 paddlers participated in one of nine canoe clubs in 2010. This is down from 1,250 paddlers in 2008. This includes all paddlers, whereas the 2006 data include only paddlers registered for statewide racing.

One canoe club was added in 2010 when Kukui‘ula formed with 121 paddlers and incorporated Pu‘uawai South, which had 65 paddlers in 2008.

Six of these clubs have more than 100 paddlers, including Hanalei, Namolokama, Pu‘uawai (Wailua), Niumalu, Kialoa, and Kukui‘ula.

There are many more paddlers in the North and Central areas than in the East or West.

DATA TABLE

<table>
<thead>
<tr>
<th>Indicator 49: Canoe Paddlers</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanalei</td>
<td>250</td>
<td>298</td>
<td>338</td>
<td>245</td>
<td>239</td>
</tr>
<tr>
<td>Namolokama</td>
<td>100</td>
<td>110</td>
<td>125</td>
<td>235</td>
<td>185</td>
</tr>
<tr>
<td>Kialoa</td>
<td>175</td>
<td>225</td>
<td>245</td>
<td>154</td>
<td>177</td>
</tr>
<tr>
<td>Niumalu</td>
<td>125</td>
<td>140</td>
<td>133</td>
<td>74</td>
<td>125</td>
</tr>
<tr>
<td>Kukui‘ula</td>
<td>0</td>
<td>45</td>
<td>65</td>
<td>NA</td>
<td>121</td>
</tr>
<tr>
<td>Pu‘uawai/Wailua</td>
<td>80</td>
<td>72</td>
<td>90</td>
<td>197</td>
<td>120</td>
</tr>
<tr>
<td>Kilohana</td>
<td>75</td>
<td>105</td>
<td>115</td>
<td>66</td>
<td>90</td>
</tr>
<tr>
<td>Kialoa</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>Kauaihina</td>
<td>40</td>
<td>75</td>
<td>89</td>
<td>38</td>
<td>34</td>
</tr>
<tr>
<td>Total Paddlers</td>
<td>895</td>
<td>1,120</td>
<td>1,250</td>
<td>1,042</td>
<td>1,128</td>
</tr>
</tbody>
</table>

Source: Garden Island Canoe Racing Association, 2011
2006 includes only paddlers registered for statewide racing
Cultural Dance and Songs

Native Hawaiian hula and other cultural dance and songs attract broad participation

Description and Relevance

The number of residents involved in learning or performing Native Hawaiian hula or other cultural dance and songs is one measure of the preservation of the island’s indigenous and varied cultures.

The KPAA telephone survey asked respondents whether they participate, take lessons or often perform Native Hawaiian hula or songs or traditional dance or songs from cultures other than Native Hawaiian.

How is Kaua‘i doing?

Fully 17% of respondents reported participating in some form of Native Hawaiian hula or songs, and 15% participate in other cultural dance or songs, and this is up from 12% and 13%, respectively, in 2008.

Hawaiians reported the largest share (33%) and Caucasians reported the lowest (10%) in hula or Hawaiian songs, while Mixed/Other residents reported the largest share (36%) in other cultural dance or songs.

In hula or Hawaiian songs, the under 25 group reported the largest share (29%) among all age groups, while among all income groups, the $50-75,000 group reported the largest share (25%).

In other cultural dance or songs, the 45-54 age group reported the largest share (23%), while the $50-75,000 income group reported the largest share (23%).
### CULTURE AND ARTS

<table>
<thead>
<tr>
<th>NO.</th>
<th>INDICATOR</th>
<th>TREND STATEMENT</th>
<th>TRENDS</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>Hawaiian language students</td>
<td>Enrollment in Hawaiian language classes still rising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Subsistence food gathering</td>
<td>Large share of families gather or grow their own food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Canoe paddling</td>
<td>Total canoe paddlers dips slightly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Cultural dance and songs</td>
<td>Native Hawaiian hula and other cultural dance and songs attract broad participation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Opportunities for Action – What You Can Do

Suggested actions for this group of indicators are listed below. These “opportunities for action” are designed to move the trend in a more desirable direction. Some of these opportunities focus on what individuals and families can do. Others focus on needed improvements in policies, initiatives, programs and investments by government, business or nonprofits. Consider where you can make a difference.

- Continue to support Hawaiian language and bi-lingual programs that help perpetuate Hawaiian culture.
- Ensure continued access to traditional food gathering and hunting sites to support self-sufficiency and food security.
Appendices

A. Data Resources for Kaua`i
B. Telephone Survey Methodology
C. Kaua`i Planning & Action Alliance Overview
A. Data Resources for Kaua`i

The Center on the Family Data Center
http://uhfamily.hawaii.edu/cof_data/datacenter.asp

County Health Rankings
http://www.countyhealthrankings.org/hawaii/kauai

Hawai`i Health Matters
http://www.hawaiihealthmatters.org/modules.php?op=modload&name=NS-Indicator&file=index&topic1=County&topic2=Kauai&group

Hawai`i Innovation Indicators
http://hawaii.gov/dbedt/innovation/innovation-indicators

Hawai`i P-20 College and Career Indicators Reports
http://www.p20hawaii.org/indicators_report.html

Hawai`i Department of Education School Reports
http://doe.k12.hi.us/reports/school.htm

Kids Count Data Center (information by state and across states)

State of Hawai`i Data Book 2010
http://hawaii.gov/dbedt/info/economic/databook/db2010/

UHERO (the economic research organization at the University of Hawai`i)
http://www.uhero.hawaii.edu/6/data
B. Telephone Survey Methodology

The telephone survey was designed by John Knox of John Knox and Associates for residents ages 18 and older. KPAA contracted FAQ Hawaii, Inc. (FAQ Hawaii) to field its telephone survey.

There were quotas for three districts (Central and North Kauai; East Kauai; and South and West Kauai). A total of 128 surveys were completed for Central/North Kauai and East Kauai each and 144 surveys were completed for South/West Kauai. Geographic areas were combined to provide statistically significant samples for analysis and comparison.

The margin of error on a 400-sample survey for the entire island of Kauai is +/-4.88% on a 95% confidence level. The margin of error for each district is: Central/North Kauai: +/-8.65% on a 95% confidence level; East Kauai: +/-8.65% on a 95% confidence level; and South/West Kauai: +/-8.15% on a 95% confidence level.

What this means is that if the survey was asked of every qualified resident of Kaua‘i, we can be certain that the results of the survey would not differ by more than or fewer than (+/-) 4.88 percentage points. The margin of error is greater when looking at individual areas because each area has a smaller number of residents.

FAQ Hawaii conducted the telephone survey starting from March 3, 2011 and concluded interviewing on March 16, 2011. 400 surveys were completed during this timeframe. FAQ Hawaii used an RDD (random-digit-dialing) sample.

Once the surveys were completed, the data was processed using SPSS, a statistical software package. Data analysis was performed using basic cross tabulations.

The following is the disposition report of the calls made to complete the 400 surveys.

**Telephone Survey Call Disposition Results**

<table>
<thead>
<tr>
<th>Call Disposition</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering Machine</td>
<td>427</td>
</tr>
<tr>
<td>Business/Government</td>
<td>192</td>
</tr>
<tr>
<td>Busy Signal</td>
<td>63</td>
</tr>
<tr>
<td>Call Back</td>
<td>79</td>
</tr>
<tr>
<td>Completed Survey</td>
<td>400</td>
</tr>
<tr>
<td>Disconnected</td>
<td>1,224</td>
</tr>
<tr>
<td>Fax/Computer Modem</td>
<td>119</td>
</tr>
<tr>
<td>Language Barrier</td>
<td>39</td>
</tr>
<tr>
<td>No Answer</td>
<td>546</td>
</tr>
<tr>
<td>Not Qualified</td>
<td>53</td>
</tr>
<tr>
<td>Refusal</td>
<td>101</td>
</tr>
<tr>
<td>Terminated Survey</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL CALLS MADE</td>
<td>3,251</td>
</tr>
</tbody>
</table>

*Information courtesy of FAQ Hawaii, Inc.*
C. **Kauaʻi Planning & Action Alliance Overview**

Kauaʻi Planning & Action Alliance (KPAA) is a nonprofit membership organization that serves as a neutral convener, facilitator and catalyst for action on public issues. It fosters collaboration by bringing together residents, government agencies and community groups to find long-term solutions to some of the important challenges facing the island.

KPAA was formed in 2003 as a membership organization composed of nonprofits, government agencies, community groups, individuals and businesses. KPAA presently has a staff of two, an 11-member board of directors and volunteers working on four committees.

Membership meetings are held at least three times a year, with speakers addressing a range of topics important to the island's future. Meetings are open to the public.

KPAA members determine the issues the organization undertakes – and these change over time as new issues arise.

**Community Indicators Report.** Every two years, KPAA gathers data on 50 indicators related to the island’s quality of life, economy, land use and environmental health to create a portrait of whether we are moving in desired directions and to determine what changes may be needed. A report for decision makers is issued to provide guidance as they develop policies, budgets and programs.

**Substance Abuse Mitigation.** From 2003-2008, KPAA partnered with County administration and facilitated collaboration among government agencies, nonprofits and churches to reduce substance abuse on the island. Working with dozens of volunteers, KPAA wrote the direction-setting *Kauaʻi Community Response Drug Plan* in 2004, then prepared a 5-year plan update in 2008. These two report helped guide implementing committees that were developing new programs and services to benefit the community.

**Park Improvements.** To improve county and state parks, KPAA successfully advocated for funding to update the County’s 1978 Parks Master Plan, helped secure funding for a master plan at Haʻena State Park and restore state park personnel. With funding from a State grant-in-aid, KPAA completed a two-year project in March 2011 that restored the first two miles of the Kalalau Trail in the Napali Coast Wilderness State Park and, with Hui 0 Laka, reconstructed three buildings in the CCC camp in Kokeʻe State Park.

**Public Education Improvements.** To support and improve our public schools, KPAA launched the Community Volunteers in the Classroom project in 2007, providing assistance to teachers to improve students’ academic achievement.

**Growth Management Tools and Strategies.** In 2008, KPAA partnered with the County of Kauaʻi and other organizations to bring the American Institute of Architects Sustainable Design Assessment Team to Kauaʻi to begin planning a new framework for Lihuʻe’s future. From that effort, the scope of work for future regional development planning will include smart growth and sustainability principles.
Kauaʻi’s Sustainability. For the past five years, KPAA has supported the island’s growing interest in sustainability. Two conferences were hosted on “Greening Kauaʻi’s Visitor Industry” as well as a “Win-Win Transportation Solutions for a Sustainable Kauaʻi” conference. KPAA served as the island’s coordinator for community engagement on the Hawaiʻi 2050 Sustainability Plan and worked on the SENTECH Hawaiʻi team to prepare the Kauaʻi Energy Sustainability Plan, released in April 2010.

In August 2010, KPAA convened a group of sustainability “early adopters” to consider and develop recommendations on the systems, policies and programs needed to advance sustainability on the island and increase our self-reliance.

Traffic Mitigation and Transportation Alternatives. Currently, KPAA is assisting CH2M Hill with community engagement on the Kauaʻi Long-Range Land Transportation Plan, scheduled for completion in January 2012.

Building Capacity in Kauaʻi Nonprofits. KPAA offers workshops and gathering for nonprofit staff and board members to strengthen their organizations and programming.

For more information about the organization and its programs, visit www.kauainetwork.org.